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HUNGARIAN

RESEARCH DIRECTORY

A directory of Hungarian PhD Schools, Research Institutes and Groups

2005

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PREFACE

About this book

This publication is a compilation of partner-searching possibilities for research institutes and individual researchers that are looking for partner institutions in Hungary. Its primary intention is to provide information on Hungarian state-funded research institutes and PhD Schools that are ready to cooperate with other institutions throughout Europe – mainly in the 6th EU Framework Programme for Research and Technological Development. Its other important objective is to let European and other research institutes know about the main research themes undertaken and to raise international awareness of a progressive and valuable scientific sector that exists in Hungary.

Hungary joined the 5th and then the 6th EU R&D Framework Programmes to play an active role in European research activities. Since 1998, the importance of European cooperation and funding in R&D has been better and better recognized. Since then, a great number of scientists from all of Europe have had the opportunity to take part in R&D projects and networks, visit research institutes, exchange views at conferences with experts from other countries or receive foreign researchers at their own institute.

But even with this enhanced participation, there is room for improvement. We would like to achieve that Hungarian researchers and research institutes participate to the fullest possible extent in the activities of the European Research Area and thus contribute to the development of our common material and scientific assets.

This book gathers research institutes and groups of the Hungarian Academy of Sciences and PhD Schools under six sections: Physical Sciences, Natural Sciences, Technological Sciences, Health Sciences, Social Sciences and Humanities. By presenting in details the research institutions operating in Hungary, the Hungarian Research Directory will hopefully contribute to knowledge transfer and technological development and at building out stronger cooperation between industry and academia – thus to competitiveness.

The Hungarian Research Directory is published now for the 2nd time by the Tempus Public Foundation¹ that functions as the Hungarian Bridgehead Institution of the Researcher's Mobility Network². The editors and all the colleagues of the Hungarian Mobility Centre are at your disposal concerning any questions related to R&D, education or vocational training in Hungary.

- 1 http://english.tpf.hu/
- 2 http://eracareers-hungary.tpf.hu/

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1 PHYSICAL SCIENCES



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1.1 ASTRONOMY

1.1 Konkoly Observatory, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Konkoly-Thege Miklós Csillagászati Kutatóintézete)

Research, a short introduction:

- Structure and evolution of stars, stellar and solar activity
- Interstellar matter star formation young stellar objects
- Minor bodies in the Solar System

The Institute welcomes PhD students, post-doctoral young and senior researchers for more than 1 year. Knowledge of English is necessary.

The Institute would also like to take part in international Research and Development Projects.

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Mr. Lajos G. BALÁZS ■ Director ■
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Hungarian Academy of Sciences

H-1121 Budapest, Konkoly-ThegeMiklós u. 29–33. ■ (+36 1) 391 9354

■ balazs@konkoly.hu

1.2 CHEMISTRY

1.2 Chemical Research Center, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Kémiai Kutatóközpont)

Research, a short introduction:

Biomolecular Chemistry, Medical Chemistry, Organic Chemistry, Surface Chemistry and Catalysis, Nanosciences, Reaction Kinetics, Materials Chemistry, Polimer Chemistry, Environmental Chemistry, Structural Chemistry, Spectroscopy and X-ray diffraction

The Center welcomes PhD students and young pre- or post-doctoral researchers. The Center takes part in several international Research and Development projects.

Contact:

Mr. Péter VINKLER ■ Scientific
Secretary ■ Chemical Research
Center, Hungarian Academy of
Sciences ■ H-1025 Budapest,
Pusztaszeri út 59–67. ■
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pvinkler@chemres.hu

1.2 Doctoral School for Chemistry, Faculty of Sciences, University of Debrecen (Debreceni Egyetem, Kémia Doktori Iskola)

Research, a short introduction:

Reaction kinetics and catalysis, Coordination chemistry, Environmental instrumental analytical chemistry, Macromolecular and surface chemistry, Chemistry, biochemistry and structure determination of carbohydrate-containing organic compounds of natural and synthetic origin, Synthesis and structural investigation of naturally occurring heterocyclic compounds and their analogues.

The PhD School welcomes PhD students, young pre- or post doctoral researchers in all the topics mentioned above for stays of up to 6 months or 1 academic year. Knowledge of English or German is necessary for research work.

Our PhD School would like to participate in international Research and Development projects or Networks.

Contact:

Doctoral School in Chemistry ■
Faculty of Sciences, Doctoral School in Chemistry, University of Debrecen
■ H-4010 Debrecen, P. O. Box 7. ■
(+36 52) 512 900 ext. 22382 ■
jooferenc@tigris.klte.hu

Prof. Ferenc JOÓ ■ Head of

1.2 PhD School for Chemistry, University of Veszprém (Veszprémi Egyetem, Kémiai Tudományok Doktori Iskola)

Research, a short introduction:

Photochemical Reactions, Photocatalysis, Environmental Chemistry, Statistical Thermodynamics of Molecular Fluids, Liquid Crystals, Thermochemistry, Radio-

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Prof. János LISZI ■ Head of PhD
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liszi@almos.vein.hu ■ www.vein.hu

chemical Methods, Catalytic Reactions of Biologically Important Compounds and Organs Metallic Chemistry.

The PhD School welcomes PhD students, pre- and post-doctoral, young and senior researchers in the above mentioned fields for 1 academic year or more. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

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Colloid Chemistry, University of
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i.dekany@chem.u-szeged.hu

1.2 PhD School for Chemistry, the University of Szeged (Szegedi Tudományegyetem, Kémiai Tudományok Doktori Iskola)

Research, a short introduction:

- Analytical Chemistry
- Bioorganic Chemistry
- Catalysis, Surface, Colloid and Material Science
- Chemistry of Coordination Compounds
- Electrochemistry
- Reaction Kinetics
- Organic Chemistry
- Theoretical Chemistry

The PhD School welcomes PhD students or young post-doctoral researchers for 6 months or 1 year in the fields of Analytical Chemistry, Bioorganic Chemistry, Catalysis, Surface, Colloid and Material Science, Chemistry of Coordination Compounds, Electrochemistry, Reaction Kinetics, Organic Chemistry, Theoretical Chemistry. Knowledge of English or German is essential.

The PhD School would like to participate in international Research and Development Projects.

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University ■ H-1117 Budapest,
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chem.elte.hu ■ www.chem.elte.hu

1.2 Institute of Chemistry, Eötvös Loránd University, Faculty of Sciences (Eötvös Loránd Tudományegyetem, Kémiai Intézet)

Research, a short introduction:

Research conducted at the Institute of Chemistry covers almost the whole palette of chemistry: Chemical kinetics, Environmental chemistry, Colloid and polymer chemistry, Electrochemistry, Inorganic and organometallic chemistry, Analytic chemistry, Structural chemistry (NMR, X-ray, Mössbauer, Mass spectroscopy, Optical spectroscopies, Photoelectron spectroscopy, Circular dicroism, Theoretical methods), Syntetic organic chemistry, Peptide chemistry, Theoretical chemistry.

The Institute welcomes researchers in any area of chemistry, from all over the world. Our Graduate School welcomes PhD students interested in syntetic chemistry, biochemistry, theoretical and physical chemistry, molecular structure, analytical chemistry, colloid chemistry, environmental chemistry, electrochemistry.

1.2 Department of Theoretical Chemistry, Faculty of Sciences, Eötvös Loránd University (Eötvös Loránd Tudományegyetem, Elméleti Kémiai Tanszék)

Research, a short introduction:

- Quantum chemistry

- Methodological developments (coupled cluster, multireference CI, perturbation methods, fragments wavefunctions, etc.)
- Applications
- Calculation of vibration and rotation spectra, ab initio thermochemistry, nanosystems, biomolecules
- Protein crystallography
- Statistical mechanics
- Order-disorder problems in condensed phases, water and ice structures

The Department welcomes researchers and PhD students in all the above mentioned areas.

1.2 Research Group for Alkaloid Chemistry, Hungarian Academy of Sciences and Budapest University of Technology and Economy (Magyar Tudományos Akadémia, Alkaloidkémiai Kutatócsoport és Budapesti Műszaki és Gazdaságtudományi Egyetem)

Research, a short introduction:

Preparation of new organic compounds. Structure elucidation and synthesis of natural products and potentially biologically active compounds: alkaloids, antibiotics, pheromones, insect growth regulators, macrocyclic diaryl ethers, enzyme inhibitors. Investigation of photochemistry of heterocycles, biocatalysis in organic chemistry, mechanism of organic reactions and their stereochemistry.

The Research Group welcomes PhD students in the fields of synthesis of novel organic compounds and bioctalysis in organic synthesis for 6 months. Knowledge of English is essential.

The Research Group would also like to participate in international Research and Development Projects.

1.2 Research Group for Peptide Chemistry, Hungarian Academy of Sciences and Eötvös Loránd University (Magyar Tudományos Akadémia, Peptidkémiai Kutatócsoport és Eötvös Loránd Tudományegyetem)

Research, a short introduction:

Chemical synthesis and structural characterisation of peptides, peptide chimera, and bioconjugates for (i) the discovery of structure-activity relationship, (ii) development of peptide-antigens as vaccines/ diagnostics or drugs and (iii) targeting/ delivery of peptide epitopes/drugs.

Main topics offered:

- 1. Identification/manipulation of B- and T-cell epitopes from microbial (M.tuberculosis, HSV, HIV), tumour related (mucin 1/2) and autoantigenic (hsp, filaggrin) proteins.
- 2. Targeting/delivery of peptide epitopes/drugs. Identification and synthesis of protein sequences and polymeric polypeptides suitable for targeting of drugs. Design, preparation and stability studies of oligopeptide- and polymeric polypeptide-drug conjugates for improved therapy and diagnosis. Studies on the mechanism of action.
- Identification, synthesis and characterisation of oligopeptides and their analogs, derivatives related to neurological disorders, structure-function studies.

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Background, references:

Scientific achievements of PCRG is illustrated by the following selected results:

- 1. Identification of sequences responsible for biological activity
- 1.1. Large and systematically truncated peptides corresponding to interleukin 6 were produced and successfully applied for the localisation of protein segments involved in IL6 induced fibrinogen and junB mRNA induction of HepG2 cells. The role of solution conformation in bioactivity has been clarified.
- 1.2. Protein core specific B-cell epitopes from gastrointestinal mucin (MUC2) was localised using pin-immobilised as well as free peptides, peptide libraries. Correlation between monoclonal antibody binding and solution conformation studied by CD and FT-IR revealed the essential role of a beta-turn in the sequence.
- 2. Peptide structure and function studies
- 2.1. Chimeric proteins and peptide conjugates were synthesised, where an epitope either from of Herpes Simplex Vírus glycoprotein D-1 or from mucin1 or 2 was inserted into the alpha-conotoxin scaffold.
- 2.3. Synthesis and conformational characterisation of a new generation of biodegradable polycationic branched polypeptides containing OH groups with prolonged blood survival and diminished in vitro cytotoxicity for carrying drugs and haptens.
- 3. Peptide-conjugates related studies
- 3.1. Oligopeptide-antitumor drug conjugates showed cytotoxic activity. Demonstration of low toxicity and high antitumour activity of daunomycin-conjugate with amphoteric branched polypeptide.
- 3.2. Synthesis of peptide conjugates of a urokinase inhibitor, affinity labels, fluorophores, chelators, Tc99m.
- 3.3. Synthesis of conjugates with dual specificities: attachment of epitope peptides of 16 kDa and 38 kDa proteins from M.tuberculosis to branched polypeptide with preserved and specific in vitro T cell immunogenicity.

Research at PCRG has been closely related to the prorities of the EU, NATO and WHO, international collaborations supported by Hungarian sources (OTKA, OMFB, Ministry of Education, Ministry of Health, Hungarian Academy of Sciences), and international agencies (WHO, EACR, NATO, EU-COST).

PCRG is involved in contract research for Hungarian (REANAL, Biosignal, Richter G. Ltd.) and foreign companies (PLIVA, Croatia, Veterinary Agency UK, UNILEVER, UK). PCRG has 9 researchers, all possessing PhD degrees. Over the last three years 47 research papers have published in international journals and 41 contributions were made to ISBN books. 118 lectures/posters were presented mainly (82) at international conferences. Staff members also act as supervisors at 3 PhD programmes of Eötvös Loránd University. Finally, 12 PhD theses and 11 undergraduate theses were produced during the last three years.

The Research Group welcomes PhD students and young pre-doctoral researchers in the fields of Biomolecular Chemistry, Peptide and Bioconjugate Chemistry, Immunochemistry for short (1–3 months) and also for long (6 month to 3 years) stays. Knowledge of English is necessary.

The Research Group would also like to take part international Research and Development Projects and accept invitations for contract research.

1.2 Research Group for Petrochemistry, Hungarian Academy of Sciences and University of Veszprém (MTA-VE Petrolkémiai Kutatócsoport, Magyar Tudományos Akadémia es Veszprémi Egyetem)

Research, a short introduction:

Application of transition-metal complexes as homogenous catalysts or as stoichiometric reagents – in enantioselective hydrogenation and carbonisation reactions (hydroformylation, hydrocarboxylation, hydroaminomethylation), – in selective oxidation reactions of biologically important compounds (steroids, terpenes, aminoacid derivatives, nitrogen heterocycles.) Metallic Chemistry.

The Research Group welcomes PhD students, pre- and post-doctoral, young and senior researchers in the fields of Preparative Inorganic or Organic Chemistry, Catalysis and Spectroscopy for 6 months and up to 1 academic year. Knowledge of English or German is necessary for research work.

The Research Group would also like to take part in international Research and Development Projects.

1.2 Research Group for Reaction Kinetics, Hungarian Academy of Sciences and University of Szeged (Reakciókinetikai Kutatócsoport, Magyar Tudományos Akadémia és Szegedi Tudományegyetem)

Research, a short introduction:

Our research focuses on the investigation of the elementary steps of heterogeneous catalyctic processes related to the conversion of small C-containing molecules to higher hydrocarbons. The interaction of gases with clean and modified model catalysts is studied in a wide pressure range on supported and single chrystal metal surfaces using various spetroscopic methods. The available experimental facilities are mass and FTIR spectroscopes at high pressures and TPD, RAIRS, HREELS, AES, XPS, LEIS at ultrahigh vacuum conditions. For the structural and electronic characterisation of support materials and nanosized catalyst particles an STM is used.

The Research Group welcomes PhD students and young post-doctoral researchers for up to 6 months in the fields of Investigation of the surface reactions of halogenated hydrocarbons and small C-containing molecules on supported and single crystal catalysts, Characterisation of reaction intermediates and structural changes of catalyst by different surface science and IR spectroscopes. Knowledge of English is necessary for the research work.

The Research Group would also like to take part in international Research and Development Projects.

1.2 Research Group for Bioinorganic Chemistry, Hungarian Academy of Sciences and University of Szeged (Bioszervetlenkémiai Kutatócsoport, Magyar Tudományos Akadémia és Szegedi Tudományegyetem)

Research, a short introduction:

Interactions between essential and toxic metal ions [such as Al(III), VO(IV), VO2(V), Sn(IV), Co(II), Ni(II), Cu(II), Zn(II)] and low and high molecular mass bioligands in solution and in the solid state. Biospecification of metal ions and biologically active metal complexes (insulin mimetic, anticancer, etc. compounds) in various biofluids.

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Solution speciation of metal complex formation, structure of metal complexes, spectroscopic characterisation in solution and in the solid state. Structural and functional modelling of metalloenzymes. Immobilization of metalloenzyme active centres on suitable solid matrices. Production of artificial metallo-enzymes by molecular biological tools.

The Research Group welcomes PhD students, pre- and postdoctoral students, young and senior researchers for up to several years' stay in the field of Bioinorganic Chemistry and Solution Speciation of Metal-Ligand Systems. Knowledge of English is necessary.

The Research Group has wide international collaboration with European and overseas laboratories but is open to participate in further international Research and Development Projects.

Contact:

Dr. Éva MARTOS ■ General Director
■ Dr. Mariann KONTRASZTI ■ National Institute for Food Safety and
Nutrition ■ H-1097 Budapest, Gyáli
út 3/A ■ (+ 36 1) 476 6478,
(+36 1) 215 5369 ■ kontrasztim@
oeti.antsz.hu

1.2 National Institute for Food Safety and Nutrition (Országos Élelmiszerbiztonsági és Táplálkozástudományi Intézet)

Research, a short introduction:

The main research areas are: studying the way of primary and secondary prevention of nutrition relating diseases, nutrition, nutritional health status of specific groups on the population, research on the physiological role of bioactive compounds in plant food, on the chemical reactions that occur during alimentary fats and cholesterol oxidation and the effect of deriving metabolites on the quality of foodstuff, testing the characteristics of vegetable containing antioxidants, survey of risk assessment regarding food additives and chemical contaminants.

The Institute welcomes food chemists, food researchers, epidemiologist and PhD students.

The Institute would also like to take part in international Research and Development projects.

1.3 MATHEMATICS AND COMPUTER SCIENCE

1.3 Department of Mathematics, Hungarian Academy of Sciences (Magyar Tudományos Akadémia, Matematikai Tudományok Osztálya)

Research, a short introduction:

- 1) Interaction between static magnetic fields and living tissues
- 2) Depth resolution of ion bombardment techniques depth profiling
- 3) Inelastic and elastic energy loss of ions in solids
- 4) Sputtering of low-Z materials, tungsten, molybdenum, Lithium, Gallium and Indium
- 5) MD and MC computer simulation, modelling
- 6) Threshold energy for sputtering
- 7) Density changes in carbon under self ion bombardment.

The Department welcomes PhD students in interaction between static magnetic fields and living tissues: such as physicists, chemists, biologists, pharmacologists and mathematicians are welcome.

The Department takes part in the following international projects in computer code development: Pennsylvania State University, Deptartment of Chemistry, PA, USA and Max Planck Institute for Plasmaphysics, Garching/München

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1.3 MTA SZTAKI Computer and Automation Research Institute, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Számítástechnikai és Automatizálási Kutatóintézete)

For details see under the heading "Engineering" 3.2

1.3 PhD School for Mathematics and Computing, Budapest University of Technology and Economics (Budapesti Műszaki és Gazdaságtudományi Egyetem, Matematika- és Számítástudományi Doktori Iskola)

Research, a short introduction:

Algebra and Computer Sciences, Discrete Mathematics and Computer Sciences, Dynamical Systems and Differential Equations, Algebraic Geometry, Operation Research, Information Theory, Probability and Stochastic Processes, Computer Assisted Geometry, Mathematical Statistical Physics, Applications in Chemical Engineering.

The PhD School welcomes PhD students and post-doctoral or senior researchers in the research fields of Algebra, Analysis, Geometry, Differential Equations, Stochastic, Discrete Mathematics for less than 6 months, 6 months, 1 year and more. Knowledge of English is preferred, but French, German, Russian are acceptable. The PhD School would also like to participate in international Research and Development Projects.

1.3 PhD School for Mathematics and Computer Science, Eötvös Loránd University (Eötvös Loránd Tudományegyetem, Matematika és Számítástudományi Doktori Iskola)

Research, a short introduction:

The School has two programmes: Programme for Applied Mathematics and Programme for Pure Mathematics.

The Programmes welcome young and senior pre- or post-doctoral researchers in most topics in Pure and Applied Mathematics for stays of up to 6 months or 1 year and more. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

1.3 PhD School for Mathematics and Computer Sciences, University of Debrecen (Debreceni Egyetem, Matematika- és Számítástudományi Doktori Iskola)

Research, a short introduction:

Head of PhD School: Prof. Dr Zoltán DARÓCZY, member of the Hungarian Academy of Sciences

Description of programmes

Diophantine and Constructive Number Theory

Research topics:

Diophantine equations: general finiteness results, number of solutions, bounds for the solutions, numerical resolution, effective and practical methods, applications - Group Algebra and its Applications

Contact:

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Contact:

Ms. Magda VÁRTERÉSZ ■ Associate
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for Mathematics and Computer
Sciences ■ Institute of Mathematics
and Faculty of Computer Sciences,
University of Debrecen ■ H-4010
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Research topics:

Group ring, group algebra, crossed product, twisted group algebra, group of units.

- Mathematical Analysis, Functional Equations and Inequalites

Research topics:

Interval filling sequences. Functional equations and inequalities. Regularity and stability theory of functional equations. Functional equations on topological structures. Means, inequalities, generalizations of convexity.

- Differential Geometry and their Applications

Research topics:

Riemannian and Finsler manifolds. Metrization. Connections. Conformal and projective change of Finsler metrics. Web geometry. Inverse problem of calculus of variations. Lie theory of Moufang and Bol loops.

- Informatics

Research topics:

Image processing and multimedia. Visualization. Computer graphics. Software engineering. Web technology. Work flow management.

- Theory of Probability and Mathematical Statistics

Research topics:

Financial mathematics. Statistical inference of autoregressive processes and branching mechanisms. Probability theory on topological groups.

- Mathematical Education

Research topics:

- Curricula of mathematics: Productivity in mathematics. Students' mathematical thinking processes. Methodology of talent management. Methodology of instruction of mathematics. Application of multimedia.
- Knowledge management theory and its applications

Research topics:

Automata and formal languages. Logics. Artificial intelligence. Knowledge based systems.

- Informatics Systems and Networks

Research topics:

Performance modeling of info-communication networks.

- Operations Research and Numerical Mathematics

Research topics:

Convex and nonsmooth analysis. Mathematical programming. Calculus of variations. Optimal control theory. Numerical analysis. Variational analysis.

- Digital communication and digital signal processing

Research topics:

Mathematical foundation of digital communication and signal processing. Error correcting codes with cryptography, data security, data compression. Processing of biological signals.

The PhD School welcomes PhD students, pre- or postdoctoral young and senior researchers in the above listed research fields for both short term (one semester or less) and full term (six semesters).

The PhD School is open to build up new cooperations in international research and development projects.

1.3 PhD School for Mathematics and Computer Science, University of Szeged (Szegedi Tudományegyetem, Matematika- és Számítástudományi Doktori Iskola)

Research, a short introduction:

The main research topics are the following: Semigroup Theory; Lattice Theory; Universal Algebra; Approximation Theory; Functional Analysis; Harmonic Analysis; Orthogonal Series; Dynamical Systems; Geometry; Combinatorics; Stochastic, Theoretical Computer Science; Operational Research and Combinatorial Optimisation and Applications of Computer Science.

The PhD School welcomes PhD students, pre- and post-doctoral as well as young and senior researchers in the above mentioned fields for up to one academic year. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

1.3 GEMMA GEometric Modelling, Methods and Algorithms, Eszterházy Károly College and University of Miskolc (GEMMA GEometriai Modellezés, Módszerek és Algoritmusok, Eszterházy Károly Főiskola és Miskolci Egyetem)

Research, a short introduction:

Main research topics: geometric modelling including curve and surface design, properties of B-spline and NURBS curves and surfaces; surface reconstruction problems including application of neural networks (self-organizing maps); in surface reconstruction; implicitisation and parametrisation methods including stability problems, approximate techniques, hybrid methods, real algebraic surfaces.

Graduate students are welcome for 3-year PhD studies supervised by members of the research group at the PhD School of Mathematics and Computer Science at the University of Debrecen.

Researchers of the field are welcome for short visits or possible joint work at geometric modelling.

1.3 Department of Algebra and Number Theory, Institute of Mathematics, University of Debrecen (Debreceni Egyetem, Matematika Intézet, Algebra és Számelmélet Tanszék)

Research, a short introduction:

Algebraic number theory, diophantine equations, group algebras, representation theory.

The Department welcomes PhD Students interested in the following fields: diophantine equations, group algebras.

1.3 Institute for Research Policy Studies, Information Science and Scientometrics Research Unit (ISSRU), Hungarian Academy of Sciences (Magyar Tudományos Akadémia, KSZI Tudományelemzési és Információtudományi Kutató Csoport)

Research, a short introduction:

ISSRU devotes its research activities to approaches to quantitative investigation of working mechanisms of basic research in sciences.

- Scientometrics in general
- Principles of evaluation of research performances at micro, meso and macro levels

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www.math.klte.hu/algebra/

Contact::

Mr. Tibor BRAUN ■ Professor and Head of Institute of Research Policy Studies ■ Hungarian Academy of Sciences ■ H-1051 Budapest, Arany J. u. 1. ■ (+36 1) 311 5433 ■ braun@mail.iif.hu ■ tibor-braun.fw.hu

The Unit welcomes PhD students or young post-doctoral researchers in the above mentioned topics.

Contact:

Gábor UHRIN ■ General Manager ■
Scriptum Informatics Inc. ■ H-6771
Szeged, Mályva u. 34. ■
(+36 62) 406 133 ■ info@scriptum.hu
■ www.scriptum.hu

Contact:

Mr. Ádám KOVÁCH ■ Scientific
Secretary-general ■ Institute of
Nuclear Research, Hungarian
Academy of Sciences ■ H-4026
Debrecen, Bem tér 18/C ■
(+36 52) 417 266 ■ rgl@atomki.hu

1.3 Research & Development Division of Scriptum Informatics Inc. (Scriptum Informatika Rt., Kutatás-fejlesztési Divízió)

Research, a short introduction:

Research and development of document-based network knowledge management applications using state of the art linguistic and network technologies. These applications are aimed to be fully functional in both public and industrial environment. Scriptum Informatics Inc. is willing to contact institutions of both the public and industrial sectors and is open to cooperate in research and development of document-based knowledge management systems, and to submit proposals for EU programmes and/or tenders.

1.4 PHYSICS

1.4 Institute of Nuclear Research, Hungarian Academy of Sciences (Magyar Tudományos Akadémia, Atommagkutató Intézet)

Research, a short introduction:

Subnuclear Physics: Theoretical Study of Jet Production, participation in selected experimental programmes CERN. Nuclear Physics: Theoretical study of nuclear structure. Nuclear astrophysics, study of nuclear reactions at low energies. Applied nuclear physics: Production of radioactive isotopes with a cyclotron for medical applications, determination of parameters for charged particle reactions. Application of nuclear methods in chemical analysis. Atomic Physics: Theoretical and experimental study of ion-atom collisions. Material Science: Application of electron spectroscopy in materials science, ESCA studies. The study of electromagnetic phenomena in high transition temperature superconductors. Environmental Studies: Light element isotope hydrology, environmental study of radioactive waste depositories and of nuclear power plants. Study of aerosols by PIXE analysis. Age determination by the K-Ar method, radiocarbon dating. Investigation of radon in human environment. Primary research equipment: MGC-20E cyclotron electrostatic accelerators with 5 MeV and 1.5 MeVmax. energies, respectively, ion microprobe, mass spectrometers, etc.

The Institute welcomes PhD students, pre- or post-doctoral young and senior researchers in the fields of Basic and Applied Nuclear Physics, Atomic Physics, Materials Science and Environmental Studies for up to one academic year. Knowledge of English is necessary.

The Institute would also like to take part in international Research and Development Projects.

Contact:

Ms. Krisztina KÁDAS ■ Scientific
Secretary ■ Research Institute for
Solid State Physics and Optics,
Hungarian Academy of Sciences ■
H-1121 Budapest, Konkoly-Thege
Miklós u. 29–33. ■ (+36 1) 392 2222
ext. 1214 ■ kadas@szfki.hu

1.4 Research Institute of Solid State Physics and Optics at the Central Research Institute of Physics, Hungarian Academy of Sciences (Magyar Tudományos Akadémia, Központi Fizikai Kutatóintézet, Szilárdtestfizikai és Optikai Kutatóintézet)

Research, a short introduction:

The main profile of the institute is basic research in the fields of theoretical and experimental solid state physics and materials science including metal physics,

crystal physics and liquid crystal research, theoretical and experimental optics including laser physics, quantum optics and interaction of light with matter.

Our experimental research activity is connected to unique methodologies like X-ray diffraction, NMR-, Mössbauer- and optical spectroscopy and neutron scattering experiments at the KFKI Research Reactor. Some of our R&D activities are more closely related to applications, mostly in the fields of optical thin films, laser applications, crystal growing technologies and metallurgy.

The Institute is hosted by KFKI-Condensed Matter Research Centre that was awarded the title "Centre of Excellence" by the European Commission in 2000.

The Institute welcomes PhD students, pre- or postdoctoral and young or senior researchers in the fields of Solid State Theory, Structure Studies by Nuclear (X-ray and neutron diffraction, Mössbauer spectrocopy, NMR) and Optical Methods, Nanostructured Materials, Quantumoptics and Quantum Infors, Laser Physics and Applications and Interaction of Light with Matter for 6 months and 1 year. Knowledge of English is necessary.

The Institute would also like to take part in international Research and Development Projects.

1.4 Research Institute for Technical Physics and Materials Science, Hungarian Academy of Sciences (Magyar Tudományos Akadémia, Műszaki Fizikai és Anyagtudományi Intézet)

Research, a short introduction:

- THIN FILMS, nanocomposite coatings, phase analysis of nanostructures, self organized nanostructures of FeSi, medical implants, GaN and related nitrides, nano-smooth surface preparation, ion guns and ion milling. Structural analysis by Transmission Electron Microscopy, Auger depth profiling, X-ray diffraction, Electron Spectroscopy. Molecular Dynamic simulation of atomic mixing of bilayers.
- MICROTECHNOLOGY, MEMS oriented Si and porous Si micromachining technology, Liquid Phase Epitaxy for InP, InGaAsP, PbS etc, Si and CIGS solar cell processing. Ion-Beam Analysis and electrical material and device characterisation.
 R&D on physical, chemical/biochemical sensors and integrated systems, near IR Light Emitting Diodes and detectors & their application. Simulation of electrical, mechanical, thermal and optical behaviour.
- PHOTONICS, light processing by optical components and instruments, holographic litography, waveguide coupling, integrated optics. Characterisation of fundamental optical properties & spectral sensitivity of detectors and sensors by Spectroscopic Ellipsometry and Reflectometry, Makyoh topography. Magnetic and induced current detection, quantitative microscopy for materials characterisation and biomedical applications, cardiologic diagnostic modeling.
- NANOTECHNOLOGY, growth of Carbon NanoTubes and CNT-type nanoarchitectures, FIB nanostructuring. Silicon nitride and biocompatible ceramics, High Isothermal Press sintering, ceramics & CNT composites. Scanning probe (AFM, STM) and Field Emission Scanning Electron Microscope analysis. Atomic level characterization and modelling of individual nanostructures, complex processes of interaction and self organisation. Modelling of driven lattice gases, non-equilibrium phase transitions.

The Institute is willing to take part in international research and development projects.

Contact:

Prof. Dr. István BÁRSONY, DSc ■
Director ■ Research Institute for
Technical Physics and Materials
Science, Hungarian Academy of
Sciences ■ H-1121 Budapest,
Konkoly-Thege út 29–33. ■
H-1525 Budapest, P. O. Box 49. ■
(+ 36 1) 392 2224,
fax: (+ 36 1) 392 2226 ■
barsony@mfa.kfki.hu ■

www.mfa.kfki.hu

Contact

Dr. Zsolt KAJCSOS ■ Deputy
Director ■ KFKI Research Institute
for Particle and Nuclear Physics,
Hungarian Academy of Sciences ■
H-1525 Budapest, P. O. Box 49. ■
(+36 1) 392 2513 ■
kajcsos@rmki.kfki.hu

1.4 Research Institute of Particle and Nuclear Physics at the Central Research Institute of Physics, Hungarian Academy of Sciences (Magyar Tudományos Akadémia, Központi Fizikai Kutatóintézet, Részecske- és Magfizikai Kutatóintézet)

Research, a short introduction:

- Experimental high energy particle physics: electron-positron physics; low energy antiproton physics; high energy heavy ion collisions; detector building, preparatory studies for the LHC accelerator
- Theoretical physics: general relativity and gravitation; field theory and particle physics; high energy heavy ion physics; few body problems
- Materials science: thin films, heterostructures, multilayers, coatings; basic processes of ionimplantation; defect structures; porous and large surface systems
- Space physics: solar wind interactions with planets and solar system bodies; the physics of the geospace; spacecraft instrumentation
- Plasma physics: plasma turbulence diagnostics, pellet-plasma interaction, plasma tomography; atom optics, laser physics
- Biophysics: computational neuroscience; nuclear analysis of biological samples

The Institute welcomes PhD students, pre- and post-doctoral young and senior researchers in the above mentioned research fields.

Knowledge of English is necessary.

Our Institute would also like to take part in international Research and Development Projects.

Contact:

Mr. István VIDOVSZKY ■ Deputy
Director ■ Atomic Energy Research
Institute, Central Research Institute
for Physics, Hungarian Academy of
Sciences ■ H-1525 Budapest, P. O.
Box 49. ■ (+36 1) 392 2293 ■
vidov@sunserv.kfki.hu

1.4 Atomic Energy Research Institute at the Central Research Institute of Physics, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Központi Fizikai Kutató Intézete, Atomenergia Kutatóintézet)

Research, a short introduction:

- Research related to nuclear safety in: Reactor Physics, Thermal Hydraulics, Material Sciences, IT, Simulators, Health Physics, Environmental Studies
- Nuclear and physical chemistry

The Institute would like to participate in international Research and Development Projects.

Contact:

Ms. Orsolya ÚJSÁGHY ■ Research Associate Professor ■ PhD School for Physics, Budapest University of Technology and Economics, Department of Physics ■ H-1111 Budapest, Budafoki út 8. ■ (+36 1) 463 4107, (+36 1) 407 2234 ■ ujsaghy@born.phy.bme.hu

1.4 PhD School for Physics, Budapest University of Technology and Economics (Budapesti Műszaki és Gazdaságtudományi Egyetem, Fizika Tudományok Doktori Iskola)

Research, a short introduction:

- Science
- Optics
- Statistical Physics
- Non-linear Chemistry
- Applied Nuclear Physics

The PhD School welcomes PhD students, pre- and post-doctoral and young or senior researchers for up to one academic year in the above mentioned research fields, as well as and including Non-equilibrium Statistical Physics, Magnetic Resonance in Superconductors, Mesoscopic Systems, Nanoscale Ferromagnetism, Chemical

Waves, Electrolide Diodes and Transistors, Surface Physics, Optical Data Storage and Signal Processing, Nuclear Energy Systems, Reactor and Neutron Physics and Radiation Protection. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

1.4 PhD School for Physics, University of Debrecen (Debreceni Egyetem, Fizika Tudományok Doktori Iskola)

Research, a short introduction:

- Atomic and Molecular Physics: density functional electronic non-adiabatic effects, atomic and molecular collisions, Auger spectroscopy.
- Nuclear Physics: Low energy nuclear physics, nuclear spectroscopy, neutron physics.
- Solid State Physics and Materials Science: nanodiffusion, nanosegregation, nanomagnetism, shape memory alloys, diffusion in intermetallic compounds, surface diffusion of metals on ceramic substrates, solid state reactions, multilayers.
- Physical Methods in Interdisciplinary Research: environmental radioactivity, aerosol research, applications of nuclear microprobe.
- Particle Physics: Perturbative Quantum Chromodinamics, experimental particle physics at LEP.

The PhD School welcomes PhD students, pre- and post-doctoral young or senior researchers for one year or more in the fields of Atomic and Molecular Physics; Nuclear Physics; Solid State Physics and Materials Science; Physical Methods in Interdisciplinary Research and Participle Physics. Knowledge of English or Hungarian is necessary.

The PhD School would also like to take part in international Research and Development Projects.

1.4 PhD School for Physics, Eötvös Loránd University (Eötvös Loránd Tudomány-egyetem, Fizika Tudományi Doktori Iskola)

Research, a short introduction:

The three main programs of the PhD School are:

- Materials and Solid State Physics
- Particle Physics and Astronomy
- Statistical Physics, Biological Physics, Physics of Quantum Systems

The PhD School welcomes PhD students interested in the fields of the three main programmes for 6 months and I year. Knowledge of English is necessary.

The PhD School would also like to take part in intenational Research and Development Projects.

1.4 Research Group for Laserphysics, Hungarian Academy of Sciences and University of Szeged (Lézerfizikai Kutatócsoport, Magyar Tudományos Akadémia és Szegedi Tudományegyetem)

Research, a short introduction:

The main research areas are: Femtosecond Studies, Picosecond Laser Based Research, Diode Laser Based Photoacoustics, Optical Lithography, Lasematerials

Contact:

Prof. Dezső L. BEKE ■ Head of PhD School for Physics ■ Department of Solid State Physics, University of Debrecen ■ H-4010 Debrecen, P. O. Box 2. ■ (+36 52) 316 073 ■ dbeke@delfin.klte.hu

Contact:

Mr. Zalán HORVÁTH ■ Head of PhD School for Physics ■ Physics Institute, Eötvös Loránd University ■ H-1117 Budapest, Pázmány Péter sétány 1/A ■ (+36 1) 372 2506 ■ zalanh@ludens.elte.hu

Contact:

Prof. Zsolt BOR ■ Head of Department
■ Research Group for Laserphysics,
Hungarian Academy of Sciences and
Department of Optics and Quantum
Electronics, University of Szeged ■
H-6720 Szeged, Dóm tér 9. ■
(+36 62) 544 273, (+36 62) 425 854 ■
bor@physx.u-szeged.hu

Interaction in General, Application of Lasers in Materials Science, Biology and Medicine.

Systems and facilities available include a broad range of lasers and laser systems: *e.g. Lambda Physik EMG 201 and LPX 10Oi excimers, a Spectra Physics Quanta Ray Q-switched, seeded Nd:YA(>400mJ @10Hz@532 nm),a Nd:YAG Q-mode locked "custom-made" Quantel picosecond lasersystem (pulse duration: 35 ps, energy: 80 mJ±5% @ 1064 nm, 10±9% mJ @ 532 nm, 4 ±18% mJ @ 354.6nm, repetition rate: 10 Hz), the TeWaTi laser system (under construction, target parameters: <18 fs,>20 mj, 10Hz @800 nm) supported by optics, interferometers, optical multichannel analyser, streak camera (Hamamatsu C979), computer controlled 40 GHz sampling oscilloscope (Tektronix 11801B), 5 GHz realtime oscilloscope (Sodern), lock-in amplifiers, etc. in 5 well equipped laser research laboratories. For thin film fabrication and characterisation high and ultra high vacuum equipment, a spectrophotometer (Shimadzu UV-2101 PC), an Atomic Force Microscope (TopoMetrix2000), frame grabber and image processor are available. Mechanical and electronic workshops assist Research and Development.

The Research Group welcomes PhD students, pre- or post-doctoral and young or senior researchers for stays of up to 6 months or 1 year and more in the fields of Laser Physics; Generation/Amplification/Propagation of Ultrashort Laser Pulses; Application of Lasers in Materials Science, Biology and Medicine; Femtosecond Optics. Knowledge of English is necessary.

The Research Group would also like to take part in international Research and Development Projects.

Contact:

Prof. Zalán HORVÁTH ■ Head of the Research Group for Theoretical Physics ■ Hungarian Academy of Sciences and Department of Theoretical Physics, Eötvös Loránd University ■ H-1117 Budapest, Pázmány Péter sétány 1/A ■ (+36 1) 372 2506 ■ zalanh@ludens.elte.hu

1.4 Research Group for Theoretical Physics, Hungarian Academy of Sciences and Eötvös Loránd University (Elméleti Fizikai Kutatócsoport, Magyar Tudományos Akadémia es Eötvös Loránd Tudományegyetem)

Research, a short introduction:

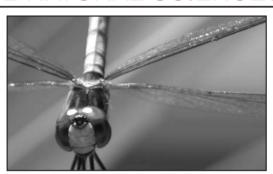
The Group's research activities cover the following two areas:

- particle physics and high energy nuclear physics, quantum field theory
- statistical physics: chaotic behaviour, nonequilibrium dynamical systems, pattern formation, environmental fluid flows.

The Research Group welcomes young PhD students or young post-doctoral researchers in the fields of Quantum Field Theory (low dimensional conform and int-grable models, string theory), Statistical Physics for 1 year. Knowledge of English is necessary for research work.

The Research Group would also like to take part in international Research and Development Projects.

2 NATURAL SCIENCES



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2.1 AGRICULTURAL SCIENCE

2.1 Agricultural Research Institute, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Mezőgazdasági Kutatóintézete)

Research, a short introduction:

The profile of the Agricultural Research Institute of Hungarian Academy of Sciences covers an integrated spectrum of complex research ranging from basic and methodological problems to applied research, including practical applications. The fundamental goal is to develop new generic plant genotypes to satisfy the needs of the future, based on the internationally acknowledged plant gene pool accumulated over the last half century in Martonvásár and using up-to-date genetic, physiological, cell and reproduction biological, functional genomic, biotechnological, plant breeding and crop production methods. The investigations also cover production technologies and crop environments, the maintenance of agroecological equilibrium, the preservation and improvement of genetic variability, the production of raw materials for healthy nutrition, durable plant stress resistance, and an improvement in seed safety, all aimed at satisfying the criteria of sustainable development. This state-run institute contributes to research on the genotype x environment x society interaction and to the stability of this interaction. In addition to this complex research programme, the institute staff plays an active part in undergraduate and postgraduate education, in scientific Cupertino with Hungarian and foreign institutions and in practical introduction of scientfic results and technical knowledge.

The Institute welcomes post-doctoral young researchers for up to 6 months in the fields of plant genetics research, plant cell and reproduction biology research, plant physiology, research, cereal gene bank research, molecular breeding research, research in cereal chemistry and quality, maize breeding research, cereal breeding research, crop production research, agroecological research. Knowledge of English is essential. The Institute would also like to participate in international Research and Development Projects.

2.1 Research Institute for Soil Science and Agricultural Chemistry, Hungarian Academy of Sciences (Magyar Tudományos Akadémia, Talajtani és Agrokémiai Kutatóintézet)

Research, a short introduction:

- Precision farming. Establishment of a GIS database supporting precision farming. Environmentally friendly nutrient supply advisory system.
- Long-term field experiments for fertilisation strategy and soil pollution monitoring
- Water management. Elaboration of alternative land use technologies to help infiltration of precipitation into the soil; decrease losses by surface runoff, downward filtration, seepage and evaporation; increase the water storage capacity of the soil. Increasing water storage within the soil in plant-available form without any environmental side-effects.
- Bioremediation: microbial degradation, phytoremediation. Monitoring soil microbial communities during Bioremediation practice. Altering the metabolic pathways of the heavy metal accumulating plants by hybridisation, the possibilities of introduced artificial mycorrhization, the selection procedures of the tolerant microsymbionts and the usage of other soil biotechnological methods and additives. Mycorrhizal, N-fixing and other plant growth promoting rhizosphere micro-organism.

Contact:

Mr. Ottó VEISZ ■ Deputy Managing
Director ■ Agricultural Research
Institute, Hungarian Academy of
Sciences ■ H-2462 Martonvásár,
Brunszvik u. 2. ■ (+36 22) 569 500 ■
veiszo@mail.mgki.hu

Contact:

Mr. András HALBRITTER ■
Researcher ■ Research Institute of
Soil Science and Agricultural
Chemistry, Hungarian Academy of
Sciences ■ H-1022 Budapest,
Herman Ottó út 15. ■
(+36 1) 214 9007 ext. 1 ■
hal@rissac.hu

The Institute welcomes PhD students, pre- or post-doctoral young and senior researchers for up to 6 months in Soil Characterisation, Plant Nutrition, Environmental Fate of Chemicals, Soil Remediation, Precision Farming, Soil Microbiology research fields. Knowledge of English is necessary for research work.

Our Institute would also like to take part in international Research and Development Projects.

Contact:

Dr. Balázs HARRACH ■ Director ■
Molecular Virology I., Veterinary
Medical Research Institute,
Hungarian Academy of Sciences ■
H-1143 Budapest, Hungária krt. 21. ■
(+36 1) 467 4099 ■ harrach@vmri.hu

2.1 Veterinary Medical Research Institute, Hungarian Academy of Sciences (MTA Állatorvos-tudományi Kutatóintézete)

Research, a short introduction:

The main aim of the institute is to investigate the bacterial, viral and parasitic diseases of farm animals and to conduct molecular biology research in these areas. The overwhelming part of the work is basic research. In particular, molecular and genetic aspects are increasingly emphasized. However, the Institute's duties also include participation in different forms of "postgraduate" training, promotion of international collaborations, informing the public about scientific achievements, and assistance in the technological transfer of research results, for practical purposes. At present, the Institute continues to consolidate its position as a national resource of new knowledge applicable in prevention of infectious diseases of animals and a centre for internationally reputable basic research on its traditionally specific areas.

Most of the research activities are concentrated on studying genetic material and proteins and glycoproteins of various pathogens. Among the viruses, primarily the herpes-, adeno-, paramyxo-, and avian tumour-viruses are investigated. Among the bacteria: E. coli, Pasteurella, Salmonella, Bordetella as well as Mycoplasma are studied to learn more of their less well-known virulence characteristics. An important direction of the research is the improvement of methods for detecting infection by nucleic acid analysis. It is also important to study the relationship between virulence and antigenic composition of the pathogenic organisms. Basic research activities on protozoa and on fish parasites are related to the etiology of the diseases and to the evolution of protozoa. Environmental health aspects of certain infections are also investigated.

The Institute welcomes PhD students, pre- and post-doctoral, young or senior researchers for 1 year or more. Knowledge of English is essential.

The Institute would also like to participate in international Research and Development Projects.

Contact

Prof. Richárd GÁBORJÁNYI ■ PhD School for Crop Production and Horticultural Sciences, Georgikon Faculty of Agricultural Sciences, University of Veszprém ■ H-8361 Keszthely, Deák Ferenc u. 16., P. O. Box 71. ■ (+36 83) 545 217 ■ gr@georgikon.hu

2.1 PhD School for Crop Production and Horticultural Sciences, the University of Veszprém (Növénytermesztési és Kertészeti Tudományok Doktori Iskola, Veszprémi Egyetem)

Research, a short introduction:

The PhD School in Crop Production and Horticultural Sciences (DS) deals with the following main topics:

- Plant nutrition and soil fertility.
- Long term experiments of soil fertility.
- Soil physics and water balance.
- Experimental trials for nutrient dynamics and nutrient stresses.
- Soil loading and the pollution of natural waters.
- Biology, ecology of plant pathogens and the resistance.
- Plant breeding, genetics and agrobiotechnology.

Twelve graduate students supported by governmental grants and 18 correspondence students with the financial support of their workplaces (institutes, companies etc.) study in three-year programmes, in organised forms. Teachers including one ordinary member of Hungarian Academy of Sciences (HAS), two Doctors of HAS, 12 Candidates of Science (CSC) HAS PhD, two members and 9 doctors of HAS and 3 with CSC degree from Plant Protection Institute, Research Institute of Soil Sciences (HAS) support the work of the Doctoral School.

The PhD School welcomes PhD students and pre-doctoral researchers for up to 6 months in all subjects of Plant Nutrition and Plant Protection Soil Sciences, Fungal and Virus Dieases, Epidemology, Horticultural Crops (pepper, grapes, fruit trees), Plant Breeding (disease resitance). Knowledge of English is necessary. The PhD School would also like to take part in international Research and Development Projects.

2.1 PhD School for Interdisciplinary Agricultural and Natural Sciences: Crop-, Horticultural and Soil Sciences, University of Debrecen (Debreceni Egyetem, Interdiszciplináris Agrár- és Természettudományi Doktori Iskola)

Research, a short introduction:

The objective of research at the School is the detailed study of soil and its environment and control of the processes related to soil degradation and pollution, reduction of their effects and, in addition, research on the phenomena which affect them. This objective can be realised through modelling, laboratory and field experiments. On the one hand, the basic processes and laws that determine the quality and use of soil have to be studied in this basic and introductory research. On the other hand, the processes in polluted and degraded soil have to be studied as well. Efficient remediation, stabilisation and melioration methods have to be designed based on experimental results. Development and evaluation of applicable laboratory techniques are important fields. An important objective of research specialisation in land use is to study land use planning not only on arable land but also in other regions, in accordance with international practices, the establishment of long-term land use and handling emerging conflicts. Within the specialisation related to land use and arable land use, new tools (for example remote sensing, environmental modelling, geographical information system modelling) have to be studied as well. These tools can increase the precision of research related to the protection of land productivity.

The PhD School welcomes PhD students, pre- or post-doctoral, young or senior, researchers in the fields of Current Plant and Soil Science in Agriculture and Soil, Plant and Environment Relationships for less than 6 months or for 1 year. Knowledge of English or German is essential.

The PhD School would also like to participate in international Research and Development Projects.

2.1 PhD School for Animal Sciences, University of Veszprém (Veszprémi Egyetem, Állattenyésztési Tudományok Doktori Iskola)

Research, a short introduction:

Main research fields

- Animal Production Based on Grazing,
- Dairy and Beef Cattle Breeding,
- Pig Breeding,

Contact:

Prof. János NAGY ■ Rector, Head of PhD School for Interdisciplinary Agricultural and Natural Sciences at Crop, Horticultural and Soil Sciences ■ Centre for Agricultural Sciences, Department of Land Use, Faculty of Agriculture, University of Debrecen ■ H-4032 Debrecen, Böszörményi út 138. ■ (+36 52) 508 444 ■ nagyjanos@agr.unideb.hu

Contact:

Prof. Ferenc SZABÓ ■ Dean ■ PhD School for Animal Sciences,
Georgikon Faculty of Agricultural
Sciences, University of Veszprém ■
H-8360 Keszthely, Deák F. u. 16. ■
(+36 83) 545 160 ■
kovacs-g@georgikon.hu

- Poultry Sciences,
- Aquaculture,
- Game Farming,
- Feeding Monogastric Farm Animals,
- Production Physiology of Ruminants,
- Applying Molecular Genetics in Animal Production.

The PhD School welcomes PhD students and pre-doctoral researchers in the fields of Cattle Breeding, Pig Breeing, Poultry Sciences, Aquaculture and Game Farming for 6 months. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

Contact:

Prof. Péter RUDAS ■ Head of PhD School for Veterinary Sciences ■ Faculty of Veterinary Sciences, Szent István University ■ H-1078 Budapest, István u. 2. ■ (+36 1) 478 4229 ■ phd@univet hu

2.1 PhD School for Veterinary Sciences, Szent Istán University (Szent István Egyetem, Állatorvostudományi Doktori Iskola)

Research, a short introduction:

Research activities are highly connected to those of the Faculty and cover, in cooperation with other research and diagnostic institutes, the whole territory of veterinary medicine and zoology. Research issues proposed for doctoral education are announced yearly on the home page of the School:

http://tkk.tova.univet.hu/DI/Ph.D.tema-02-W.htm

Some examples:

- Effect of short chain fatty acids, arachidonic acid metabolites and polyphenols on the growth and apoptosis of gastrointestinal cells. Interrelations of whole-body insulin sensitivity, circulating levels of certain metabolic hormons, and ovarian activity in dairy cows.
- Role of free radicals and lypoxygenases in the prognosis of canine mammal and haemopoietic tumour progressions.
- Investigations on some factors influencing the antioxidant system in different animal species.
- Epidemiological, virological and immunological study of circoviral diseases of swine.
- Possibilities of inducing immune tolerance for prevention and therapy of diseases with allergic origin in domestic animals.
- Dystrophin proteins in the central nervous system. Retinal (Muller) glial cells: cell-cell and cell-extracellular matrix interactions. Adaptation of new-born foals to extrauterine life. Obesity studies on rodent model.
- Gene diagnosis of diseas in canine model. Genetic basis of growth inhibition signal mechanisms and of some virulence characters of Salmonella. Genetics of selected antibiotic- and detergent resistance, and of some "virulance" characters of Salmonella and pathogenic E. coli: possible genetic links.
- Comparative examination of the equine thoracolumbar region by modern imaging methods. Possible treatments. Examination of the developmental potential of embryo-derived stem cells by chimera analysis. Pathopsyhology and therapy of canine acquired cardiac diseas. Environmental toxicity assessment of tetracycline antibiotics. Thyroid hormone metabolism at the molecular level related to animal production.
- Investigations concerning the mode of action of some important nutriceuticals (Cr, carnitine). The role of rumen in the feedstuff's supply of host animal. Evolutionary analysis of the interaction of brain and behaviour. Environmental effects on invertebrate populations/communities. Effect of prostaglandin-synthesis inhibitors on the proliferation and apoptosis of different cell lines. Studies on the FcRn gene expression. Study of DNA of Mycoplasma strains of poultry origin.

The PhD School welcomes PhD students for stays of up to 6 months or for 1 year and more. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

2.1 Interdisciplinary Doctoral School, University of Veszprém (Veszprémi Egyetem, Interdiszciplináris Doktori Iskola)

Research, a short introduction:

The main topics of research:

plant protection zoology, toxicology, botany, zoology, weed control, plant protection machinery, environmental health

Our Doctoral School would like to take part in international Research and Development Projects.

2.1 Research Group for Swine Biotechnology, Faculty of Agricultural and Food Sciences, University of West Hungary (Nyugat-Magyarországi Egyetem, Mezőgazdasági és Élelmiszertudományi Kar, Sertés Biotechnológia Csoport)

Research, a short introduction:

The major research interest of the group to study:

- Improving in vitro porcine oocyte maturation and embryo production system
- Parthenogenetic activation of porcine oocytes with chemical agents
- Examine the effects of different growth factors on in vitro maturation and on embryo development
- Vitrification of porcine oocytes and different types of pig embryos marked considering to types that is important (Hungarian Large White) or native (Swallowed Mangalica) in Hungary.
- Recent studies are focus on identify and analyse the function of swine reproduction genes involved in pig genomics.

The Research Group welcomes students and post-doctoral or young researchers in the field of porcine biotechnology and genomics for stays of 1–6 months or 1 year and more. Knowledge of English is necessary.

The Research Group would also take part in International Research and Development Projects.

2.1 Department of Food Science and Quality Assurance, University of Debrecen, Centre of Agricultural Sciences (Debreceni Egyetem, Élelmiszertudományi és Minőségbiztosítási Tanszék, Regionális Agrárműszer-központ)

Research, a short introduction:

Teachers and researchers of the Central Laboratory of the Faculty of Agronomy, Centre of Agricultural Sciences, University of Debrecen founded a new department (Department of Food Science and Quality Assurance) in 1986 for teaching food science and related subjects. The laboratory and the department still work together and they are the best equipped university department and the only accredited laboratory at the university. The laboratory is accredited by the Hungarian Accreditation Board (NAT-1-1054/2002) for sampling cereals and oil seeds; organoleptic, physical and chemical testing of cereals and their milling products; organoleptic, physical

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and chemical testing of oil seeds, feedstuffs and raw materials; mineral element content of soil, ameliorators, organic fertilizers, ground water, waste water and sewage sudge. The laboratory is also accreditated by GAFTA (127/2004/AS).

Facilities in the laboratory include:

- Laboratory for Spectroscopy: The lab is dedicated for measurement of micro and macro element content of soil, plant, feed and food samples. The main instruments of this laboratory are the ICP-MS, ICP-AES, GF-AAS, FAAS, FIAStar 5000 Analyzer, HPLC systems, soil samplers, tools and equipments for food, feed, soil and plant sample preparation.
- Laboratory for feed and food analyses: The role of this unit is the measurement of vitamin, micotoxin and pesticide residue content of feed and food samples. The lab is equipped by chromatographs (HPLCs), CNS analyzer, amino-acid analyzer, fiber and fat analyzers.
- Laboratory for the baking quality of flour: This lab is capable to determine specialized baking quality parameters (gluten content, pharinographic and alveographic numbers, falling number) by specialized instruments for these technological parameters.
- The new molecular DNA laboratory with capabilities for research and development of DNA analyses from plant is equipped by PCR thermocycler, gel electrophoreses tools and gel-doc system.
- The researchers take part in the development of new products, e.g. soft drinks, nutriotherapics compounds (from grape, sour cherry, honey, oil from pumpkin), new food products from triticale and new analitical methods (Cr(III)-Cr(VI) analysis selenium speciation, GMO analysis). We are the first to adapt alveograph and Z-arm mixer (microvalorigraph) in the determination of wider wheat quality.

We are willing to cooperate with researchers from home and abroad who work in food science, environmental science and in quality assurance. Furthermore we are open to new fields of science, to new projects.

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2.1 Department of Animal Nutrition, Faculty of Animal Science, University of Kaposvár (Kaposvári Egyetem, Állattudományi Kar, Takarmányozástani Tanszék)

Research, a short introduction:

The extensive range of research areas of the Department of Animal Nutrition:

- Determination of the digestibility of nutrients
 - Total tract digestibility studies (growing and fattening pigs, pregnant sows, weaned piglets, sheep, rabbits and poultry).
 - Ileal digestibility studies (growing and fattening pigs, weaned piglets, roosters layers, turkeys and goose) using different types of cannulation techniques.
 - Studies with ruminats: ruminal fermentation and digestibility of nutrients in different parts of the intestinal tract using cannulated sheep and dairy cows.
- Determination of amino acid requirements of swine and poultry
 - Amino acid requirement of growing pigs as determined by the measurement of ileal digestibility of amino acids.
 - Determination of amino acids requirements for broilers and turkeys.
- "From Feed to Food Chain" nutritional programmes
- Effect of dietary omega-3 polyunsaturated fatty acids on meat quality in broilers.
- Alternatives to antibiotics (prebiotics, probiotics, symbiotics, oligosaccharides, organic acids, exogenous enzymes, plant extracts, a.s.o.).
- Investigation of the nutritinal parameters to improve the quality of the end products (milk, meat, eggs).

- The use of computer tomography (CT) in predicting protein and fat content of the body in growing-finishing pigs using different dietary Lys/DE ratio (collaboration with Institute of Diagnostic Imaging and Radiation Oncology at University of Kaposvár).
- Determination of phosphorus metabolism of swine and poultry
 - Determination of postileal absorption of phosphorus in weaned piglets.
 - Investigation of phosphorus metabolism of layers and broilers.
- Mathematical modelling of growth in pigs.
- Impact of different nutrient intakes on humoral and cellular immunity in rats, weaned piglets and broilers.
- Determination of biological value of different legume seeds and oil crops as alternative protein sources to soybean in rats.

The Department welcomes BSc, MSc students in Animal Nutrition research field for 6 months, PhD students from 1 (sandwich programme) to 3 years (whole education programme). Knowledge of English is necessary for the research work.

Our Department would also like take part in international Research and Development Projects.

2.1 Animal Husbandry and Hygiene Research Group, Hungarian Academy of Sciences and University of Kaposvár (MTA-KE Állattenyésztési és Állathigiéniai Kutatócsoport, Magyar Tudományos Akadémia és Kaposvári Egyetem)

Research, a short introduction:

The main programme of the research group is to carry out task-oriented and multidisciplinary research work in the field of animal physiology, pathophysiology and hygiene focusing on food safety and human health risks posed by toxic substances (e.g. mycotoxins, heavy metal) in the food chain. Digestive physiological investigations are also performed in order to follow morphological and functional maturation of the digestive tract and the effect of the possible alternatives for 'in feed' antibiotics.

The Research Group welcomes PhD students, pre- or postdoctoral researchers in the field of mycotoxin research and digestive physiology.

The Research Group would also like to participate in international Research and Development Projects.

2.1 Research Group for Bryology, Hungarian Academy of Sciences and Eszterházy Károly College (Bryológiai Kutatócsoport, Magyar Tudományos Akadémia és Eszterházy Károly Főiskola)

Research, a short introduction:

Taxonomy and biogeography of tropical bryophyte groups, such as Calymperaceae, Daltoniaceae, Lejeuneaceae. Relations between secondary metabolites of lichens and habitat's factors. Lichen flora of Hungarian fields. The ecology of the desert like cryptogamic communities on the loess cliffs. Connection between epiphytic, lignicolous and terricolous plant and animal communities in tropical rain forests.

The Research Group welcomes postdoctoral and young and senior researchers in the field of Taxonomy, Biogeography and Ecology of Bryophytes for 1 year. Knowledge of English (or in certain topics French) is necessary.

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2.1 Research Group for Plant Virology, Hungarian Academy of Sciences and University of Veszprém (Növényvirológiai Kutatócsoport, Magyar Tudományos Akadémia és Veszprémi Egyetem)

Research, a short introduction:

The main activities of the Plant Virology Research Group are connected to the virus Epidemology of the main cropplants, host-virus relations, study of virus resistance, molecular and biological characterisation of viruses / isolates.

The Research Group welcomes PhD students or pre-doctoral researchers in Plant Virology for up to 6 months. Knowledge of English is necessary.

The Research Group would also like to take part in international Research and Development Projects.

2.1 Research Group for Precision Agriculture Methods, Hungarian Academy of Sciences and University of West Hungary (Magyar Tudományos Akadémia, Mezőgazdasági Termékek Feldolgozása Kutatócsoport és Nyugat-Magyarországi Egyetem)

Research, a short introduction:

- Integration of plant protection and treatment processes in precision (site-specific) agriculture
- Microorganism in the plant-soil systems
- Technical environment of site specific precision plant production
- Economical aspects of plant production

The Research Group welcomes young postdoctoral or senior researchers for 6 months or 1 year or more. Knowledge of English is essential.

The English language programme of the PhD school (P.A.) starts from January 1, 2006. Detailed information will be available on the website of the PhD school. The Research Group would also like to participate in international Research and Development Projects.

2.1 Land Use and Regional Development Research Team, Hungarian Academy of Sciences and University of Debrecen (Magyar Tudományos Akadémia, Földművelési és Területfejlesztési Kutatócsoport és Debreceni Egyetem)

Research, a short introduction:

Research focuses on the scientific approach of land cultivation and soil protection, and at the same time investigates agroecological, biological and technological effects in a complex way. It also makes the computer aimed modelling of natural and antopogen effects possible, which is carried out by the utilisation of measurement data. The final results will improve the economic and ecological effectiveness of cultivation methods, and they will ensure the interferences to be ecologically friendly and sustainable at the same time. The other main purpose of research establishing scientifically rational land use methods in the North Plain Region of Hungary by the utilisation of GIS.

The Research Team welcomes PhD students, pre- or post-doctoral young or senior researchers in Crop Production land use, precision agriculture research fields for up to 6 months and 1 year. Knowledge of English is essential.

The Research Team would also like to participate in international Research and Development Projects.

2.1 Hungarian Meat Research Institute (Magyar Húsipari Kutatóintézet)

Research, a short introduction:

Functional foods: meat products with dried fruits, meat products with low fat content, liver pate with poliunsaturated fatty acids, ham with inulin (oligofructose), meat products containing lutein, sausage with probiotic microorganisms, meat products containing oliva oil.

Vegetarian pate with different ingredients. Sausage with starter and protective cultures, occurance of patogens in slaughter houses.

The Institute welcomes food-microbiologists and food-chemists.

Our Institute would like to take part in international Research and Development projects.

2.1 Unit of Analytics, Food Science Department, Central Food Research Institute (Központi Élelmiszer-tudományi Kutatóintézet, Élelmiszerbiztonsági Főosztály, Analitikai Osztály)

Research, a short introduction:

The purpose of research activities at the Unit of Analytics is to develop selective and highly sensitive physical, chemical and biological methods that facilitate detection and accurate quantification of food components, food allergens, toxins and pesticide residues, furthermore the detection of origins and adulteration and of unlawful technological treatments and materials produced during microbiological degradation. Development of biosensors, application of near infrared reflectance/transmittance spectroscopy, development of high performance liquid chromatographic methods and mass spectrometry couples gas chromatographic methods have priority.

The Unit welcomes PhD students, pre- or post-doctoral researchers with a scholarship. English knowledge is necessary.

2.1 Unit of Biology, Food Science Department, Central Food Research Institute (Központi Élelmiszer-tudományi Kutatóintézet, Élelmiszerbiztonsági Főosztály, Biológiai Osztály)

Research, a short introduction:

The Unit of Biology deals with risk factors of food safety originating from the application of novel foods and technologies. Using DNS-based methodologies the Unit is capable of detecting genetic modification, the presence of potential allergenes, as well as species specific separation of meats of farm animals and games.

Antibody-based methods are being developed and adapted to proteins of foreign gene expression, for the detection of potential allergens and investigation of the resistance of the digestive tract. Animal models and methods of activation of immune-competent cells are used to investigate the hazards caused by foreign genes and biologically active proteins entering the human body. Methods suitable for selection of probiotics are developed which are capable of inhibiting microbes and moulds (toxins) proliferating on raw materials of plant origin without food safety and health imparing hazards, or positive influence on the micro-ecology of the digestive tract.

The Unit welcomes PhD students, pre- or post-doctoral researchers with a scholar-ship. English knowledge is necessary.

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2.1 Unit of Microbiology, Food Science Department, Central Food Research Institute (Központi Élelmiszer-tudományi Kutatóintézet, Élelmiszerbiztonsági Főosztály, Mikrobiológiai Osztály)

Research, a short introduction:

The activities of the Unit of Microbiology, in accordance with the needs of the food processing industry, are focused on the processes that reduce the risk of health impairment as well as on the risk of novel, not yet regulated processes. Research priorities are investigating the nature of spoilage causing micro-organisms, determination of their health impairing effect (toxins, human pathogens), as well as, their biotechnological utilization — probiotics, biodegradable food industrial packaging materials. To attain a favourable effect, it is considered important to understand the proliferation, cell adhesion and biofilm forming activity of microbes, inhibition of proliferation and processes or procedures causing microbial destruction.

The Unit welcomes PhD students, pre- or postdoctoral researchers with a scholar-ship. English knowledge is necessary.

2.1 Unit of Nutrition Science, Food Science Department, Central Food Research Institute (Központi Élelmiszer-tudományi Kutatóintézet, Élelmiszerbiztonsági Főosztály, Táplálkozástudományi Osztály)

Research, a short introduction:

The activities of the Unit of Nutrition Science focus primarily on the research of biochemical and nutritional relations between food components and modern and health-preserving nutrition.

Key areas are the investigation of the relationships between protein structure and potential allergenic activity, determination and prediction of allergenic activity of food proteins, tracing of stress proteins, studying the effect of non-terminal pre-servation methods of food components and their activity.

The possibility of enzymatic modification to improve quality and changing biological activity of food proteins is investigated and methods are being developed to modify the antioxidant content of plants and spice plants. For these purposes multi dimensional chromatographic and electrophoretic techniques, as well as enzymatic and immuno-chemical methods are applied.

The Unit welcomes PhD students, pre- or postdoctoral researchers with a scholar-ship. English knowledge is necessary.

2.1 Unit of Technology, Food Technology Department, Central Food Research Institute (Központi Élelmiszer-tudományi Kutatóintézet, Élelmiszertechnológiai Főosztály, Technológiai Osztály,)

Research, a short introduction:

The scientific activity of the Unit of Technology focuses on investigating application possibilities of physical methods that replace previous thermic and chemical unit operations, including Treatment of Pulsed Electric Field (PEF), microwave and radio frequency treatment, membrane separation unit operations, concentrations by osmosis. The Unit is committed to use mild technological methods – development of vacuum technologies, application of combined technologies by using various physical methods simoultaneously.

The Unit welcomes PhD students, pre- or postdoctoral researchers with a scholarship. English knowledge is necessary.

2.1 Unit of Food Economy and Quality, Food Technology Department, Central Food Research Institute (Központi Élelmiszer-tudományi Kutatóintézet, Élelmiszer-technológiai Főosztály, Élelmiszergazdasági és Minőségügyi Osztály)

Research, a short introduction:

The scientific activity of the Unit of Food Economy and Quality focuses on Implementation of up-to-date risk management approach and practice; Information service and consumer protection to improve consumer orientation; Monitoring and analysing trends in food consumption and food regulation; Investigation of the relationship between food labelling and the role of marketing communication; Development of quality control methods; Exploration of factors affecting consumer willingness to buy.

The Unit welcomes PhD students, pre- or post-doctoral researchers with a scholarship. English knowledge is necessary.

2.1 Unit of Food Industrial Environmental Protection, Food Technology Department, Central Food Research Institute (Élelmiszeripari Környezetvédelmi Osztály, Élelmiszertechnológiai Főosztály, Központi Élelmiszer-tudományi Kutatóintézet)

Research, a Short introduction:

The Unit of Industrial Environmental Protection focuses on the following activities: Taking part in the construction of the Hungarian Programme for Environmental Protection in Food Industry; Taking part in a LIFE-Environment demonstration project; Biodiesel and food vegetable oil industrial by-product bioconversion; Treatment of food industry wastewaters of high organic material content; Research of a new, functional food supply: trace element enriched yeast; Extraction of grape seed oil.

The Unit welcomes PhD students, pre- or post-doctoral researchers with a scholarship. English knowledge is necessary.

2.1 Cereal Research Non-profit Company, Division of Biotechnology and Resistance Research, Department of Wheat Disease Resistance and Analytics (Gabonatermesztési Kutató Kht., Biotechnológiai és Rezisztenciakutatási Főosztály, Búza Rezisztencia és Analitikai Osztály)

Research, a short introduction:

The profile of the Department covers research on wheat Fusarium head blight (FHB). Breeding aspects, methodology development (high accuracy), resistance components, selection methods, QTL analyses in DH populations, population genetic studies in wheat pathogens by molecular and other methods are the main topics. Breeding for resistance and cultivar selection is a key issue. QTLs from Sumey-3 and Nobeoka Bozu were transferred into winter wheat and yielded toxicologically safe progenies. Toxicological aspects of resistance are important as food safety is a major issue. Mycotoxin analytics, methodological development are also subjects of research. Fungicide testing methods, development of fungicide technology including toxin problems are also major issues. Leaf rust (Puccinia recondita) research concentrates on marker research (SSR, AFLP) and mapping of resistance

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genes on segregating populations (RIL). Markers for stem rust resistance genes (Sr36, Sr31) were developed and are used now. Non-specific resistance forms to leaf rust are studied. Smaller programmes with cereal viruses and cereal leaf beetle (Oulema melanopus) are running.

The Division welcomes post-doctoral young researchers and PhD students in the above mentioned subjects. The institute has good international collaborations and participates in international Research and Development projects.

2.1 Cereal Research Non-profit Company, Division of Biotechnology and Resistance Research, Department of Biotechnology (Gabonatermesztési Kutató Kht., Biotechnológiai és Rezisztenciakutatási Főosztály, Biotechnológiai Osztály)

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Research, a short introduction:

The main aim of the Biotechnology Department is to support the breeding programmes. Haploids (about two thousands/year) are induced from other cultures of various breeding populations in order to achieve homozygosity rapidly. CRC was the second in Europe and fourth in the world to develop and produce a certified wheat cultivar by an in vitro haploid method. The cultivars GK Délibáb (1992), GK Szindbád (1996), GK Tündér (2000) and new DH candidates under national test were developed by the haploid method. The performance of our double-haploid wheat varieties suggests that the lines originating from the 'in vitro' double-haploid programme may be as valuable as the lines originating from traditional breeding programmes. Microsporic cultures of cereals (wheat, triticale, rice) are under development. This technique has been used as a promising method for cell-level selection and genetic transformation. Transgenic wheat lines resistant to a wide-range of herbicides were generated by particle gene transformation. The transformed alien gene inherited well to the progenies. The transgenic wheat lines were used in food safety experiments for testing the biological risk of GMO wheat. Genetic transformation as a research method of functional genomic approach in cereals has been effectively applied in drought tolerance and in different resistant genetic research. The Division welcomes students for diploma work and PhD.

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2.1 Cereal Research Non-profit Company, Division of Biotechnology and Resistance Research, Department of Maize Biotechnology, (Gabonatermesztési Kutató Kht., Biotechnológiai és Rezisztenciakutatási Főosztály, Kukorica Biotechnológiai Osztály)

Research, a short introduction:

Although maize breeding is based mainly on classical breeding methods, biotechnological research results are being used increasingly also in this filed. At our company we devoted systematic efforts to develop tissue culture systems. Our previous culture system provided genotype for setting up our unique maize cell (protoplast) culture system, which led to important lines including our maize improvement programmes, and the development of tissue culture methods such as direct pollen (microspore) culture with successful microspore derived line development. Our selected genotypes, 4C1 and HE/89 tested for several years' maintenance of fertile plant regeneration capacity (totipotency) from immature embryo cultures have become important raw material for international tissue culture research as well as for patent applications with widespread utilisation in maize hybrids in the world, respectively. In cooperation with the Biological Research Centre of the Hungarian Academy of Sciences, Szeged and Hoechst AG, Frankfurt a.M., Germany we pro-

duced transformation events, and accomplished the first risk assessment of transgenic maize under field conditions in Hungary in 1993. Following the support by a Belgian grant (VLAHON) on the acquisition of RAPD and AFLP methods at RP-RvP, Merelbeke we try to establish the conditions for the application of these methods in our laboratory.

The Department welcomes cooperation initiatives for mutual grant proposals and interests to provide the financial basis for promoting its activity in the outlined research field.

2.1 Cereal Research Non-profit Company, Wheat Breeding Division (Gabonater-mesztési Kutató Kht., Búzanemesítési Igazgatóság)

Research, a short introduction:

The aim of Wheat Breeding Division is to develop high yielding and disease resistant common and durum wheat varieties with superior quality parameters and good winter hardiness and drought tolerance, to work out optimal agrotechnical practices, and wheat seed production. Realisation of these aims is aided by research in the fields of selection, applied biotechnology, protein analysis, plant pathology and physiology. The significant diversity and valuable properties of our varieties available today are the basis of their cultivation on large areas in Central Europe. National trials proved the excellent productivity, adaptability and quality of our varieties. Pedigree selection is the primary breeding technique used to develop new wheat cultivars. Agronomy research concentrates on the development of environmentally sound, profitable wheat cultivation practices and technologies. The experiments concentrate not only on the optimal environment but also on low input systems (cold and frost, drought, insufficient nutrient, infection, pests, sub-optimal soil conditions). Planting dates and rates, choice of varieties and fertiliser regimes, as well as application of different pesticides and seed treatments all have been found to affect wheat production. The main result of the durum research program of CRC is that winter and spring durum wheat has been acclimatised successfully to Hungary. Now the acreage of durum wheat in Hungary is about 10,000 ha, with significant fluctuation from year to year. The purpose of our triticale and rye program is breeding of varieties with high yielding capacity and good quality even on sandy soils. We have introduced mainly Polish triticale and rye varieties.

The Division welcomes PhD students in any of the fields covered by our research.

2.1 Cereal Research Non-profit Company, Sunflower Breeding Department (Gabonatermesztési Kutató Kht., Napraforgó Nemesítési Osztály)

Research, a short introduction:

As a result of our 25 years' breeding work, 18 registered hybrids are available for farmers, offering the best choice of varieties regarding precocity and aim of utilisation. Each year, 5-6 new hybrid combinations are submitted to official national and foreign variety registration trials and at present 8 new candidates are being tested. In 17 foreign countries 55 varieties – pure CRC and joint hybrids – have been registered so far. At present 17 parental lines and 13 hybrids are protected by Hungarian and foreign patents. Fields of sunflower research: increase of yield potential, increase of oil content, improvement of oil quality (increase of oleic acid content), improvement of resistance to diseases, selection for earliness, project for stem dwarfing, breeding confectionary type sunflower hybrids.

The department welcomes PhD students in the above mentioned research fields.

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2.2 BIOLOGY

2.2 Institute of Genetics at Biological Research Centre, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Szegedi Biológiai Kutatóközpontjának Genetikai Intézete)

Research, a short introduction:

Basic research on the mechanisms of heredity and on the processes regulating and influencing the manifestation of hereditary traits on molecular and various other organisational levels by the methods of Functional Genomics. Teaching and disseminating the science of Genetics at high standard.

Research aims and topics:

- Molecular genetic changes during oogenezis
- Genetic regulation of chromatin structure
- Signal transduction, cell communication, apoptosis
- Molecular human genetics studies

The Institute welcomes PhD students or young post-doctoral or senior researchers in all fields of the Institute research field for 1 year or more. Knowledge of English is essential.

The Institute would also like to participate in international Research and Development Projects.

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2.2 Institute for Biochemistry, Biological Research Centre, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Szegedi Biológiai Központja, Biokémiai Intézet)

Research, a short introduction:

Molecular and Cell Biology Projects, including: Membrane-lipid and molecular stress biology, analysis of opioid receptor systems, molecular neurobiology projects, regulation of intracellular protein breakdown, study of genes coding for extracellular matrix proteins, Eukaryotic transcription regulation, cell cycle regulation by proteolysis, cytokines in immune defence and in autoimmune diseases, in vitro enzyme evolution, sequence-specific DNA recognition by restriction-modification enzymes, microbial genome engineering.

The Institute welcomes PhD students, pre- and post-doctoral young or senior researchers in the fields of Membrane-lipid and Molecular Stress Biology, Molecular Neurobiology Projects, Regulation of Intracellular Protein Breakdown, Study of Genes Coding for Extracellular Matrix proteins, Eukaryotic Transcription Regulation, Cell Cycle Regulation by Proteolysis, Sequence-specific DNA Recognition by Restriction Modification Enzymes and Microbial Genome Engineering for stays ranging from a few months to several years. Knowledge of English is necessary. The Institute would also like to take part in international Research and Development Projects.

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2.2 Biological Research Centre, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Szegedi Biológiai Központja)

Research, a short introduction:

The Biological Research Centre (BRC) is an independent scientific organization for molecular and cellular biology in Hungary. The BRC employs of 520 persons, 360

of them belong to the scientific staff, including 12–15 graduate students of the International Training Course and 85-90 students in various PhD programs. The BRC is a consortium of 5 Institutes, 4 of them are located in Szeged and one in Budapest.

Institute of Biophysics:

Membrane Bioenergetics/Nanobiotechnology, Molecular Neurobiology, Membrane, Structure and Dynamics, Microbial Gas Metabolism.

Institute of Biochemistry:

Membrane-Lipid and Molecular Stress Biology, Neurobiology, Eukaryotic Molecular Biology, Nucleic Acid Research.

Institute of Enzymology (Budapest):

Neural Plasticity, Molecular Evolution, Genome Evolution, Molecular Basis of The Immune Response, Active Transport Proteins, Protein Structure Research.

Institute of Genetics:

Nitrogen Fixation, Developmental Genetics, Human Molecular Genetics, Molecular Immunology.

Institute of Plant Biology:

Molecular Stress- and Photobiology, Plant Chrono- and Photobiology, Plant Lipid Function and Structure, Thylakoid Membrane Energization, RNA Processing, Cell Division and Differentiation, Functional Cell Biology, Arabidopsis Molecular Genetics.

The Institute welcomes PhD students and young pre- or post-doctoral researchers for stays of 6 months or 1 year and more. Knowledge of English is necessary. The Institute would also like to take part in international Research and Development Projects.

2.2 Department of Hydrobotany and Department of Hydrozoology, Balaton Limnological Research Institute, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Balatoni Limnológiai Kutatóintézete, Hidrobiológiai Osztály)

Research, a short introduction:

The primary research activity at the Hydrobiological PhD School covers the following topics: phosphorus and nitrogen cycling in shallow waters, role of dissolved organic (humic) substances in lake processes, population dynamics, primary production and ecophysiology of planktonic-, benthic algae and macrophytes, population dynamics and ecology of planktonic- and benthic invertebrates and complex investigation of fish fauna of Lake Balaton and other shallow lakes.

The Department welcomes PhD students or post-doctoral young researchers in the fields of Hydrochemistry, Algal- and Macrophyte Ecology, Zooplankton, Zoo-benthos and Fish for stays from 6 months to one academic year. Knowledge of English is necessary.

The Department would also like to take part in international Research and Development Projects.

2.2 Department of Zoology, Balaton Limnological Research Institute, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Balatoni Limnológiai Kutatóintézete, Kísérletes Állattani Osztály)

Research, a short introduction:

Comparative neurobiology of invertebrates. Complex (chemical-neuroanatomical, physiological, biochemical and molecular biological) studies on signalling systems

Contact:

Mr. Péter BIRÓ ■ Director ■ Balaton
Limnological Research Institute,
Hungarian Academy of Sciences,
Department of Hydrobiology ■
H-8237 Tihany, Klebelsberg u. 3. ■
(+36 87) 448 244 ■ biro@tres.blki.hu

Contact

Mr. Károly ELEKES ■ Balaton Limnological Research Institute, Hungarian Academy of Sciences, Department of Zoology ■ H-8237 Tihany, Klebelsberg u. 3. ■ (+36 87) 448 244 ■ elekes@tres.blki.hu

involved in neural networks underlying behaviour of model invertebrates, gastropod molluscs.

The Department welcomes pre- and post-doctoral researchers for up 6 months, to study aminergic and peptidergic systems at central and peripheral regulatory processes, including synaptological, membrane level and intracellular messenger aspects, as well as the development of different chemical signalling systems. Knowledge of English is necessary.

The Department would also like to take part in international Research and Development Projects.

Contact:

Dr. Nándor OERTEL ■ Head of the Department ■ Ms. Éva ÁCS ■ Senior Scientist ■ Hungarian Danube Research Station, Institute of Ecology and Botany, Hungarian Academy of Sciences ■ H-2131 Göd, Jávorka Sándor u. 14. ■ (+36 27) 345 023 ■ acs@ludens.elte.hu, oer63@ella.hu

2.2 Hungarian Danube Research Station, Institute of Ecology and Botany, Hungarian Academy of Sciences (Magyar Tudományos Akadémia, Ökológiai és Botanikai Kutatóintézet, Magyar Dunakutató Állomás)

Research, a short introduction:

The systematic investigation of the Danube began at the Hungarian Danube Research Station in the 1960s. On the one hand, considerable knowledge has been collected on the chemical characteristics of the water, several plant and animal groups and biological processes (e.g. species composition and dominance structure of planctonic and periphitic algae, ciliates, cladocerans and copepodes, macroinvertabrates). On the other hand, other important animal groups or communities, biological events and their ecological characteristics remain yet unknown. That is the reason why the main mission of our projects is focused on the supplementary study and evaluation of biological processes in the Danube and its main tributaries. During the last 45 years more than 700 scientific papers have been published by our colleagues.

Basic and applied research of rivers, standing waters and wetlands is carried out at international level in the field of ecology and hydrobiology including environmental protection, nature conservation and conservation biology. The scientific researches are based on the experiences gained in the long-term surveillance of the River Danube: basic patterns of the river biota; material cycling of the different river sections; the relationship between the environmental factors (natural hydrological regime and/or human effects) and the communities structure. The latest studies of water and sediment chemistry, fito- and zooplankton, macrophytes, macroinvertebrates, fish- and fish biology, herpetology are all closely related with the ecological aspects of biodiversity, river fragmentation (canalisation, damming), pollutions, material cycling, functioning of the river system, water landscape. Most of the hydrobiological investigations of standing waters and wetlands is going on in the Fertő-Hanság region. The investigations of the abiotic environmental factors, the structure of communities and material cycling focus on two major habitats of the Lake Fertő: on the open water surfaces (canals, inner lakes) and the reed belts. The hydrobiological monitoring of small lakes and constructed wetlands in the Hanság area mainly serves the reconstructive goals of nature protection. Most of the recent research activities of the HDS are elaborated mainly within the National R&D Project, the Hungarian Scientific Research Fund or the Ministry of Environment and Water. HDS plays important roles in many international and national projects: International Association for Danube Research (IAD), EU Water Framework Directive, Hungarian Biodiversity Monitoring System, Ministry of Environment and Water, National R&D Project, Hungarian Scientific Research Fund, etc.

The following research topics of HDS have high priority in the future studies of stream waters, standing waters and wetlands:

- Fundamental questions of structure and function in water landscape ecology.
- Environmental protection and nature conservation questions of sustainable river regulation, floodplain management and wetland restoration.
- Development of methods and indication of reference sites within the EU WFD implementation.

The Institute welcomes PhD students or pre-doctoral researchers for 1 year or more in the fields of Limnology (Potamobiology): taxonomy and ecology of phyto- and zooplankton, macrophytes, macroinvetrtebrates and fish, material cycling and food chains. Knowledge of English is necessary.

The Institute would also like to take part in international Research and Development Projects.

2.2 Department of Plant Ecology, Institute of Ecology and Botany of Hungarian Academy of Sciences (Magyar Tudományos Akadémia Ökológiai és Botanikai Kutatóintézete, Növényökológiai Osztály)

Research, a short introduction:

The current research activity of the Department of Plant Ecology focuses on the following topics: organization and dynamics of terrestrial plant communities, ecological effects of climate change and land-use change, experimental restauration ecology in sand vegetation, effects of plant invasions, taxonomic studies of protected plant species and lichens, forest reserve researches, and production of secundary metabolites.

The Department welcomes PhD students, and mainly post-doctoral researchers for several months (especially in the vegetation season) and longer time in the fields of biodiversity studies, primary productivity, ecological effects of climate change, regeneration and restoration studies of old fields, carbon balance studies, plant invasion studies. Knowledge of English is necessary.

2.2 PhD School for Biology, University of Pécs (Pécsi Tudományegyetem, Biológiai Tudományok Doktori Iskola)

Research, a short introduction:

- Botany and Vegetation research (Leader: Prof. Attila BORHIDI, Member of the Hungarian Academy of Sciences)
- Comparative Neurobiology (Leader: Prof. Róbert GÁBRIEL, DSc)
- Molecular Microbiology (Leader: Prof. Miklós PESTI, CSc)

The PhD School welcomes PhD students and young post-doctoral researchers in the fields of botany, neurobiology and molecular biology for 1 year or more. Knowledge of English is essential.

The PhD School would also like to participate in international Research and Development Projects.

Contact:

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(+36 28) 360 122 ext. 123 ■
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Contact:

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Contact:

Prof. Anna ERDEI ■ Head of PhD
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anna.erdei@freemail.hu

2.2 PhD School for Biology, Eötvös Loránd University (Eötvös Loránd Tudomány-egyetem, Biológiai Tudományok Doktori Iskola)

Research, a short introduction:

- Theoretical Biology and Ecology
- Ethnology
- Immunology
- Experimental Plant Biology
- Classical, and Molecular Genetics
- Molecular Cell and Neurobiology
- Neuroscience and Human Biology
- Structural Biochemistry
- Zootaxonomy, Animal Ecology and Hydrobiology
- Evolutionary Genetics, Evolutionary Ecology, Conservation Biology

The PhD School welcomes PhD students, pre- and postdoctoral, young and senior researchers for up to 1 year or more. Knowledge of English is necessary. The PhD School is willing to take part in international Research and Development Projects.

Contact:

Mr. Mátyás SIPICZKI ■ Head of Department ■ PhD School for Biology, Faculty of Science, Department of Genetics and Molecular Biology, University of Debrecen ■ H-4012 Debrecen, P. O. Box 56. ■ (+36 52) 316 666 ■ lipovy@tigris.klte.hu

2.2 PhD School for Biology, University of Debrecen (Debreceni Egyetem, Biológiai Tudományok Doktori Iskola)

Research, a short introduction:

- Genomics and genetics of cell cycle and cellular differentiation
 Identification of genes encoding regulators of the mechanisms coordinating cell division, cytogenesis, exit from the cell cycle and entry into the new cell cycle or into specific developmental programmes that lead to cell differentiation.
- Genetics and genetic manipulation of fermenting food micro-organisms
 Chromosomal length polymorphism, genetic stability/instability in fermenting yeasts and fungi. Molecular methods of strain identification. Methods of genetic manipulation and the detection of GMM in food and beverages.
- Postharvest bioprotection by microorganisms
 Identification of yeasts with antagonistic effects against fungi, yeast and bacteria that attack fruits and vegetables. Investigation of the mechanism of antagonism.
 Development of technologies using antagonistic yeasts in postharvest bioprotection of fruits and vegetables.

The PhD welcomes PhD students, pre- or post-doctoral and young or senior researchers for up to 6 months or 1 year and more in genomics, cell cycle regulation, postharvest bioprotection, genetically manipulated microbes (GMM) in food safety and production research fields. Knowledge of English or German is necessary. The PhD School would also like to take part in international Research and Development Projects.

Contact:

Mr. János SZABAD ■ Professor of Maternal Effect and Embryogenesis ■ Department of Biology, Faculty of Medicine, University of Szeged ■ H-6720 Szeged, Somogyi B. u. 4. ■

2.2 Maternal Effect and Embryogenesis, University of Szeged, Faculty of Medicine, Department of Biology (Szegedi Tudományegyetem, Orvosi Biológia Intézet, Anyai Hatás és Embriológia)

Research, a short introduction:

We hope to understand the mechanism of the commencement of embryogenesis.

As a model system we use Drosophila and combination of techniques in genetics, molecular and cell biology.

The Department welcomes graduate students, postdocs and scientists at any level who aim to understand the molceular mechanism of maternal effect and embryogenesis.

(+36 62) 545 109 ■ szabad@mdbio. szote.u-szeged.hu ■ www.szote.u-szeged.hu/mdbio

2.2 Department of Microbiology, Faculty of Sciences, University of Szeged (Szegedi Tudományegyetem, Természettudományi Kar, Mikrobiológiai tanszék)

Research, a short introduction:

Phylogenetics of Aspergilli Aspergillus mycotoxins with special attention to ochratoxin A Population genetics of Aspergillus species

2.2 Department of Biochemistry, Faculty of Science, University of Szeged (Szegedi Tudományegyetem, Természettudományi Kar, Biokémiai Tanszék)

Research, a short introduction:

- Molecular stress response in fish: identification and analysis of the expression patterns of stress genes (MTs, Hsps, HOs, etc.)

Living organisms are exposed to numerous compounds during their lifetime. The primary targets of pollutants in cells are the macromolecules, which undergo structural and functional changes. In an effort to protect cells against the induced damage, cells respond to toxic effect via activation of sets of proteins, such as the heavy metal eliminating metallothioneins, the antioxidative enzymes, and the heat-and other stress inducible proteins. Our work focuses on the studies of these protective systems, using methods of molecular biology and classical biochemistry.

- Studies on biocatalytic processes

The main drawback to the application of enzymes is in most cases the inappropriate stability of the enzymes. Studies in this field are focused on the investigation of the conformational stability and stabilization of enzymes, as well as their application for practical purposes. For the stabilization of enzyme conformation, different additives and chemical modifications were chosen. Studies with proteolytic enzymes have recently been carried out in non-conventional media (in different organic solvents at low water content), utilizing the possibilities of the use of these enzymes for synthetic reactions (esterification, transesterification and peptid synthesis). Stability, acylation reactions, and the synthesis of peptides and esters of amino acids and sugars are under investigation with these enzymes.

The Department would also like to participate in international research and developmental projects.

2.2 Institute of Botany and Soil Sciences, Faculty of Forestry, University of West Hungary (Növénytani és Termőhelyismerettani Intézet, Nyugat Magyarországi Egyetem)

Research, a short introduction:

The main topics of the researches are studied in the institute:

- Flora and vegetation mapping, Naturalness of forests, Spread strategies of alien invasive plants;
- Matter and energy fluxes in the forest, Microclimat in the forest, Boundary sites

Contact:

Dr. János VARGA PhD ■ Aspergillus Research Group, Faculty of Sciences, University of Szeged ■ H-6726 Szeged, Középfasor 52. ■ (+36 62) 544 515 ■ jvarga@bio.u-szeged.hu ■ www.sci.u-szeged.hu/microbio-logy/vj.htm

Contact:

Mrs. L. Mária SIMON ■ Head of Department of Biochemistry ■ University of Szeged ■ H-6726 Szeged, Középfasor 52. ■ (+36 62) 544 887 ■ Imsimon@bio.u-szeged.hu

Contact:

Prof. Dénes BARTHA ■ Director ■
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Faculty of Forestry, University of West
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132. ■ (+36 99) 518 205 ■
bartha@emk.nyme.hu ■ www.nyme.hu

The Institute welcomes PhD students, pre- and post-doctoral researchers. The Institute would also like to take part in international Researches and Development projects.

Contact:

Prof. Sándor DAMJANOVICH ■ Head of Research Group for Cell Biophysics ■ Hungarian Academy of Sciences and University of Debrecen ■ H-4012 Debrecen, Nagyerdei krt. 98. ■ (+36 52) 412 623 ■ dami@jaguar.dote.hu

2.2 Research Group for Cell Biophysics, Hungarian Academy of Sciences and University of Debrecen (Sejtbiofizikai Kutatócsoport, Magyar Tudományos Akadémia és Debreceni Egyetem)

Research, a short introduction:

Experimental observations accumulated in the past decades led to the "membrane microdomain" concept describing compartmentalization of membrane components into non-random, well-defined patterns at different hierarchical levels with diameters from 10 nm to several microns. Our recent research efforts are mainly focused on mapping protein patterns formed by molecules playing key roles in T cell mediatedimmunity (e.g. IL-2R, IL-15R, MHC glycoproteins, ICAM-1, Kv1.3 potassium channel, etc.). Factors controlling the cell surface distribution of these proteins as well as functional consequences of their association patterns are also under investigation. The private alpha-chains of IL-2 and IL-15 receptors share the signaling beta- and gamma(c)-subunits, resulting in both common and contrasting roles of IL-2 and IL-15 in T cell function. Knowledge of the cytokine-dependent subunit assembly is indispensable for understanding the paradox of distinct signaling capacities. By using fluorescence resonance energy transfer and confocal microscopy, we have shown recently that IL-2Ralpha, IL-15Ralpha, IL-2/15Rbeta and gamma(c)-subunits, as well as MHC glycoproteins formed supramolecular receptor clusters in lipid rafts of the T lymphoma line Kit 225 FT7.10. Fluorescence crosscorrelation spectroscopy demonstrated the comobility of IL-15Ralpwith IL-2Ralpha and MHC-I. A model was generated for subunit switching between the two alpha chains upon the binding of the appropriate cytokine resulting in the formation of high-affinity heterotrimeric receptors, suggesting a direct role for the alpha-subunits in tuning cellular responses to IL-2 or IL-15.

We also study the cell surface organization of the immune synapse-forming molecules on the surface of different tumor cell types. We have shown that MHC-I, MHC-II and ICAM-1 molecules form similar protein clusters on many different cell types, including T and B lymphoma cells as well as tumor cells of non-lymphoid origin. We hypothesize that these "conservative" association patterns accommodated by lipid rafts may promote the formation of the appropriate intercellular interactions upon target cell-T cell encounter. In addition to the "classical" molecules involved in T-cell signaling, our recent results also suggest the participation of Kv1.3 channels in the "synaptic" signaling machinery of T cells.

The Research Group welcomes PhD students, pre- or post-doctoral, young or senior re-searchers for up to 6 months in the field of Mapping Cell Surface Topology of Membrane Proteins by means of various Biophysical Methods: fluorescence resonance energy transfer; confocal laser scanning microscopy; fluorescence correlation spectroscopy. Knowledge of English is necessary.

Our Research Group would like to take part in international Research and Development Projects.

2.2 Research Group for Evolutionary Genetics and Conservation Biology, Hungarian Academy of Sciences and PhD School for Biology, University of Debrecen (Magyar Tudományos Akadémia, Evoluciógenetikai és Konzervációbiológiai Kutatócsoport és Debreceni Egyetem, Biológiai Tudományok Doktori Iskola)

Research, a short introduction:

Biodiversity PhD programme:

Subprogram: Population Biology and Evolution:

11 courses are conducted by the professors, associated professors, lecturers and research fellows of the department.

Subprogram: Community Ecology and Organisation: 8 courses are conducted by the professors, associated professors, lecturers and research fellows of the department.

Research projects of the department:

1. Behavioural ecology group

The following aspects of animal behaviour are investigated:

- The adaptive value of reproductive behaviour such as mating, parental care and colonial breeding. Mating pattern and parental care of shorebirds (Charadrii) are exceptionally diverse. The current phylogenetic events are investigated, which may have shaped the evolution of this diversity. Current projects focus on the contrasting mating pattern and parental care of Lapwing, Avocet and Kentish Plover.
- The significance of colonial breeding and food searching is explored by theoretical modelling and field studies on Whiskered Tern, Sand Martin and House Sparrow. In these projects they collaborate with British and Canadian research groups.
- 2. Human biology group

Human ecological research in the department is concentrated on four principal fields:

- The influence of climatic factors on the differentiation of the Homo genus in the Pleistocene: The formation of a climate-pulsation model;
- The dispersal and regional adaptation of the early Holocene human populations in the Carpathian Basin
- The nutrition customs of the 10–12th century Hungarians based on the examination of teeth;
- 3. Population genetics group

Current research projects:

- Survey of population /metapopulation structure, allozyme polymorphism and morphometrical charaters in Lepidoptera and Orthoptera species (e.g. Parnassius mnemosyne, Euphydryas maturna, Maculinea spp., Aricia artaxerxes, Plebejus sephirus, Isophya spp., Pholidoptera transsylvanica etc.).
- Survey of phylogeographical processes in Orthoptera and Lepidoptera species in the Carpathian basin.
- 4. Taxonomical and Ecological Entomology group

Current research projects:

- Taxonomy, biogeography and evolution in Palaearctic Noctuidae (Lepidoptera), taxonomic and phylogenetic aspects of reproductive isolation in Noctuidae ("lock-and-key" structures); evolution in high-mountain Lepidoptera (Noctuidae, Papilionidea).
- Ecology and conservation biology of Maculinea spp. in Hungary: habitats, insect assemblages, initial host plant and host ant species.
- Community ecology of Orthoptera, Coleoptera: Carabidae and Lepidoptera in grassland and forested habitats; guild-organisation and life-history in Lepidoptera.
- Biodiversity, faunal composition and history of Orthoptera and Lepidoptera in the Carpatho-European region and Balcan Peninsula.

Contact:

Prof. Zoltán S. VARGA ■ Head of the Research Group ■ PhD Programme of Biodiversity, Department of Evolutionary Zoology and Human Biology, Faculty of Sciences, University of Debrecen ■ H-4010 Debrecen, Egyetem tér ■ (+36 52) 512 900 ext. 62333, fax: (+36 52) 512 941 ■ zvarga@tigris.unideb.hu

The Research Group welcomes PhD students, pre- or post-doctoral and young or senior researchers for 6 months or 1 year and more in the fields of Population genetics and Phylogeography, Behavioural Ecology, Insect (Orthoptera, Lepidoptera) Taxonomy, Ecology and Biogeography, Human Population Biology (recent and historical). Knowledge of English or German is necessary.

The PhD School would like to take part in international Research and Development Projects.

Contact:

Mr. Gábor JUHÁSZ ■ Head of
Research Group for Neurobiology ■
Hungarian Academy of Sciences and
Eötvös Loránd University ■
H-1117 Budapest, Pázmány Péter u.
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2.2 Research Group for Neurobiology, Hungarian Academy Science and Eötvös Loránd University (Neurobiológiai Kutatócsoport, Magyar Tudományos Akadémia és Eötvös Loránd Tudományegyetem)

Research, a short introduction:

The Neurobiology Research Group is working on state dependent changes of neuronal microenvironment and their relations to alterations in brain proteom to disclose novel targets for treatment of neurodegenerative disorders and for better understanding of physiological states of the brain including stress, sleep etc. Our main models are epilepsy models on rat and mice, hypoxia models on rat, visual system models on rat and mice, stress models on mice and rat. Visitors could learn several high tech methods in laboratories including microdialysis and the analytical chemistry for analysis of dialysates. We measure more than a hundred of the neuroactive compounds with HPLC and LC/MS. Some novel mass spectometry applications for neuropeptides and proteins are available. We also use combination of microdialysis with extracellular unit activity, EEG, evoked potential methods on freely moving animals. 2D electrophoresis, zymograpy and molecular biology techniques for studies on brain proteolysis. Work on genetically modified mice strains can be done. The Research Group publishes papers in leading international journals including PNAS, the average publication rate is 5 papers yearly. The Research Group has 5 undergraduates working in 7 laboratories of the group.

The Research Group welcomes PhD students, pre- and post-doctoral, young or senior researchers 6 months or 1 year in fields of Studies on Neurodegenerative Disorders with Novel Proteomics Approach and Microdislysis Studies to disclose Brain Proteolysis for. Knowledge of English is necessary.

The Research Group is willing to take part in international Research and Development Projects.

Contact:

Mr. Ádám MIKLÓSI ■ Research
Fellow ■ Research Group for
Comparative Ethology ■ Hungarian
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miklosa@ludens.elte.hu

2.2 Research Group for Comparative Ethology, Hungarian Academy of Sciences and Eötvös Loránd University (Összehasonlító Etológiai Kutatócsoport, Magyar Tudományos Akadémia és Eötvös Loránd Tudományegyetem)

Research, a short introduction:

The Research Group is interested in the sociocognitive abilities of domestic dogs. Research is based on the hypothesis that during their domestication the domestic dogs acquire various behavioural abilities that increase their chances to adapt to human social environment. We think that these behavioural abilities are in some sense analogous to corresponding human traits. We are interested particularly in studying dog-human attachment, communication, social learning and cooperation. In our work we also study human children, socialised wolves and cats, which provide useful comparison for the abilities of dogs. Recently we have started to use psychophyisological methods to investigate how vegetative changes (heart rate variability, stress hormone level) parallel behavioural observations.

The Research Group welcomes PhD students and post-doctoral and senior researchers in the fields of Ethology, Behavioural Biology and Human Ethology for 6–12 months if they have the necessary financial means to cover their visit. Knowledge of English is necessary.

The Research Group would also like to take part in international Research and Development Projects.

2.2 Research Group for Microbiology, Hungarian Academy of Sciences and University of Szeged (Mikrobiológiai Kutatócsoport, Magyar Tudományos Akadémia és Szegedi Tudományegyetem)

Research, a short introduction:

The activity of the Research Group is the characterisation of various environmental fungi which may have importance in the biotechnology (such as Trichoderma harzanum, Mucor circinelloides, Phaffia rhodozyma) at the genomic and proteomic level Transgenic fungi are produced for biotechnological purposes and their characterisation is carried out by molecular genetic methods. We are also interested in characterisation of pathogenic activity and the resistance genes of human pathogenic fungi including yeast and filamentous fungi.

The Reseach Group welcomes PhD students and young post-doctoral researchers in the fields of Molecular Biological Studies on Human and Environmental Fungi including yeasts and filamentous fungi for 6 months and less. Knowledge of English is necessary for the research work.

The Research Group would also like to take part in international Research and Development Projects.

2.2 Neurohumoral Regulations Research Group of the Hungarian Academy of Sciences and Department of Anatomy, Medical School, University of Pécs (Magyar Tudományos Akadémia – Pécsi Tudományegyetem, Általános Orvostudományi Kar, Anatómiai Intézet, Neurohumorális Szabályozások Kutatócsoportja)

Research, a short introduction:

The research group studies the neurohumoral control mechanisms in the following fields:

- 1. Mechanisms of the circadian biological clocks in mammalian and avian pineal and retina models. The role of rhythmic environmental physical and biochemical stimuli in the entrainment of the biological clock. The functions of clock genes.
- 2. The effects of novel, synthetic releasing and inhibiting hormone-analogues on the endocrine system, especially on the FSH and LH release.
- 3. The neuroprotective effects of PACAP in focal cerebral ischemia and other neurodegenerative disorders. The ontogeny of the PACAP gene expression.
- 4. The role of limbic and mesencephalic nuclei in the stress reactions. The role of urocortin.
- 2.2 Research Group for Fluorescence Spectroscopy, Hungarian Academy of Sciences and University of Pécs (Fluoreszcencia Spektroszkópiai Kutatócsoport, Magyar Tudományos Akadémia és Pécsi Egyetem)

Research, a short introduction:

Our general long term aim is to describe the relationship between protein confor-

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Contact:

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Contact:

Dr. Gábor HILD ■ Deputy Group
Leader ■ Research Group for
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http://biofizika.aok.pte.hu/

mation and function. One of the major research fields is focused on the understanding the molecular background of the regulation of actin cytoskeleton. We focus our research on the conformational and dynamic properties of actin in different biologically relevant model systems. The investigations also involve the description of the interactions between actin and actin-binding proteins (formins, cofilin, profilin, twin-fillin, myosin and tropomyosin). We use fluorescence spectroscopic, rapid kinetic (stopped-flow), fluorescence microscopic and calorimetric methods. The projects are carried out within the framework of national and international collaborations.

The Research Group welcomes PhD students, pre- and post-doctoral, young or senior researchers in the fields of Fluorescence Spectroscopy, Actin Cytoskeleton, Biological Applications of Calorimetry and Fluorescence Microscopy.

Contact:

Dr. Károly RÉDEI ■ Deputy Director General, Forest Research Institute ■ H-1023 Budapest, Frankel Leó u. 42–44. ■ (+36 1) 326 1640 ■ fuhrere@erti.hu ■ www.erti.hu

2.2 Forest Research Institute (Erdészeti Tudományos Intézet)

Research, a short introduction:

- forest ecology and silviculture,
- forest tree breeding and improvement,
- plantation forestry,
- forest proteciton,
- forest economy.

2.3 ENVIRONMENTAL SCIENCE

2.3 Institute for Geochemical Research, Hungarian Academy of Sciences (Magyar Tudományos Akadémia, Geokémiai Kutatóintézet)

Contact:

Mr. Péter HORVÁTH PhD ■ Senior
Research Fellow ■ Institute for Geochemical Research, Hungarian
Academy of Sciences ■ H-1112
Budapest, Budaörsi út 45. ■
(+36 1) 319 3137 ■
phorvath@geochem.hu ■
www.geochem.hu

Research, a short introduction:

- Theoretical, methodological problems, systematic and nomenclature of low-temperature metamorphism. Application of geothermometric and geobarometric methods for distinguishing polymetamorphic events.
- Petrology and geochemistry of mantle-derived igneous rocks and their xenoliths.
 Genetic studies on rare earth element minerals. U-Th-Pb age determination of monazite in magmatic and metamorphic rocks.
- Stable isotope study of water resources, secular variation of river waters and related sediments; origin and mobilisation of cave and thermal waters. Stable isotope geochemistry of soils with special attention on carbonate formation, redistribution and alteration processes.
- Distribution of certain bioessential elements in the rock soil water system in model areas representing rural and anthropogenic effects in various proportions. Experimental modelling of cation adsorption on swelling clay minerals. Studies on formation of hydrocarbons (oil and gas). Origin of thermal waters, their organic matter content, and its transformations studied by complex organic geochemical methods.
- Applications of geochemical and petrographic methods in archeometry: weathering under natural and anthropogenic conditions.

The Institute welcomes researchers and PhD students in the field of metamorphic petrology, clay mineralogy, organic geochemistry, isotope geochemistry/hydrogeology and palaeoclimatology. Knowledge of English is necessary.

The Institute would also like to take part in international research and development projects.

2.3 Geodetic and Geophysical Research Institute, Hungarian Academy of Sciences (Magyar Tudományos Akadémia, Geodéziai és Geofizikai Kutató-intézet)

Research, a short introduction:

Scope of activities: Basic research in geodesy and geophysics, establishment and operation of geophysical observatories in the fields of seismology, geodynamics, geomagnetism, ionosphere and atmospheric electricity, support for institutions to solve problems in geodesy and geophysics, participation in international organizations and projects.

Geodesy: the field of interest includes geodynamic investigations for studying the structure of the Earth's interior and global and local processes in the Earth's crust, development of instruments and measurement methods for this purpose, modelling the gravity field of the Earth, operation of the Sopron Geodynamic Observatory, applied mathematical research

Geophysics: the main topics are the geomagnetic field and the role of its temporal variations in the study of the Earth's interior and in research of processes in near-Earth space (ionosphere, magnetosphere). These problems are closely connected with electromagnetic geophysical exploration methods and with the operation of the Geophysical Széchenyi István Observatory at Nagycenk. The field of interest includes all processes in connection with terrestrial electromagnetism, starting at the Sun and ending in the Earth's core.

Seismology: its task is to operate the Hungarian seismological observatory network, to determine the focal parameters of earthquakes in Hungary and in its neighborhood, macroseismic investigations, to update and archive the database of earthquakes recorded by Hungarian seismological stations and participation in international networks.

The Institute welcomes PhD students and post-doctoral fellows in any field, especially in Earth Electromagnetism: e.g., space weather, magnetosphere-ionosphere studies, magnetotellurics, near-surface electromagnetic geophysics, geomagnetism. Knowledge of English is necessary.

The Institute is interested in international Research and Development Projects.

2.3 Materials and Environmental Chemistry Research Laboratory, Chemical Research Centre, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Kémiai Kutatóközpontja, Anyag- és Környezetkémiai Kutatólaboratórium)

Research, a short introduction:

Research in materials science in IMEC is aimed at revealing the chemical aspects of materials science and technology, with special regard to the correlations between the composition, microstructure, properties and production of functional and structural materials. Models include surface coatings and layers, nano-structured monolithic and composite materials, traditional and new polymers, metallic structural materials and micro and nanosized ceramic powders. The main ongoing research projects are as follows:

- Research on nanolayers prepared in plasmas or ion beams,
- Studies on the mechanism and kinetics of electrochemical and corrosion processes,
- Application of thermal plasmas in materials science with a special regard to the synthesis of nano-structured materials,
- Analysis of inorganic and organic systems and studies on their biological efficiency,
- Synthesis of novel polymers with special properties,

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(+36 99) 508 342 ■
szarka@ggki.hu

Contact:

Mr. János SZÉPVÖLGYI ■ Director ■ Institute of Materials and Environmental Chemistry, Chemical Research Centre, Hungarian Academy of Sciences ■ H-1025 Budapest, Pusztaszeri út 59–67. ■ (+36 1) 438 1130 ■ szepvol@chemres.hu

- Synthesis and characterization of biodegradable polymers.
- Research on heterogeneous polymeric systems.

Research in environmental chemistry is directed towards finding chemical and physical phenomena, on the basis of products and technologies with negligible environmental impact can be developed, especially in the waste processing and in the production and utilization of energy, respectively. The ongoing research projects include:

- Decrease of the environmental impact of coal combustion, and utilization of biomass materials for energy production,
- Environmentally friendly degradation and modification of polymers,
- Water treatment and purification by solar methods,
- Application of thermal plasmas in environmental protection and processing of hazardous wastes in high temperature thermal plasmas.

The Research Laboratory welcomes PhD students and post-doctoral young researchers in research fields as above. IMEC is participating in ongoing international Research and Development Projects, and we are open for new Research and Development cooperations.

The Research Laboratory would like to participate in international Research and Development Projects.

Contact:

Prof. József TÓTH ■ Rector, Head of PhD School for Earth Sciences ■ Institute of Geography, University of Pécs ■ H-7624 Pécs, Ifjúság u. 6. ■ (+36 72) 501 531 ■ tothj@ttk.pte.hu

2.3 PhD School for Earth Sciences, University of Pécs (Pécsi Tudományegyetem, Földtudományi Doktori Iskola)

Research, a short introduction:

- Population and settlement geography, regional development
- Environmental geography
- Geography of tourism
- Historical and political geography
- Physical geography, geology

The PhD School welcomes PhD students and senior researchers in any of the above listed research fields for 6 months. Knowledge of English, German or Hungarian is necessary.

The PhD School would also like to take part in international Research and Development Projects.

Contact:

Mr. György SZABÓ ■ Lecturer ■ PhD School for Geosciences, Department of Earth Sciences, Debrecen
University ■ H-4010 Debrecen,
Egyetem tér 1., P. O. Box 9. ■
(+36 52) 512 900 ext. 22128 ■
gyszabo@delfin.klte.hu

2.3 PhD School for Geosciences, University of Debrecen (Debreceni Egyetem, Földtudományi Doktori Iskola)

Research, a short introduction:

There are four programmes running at the PhD School:

- Landscape Protection and Meteorology

The main focus of research at the Institute is determined by the impact of the economic activities of men on the natural environment and the questions of the environmentally friendly utilisation of landscape potential. This potential also includes renewable natural resources of which research concerning solar and wind energy is also covered by the programme.

- Geomorphology and Society

The programme covers the theoretical development of geomorphology including a solution for genetic geomorphologic issues – and regards its task to study and evaluate the relief forming natural, natural anthropogenic or even explicitly anthropogenic processes and activities as well.

- Social Geography and Regional Development Planning

The PhD programme covers mainly the following areas: study of the situation and development potentials of the Carpathian Euroregion; interethnic researches in the north-eastern part of the Carpathian Basin; Euroregions as new forms of international cooperation; transformation of the rural areas in the north-eastern part of the Carpathian Basin; international migration and the minorities; new approaches in political geography, geopolitical study of Central Europe; foreign economic indices of the East Central European countries.

- Mineralogical, Geochemical, Regional and Applied Geological Researches
This programme offers the following topics: Geological Application of Simultaneous
Thermoanalysis; Model Analysis of Volcanic Rocks and Building Materials; Applied
Geology and Environmental Geology.

The PhD School welcomes PhD students, pre- and post-doctoral young researchers in the above mentioned research fields for 6 months.

Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

2.3 PhD School for Environmental Sciences, University of Szeged (Szegedi Tudományegyetem, Környezettudományi Doktori Iskola)

Research, a short introduction:

The following research programmes are available at the PhD School: Environmental Biochemistry and Biotecnology, Ecology, Environmental Physics, Environmental Geography, Environmental Gelogy, Colloids in Environment, Environmental Chemistry and Analysis, Environmental Technology. (The contact person provides detailed information on research programmes.)

The PhD School welcomes PhD students, young pre- or post-doctoral re-searchers. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

2.3 PhD School for Environmental Sciences, Szent István University (Szent István Egyetem, Környezettudományi Doktori Iskola)

Research, a short introduction:

Environmental Biochemistry and Biotechnology, Ecology, Environmental Physics, Environmental Geography, Environmental Geology, Colloids in Environment, Environmental Chemistry and Analysis, Environmental Technology. (The contact person provides detailed information on the research programmes.)

The PhD School welcomes PhD students and pre-doctoral researchers in the fields of Soil Science, Agro-chemistry, Environmental Chemistry, Ecological Agriculture, Preservation of Genetic Diversity, Environmental Management and Protection, Agricultural and Environmental Microbiology and Soil Biotechnology, Landscape Ecology and Nature and Landscape Protection for up to 6 months. Knowledge of English, German or Hungarian necessary is for the research work.

The PhD School is also ready to contribute to international Research and Development Projects.

Contact:

Mr. András DOMBI ■ Vice Director of PhD School for Environmental Sciences ■ Department of Inorganic and Analytical Chemistry, University of Szeged ■ H-6701 Szeged, P. O. Box 440. ■ (+36 62) 544 338 ■ dombia@chem.u-szeged.hu

Contact:

Ms. Zsuzsa JENEY ■ Research
Assistant ■ PhD School for Environmental Sciences, Department of
Environmental Economics, Szent
István University ■ H-2103 Gödöllő,
Páter K. u. 1–3. ■ (+36 28) 522 000
ext. 2262 ■ Jeney.Zsuzsa@kti.szie.hu
■ www.kti.szie.hu/doktori/indexen.html

Contact:

Prof. Csaba MÁTYÁS ■ Director ■
PhD School for Environmental
Sciences, Institute of Environmental
Sciences, Faculty of Forestry,
University of West Hungary ■ H-9401
Sopron, P. O. Box 13. ■
(+36 99) 518 395 ■ cm@emk.nyme.hu

2.3 PhD School for Environmental Sciences, University of West Hungary (Nyugat-Magyarországi Egyetem, Környezettudományi Doktori Iskola)

Research, a short introduction:

- Ecology and adaptive potentials of forest ecosystems, mostly in the context of expected climate instability,
- Landscape Ecology, Urban forests,
- Environmental Planning and Impact Assessment,
- Geosciences, mainly Applied Geophysics,
- Use of geophysical methods in Environmental Analysis.

The PhD School welcomes PhD students and pre-doctoral researchers for 6 months. Knowledge of English or German is necessary.

The PhD School would also like to take part in international Research and Development Projects.

Contact

Prof. Ernő MÉSZÁROS ■ PhD
School for Environmental Sciences,
University of Veszprém ■ H-8201
Veszprém, P. O. Box 158. ■
(+36 88) 624 649 ■
meszaroserno@freemail.hu,
meszaroserno@almos.vein.hu

2.3 PhD School for Environmental Sciences, University of Veszprém (Veszprémi Egyetem, Környezettudományi Doktori Iskola)

Research, a short introduction:

Environmental Analytical Chemistry, Atmospheric Chemistry, Chemistry of Water in the Environment, Limnology, Geochemistry, Radioecology, Toxicology, Biophysics and Biogeochemistry.

The PhD School welcomes PhD students in the above mentioned fields for over 1 year. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

Contact:

Mr. Béla TÓTHMÉRÉSZ ■ Head ■ PhD School for Environmental Sciences, Ecological Institute, University of Debrecen ■ H-4010 Debrecen, P. O. Box 71. ■ (+36 52) 316 666 ext. 2616 ■ tothmerb@delfin.klte.hu

2.3 PhD School for Environmental Sciences, University of Debrecen (Debreceni Egyetem, Környezettudományi Doktori Iskola)

The PhD School welcomes PhD students, pre- or post-doctoral young and senior re-searchers for stays of 6 months and less or 1 year and more. Knowledge of English is necessary for research work.

The PhD School would also like to take part in international Research and Development Projects.

Contact:

Dr. Imre KÁRÁSZ ■ Head of the
Department ■ Environmental
Protection, Ecology Institute,
Eszterházy Károly College ■ H-3300
Eger, Leányka u. 6. ■ (+36 36) 520 472
■ kornytud@ektf.hu ■ www.ektf.hu

2.3 Environmental Protection, Ecology Institute, Eszterházy Károly College (Eszterházy Károly Főiskola, Környezettani Intézet)

Research, a short introduction:

- *Environmental Physics Research Group:* application possibilities of the alternative energy resources, especially solar energy. Soil physical researches.
- Wine-Chemistry Research Group
- Forest ecology and Nature Conservation Group (Síkfőkút Project)
- Environmental education and methodology Research Group: methodological research work in the Public and Higher Education Systems
- Geomorphological Research Group: geomorphological mapping and research of the geological and geomorphological values in the Bükk Mountains and the Bükk Foreland

The Institute welcomes researchers in the following departments: Department of Environmental Sciences, Department of Chemistry, Department of Physics.

2.3 Department of Wildlife Biology and Management, Szent István University (Szent István Egyetem, Vadbiológiai és Vadgazdálkodási Tanszék)

Research, a short introduction:

The Department of Wildlife Biology and Management was founded in 1994 as a successor of the former Wildlife Biology Research Station of the Gödöllő University of Agricultural Sciences. The Department belongs to the Faculty of Agriculture and Environmental Sciences and its objectives are to:

- Educate wildlife biology and management, and basics of forestry at the graduate level, and wildlife management at postgraduate level programmes. The results of research are transferred through formal graduate and postgraduate including PhD training. Students can choose from a wide selection of wildlife biology and management courses. Each year several of them prepare M.Sc. theses at the Department.
- Conduct a wide range of research programs basic to the management of wildlife resources. The Department emphasizes research related to specific management problems where results have a high probability of being applied. The long-term wildlife management effort emphasizes a diversity of applied management problems important for the Hungarian wildlife/game management organizations. Main researh projects: Factors influencing the diet of red deer; Long-term monitoring of protected and hunted predators (mammals and birds) based on mail questionnaires; Long-term field monitoring of carnivores; Development of National Game Management Database; Space use and dispersion of red deer in Hungary; Space use of roe deer in agricultural landscapes; Funding the base of long term large carnivore conservation in Hungary (LIFE00 NAT/H/007162)
- Provide technical and scientific assistance to the governmental agencies and nongovernmental organizations, which are important in improving management of the wildlife resources.

The Department welcomes researchers and PhD students for stays of up to 6 months or for 1 year or more. Knowledge of English is necessary.

The Department is also interested to partcipate in international Research and Development Projects.

2.3 Department of Landscape Ecology, Faculty of Agricultural and Environmental Sciences, Szent István University (Szent István Egyetem, Mezőgazdasági és Környezettudományi Kar, Tájökológiai Tanszék)

Research, a short introduction:

- Soil-plant-atmosphere relationships
- Analyses on natural and agricultural landscapes
- Investigations on habitats and vegetation of different Hungarian areas
- Observations on relations between vegetation, pedology and erosion on extensively cultivated and abandoned agricultural areas. Complex landscape ecological researches on designated wetlands.
- Observations on the flora of designated watercourses
- Surveys on nature protected geological formations, especially kurgans
- Landscape ecological bases of landscape and agricultural evaluations
- Investigations on ecohydrological relationships of watercourses

Contact:

Prof. Sándor CSÁNYI ■ Head of
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Management ■ Szent István
University ■ H-2103 Gödöllő,
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■ css@ns.vvt.gau.hu ■
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Contact:

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barczi.attila@mkk.szie.hu ■
www.kti.szie.hu/tajokologia/tanszek/

- Surveys on the connections between land use and microclimate Researchers specialized in the above mentioned topics are welcome.

Contact:

Dr. Emőke IMRE ■ Senior Research Fellow ■ Research Group for Geotechnics, Hungarian Academy of Sciences and Geotechnical Department, Budapest University of Technology and Economics ■ H-1111 Budapest, Műegyetem rakpart 3. K. mf. 1. ■ (+36 1) 463 1636 ■ imreemok@epito.bme.hu

2.3 Research Group for Geotechnics, Hungarian Academy of Sciences and Budapest University of Technology and Economics (Magyar Tudományos Akadémia, Geotechnikai Kutatócsoport és Budapesti Műszaki és Gazdaságtudományi Egyetem)

Research, a short introduction:

Unsaturated soils (e.g. seepage, slope stability problems, soil functions, soil water characteristic curve)

- Rheological processes (modelling, laboratory and in situ testing)
- Piles (bearing capacity, planning on the basics of in situ tests)
- In situ tests of Geotechnics (e.g. dissipation tests)
- Geophysical methods
- Particle breakage problems, grading entropy
- Soil models
- Soil-structure interaction
- Piled draft foundations
- Application of the new mathematical methods
- Reinforced soils
- Soil dynamics

The Research Group welcomes PhD students, pre- or post-doctoral, young and senior researchers for up to 6 months or 1 year in the fields of Unsaturated soils (e.g. seepage, slope stability problems, soil functions, soil water characteristic curve), Rheological processes (soil models, laboratory and in situ testing), Institutes of Geotechnics (e.g. dissipation tests), Particle breakage problems, grading, entropy, Piles (bearing capacity, planning on the basis of in situ tests), Soil-structure interaction, application of new mathematical methods, Reinforced soils research fields. Knowledge of English is necessary.

Contact:

Mr. János HAAS
(Mr. Sándor KOVÁCS) ■ Head of
Research Group for Geology ■
Hungarian Academy of Sciences and
Eötvös Loránd Tudományegyetem ■
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1/C ■ (+ 36 1) 381 2127 ■
skovacs@iris.geobio.elte.hu

2.3 Research Group for Geology, Hungarian Academy of Sciences and Eötvös Loránd University (Magyar Tudományos Akadémia, Geológiai Kutatócsoport és Eötvös Loránd Tudományegyetem)

Research, a short introduction:

Pre-Tertiary basement of the Pannonian area and its Alpine-Carpathian-Dinaridic relationships. Palaeozoic and Mesozoic Stratigraphy, Sedimentology, Palaeogeography. Palaeontology and biostratigraphic evaluation of Conodonts, calcareous algae, calcareous sponges.

The Research Group welcomes PhD students, post-doctoral young researchers for 1 academic year in Sedimentology, Palaeozoic and Triassic Stratigraphy, basement Geology of the Pannonian Basin, Conodont Biostratigraphy and Metamorphism research fields. Knowledge of English is essential.

The Research Group would also like to participate in international Research and Development Projects.

2.3 Research Group for Physical Geodesy and Geodynamics, Hungarian Academy of Sciences and Budapest University of Technology and Economics (Magyar Tudományos Akadémia, Fizikai Geodézia és Geodinamika Kutató-csoport és Budapesti Műszaki és Gazdaságtudományi Egyetem)

Research, a short introduction:

- Study of conventional and modern (GPS) measurement techniques and their application to geodesy and geodynamics (deformation detection)
- Study of the Earth's gravity field based on terrestrial and forthcoming satellite radiometry mission data of ESA (GOCE)
- Research of new methods for the accurate geoid determination for Hungary
- Study of reference frames and map projections in Hungary

The Research Group welcomes PhD students, pre- or post-doctoral and senior researchers for 6 month and less or for 1 year and more in the fields of GPS measurements and data processing, deformation detection, gravity field recovery from satellite Radiometry, high precision gravity field determination, terrestrial reference frames. Knowledge of English is necessary.

The Research Group would like to take part international Research and Development Projects.

2.3 Research Group for Atmospheric Chemistry, Hungarian Academy of Sciences and University of Veszprém (Magyar Tudományos Akadémia, Levegőkémiai Kutatócsoport és Veszprémi Egyetem)

Research, a short introduction:

The mission of the research group is to study the physical and chemical properties of an atmospheric aerosol of biogenic and anthropogenic origin. The investigation of environmental effects of aerosol is also a focus point. Special attention is given to the atmospheric effects of aerosol particles like solar radiation transfer and cloud formation. In this way research is related to the problem of climate change induced by human activities.

The Research Group welcomes PhD students and young post-doctoral researchers for 1 year to study the chemical composition of atmospheric aerosol particles. Knowledge of English is necessary.

The Research Group would like to take part in international Research and Development Projects.

2.3 Soil Biotechnology and Plant Biocontrol Product Development Group, TERRA HUMANA Clean Technology Engineering Ltd. (TERRA HUMANA Kft., Talaj Biotechnológia és Növénykultúra Biológiai Védekezés Termékfejlesztő Kutatócsoport)

Research, a short introduction:

The overall objective of Soil Biotechnology and Plant Biocontrol Product Development Group is to realize integrated thermal inactivation and solid carrier production by carbonization means, biotechnological recycling of agricultural by-products and upgrading agro by-products into high added value biotechnological crop protection and nutrition products for environmentally friendly vegetable cultivation. Advanced science for soil, biotechnology and agro by-product recycling subjects are combined with industrial performances and practices. The commercial end product oriented

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Contact:

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Engineering Ltd. ■ H-1222 Budapest,
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+(36 1) 424 0224 ■ www.terrenum.net

applied research development includes agro by-product solid carrier manufacturing (specially manufactured and surface modified for biotechnological-microbiological purposes) and interlinked specific and novel solid sate fermentation/formulation technology. Natural soil borne microbiological strains are selected, adapted for different solid carriers and formulated in a way that long term storage of the microbiological substance will be viable on ambient temperature. Innovative solid state fermentation and formulation technology developed, engineering designed and manufactured from lab to industrial scale. The objective driven RTD works including added value transformation of agro industrial waste, selection of microorganism with bio-control effect connected to solid state fermentation and formulation, evaluation of P kinetics in soil, comprehensive risk assessment, validation and field demonstration, cost benefit analysis, consumers acceptance evaluation, innovation management, development of dissemination strategy and efficient dissemination programme as well.

The company welcomes:

Plant biocontrol microbiologists. Strain collection partners who have available, large scale field tested and field efficient soil microbiological strain collections against soil borne plant pathogens. Solid state fermentation and formulation specialist with working profile from late phase of applied science towards industrial application.

3 TECHNOLOGICAL SCIENCES



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3.1 ARCHITECTURE

3.1 Institute of Architecture, Pollack Mihály Technical Faculty, University of Pécs (Pécsi Tudományegyetem, Pollack Mihály Műszaki Kar, Építész Szakmai Intézet)

Research, a short introduction:

Education of art, candidates prepare a masterpiece of their working field. The masterpieces of architectural planning, new technologies in design and artistic. Research can be realised at the workshops of our institute. The course contains practical studies in fine art as drawing, painting and sculpture at ateliers of local artists. Connections of architectural design and artistic works are the main field of research.

Actual projects at our institute:

- Protection and presentation of world heritage of Pécs, roman burial chapels.
- Experimental buildings for interactive solutions of multimedia and virtual architecture.
- Complex design and realization of public buildings in Hungary, Cyprus, Qatar.

The Institute welcomes researchers with an Msc degree in architecture. Applicants may submit their work of architecture, art and research in a portfolio and cv.

3.2 ENGINEERING

3.2 PhD School for Civil Engineering, Budapest University of Technology and Economics (Budapesti Műszaki és Gazdaságtudományi Egyetem, Építőmérnök Tudományi Doktori Iskola)

Research, a short introduction:

The PhD School's research activity covers all fields of Civil Engineering with the exception of Surveying. There are three main research programmes: (1) Structural Engineering, (2) Water and Environmental Engineering, (3) Transport Engineering. In Programme 1, the main sub fields are: Steel, Reinforced Concrete and Timber Structures, Structural Mechanics Including Biomechanics, Structural Materials and Engineering Geology.

In Programme 2, the main sub fields are: Water Supply, Sewage Treatment, Hydrology, Constructional Water Engineering, Water Quality, Environmental Protection. In Programme 3, the main sub fields are: Road and Highway Construction, Railway Construction, Transport Technology, Geotechnics, Tunnelling.

The PhD School welcomes PhD students in the fields of Structural Engineering (Steel and Reinforced Concrete Structures, Structural Mechanics, Structural Materials), Water and Environmental Engineering (Water Infrastructure, Water Quality, Constructional Water Engneering, Hydrology), Transport Engineering (Road and Railway Construction, Transport Technology, Geotechnics) for 1 year. Knowledge of English is essential.

The PhD School would is interested in participating in international Research and Development Projects.

3.2 Department of Broadband Infocommunication and Electromagnetic Theory, Budapest University of Technology and Economics (Budapesti Műszaki és Gazdaságtudományi Egyetem, Szélessávú Hírközlés és Villamosságtan Tanszék)

Contact:

Dr. Zoltán BACHMAN DLA ■

Dean ■ Faculty of Architecture,

Post-gradual course DLA, University
of Pécs ■ H-7624 Pécs, Rókus 2/A ■

(+36 72) 501 562 ■ bachman@

witch.pmmf.hu ■ www.pmmf.hu

Contact

Prof. Tibor TARNAI ■ Head of PhD School for Civil Engineering ■ Department of Structural Mechanics, Budapest University of Technology and Economics ■ H-1521 Budapest, Műegyetem rkp. 3. ■ (+36 1) 463 1431 ■ tarnai@ep-mech.me.bme.hu

Contact:

Prof. László ZOMBORY ■ Head of Department of Broadband Infocommunication Systems ■ Budapest University of Technology and Economics ■ H-1111 Budapest, Goldmann Gy. tér 3. ■ (+36 1) 463 1559 ■ zombory@mht.bme.hu

Research, a short introduction:

- Digital and Optical Communication, Technologies, Devices and Systems
- Terrestrial and Satellite Communication Systems, Outdoor and Indoor Propagation
- Mesh and Ad hoc Networking
- Digital Audio and Video Broadcasting
- Radar Technologies and Remote Sensing
- Electromagnetic Compatibility, Radio Frequency Interactions
- Biomedical Effects of High Frequency EM Fields
- Data Compression Methods
- Electromagnetic Filed Theory
- Numerical Field Calculation
- Linear Network and System Theory
- Numerical Modeling of Magnetic Materials
- Electromagnetic Nondestructive Testing
- Inverse Problems
- Passive Optical Devices
- Automated N-dimensional Mesh Generation

The PhD School welcomes PhD students in the above mentioned research fields for one academic year or more. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

Contact:

Prof. Gábor STÉPÁN ■ Head of
Department of Applied Mechanics ■
Budapest University of Technology
and Economics ■ H-1521 Budapest,
Műegyetem rkp. 3.

■ (+36 1) 463 1369 ■ stepan@mm.bme.hu

3.2 Department of Applied Mechanics, Budapest University of Technology and Economics (Budapesti Műszaki és Gazdaságtudományi Egyetem, Műszaki Mechanika Tanszék)

Research, a short introduction:

- Continuum Mechanics, Plasticity, Biomechanics, Numerical Mechanics (FEA), Composite Structures
- Dynamical Systems, Non-linear Vibrations, Stability and Bifurcation Theory, Applications in Vibration Engineering (such as machine tool vibration, computer controlled machines, robotics)

For details see: www.mm.bme.hu

The Department welcomes senior researchers in the fields of Continuum Mechanics and Non-linear Dynamics for stays of 6 months to one year. Knowledge of English is necessary.

The Department is ready to take part in international Research and Development Projects in the above fields.

Contact:

Prof. László KULLMANN ■ Associate
Professor, Vice Dean of Faculty ■
Pattantyús-Ábrahám Géza PhD
School for Mechanical Engineering
Sciences, Faculty of Mechanical Engineering, Budapest University of
Technology and Economics ■
H-1521 Budapest, Műegyetem rakpart 3. ■ (+36 1) 463 1139 ■
kullmann@ vizgep.bme.hu

3.2 Pattantyús-Ábrahám Géza PhD School for Mechanical Engineering Sciences, Budapest University of Technology and Economics (Budapesti Műszaki és Gazdaságtudományi Egyetem, Pattantyús-Ábrahám Géza Gépészeti Tudományok Doktori Iskola)

Research, a short introduction:

The research activity of the PhD School concentrates on Theoretical, Numerical and Experimental Methods in Mechanical Engineering, Especially in Fluid and Applied Mechanics, Dynamics, Energy Technology, Bioengineering, Phenomena of Parallel Heat and Mass Transport, CFD, Optics, Mechatronics, Manufacturing and

Robotics, Technology of Metals and Polymers, Metallography, Engineering Design, CAD, Applied Informatics in Mechanical Engineering, Heating, Ventillation and Air Conditioning.

The PhD School welcomes PhD students and young post-doctoral researchers in the above mentioned research fields for stays of 6 months or 1 year. Knowledge of English or German is necessary.

The PhD School would also like to take part in international Research and Development Projects.

3.2 Doctorate School for Chemical Engineering, University of Veszprém (Veszprémi Egyetem, Vegyészmérnöki Tudományok Doktori Iskola)

Research, a short introduction:

- Chemical Engineering
- Environmental Engineering and Chemical Technology
- Hydrocarbon Processing, technologies and products
- Advanced Chemical Unit Operations
- Surface Chemistry
- Quality Assurance in Chemical Industry

The PhD School welcomes PhD students, pre- and postdoctoral junior and senior researchers in the above mentioned fields for an academic year. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

3.2 PhD School for Agricultural Engineering Science, Szent István University (Szent István Egyetem, Agrár Műszaki Tudományi Doktori Iskola)

Research, a short introduction:

The PhD School is divided into two main groups. The most important research subjects are:

Energetics of Agriculture and Environmental Management:

- Ecological correlation of settlement and development
- Technical possibilities of environment protection
- Technical possibilities of the living standard
- Heat and material transport process
- Basics of the energetically and environment friendly development of technology used in primer product processing
- Usage of thermo and photo electrical sun energy
- Modelling of green house processing
- Agricultural original fuels and lubricants
- Processing of waste water; protection of water
- Improvement of the efficiency of the production in agriculture in forestry
- Research in energy sources in agriculture in forestry
- Energetic physics and building insulation
- Supply and management of electricity
- High frequency and microwave energy used in food processing
- Purification of ground water, examination of soil dinamics
- Theory of animal husbandry

Contact:

Prof. Ákos RÉDEY ■ Head of
Doctorate School of Chemical
Engineering ■ University of
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■ redeya@almos.vein.hu

Contact:

Ms. Ibolya ZSOLDOS ■ Assistant
Professor ■ PhD School for Agricultural Engineering Science, Engineering Faculty, Szent István University
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(+36 28) 522 949 ■ zsoldos.ibolya@gek.szie.hu

- Usage of wind energy
- Contamination of the environment and environment protection

Basic of Agriculture Machine Engineering:

- Mechanics of grains of composite materials
- Time dependent mechanics of structural materials
- Theoretical and technical basics of the technical innovation and development
- Basics and methods of the development of quality control systems
- Query of maintenance machinery
- Mechanics of soil
- Tribology research and application of engineering plastics
- Vehicle and tractor techniques
- Query of off-road running
- Operation of machines and system
- Material energy safe production technology
- Connection between standard materials and the environment
- Optimise gear driving
- Research of product processing in agriculture
- Materials reology and structure of agricultural materials
- Physiology effect of the electricity field
- Research in chopping
- Study of agriculture and general machine construction
- Query of harvesting machines
- Research into decreasing energy consumption of harvesting machines
- Internal combustion engines
- Lubrication techniques
- Technological, ecological questions of maintenance
- Safety of machines

The PhD School welcomes PhD students, pre- or post-doctoral and young and senior researchers in the following fields for 6 months and less:

- Plastic Engineering
- Pribology: friction and wear of engineering polymers, dynamic testing
- Dielectric Properties of Basic Foods in High Frequency and Microwave Frequency Range
- Mechanics of Granular Media Arching Action, Emptying of Silos
- Modelling Heat and Mass Transfer for Combined Microwave and Hot Air Drying in Vibrofluidised Bed on Agriculture Materials.
- Experimental Studies of Dielectric Properties of Porous Material During Combined Microwave and Hot-air Drying Process.
- Investigation of Microwave Assisted Method to Exract Ergosterol from a Variety of Matrices.
- Topological Correlation in Amorphous Structures
- Materials Reology and Structure of Agricultural Materials
- Physiology Effect of the Electricity Field
- Research of Chopping
- Study of the Agriculture and General Machine Construction
- Query of Harvesting Machines

Knowledge of English is necessary.

The PhD School is willing to take part in international Research and Development Projects.

3.2 PhD School for Electrical Engineering, Budapest University of Technology and Economics (Budapesti Műszaki és Gazdaságtudományi Egyetem, Villamosmérnöki Tudományok Doktori Iskola)

Research, a short introduction:

- Telecommunications
- Electronic Devices and technologies
- Measurement and Control Techniques
- Electrical Power

The PhD School welcomes PhD students and young post-doctoral researchers in the above mentioned fields. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

3.2 Department of Hydrodynamic Systems, Budapest University of Technology and Economics (Budapesti Műszaki és Gazdaságtudományi Egyetem, Hidrodinamikai Rendszerek Tanszék)

Research, a short introduction:

Fluid machinery

- Simulation of pipe systems under steady and transient operation (especially in looped systems with completely and partially filled pipes)
- Optimization of waterwork operation
- Industrial hydraulics and pneumatics
- Numerical and experimental investigation of hemodynamic and hydrodynamic systems
- CFD methods in developing elements of fluid machines and equipments
- Numerical simulation of flow induced tones

Pneumatic conveying

- Theoretical and experimental research work for determination of two phase flow characteristics in closed pipe and channels
- Research work of the physical parameters of solid material conveying.
 Cavitations
- Cavitation zone measurements after 2D obstacles in a cavitation test channel
- Cavitation detection by noise and vibration measurements
- Influencing cavitation intensity by rotor geometry changes

Our Department welcomes PhD and postdoctoral students in the above mentioned research fields. Knowledge of English, French or German is necessary.

The HDS Department would like to participate in international research and development projects.

3.2 Research Groups for Machine Design Budapest University Technology and Economics (Budapesti Műszaki és Gazdaságtudományi Egyetem, Gépészeti Tervezés Kutató Csoport)

Research, a short introduction:

- Modelling of wear mechanisms between metal composites and ceramic sliding members.
- Tribological properties of lubricated sliding pairs for heavy load applications.

Contact:

Prof. László ZOMBORY ■ Head ■
PhD School for Multidisciplinary
Engineering, Faculty of Electrical
Engineering and Informatics,
Budapest University of Technology
and Economics ■ H-1111 Budapest,
Egry József u. 18. ■ (+36 1) 463 1559
■ zombory@mht.bme.hu

Contact

Ms. Sára TILL ■ PhD student ■
Department of Hydrodynamic Systems, Budapest University of Technology and Economics ■ H-1111
Budapest, Stoczek u. 2., D. ép./3. ■ (+36 1) 463 1680 ■ tillsara@
hds.bme.hu ■ www.hds.bme.hu

Contact:

Mr. Károly VÁRADI ■ Professor ■
Research Groups for Machine Design,
Budapest University Technology and
Economics ■ H-1111 Budapest,
Műegyetem rkp. 3., Kmfsz 80. ■
(+36 1) 463 3507 ■ varadik@
eik.bme.hu ■ www.gszi.bme.hu

- The agricultural and technical challenge fro tillage machinery in the Computer Aided Agriculture.
- Surface micro-topography evaluation of connecting components fro wear prediction.
- Optimal gear drive solutions fro agricultural equipment.
- Simulation and experiments of the viscoelastic and wear behaviour of polymers and polymer composites.
- Error analysis of helical gear drives.

Our Research Group would like to take part in international Research Projects concerning the following themes:

- Modelling tribological processes
- Designing composite/metal equipments
- Developing new tools for Computed Aided Agriculture
- New methology of product design

Contact:

Dr. Tibor CZIGÁN ■ Head of
Department ■ Budapest University of
Technology and Economics (BME) ■
H-1111 Budapest, Műegyetem rkp. 3.
■ (+36 1) 463 2003 ■ czigany@
eik.bme.hu ■ www.pt.bme.hu

3.2 Department of Polymer Engineering, Budapest University of Technology and Economics (BME) (Budapest Műszaki és Gazdaságtudományi Egyetem, Polimertechnika Tanszék)

Research, a short introduction:

- Investigation of glass-, carbon-, basalt-, flax-, hemp-, wood- and ceramic fiber reinforced polymer composites
- Development of biodegradable, environmentally friendly, polymers and polymer composites
- Self-reinforced polymer composites
- Agricultural waste material filled/reinforced polymers
- Investigation of the behaviour of metals and polymers
- Use polymer composites instead of metal parts
- Theoretical and practical investigation of the circumstances of crack initiation and propagation
- Fracture mechanics of composites
- Essential work of fracture concept (EWF)
- Acoustic emission examination of composites and exploration of different failure modes
- Welding and weldability of polymers
- Investigation the possibilities to apply composites in biomechanics
- Development of hybrid composites
- Electron beam treatment of polymers
- Pipes and pipelines from polymers
- Rheology of polymer melts
- Theoretical modelling and simulation of the behaviour of fibers and yarns
- Injection molding and simulation of injection molding
- Development of smart garment

Contact:

Prof. Miklós IVÁNYI ■ Head of
PhD School ■ Pollack Mihály Faculty
of Engineering, University of Pécs
■ H-7624 Pécs, Boszorkány 2. ■
(+36 20) 530 8391 ■ steelivanyi@
epito.bme.hu ■ www.pmmf.hu

3.2 Civil-Informatics Engineering Doctoral School (under accreditation) (Pécsi Tudományegyetem, Pollack Mihály Műszaki Kar, Építő és Informatikai Mérnöki Tudományok Doktori Iskolája)

Research, a short introduction:

Civil-Informatics Engineering Programme

- to define the boundaries of this "New" domain of Civil Engineering
- to identify existing programmes both National and European

- to encourage and monitor cooperative actions in the domain
- to disseminate the results of the actions with the objective of introducing best practice Defining the domain:
- Civil Informatics Engineering definition is the research technical area where traditional civil engineering contributes to and interacts with the development and sustained functioning of the informatics system mainly its contribution to informatics system.

The PhD School welcomes PhD students (knowledge of English is necessary), and would also like to take part in international research projects.

3.2 Kandó Kálmán Doctoral School for Multidisciplinar Sciences, Faculty of Transportation Engineering, Budapest University of Technology and Economics (Budapesti Műszaki és Gazdaságtudományi Egyetem, Közlekedésmérnöki Kar, Kandó Kálmán Multidiszciplináris Tudományok Doktori Iskola)

Research, a short introduction:

The Doctoral School covers all scientific topics connected with vehicle research, including the problems of vehicle operation in complex transportation systems. All transportation means i.e. railway vehicles, road vehicles, aircraft and ships are targets of scientific research and development activities at the Doctoral School. Our research activity concentrates on computer aided modelling and simulation of vehicle system dinamics, identification and anomalies. A great emphasis is placed on the intensive application of the results of modern control theory, reliability theory, automated failure detection and diagnostics in a common framework of vehicle system dynamics.

The Doctoral School welcomes PhD students in the following research areas: Vehicle dynamics, identification and anomaly problems. Modern control theory applications to vehicles. Energy optimum problems in vehicle operation. Automated continuos identification of the position of the moving vehicles. Problems of rolling contact and wear of wheels. Reliability theory based vehicle design methods. Vehicle informatics systems. Automated vehicle diagnostics systems and procedures. New materials for vehicle industry. New technologies in vehicle manufacturing and repair.

3.2 Baross Gábor Doctoral School for Transportation Sciences, Faculty of Transportation Engineering, Budapest University of Technology and Economics (Budapesti Műszaki és Gazdaságtudományi Egyetem Közlekedésmérnöki Kar, Baross Gábor Közlekedéstudományok Doktori Iskola)

Research, a short introduction:

Baross Gábor Doctoral School covers all scientific topics connected with transportation and logistics, including informatics, automation, management and operation control of transportation systems. All transportation systems are targets of scientific research, e.g. railway transportation, road transportation, waterway transportation, air transportation, city transportation, general and entrepreneurial logistics systems. In the centre of the research activity stands the computer aided modelling and simulation of transportation processes including the factors of cost effectivity in operation and investment problems, as well as the minimisation of environment pollution caused by the transportation. Modern informatics and control theory applications are emphasised in the activity of the Doctoral School.

Contact:

Prof. István ZOBORY ■ Head of PhD School ■ Research Group for Vehicle System Technique, Faculty of Transportation Engineering, Budapest University of Technology and Economy ■ H-1521 Budapest, Sztoczek utca 4–6. ép. J, 4/406. ■ (+36 1) 463 1619 ■ railveh@rave.vjt.bme.hu ■ www.railveh.bme.hu

Contact:

Prof. Éva KÖVESNÉ GILICZE ■
Head of PhD School ■ Research
Group for Transportation Sciences,
Faculty of Transportation Engineering, Budapest University of Technology and Economics ■ H-1521
Budapest, Bertalan L. u. 2., Z ép.,
6/618. ■ (+36 1) 463 1685 ■
titkarsag@kku.bme.hu ■
www.kku.bme.hu

The Doctoral School welcomes PhD students in the following research areas: Transport operation system engineering, optimisation of transport problems, application of informatics tools in transportation. Traffic engineering problems, city transport planning. Optimum transportation investment policy, operation research applications in transport process planning, minimisation of turnover time for transport enterprises. Effectivity analysis for investments. Automation of transportation systems. New principles of safety used in computerised railway interlocking systems and highway traffic control systems. Safety of aircraft board systems and communication systems. Optimum reconfiguration of computerised vehicle control systems. Optimum position identification for vehicles. Intelligent highway systems.

Contact:

dr. István FI ■ Professor, Head of Department of Highway and Railway Engineering ■ Budapest University of Technology and Economics ■ H-1111 Budapest, Műegyetem rkp. 3. ■ (+36 1) 463 1151 ■ fi@uvt.bme.hu ■ www.uvt.bme.hu

3.2 Department of Highway and Railway Engineering Budapest University of Technology and Economics (Budapesti Műszaki és Gazdaságtudományi Egyetem, Út és Vasútépítési Tanszék)

Research, a short introduction:

Fields of research:

- asphalt pavements (materials, behaviour, design, etc.)
- railway tracks (materials, structure, behaviour, theories, etc.)
- theories of traffic
- traffic engineering
- network analysis, modelling (network equilibrium and simulation)
- transportation economics, PPP
- ITS systems

The Department welcomes PhD students in the fields mentioned above.

Contact:

Mrs. Katalin SCHULEK-TÓTHNÉ
NAGY ■ PhD School for Interdisciplinary Engineering Sciences,
Faculty of Information Technology,
Pázmány Péter Catholic University ■
H-1083 Budapest, Práter u. 50/A ■
(+36 1) 886 4750 ■ inter@itk.ppke.hu

3.2 PhD School for Interdisciplinary Engineering Sciences, Pázmány Péter Catholic University (Pázmány Péter Katolikus Egyetem, Interdiszciplináris Műszaki Tudományok Doktori Iskola)

Research, a short introduction:

- Sensing and Sensors, Living and Artificial Sensing
- Analog Cellular Computing and Intelligent Sensor-Computers
- Bio-artificial Interfaces
- Language Technologies: linguistic, auditory, visual and social aspects
- Integrated Emerging Communication Technologies and Network
- Software Technologies
- Tele-Presence Applications
- "Smart" energy saving equipment and devices
- Molecular Computing
- Functional Neuroscience
- Multimodal Sensing and Recognition
- Non-invasive Biomedical Imaging and Diagnosing Technologies

The PhD School welcomes PhD students or young post-doctoral researchers for 6 months and less. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

3.2 Research Group for Reinforced Concrete Structures, Hungarian Academy of Sciences and Budapest University of Technology and Economics (Magyar Tudományos Akadémia, Vasbeton Kutatócsoport és Budapesti Műszaki és Gazdaságtudományi Egyetem)

Research, a short introduction:

Mechanics of structures:

- Numerical solution of non-linear boundary value problems
- Qualitative methods for discrete and continuous non-linear boundary value problems
- Parallel algorithms
- Random perturbation methods for discrete chaotic systems

Theory and methods of structural engineering

- Models for structural earthquake engineering
- EUROCODE/2-5 adaptation for structures
- Non-linear behaviour of cracked reinforced concrete beams
- Fractal geometry models for reinforced concrete beams
- Non-linear computation of masonry arches
- Tensile fabric structures
- Retrofitting reinforced concrete and masonry structures using composites

The Research Group welcomes PhD students for 6 months. Knowledge of English is essential.

The Research Group would also like to participate in Development Projects.

3.2 Control Engineering Research Group, Hungarian Academy of Sciences and Budapest University of Technology and Economics (Magyar Tudományos Akadémia, Irányítástechnikai Kutatócsoport és Budapesti Műszaki és Gazdaságtudományi Egyetem)

Research, a short introduction:

Industry-oriented research:

- Utilisation of renewable and waste energies. Renewable: system for the utilisation of solar energy for the combined production of heat and electric energy. Waste energy: high speed turbine generator and converter system is used.
- Various DC-DC converters used in Mercedes and DAF vehicles, middle-voltage converters used in public vehicles.
- High power 400 Hz AC/AC converters which are present at numerous airports in Europe.
- Network condition equipment and reference voltage sources produced in the Netherlands.
- Electric are welding product family, uninterruptible power supply systems and static frequency converters produced by the Hungarian industry.
- High frequency inverters for induction heating.

Theoretical research:

- Theory of variable structure non-linear dynamic systems. Application of the theory of chaos in the field of power electronics.
- Adaptive and optimal control of linear and non-linear dynamic systems.
- Optimal modeling and identification of linear and non-linear dynamic processes.
- Virtual and Internet based telemanipulation.
- Soft computing.

Contact:

Prof. István HEGEDŰS ■ Head of Research Group for Reinforced Concrete Structures, Hungarian Academy of Sciences ■ H-1521 Budapest, Bertalan L. u. 2. ■ (+36 1) 463 1712, fax: (+36 1) 463 1784 ■ Gábor DOMOKOS ■ Head of Department of Strength of Materials ■ Budapest University of Technology and Economics ■ H-1111 Budapest, Műegyetem rkp. 3. ■ (+36 1) 463 1493, fax: (+36 1) 463 1773 ■ domokos@iit bme.hu

Contact:

Prof. László KEVICZKY ■ Control Engineering Research Group,
Hungarian Academy of Sciences and Department of Automation and
Applied IT, Budapest University of Technology and Economics ■
H-1111 Budapest, Goldmann György tér 3. ■ (+36 1) 463 2870 ■
keviczky@sztaki.hu

The Research Group welcomes PhD students in the fields of Advanced Control Theory, Power Electronics, Motion Control, Non-linear Dynamics for more than 1 year. Knowledge of English is essential.

The Research Group participates in numerous international Research and Development Projects and open to further cooperations.

Contact

Mr. János DOBRÁNSZKY ■ Senior Researcher, Research Group for Metal Technology, Hungarian Academy of Sciences and Budapest University of Technology and Economics ■ H-1111 Budapest, Goldmann tér 3. ■ (+36 1) 463 2954 ■ matsci@eik.bme.hu

3.2 Research Group for Metals Technology, Hungarian Academy of Sciences and Budapest University of Technology and Economics (Magyar Tudományos Akadémia, Fémtechnológiai Kutatócsoport és Budapesti Műszaki és Gazdaságtudományi Egyetem)

Research, a short introduction:

The Research Group operates at the Department of Materials Science and Engineering of BUTE and is supported by the Hungarian Academy of Sciences. Research fields and projects in the last 5 years:

- Weldability of High Carbon Steels for Bandsaw Blades,
- Processing and Coating Technologies of Endovascular Implants,
- Life-time Extension Possibilities in Low Alloy Steels Operating at High Temperature,
- Continuous processing, creep and thermal fatigue of aluminium matrix ceramic fiber reinforced composite wires,
- Mechanical Anisotropy and Micromachining,
- Austenitic, Bainitic and Martensitic Transformations of High Carbon Steels,
- PHASE Transformations of Duplex Stainless Steels for Isothermal Conditions.

The Research Group welcomes PhD students and pre-doctoral researchers in the fields of Life-time extension possibilities of low alloy steels operating at high temperature, Mechanical anisotropy and micromachining, Weldability of high carbon steels for bandsaw blades, Processing and coating technologies of endovascular implants, metal matrix composites for less than 6 months. Knowledge of English or French is necessary.

The Research Group would also like to take part in international Research and Development Projects.

Contact:

Prof. István PÁCZELT ■ Head of
Department and Research Group ■
Research Group for Numerical
Mechanics, Hungarian Academy of
Sciences, Department of Mechanics,
University of Miskolc ■ H-3515
Miskolc-Egyetemváros ■
(+36 46) 565 111 ext. 1877 ■
mechpacz@uni-miskolc.hu

3.2 Research Group for Numerical Mechanics, Hungarian Academy of Sciences and the University of Miskolc (Magyar Tudományos Akadémia, Numerikus Mechanikai Kutatócsoport és Miskolci Egyetem)

Research, a short introduction:

Numerical Mechanics Research Group has been working for many decades in the field of Theoretical and Applied Mechanics concentrating primarily on highly non-linear problems of solid continua and engineering structures. Sources of non-linear behaviour under investigation have been, for example, the contact between bodies, plastic material law, large displacements, strain and finite rotations etc. In recent years very successful numerical algorithms and programs have been worked out on the basis of the so-called hp version finite element technique. By using the new procedures special coupled problems have been analysed such as the contact between bodies accompanied by heat distribution, wear problems and so on. From the point of the practical applications a great number of problems has been dealt with including composites, steal structures of the tool and vehicle industry, tyres and other fibre reinforced rubber constituents etc. Results of multi faceted research have been published in numerous papers in the leading scientific journals and conference proceedings of the world.

The Research Group welcomes PhD students, pre- or post-doctoral young and senior researchers for up to 6 months or 1 year and more in the field of Numerical Mechanics. Knowledge of English is necessary.

The Research Group would also like to take part in international Research and Development Projects.

3.2 Research Group for Process Control, Hungarian Academy of Sciences and Szent István University (Folyamatirányitási Kutatócsoport, Magyar Tudományos Akadémia és Szent István Egyetem)

Research, a short introduction:

- Hybrid renewable energy technologies,
- Investigating the technical parameters and environmental influences of photovoltaic and thermal solar systems,
- Measurement of combined photovoltaic panels and batteries as a part of renewable energy technology system for optimal operation,
- Modelling the drying process of agricultural products and determination of their physical properties,
- Study of neural network applicability to crop drying process using physically based models along with different settings and model parameters,
- Computer aided process control in agriculture.

The Research Group welcomes PhD students, pre- or post-doctoral and young senior researchers for 1 year in the following research fields: Process Control Applications, Renewable Energy Resources, Drying, Greenhouse Operation. Knowledge of English is necessary.

Our Research Group would also like to take part in international Research and Development Projects.

3.2 Satellite Geodetic Observatory Institute of Geodesy, Cartography and Remote Sensing (Földmérési és Távérzékelési Intézet, Kozmikus Geodéziai Obszervatórium)

Research, a short introduction:

The main research & development fields are:

- Global navigation satellite systems (GNSS) applications
- Maintenance of national geodetic control networks
- Local, national and regional geodynamic investigations
- Establishment and maintenance of a permanent multi-purpose ground-based GNSS reference network on national (gpsnet.hu) and European level (EUPOS)
- GNSS interference studies
- GNSS technology transfer
- Differential Radar Interferometry (DInSAR) applications to deformation studies
- Very Long Baseline Interferometry (VLBI): astrophysical and geodetic applications

The institute welcomes PhD students, undergraduate or graduate summer students, with a knowledge of Hungarian or English.

The Observatory is open for international R&D projects in the field of satellite positioning and space geodesy.

Contact:

Prof. István FARKAS ■ Head of
Department ■ Research Group for
Process Control, Hungarian Academy
of Sciences and Department of
Physics and Process Control, Szent
István University ■ H-2103 Gödöllő,
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Farkas.Istvan@gek.szie.hu

Contact:

Dr. Tibor BORZA ■ Head of Department ■ Satellite Geodetic Observatory, Institute of Geodesy, Cartography and Remote Sensing ■ H-1592 Budapest, P. O. Box 585. ■ (+36 27) 374 980 ■ borza@sgo.fomi.hu ■ www.sgo.fomi.hu

3.3 TECHNOLOG

Contact:

Dr. Zsolt SZABÓ ■ General manager

- Cytotech Instruments Ltd. ■
- H-1131 Budapest, Dolmány u. 18-20.
- **■** (+36 30) 961 7316

info@cytotech.hu ■ www.cytotech.hu

Research, a short introduction:

- Development of blood group serological measuring instruments

3.2 Cytotech Instruments Ltd. (Cytotech Műszergyártó és Fejlesztő Kft.)

- Particle size analysis by photo sedimentation, developing automatic laboratory equipment.

The company welcomes blood group serological experts.

Contact:

Contact:

Mr. László MONOSTORI ■ Deputy

Director ■ Research Institute, MTA-

SZTAKI Computer and Automation Research Institute, the Hungarian

Academy of Sciences ■ H-1111

Budapest, Kende u. 13-17. ■

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(+36 1) 279 6159 **■**

ADMATIS Kft. ■ H-3515 Miskolc, Partos u. 16. ■ (+36 46) 565 000 ext. 2075 ■ info@admatis.com ■ www.admatis.com

3.2 ADMATIS Kft

Research, a short introduction:

To grow single crystals from two-three component advanced materials is a very complicated task. To find and optimize the technological parameters used to be a long and time consuming procedure. ADMATIS developed a universal multizone crystallizator UMC in order to solve research challenges of that kind. The influence of temperature gradient, growth rate, capsule wall cooling rate, front detachment used to be the most important research aims. After successful labor experiments the next step can be to define industry scale technologies.

ADMATIS is open to cooperate with any research group to investigate crystallization processes between 400–1900 degrees C.

We are eager to participate in joint solidification projects utilizing the UMC hardware -software capability proved by NASA at the highest technical level.

3.3 TECHNOLOGY

3.3 MTA SZTAKI Computer and Automation Research Institute, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Számítástechnikai és Automatizálási Kutatóintézete)

Research, a short introduction:

MTA SZTAKI, founded in 1964, has more than 300 full-time employees, more than 200 with a university degree and more than 70 with scientific degrees.

MTA SZTAKI is a centre of informatics, in the broad sense, a national research centre of information technology, computer science and further related fields. Primarily, the technico-scientific and mathematical issues of informatics are investigated, with consideration and attention to fields related to the above fundamental questions, potentially endowing them with incentive, disciplinary bases. In addition to comprehensive basic- and applied research, the transmission of the acquired experience in R&D, system design and system integration, furthermore, in consulting and software development is a major obligation.

Gradual and post-gradual university education has always been regarded as an important task associated with research, and pursued as an essential condition for future-shaping. We continue our educational activity with the following national universities (using their Hungarian abbreviations): BME, ELTE, BCE, VE, PTE, ME, PPKE. Generally, about 30 PhD students do research at the Institute, under the scientific leadership of our colleagues. Above the cooperation schemes up to now (part-time emloyment of our researchers, associated departments, and cooperation in establishing faculties in informatics), we intend to devise new forms of cooperation (common chairs, possibly common doctoral schools).

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The Institute welcomes PhD students in the following fields:

Mathematics and computer science:

- Combinatorial computer science
- Discrete structures, superimposed codes, graph colorings, hypergraphs
- Stochastic systems
- Operations research: theory of equilibrium systems, smooth optimisation, decision systems, multi-attribute group decision support, solving problems of environmental protection
- Mathematics of the WWW, web search engines, data mining and applications, theory and applications of nonparametric statistics, symbolic computation (algorithms for algebras, Groeber bases), algorithms for quantum computing
- Bio-computing (molecular and membrane computing)
- Machine learning, natural language processing *Information Technology:*
- Analogic CNN (Cellular Neural/nonlinear Network) computing or cellular wave computers: complexity of analogic spatio-temporal computers, the physical implementation of analogic cellular computers, theory of analogic cellular algorithms, integrated multi-modal sensing-computing-perceiving, analysing and navigation systems
- Grid systems: flexibility of checkpoint mechanisms, monitoring of Grid systems and graphical program-development
- Modelling the cognitive processes in the human vision, TP model transformation based control of non-linear systems

Automation:

- System and control theory: state-space theory of linear multi-variable systems, model-based fault-detection, control systems for road vehicles and aircrafts, fault detection of distributed real-time control systems and the validation of their operation
- Analysis and control of nonlinear process systems, thermodynamics-based, mechanics-analogue Hamiltonian description of process-systems
- Computer vision and geometric modelling, segmentation of scanned multiple point regions, fitting of surface-groups, application of geometric contraints
- Production informatics, engineering and management intelligence, application of artificial intelligence and combinatorial optimization methods

The Institute welcomes PhD students, pre- and post-doctoral and young and senior researchers in the above mentioned research fields for 6 months, 1 academic year or more.

The knowledge of English or Hungarian, in some fields German is necessary. The Institute would also like to take part in international Research and Development Projects.

3.3 Institute of Informatics, University of Szeged (Szegedi Tudományegyetem, Informatikai Intézet)

Research, a short introduction:

The activity of the Institute covers the major research fields of Computer Science including Algorithms and Data Structures, Artificial Intelligence, Automata Theory, Data Bases, Discrete Mathematics, Formal Languages, Fuzzy Modelling, Image Processing, Networks, Optimization, Term Rewriting. As well as various application fields are investigated as those for example in operations research.

A more complete description of the research activities is available at: www.inf.u-szeged.hu /~csendes/besze2.ps.gz

Contact

Mr. Tibor CSENDES ■ Associate

Professor ■ Institute of Informatics,
University of Szeged ■ H-6701

Szeged, P. O. Box 652. ■

(+36 62) 544 305 ■

csendes@inf.u-szeged.hu

The Institute welcomes PhD students, pre- or post-doctoral and senior researchers in all aspects of Computer Science for up to 6 months. Knowledge of English or German is necessary.

Our Institute would also like to take part in international Research and Development Projects.

Contact

Prof. Tibor TÓTH ■ Head of Hatvany
József PhD School for Information
Science, Engineering and Technology

- Department of Information Engineering, University of Miskolc ■
 H-3515 Miskolc-Egyetemváros ■
 (+36 46) 565 132, (+36 46) 565 134
- toth@iit.uni-miskolc.hu

3.3 Hatvany József PhD School of Information Science, Engineering and Technology, University of Miskolc (Miskolci Egyetem, Hatvany József Informatikai Tudományok Doktori Iskola)

Research, a short introduction:

The PhD School organises its educational and research activities according to the following 4 fields:

- Computational Science (Theory and Application of Algorithms; Computational Algorithms for Engineering Sciences; Data and Knowledge Bases, Knowledge Intensive Systems; Parallel and Distributed Systems).
- Information Systems for Materials Science and Technology
- Production Information Engineering (Computer Integrated Manufacturing, Information Systems for Measuring and Control Engineering)
- Material Stream Systems and Information Engineering for Logistics.

The Institute welcomes PhD students for 6 months or less. Knowledge of English (medium level or higher certificate) is necessary.

The PhD School would also like to take part in international Research and Development Projects.

Contact:

Prof. Ferenc FRIEDLER ■ Head of PhD School, Dean of Faculty ■ Information Science and Technology PhD School, Department of Computer Science, Faculty of Information Technology, University of Veszprém ■ H-8200 Veszprém, Egyetem u. 10. ■ (+36 88) 424 483 ■ friedler@dcs. vein.hu ■ www.dcs.vein.hu/di/eng ■ www.mik.vein.hu/en

3.3 Information Science and Technology PhD School, University of Veszprém (Veszprémi Egyetem, Informatikai Tudományok Doktori Iskola)

Research, a short introduction:

- Combinatorial Problems in Information Technology
- Image Processing
- Information Retrieval
- Intelligent Control
- Mathematical Modelling of Dynamic Systems
- Medical Informatics
- Mobile Communication
- Network Optimisation
- Network Synthesis
- Neurocomputing

More is availabla about research activities at www.dcs.vein.hu/di/eng or www.mik.vein.hu/en.

The PhD School welcomes PhD Students pre- and post-doctoral, young and senior researchers in the above mentioned fields for an academic year. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

3.3 PhD School for Material Sciences and Technologies, University of Veszprém (Veszprémi Egyetem, Anyagtudományok- és Technológiák Doktori Iskola)

Research, a short introduction:

- Research and development of up-to-day material testing, analytical and surface science methods in the material science
- Non-metalic inorganic structural materials
- Material, energy and cost saving optimization, dimenzioning.

3.3 Cziráki József PhD School for Wood Sciences and Technologies, University of West Hungary (Nyugat-Magyarországi Egyetem, Cziráki József Faanyagtudományok és Technológiák Doktori Iskola)

Research, a short introduction:

The Institute welcomes PhD students or post-doctoral young researchers for a period of 6 months in the following fields:

- Wood Sciences
- Wood Structures
- Wood Processing
- Fibre Techniques
- Wood Industry Management
- Information Technology and Management in Wood Industry

Knowledge of Hungarian, English or German is essential.

The PhD School would also like to participate in international Research and Development Projects.

3.3 Research Group for Production Information Engineering, Hungarian Academy of Sciences and University of Miskolc (Termelésinformatikai Kutatócsoport Magyar Tudományos Akadémia és Miskolci Egyetem)

Research, a short introduction:

- Computer aided planning and optimisation of discrete manufacturing processes;
- Theory and practice of Production Planning and Scheduling (PPS);
- Manufacturing Execution Systems (MES) and computerised simulation;
- Computer Integrated Manufacturing (CIM).

An up-to-date Production Information Engineering Laboratory with 12 workstations is available (LAN, hw+sw tools) at the Department of Information Engineering.

The Research Group welcomes young post-doctoral researchers for 6 months. English (medium or higher level) language knowledge is necessary.

The Research Group would also like to take part in international Research and Development Projects.

3.3 Research Group for Artificial Intelligence, Hungarian Academy of Sciences and University of Szeged (Mesterséges Intelligencia Kutatócsoport, Magyar Tudományos Akadémia és Szegedi Tudományegyetem)

Research, a short introduction:

- Machine Learning (Inductive Logic Programming, Genetic Algorithms, Neural networks)

Contact:

Prof. János MINK ■ Head of PhD School ■ University of Veszprém ■ H-8200 Veszprém, Egyetem u. 10. ■ (+36 88) 624 487 ■ mink@almos.vein.hu

Contact

Mr. András WINKLER ■ Head ■
Cziráki József PhD School for Wood
Sciences and Technologies, Faculty
of Wood Sciences, University of West
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Contact:

Prof. Tibor TÓTH ■ Head of
Research Group for Production
Information Egineering ■ Hungarian
Academy of Sciences and University
of Miskolc ■ H-3515 MiskolcEgyetemváros ■ (+36 46) 565 132,
(+36 46) 565 134 ■ toth@iit.unimiskolc.hu

Contact:

Prof. János CSIRIK ■ Head of Research Group for Artificial Intelligence ■ Hungarian Academy of Sciences and University of Szeged ■ H-6720 Szeged, Aradi vértanúk tere 1. ■ (+36 62) 544 370 ■ csirik@inf.uszeged.hu

- Speech Recognition (segmentation models, feature extractions, the role of machine learning)
- Natural Language Processing (Part-of-Speech taging methods, information extraction)
- Complexity (complexity theory, computation learning theory)
- Algorithms (approximation algorithms, on-line algorithms)

The Research Group welcomes PhD students in the fields of Artificial Intelligence for one academic year. Knowledge of English is necessary.

The Research Group would also like to take part in international Research and Development Projects.

Contact:

Mr. Tibor KOVÁCS ■ Managing
Director ■ Regional Cooperation
Research Center of Life and Material
Sciences, University of Szeged ■
H-6720 Szeged, Dugonics tér 13. ■
(+36 62) 544 830 ■ kovacst@rekt.uszeged.hu ■ www.u-szeged.hu

3.3 Regional Cooperation Research Centre of Life and Material Sciences (Dél-Alföldi Élet- és Anyagtudományi Kooperációs Kutatási Központ, DEAK)

Research, a short introduction:

The Regional Cooperation Research Center of Life and Material Sciences (DEAK) is a financially detached unit of the University of Szeged. The Research Center started its activity in January 2005 for a mid-term period of 3 years, supported by EU and governmental contributions and also private finances. DEAK now has 10 industrial partners. DEAK's mission is to promote the development of the knowledge-based economy in the Southern Great Plain Region of Hungary by creating and adapting into practice hi-tech achievements, based on the requirements of the industrial partners. Our main goal is to establish long-term cooperation with DEAK's industrial partners to promote the realization of our common aims, based on the intellectual potential, and the research & education capacity of the University of Szeged. By the technology-transfer, we believe that these facilities can strengthen one another to achieve our goals. We establish DEAK to develop an intellectual basis which will be able to manage the whole innovation process from the basic research up to the exploitation of the created intellectual property. Via its management, DEAK is suitable to bring up the University's activity to the economy's real expectations, generating R&D projects in the field of life and material sciences. The program includes 5 fields of research. In the life-sciences there are projects on medical image creation (source of beam, software), medical diagnostics, cosmetics (prevention of skin aging, laser treatments). In the material sciences there are strategic material and biotechnological researches in the field of renewable energies and waste-management (operation of gas, reform of etanol, biogas, fermentation of biohidrogen, microbiolic remediation).

The academic research groups and their industrial partners work together in five detailed research directions:

- Development of diagnostical instruments and methods for medical image creation. In this programme Prof. Gábor SZABÓ's research group by cooperation with GE Healthcare perform optical and IT improvement of the instruments.
- The researchers of the University's Department of Dermatology lead by Prof. Lajos KEMÉNY, in the programme of cosmetology – develop common research base with the Florin joint-stock company to identify target molecules which are responsible for the mediation of UV effect and participated in the antimicrobial protection.
- Prof. András ERDŐHELYI's group researches renewable and unused energy sources and new type of energy carriers, using nanotechnology structures in their storage units.

- In the programme of bioremediation lead by Prof. Kornél KOVÁCS the researchers produce biogas with the help of suitable bacteriums in a safer and more effective way and also use microorganisms to clean the oil polluted surfaces.
- The waste-management programme lead by Prof. Imre KIRICSI works on developing methods and trading forms for recycling metallurgical and oil industrial mass-formed waste.

The Research Center welcomes PhD students and researchers in any field of the project.

3.3 Bay Zoltán Foundation for Applied Research Institute for Materials Science and Technology (Bay Zoltán Alkalmazott Kutatási Alapítvány Anyagtudományi és Technológiai Intézet)

Research, a short introduction:

Main research fields are:

- Metal Technology and Simulation
- Laser Technology
- Polymer Composite Research
- Nanotechnology (Electrochemistry, Mechanical Alloying)
- Environmental Sensors and Monitoring

The Institute welcomes PhD students and young pre- or post-doctoral researchers for 6 months, 1 year and more. Knowledge of English is necessary.

The Institute would also like to take part in international Research and Development Projects.

Contact:

Prof. Erika KÁLMÁN ■ Director of the Institute ■ Bay Zoltán Institute for Materials Science and Technology ■ H-1025 Budapest, Fehérvári út 130.

■ (+36 1) 463 0531 ■ e.kalman@bzaka.hu

4 HEALTH SCIENCES



- 4.1 Medical Sciences 74
- 4.2 Neurosciences 84
- 4.3 Pharmacological 87 Sciences

4.1 MEDICAL SCIENCES

4.1 Department of Physiology, Semmelweis University (Semmelweis Egyetem, Élettani Intézet)

Research, a short introduction:

- Regulation of Effector Functions of Phagocytic cells
- Regulation of Plasma Membrane Receptors
- Mitochondrial Function
- Physiology of Potassium Channels

The Department welcomes young researchers in the fields of Regulation of Effector Functions of Phagocytic cells, Regulation of Plasma Membrane Receptors and Physiology of Potassium Channels for 1 year or more.

Knowledge of English or Hungarian is essential.

The Department would also like to take part in international Research and Development Projects.

4.1 1st PhD Department of Pathology and Experimental Cancer Research, Semmelweis University (Semmelweis Egyetem, 1. számú Pathológiai és Kísérleti Rákkutató Intézet)

Research, a short introduction:

- Oncopharmacogenomics: Identification and functional analysis of genes ivolved in drug sensitivity especially those, which regulate apoptosis and cell survival.
 Identification of new molecular markers to better predict prognosis and stratify therapeutic protocols.
- Molecular genetic components of lymphomagenesis, transformation and progression.
- Signal transduction of receptors involved in induction of apoptosis such us Fas/CD95, receptors of TRAIL / APO2L and TGF-beta.
- Molecular mechanisms of different forms of cell death.
- The role of the extracellular matrix (ECM) in angiogenesis, invasion and metastasis, but also in carcinogenesis and drug sensitivity of tumour cells.

The Department welcomes PhD students, pre- and post-doctoral young and senior researchers for a few months and up to several years in the fields of Transformation and Progression of Lymphomas; New Molecular Diagnostic Methods in Pathology and Functional Genomics in Onco-hematology; the Role of the ECM on Metastasis, Invasion, Cellular Motility and Drug Sensitivity of Tumour Cells; Signal Transduction of Death Receptor Induced Apoptosis (Fas, TRAIL-receptors); TGF-Beta-induced Apoptosis in Lymphomas. Knowledge of English is necessary.

The Department would also like to take part in international Research and Development Projects.

4.1 PhD School for Molecular Medical Sciences, Semmelweis University (Semmelweis Egyetem, Multidiszciplináris Molekuláris Orvostudományi Doktori Iskola)

Research, a short introduction:

The postgraduate school of molecular medical sciences serves for both biomedical basic research and primary training of researchers starting their careers in the fields of clinical research. One short coming of biomedical research is that there is no effi-

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czirjak@puskin.sote.hu

Contact:

Mr. István PETÁK ■ Senior Researcher ■ 1st Department of
Pathology and Experimental Cancer
Research, Semmelweis University ■
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ipetak@fulbrightweb.org

Contact:

Prof. József MANDL or Ms Ágota
VÉR ■ Senior Lecturer ■ PhD
School for Molecular Medical Sciences, Department of Medical Chemistry,
Molecular Biology and Pathobiochemistry, Semmelweis University ■
H-1444 Budapest, P. O. Box 260. ■
(+36 1) 266 2755 ext. 4118 ■
molorv@puskin.sote.hu

cient connection between basic and clinical research. Therefore, five main programmes involve applied theoretical knowledge together with clinical research.

- Cellular and Molecular Physiology; Coordinator: Prof. András SPÄT
- Pathobiochemistry; Coordinator: Prof. József MANDL
- Embryology, Theoretical, Experimental and Clinical Developmental Biology; Coordinator Prof. Imre OLÁH
- Human Molecular Genetics and Gene Diagnostics; Coordinator Prof. András FALUS
- Basic and Clinical Immunology; Coordinator Prof. Péter GERGELY

The PhD School welcomes PhD students or pre-doctoral researchers for 1 academic year and more in the fields of Biochemistry, Physiology, Molecular Biology, Immunology, Embrology. Knowledge of English or German is essential. The PhD School would also like to participate in international Research and Development Projects.

Contact

Prof. László ROSIVALL ■ Head ■
PhD School for Medical Sciences,
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fax: (+36 1) 210 0100 ■ rosivall@
net.sote.hu ■ www.phd1.sote.hu

4.1 PhD School of Basic Medical Sciences, Semmelweis University (Semmelweis Egyetem, Elméleti Orvostudományok Doktori Iskola)

Research, a short introduction:

- Ischaemic cardiovascular diseases physiological and clinical aspects
- Mechanisms of normal and pathological functions of the circulatory system
- Biological effects of ionising and non-ionising radiation
- Renal physiology and pathophysiology from molecules to bedside
- Cardiovascular effects of endogenous cardio- and vasoactive substances as well as pharmacological preparations physiological and pathophysiological aspects

International PhD students and pre-/post-doctoral researchers are encouraged to join the on-going research projects of the PhD School. English is the language of instruction and communication. *Please visit our website for details: www.phd1.sote.hu*. The PhD School welcomes any offer or proposal for international joint research and development cooperation.

Contact:

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Balassa u. 6. ■ (+36 1) 210 0336 ■
bitter@psych.sote.hu

4.1 Interdisciplinary Doctoral School, Semmelweis University (Semmelweis Egyetem, Interdiszciplináris Doktori Iskola)

Research, a short introduction:

The PhD training and research areas of the Interdisciplinary Doctoral School No. IV of the Semmelweis University offers methodological training and research opportunity for PhD students interested in conducting research in the interdisciplinary areas of clinical practice and behaviour and mental health sciences.

The School constitutes of an integrative field which creates a bridge between the paradigms of natural and social sciences. It studies screens human behaviour form a medical, biological, psychological and social perspective, and provides an opportunity for defining, establishing and analysing the components of healthy behaviour, the biological, psychological and social risk factors of diseases, as well as investigating the background of self-destructive behavior conduct and the development of attitudes to protect health. Mental health sciences examine the regularities and the possibilities of developing human behaviour from an interdisciplinary and integrative perspective relying on achievements of Psychiatry, Psycho-pharmacology, Clinical Psychology, Electro-physiology, Sociology, Anthropology, Bioethics, Psycho-physiology and Neurophysiology.

The Interdisciplinary Doctoral School of Semmelweis University welcomes researches in the following fields: Psychiatry, Psycho-pharmacology, Clinical Psychology, Electro-physiology, Sociology, Anthropology, Bioethics, Psycho-physiology and Neuro-physiology.

4.1 PhD School for Biomedical Sciences, University of Pécs (Pécsi Tudományegyetem, Elméleti Orvos-tudományi Doktori Iskola)

Research, a short introduction:

The PhD School offers 4 major and 11 associated programmes for postdoctoral training both in basic and clinical sciences. The programmes are closely related to high quality research, supported either by Hungarian Academy of Sciences or a variety of foundations, and are carried out in over 10 departments and research groups at the University. The programmes cover many important fields of Neuropharmacology, Neurosciences, Neuroendocrinology and Immunology, and have strong international relations including collaboration, joint research and publications as well as exchange of students and senior scientists.

The PhD School welcomes PhD students, post-doctoral and young and senior researchers for 1 year in the fields of Neropharmacology, Neurosciences, Neuro-endocrinology, Molecular Biology, Microbiology and Immunology. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

4.1 PhD School for Clinical Sciences, University of Debrecen (Debreceni Egyetem, Klinikai Orvostudományi Doktori Iskola)

Research, a short introduction:

- Clinical Immunology
- Clinical Oncology
- Epidemology of Diseases

The PhD School welcomes PhD students and young post-doctoral researchers in Clinical Immunology for less than 6 months. Condition: mutual exchange of PhD students with other Departments. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

4.1 Department of Medical Genetics and Child Development, University of Pécs (Pécsi Tudományegyetem, Orvosi Genetikai és Gyermekfejlődéstani Intézet)

Research, a short introduction:

- Genetic Background of Mental Retardation
- Mitochondrial Diseases
- Genetic Instability

The Department welcomes PhD students and young post-doctoral researchers in the Aetiology of Mental Retardation for less than 6 months. Knowledge of English and/or German is necessary.

Contact:

Prof. János SZOLCSÁNYI ■ Head of PhD School for Biomedical Sciences

- Department of Pharmacology and Pharmacotherapy, University of Pécs
- H-7602 Pécs, Szigeti u. 12. (+36 72) 536 217 ■

janos.szolcsanyi@aok.pte.hu

Contact:

Mr. Gyula SZEGEDI ■ Full Professor ■ PhD School for Clinical Sciences, 3rd Department of Internal Medicine University of Debrecen ■ H-4004 Debrecen, Móricz Zs. u. 22. ■ (+36 52) 414 969, (+36 52) 311 087 ■ szegedi@iiibel.dote.hu

Contact:

Mr. György KOSZTOLÁNYI ■ Head of Department of Medical Genetics and Child Development ■ Medical Faculty, University of Pécs ■ H-7623 Pécs, József Attila u. 7. ■ (+36 72) 535 977 ■ gyorgy.kosztolanyi@aok.pte.hu

The Department would also like to take part in international Research and Development Projects.

4.1 School for Molecular Medical Sciences, University of Pécs Department of

Biochemistry and Medical Chemistry, University of Pécs (Pécsi Tudomány-

egyetem, Biokémiai és Orvosi Kémiai Tanszék, Molekuláris Orvostudományok

Contact:

Mr. Ferenc GALLYAS Jr. ■ Associate
Professor ■ School for Molecular
Medical Sciences, Department of
Biochemistry and Medical Chemistry,
University of Pécs ■ H-7624 Pécs,
Szigeti út 12. ■ (+36 72) 536 276 ■
ferenc.gallyas@aok.pte.hu

Kutatócsoport)

Research, a short introduction:

Major topics:

- Mitochondrial permeability transition in apoptotic processes.
- Mechanism of cell death of cardiac and neuronal cells during ischemia-reperfusion.

The School welcomes PhD students and pre- or post-doctoral researchers for stays of 6 months or more. Knowledge of English or German is essential.

The School would also like to take part in International Research and Development Projects.

Contact:

Prof. Balázs SÜMEGI ■ Head of
PhD School ■ Department of Biochemistry and Medical Chemistry,
University of Pécs ■ H-7624 Pécs,
Szigeti út 12. ■ (+36 72) 536 276 ■
balazs.sumegi@aok.pte.hu

4.1 PhD School for Multidisciplinary Medical Sciences, Department of Biochemistry and Medical Chemistry, University of Pécs (Pécsi Tudományegyetem, Biokémiai és Orvosi Kémiai Csoport, Multidiszciplináris Orvostudományok Doktori Iskola)

Research, a short introduction:

Major topics:

- Identification of novel genes playing pivotal role in the molecular mechanism of inflammation.
- Effect of ADP-ribosylation in different cell signalling pathways.
- Effect of poliphenols on covalent modification of transcription factors.

The PhD School welcomes PhD students and pre- or post-doctoral researchers for stays of 6 months or more. Knowledge of English or German is essential.

The PhD School would also like to take part in International Research and Development Projects.

Contact:

Prof. Yvette MÁNDI MD DSc ■ Head of PhD School for Interdisciplinary Medical Sciences ■ Department of Medical Microbiology, University of Szeged ■ H-6720 Szeged, Dóm tér 10. ■ (+36 62) 545 115 ■ yvette@comser.szote.u-szeged.hu

4.1 PhD School for Interdisciplinary Medical Sciences, University of Szeged (Szegedi Tudományegyetem, Interdiszciplináris Orvostudományi Doktori Iskola)

Research, a short introduction:

The study of cytokine gene polymorphism in septic disease. The role of cytokine production in Helicobacter pylori infections. The role of cytokins in Mycobacterium tubercolosis infection. The connection of cytokines and apoptosis in cardiac and haematological disease. Pathogenesis of congenital human cytomegalovirus (CMV) infection (the role of viral – and immunological factors, the role of placenta, genetic susceptibility to CMV infection). The study of the roles of CMV and Chlamydia pneumonia in the development of atherosclerosis. The role of the proton pump in the resistance of bacteria, funghi and cancer cells, synergism between inhibitors and chemotherapeutics. Antiplasmid effects on bacteria and funghi in combined population. Multidrug resistance in cancer cells, the effects of resistance modifiers on the drug uptake of cancer cells. Our programme is supplemented recently with the Preventive medicine subprogram and with the Evidence based medicine subprogramme.

The PhD School welcomes PhD students and pre-doctoral researchers for 6 months in the following fields: Study of cytosine gene polymorphism in septic diseas. The role of cytosine production in Helicobacter pylori infections. The pathogenesis of congenital human cytomegalovirus (CMV) infection (the role of viral – and immunological factors, the role of placenta, genetic susceptibility to CMV infection). Antiplasmid effects on bacteria and fungi in combined population. Multidrug resistance in cancer cells the effects of resistance modifiers on the drug uptake of cancer cells. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

4.1 PhD School for Clinical Medical Sciences, Dental Medicine Programme, Department of Dentistry and Oral Surgery, University of Szeged (Szegedi Tudományegyetem, Fogorvostudományi Kutatások Alprogram, Fogorvostudományi és Szájsebészeti Tanszék, Klinikai Orvostudományi Doktori Iskola)

Research topics:

- Biointegration of alloplastic materials
- Ethiopathogenesis and functional maintain of periodontal involved teeth
- Maintain and conservative restoration of teeth with caries or pulp disease
- Primer and secondary developmental anomalies of face, as well as its corrective and surgical treatment in orthodontics
- Research in oral and clinical microbiology
- Prosthetic rehabilitation following tumor surgery and its effect on quality of life
- Changes of the oral bacterial flora as a side effects of oral cancer therapy (chemoradio)
- Salivary glands and saliva secretion in health and disease
- Epidemiology of stomato-oncologic diseases, immunological aspects of thermal surgery comparison with other modalities

The PhD School welcomes PhD students and pre-doctoral researchers. Knowledge of English is essential.

The PhD School would also like to participate in international Research and Development Projects.

4.1 PhD Programme in Biochemistry, Biophysics, Molecular and Cell Biology, Graduate School of Multidisciplinary Medicine, University of Szeged, Faculty of Medicine, Department of Biochemistry (Szegedi Tudományegyetem, Multidiszciplináris Orvostudományok Doktori Iskola; Biokémia, Biofizika, Molekuláris és Sejtbiológia PhD Képzési Program)

Research, a short introduction:

PhD Programmes in Biochemistry, Biophysics, Molecular and Cell Biology (in the frame of the Graduate School of Multidisciplinary Medicine)

4.1 Institute of Clinical Microbiology, University of Szeged (Szegedi Tudományegyetem, Klinikai Mikrobiológiai Diagnosztikai Intézet)

Research, a short introduction:

The routine clinical microbiological isolation of pathogenic microbes in our laboratory serves as the basis of our research on the molecular biological characterization

Contact:

Prof. Zoltán RAKONCZAY ■ Head of Dental Medicine Programme ■ H-6720 Szeged, Tisza Lajos krt. 64–66. ■ (+36 62) 545 301 ■ rz@comser.szote.u-szeged.hu ■ www.u-szeged.hu

Contact:

Prof. László DUX MD, PhD, DSc ■
Head of Depeartment ■ Programme
in Biochemistry, Biophysics, Molecular
and Cell Biology, Faculty of Medicine,
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www. biochem.szote.u-szeged.hu

Contact:

Prof. Elisabeth NAGY ■ Full Professor ■ Institute of Clinical Microbiology, University of Szeged ■ H-6725 Szeged, Somogyi Béla tér 1. ■ (+36 62) 545 712 ■ nagye@mlab.szote.u-szeged.hu ■ www.szote.u-szeged.hu/clinmicro

of some important pathogens, including their virulence and antibiotic resistance traits. The main target organisms are the important anaerobic Bacteroides genus, oral and enteric anaerobic pathogens, with emphasis on Clostridium difficile as a producer of several enterotoxic proteins, Enterobacteriaceae as extended-spectrum-lactamase expressors and sexually-transmitted pathogens, mainly as Mycoplasma genitalium. The Bacteroides studies involve molecular examination of their virulence properties, mobile genetic elements and the important antibiotic resistance mechanisms for cephamycins, carbapenems and nitroimidazoles. We use various molecular typing methods (pulsed-field gelelectrophoresis, RAPD-PCR and ribotyping) to follow the epidemiology and determine the genetic relatedness of these pathogens.

The Institute welcomes PhD students and young post-doctoral researchers in the field of the molecular biology of human anaerobic pathogens for 6 months or less. Knowledge of English is necessary for the research work.

The Institute would also like to take part in international Research and Development Projects.

Contact:

Prof. László OROSZ ■ Chairman ■
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4.1 Research Group for Molecular Genetics, Hungarian Academy of Sciences and Eötvös Loránd University (Molekuláris Genetika Kutatócsoport, Magyar Tudományos Akadémia és Eötvös Loránd Tudományegyetem)

Research, a short introduction:

- Developmental Genetics: Signalling Pathways, Mesodern Differentiation, and Bone Morphogenesis.
- Model Systems: Ccaenorhabditis Elegans, Development of the Antler of Red Deer
- Prokaryotic Genetics: DNA-protein Sequence Specific Bindings, Site-Specific Recombination, Molecular genetics of industrial micro-organism, phage Lambda Display.

The Research Group welcomes PhD students and pre-doctoral researchers from 6 months to 1 year or morein the fields of Molecular Genetics (developmental genetics on lacnorhabdities elegans, bone morphogenesis on antler) and Microbial Genetics (bacteria of agricultural, biomedical and industrial importance). Knowledge of English or Hungarian is necessary.

The Research Group would also like to take part in international Research and Development Projects.

Contact:

Mr. Róbert KIRÁLY ■ Research
Officer ■ Research Group of Apoptosis and Signalling, Hungarian
Academy of Sciences and University
of Debrecen, Medical and Health
Center, Faculty of Medicine, Department of Biochemistry and Molecular
Biology ■ H-4012 Debrecen, P. O.
Box 6. ■ (+36 52) 416 432 ■
kiralyr@indi.biochem.dote.hu

4.1 Research Group for Apoptosis and Signalling, Hungarian Academy of Sciences and University of Debrecen (Jelátvitel és Apoptózis Kutatócsoport, Magyar Tudományos Akadémia és Debreceni Egyetem)

Research, a short introduction:

The major research interest of the group is to study (in vivo and in vitro) apoptosis by approaching from different aspects, using various experimental organism with and emphasis on the function, structure, biochemistry and enzimology of transglutaminases (one of the effector element of apoptosis), T cell death modulation by retinoids, mechanism of activation induced T cell death. Recent studies are focus on identification of protein substrates for Tgase (in Nematodes, Insects, Mammalians), analysis of function of protein transglutamination in apoptosis, calcium binding of transglutaminases (NMR study combined with surface polarity analysis), nuclear translocation of Tgase, the role of transglutaminase in coeliac disease.

The Research Group welcomes PhD students and young pre- or post-doctoral

researchers for stays of 6 months or 1 year and more. Knowledge of English is necessary.

The Research Group would also like to take part in international Research and Development Projects.

4.1 Research Group for Membrane Biology and Immunopathology, Hungarian Academy of Sciences and Semmelweis University (Membránbiológiai és Immunkórtani Kutatócsoport, Magyar Tudományos Akadémia és Semmelweis Egyetem)

Research, a short introduction:

The Membrane Biology and Immunology Research Group works in the area of cellular membrane transport proteins. Primary research projects focus on the investigation of the human ABC (ATP Binding Cassette) transporters and the active calcium transport proteins.

ABC transporters include a family of multidrug resistance (MDR) proteins, with a key role in clinical multidrug resistance, a phenomenon that hinders the effective chemotherapy of tumours. These proteins are also involved in the elimination of various xenobiotics in the human body. The projects of the group include the investigation of several human ABC transporters involved in MDR, in cellular lipid metabolism and other diseases as well. The Group performs the expression and characterizations of mutant human MDR protein variants, studies specific regions of these proteins. Members of the Group also develop new fluorescence-based transport assays, and characterize clinically applicable new compounds for their interactions with these proteins.

The members of the research group perform detailed biochemical and cell biology studies on ATP-dependent active calcium transport proteins. They examine the protein regions involved in the cellular regulation of the expression and transport function of the plasma membrane and endoplasmic reticulum calcium transporters.

The Research Group welcomes PhD students and young post-doctoral researchers in the field of membrane biology.

The Research Group also actively participates in international Research and Development Projects.

4.1 Research Group for Nephrology and Paediatrics, Hungarian Academy of Sciences and of Semmelweis University (Gyermekgyógyászati es Nephrológiai Kutatócsoport, Magyar Tudományos Akadémia es Semmelweis Egyetem)

Research, a short introduction:

Recent studies indicate that immune cells' dysfunction plays a central role in the development of perinatal complications of preterm neonates. At the Research Laboratory of the First Department of Paediatrics, Semmelweis University, we focus on the inflammatory, hormonal and free-radical mediated pathogenic processes that might lead to the damage of lungs, eyes, kidneys, bowels and brain. For this purpose, several experimental and clinical studies are being under way. In in vitro experiments, lymphocytes are isolated from septic neonates and their cytokine production is tested under various external stimuli. The responsiveness of lymphocytes was altered in septic neonates compared to healthy ones. Animal experiments are used to shed light on the importance of cytokine and heat shock protein gene expression in the defense against ischemia-reperfusion injury. We found, that sexual steroid hormones through these agents might have profound effect on the progres-

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sion and severity of renal lesions following ischemia-reperfusion injury. In clinical settings, we have proven, that during the first postnatal days a quick decrease of blood iron levels might play a role in the antioxidant defense of the neonates against reactive oxygen species injury. Genetic analyses of nearly 200 preterm neonates suggest, that the presence of some genetic polymorphisms of inflammatory cytokines, angiogenic factors and members of renin-angiotensin system leading to exaggerated inflammatory and vascular response might be associated with increased risk for patent ductus arteriosus, acute renal failure, necrotising enterocolitis, retinopathy and bronchopulmonary dysplasia in preterm babies. Our epidemiological studies indicate that low birth weight is associated with higher blood pressure, more intense bone turnover and altered adrenal hormone levels in apparently healthy young adults.

The Research Group would like to participate in international Research and Development Projects.

Contact

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4.1 Research Group for PET, Hungarian Academy of Sciences and University of Debrecen (PET Kutatócsoport, Magyar Tudományos Akadémia és Debreceni Egyetem)

Research, a short introduction:

Based on a relatively high number of diagnostic investigations using positron emission tomography special studies are conducted on the role and value of this technique in the oncology, neurology and cardiology. Aiming the localisation of different mental functions, brain activation studies are carried out using 15 O-labelled butanol as brain perfusion tracer. Parallel to the above investigations radiochemical development programmes are in progress to synthesise receptor specific ligands labelled with the positron emitting isotopes 18 F (110 min half life) and 11 C (20 min half life).

The Research Group welcomes PhD students, pre- or post-doctoral and young and senior researchers for 6 months or 1 year and more in the fields Brain Activation (using the PET method), Development and Biological/Pharmacological Evaluation of Receptor Specific Radioligands. Knowledge of English is necessary.

The Research Group would also like to take part in international Research and Development Projects.

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4.1 Research Group for Immunogenomics, the Hungarian Academy of Sciences and Semmelweis University (Immungenomikai Kutatócsoport, Magyar Tudományos Akadémia és Semmelweis Egyetem)

Research, a short introduction:

The studies at the Immunogenomics Research Group focuses on Molecular Cell Biology, Immunology and Immunogenomics.

Major topics:

- Histamine Biology (immunology, molecular genetics on Transgenic animals) focusing on the role of histamine in tumours and the phenotype of histamine free mice.
- Structural and Functional Genomics of Oncology (including chemokine variants in asthma as well as gene expression pattern of ALL children)
- T Cell repertoire and Epitope Hierarchy in Expermental Arthritis Induced by Proteoglycans
- Stem Cell Research, the Gene Expression Pattern of Human (umbilical) and Mouse (embryonic) Stem Cells.

The Research Group welcomes PhD students, pre- and post-doctoral and young researchers for stays or 6 months to one academic year in the fields of Immunology, Clinical Genomics and Molecular Cell Biology. Knowledge of English is necessary. The Research Group would also like to take part in international Research and Development Projects.

4.1 Research Group for Molecular Genetic, Hungarian Academy of Sciences and the Semmelweis University (Molekuláris Genetikai Kutatócsoport, Magyar Tudományos Akadémia és Semmelweis Egyetem)

Research, a short introduction:

Early genetic reprogramming in the course of experimental cardiac hypertrophy. Development of cardiac hypertrophy in diabetes mellitus. The influence of ditary fatty acid on cardiac hypertrophy. Natriuretic peptides as makers of tissue proliferation in the cardiovascular system.

The Research Group welcomes PhD students and pre-doctoral researchers in Cardiovascular physiology research fields for up to 6 months. Knowledge of English or Hungarian is necessary.

The Research Group would also like to take part in international Research and Development Projects.

4.1 Department of Molecular and Cell Biology, Fodor József National Centre for Public Health (Fodor József Országos Közegészségügyi Központ, Kémiai Biztonsági Intézet, Molekuláris és Sejtbiológiai Osztály)

Research, a short introduction:

The Department of Molecular and Cell Biology performs in vitro examination of various toxic environmental exposure factors and chemoprotective agents. The toxic chemicals studied are metal ions, substances with estrogen-like biological activity, herbicides, etc. Chemoprotective properties of polyphenols (trans-resveratrol), wheat germ extract (Avemar), humic acid derivatives (Humet-R), and antioxidants (lycopine, ascorbate, N-acetylcisteine, L-carnitine, etc) are investigated. Test systems are performed on transformed and non-transformed human cell lines, primary cultures of mouse Leydig cells and human granulosa cells. Studies include viability (MTT), DNA fragmentation (comet assay), cell cycle and apoptosis (flow cytometry), gene expression (quantitative rt-PCR, western blot), and antioxidant capacity (chemiluminescence assay). Biological effects of chemicals and non-ionizing radiation (50 Hz and 1800 MHz electromagnetic field) are studied on primary cultures of gonadal cells by measuring the viability, changes in hormone secretory activity (testosterone, progesterone), cytoskeletal structure and cellular distribution of adherent cell contact proteins.

The Centre welcomes PhD students, pre- or postdoctoral young researchers in the field of cytogenetics, molecular, genetic, and immune toxicology. Knowledge of English is necessary.

4.1 Department of Cytogenetics and Immunology, Fodor József National Centre for Public Health (Fodor József Országos Közegészségügyi Központ, Kémai Biztonsági Intézet, Citogenetikai és Immunológiai Osztály)

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Research, a short introduction:

The main area of research at the Department of Cytogenetics and Immunology is the detection of geno- and phenotypic effects of environmental and/or worksite hazardous chemicals in context with the primary prevention of chronic non-infectious diseases (especially cancer). Classic cytogenetic, molecular genetic and immune toxicology approaches are used in order to obtain an adequate risk assessment. Another field of interest is the investigation of mutagenic and antimutagenic activities during the initiation of chronic non-infectious diseases.

The Centre welcomes PhD students, pre- or post-doctoral young researchers in the field of cytogenetics, molecular, genetic, and immune toxicology. Knowledge of English is necessary.

4.1 National Institute of Environmental Health Fodor József National Center for Public Health (Fodor József Országos Közegészségügyi Központ, Országos Környezetegészségügyi Intézet)

Research, a short introduction:

Major EU-supported projects in which the National Institute of Environmental Health participates: European coordinated action programme on the quality of indoor air (ENVIE); Environmental health surveillance system in urban areas around waste incinerators and industrial sites (ENHanceHealth); Integrated evaluation of air quality by remote monitoring network (ICAROS NET); Implementing environment and health information system in Europe (ENHIS); Horizontal standards on hygienic microbiological parameters for implementation of EU directives on sludges, soils, soil improvers, growing media and biowastes (HORIZONTALHYG); Development of common references of risk assessment for contaminated land in Europe (pilot project); Prevention of acute health effects of weather conditions in Europe (PHEWE); Arsenic health risk assessment and molecular epidemiology (ASHRAM); Pollution and the youngs (PATY); European network on children's susceptibility and exposure to environmental genotoxicants (CHILDRENGENONETWORK); Environmental cancer risk, nutrition and individual susceptibility (ECNIS); European network of DNA, cell and tissue banks for rare diseases (EUROBIOBANK).

The Centre is open for bilateral and multilateral collaborations in environmental health research.

4.1 Medical and Technical Research Group, Phototherapeutical Medical Device, Research and Development, Manufacturing and Sales Rhinolight Ltd. (Fényterápiás orvosi eszközök kutatása, fejlesztése gyártása és forgalmazása, Rhinolight Kft.)

Research, a short introduction:

Research and Development of the combinated cool light for treating allergic hinitis. The Research Group welcomes partners from clinical and medical departments who are interested in taking part in the trial of our light therapy instrument and also to use it.

4.1 Medical and Technical Research Group, Human Authologous Cell Therapy Human Cellbank Biotechnology PUC (Humán Autológ Sejtterápia, Emberi Sejtbank Biotechnológia KHT)

Research, a short introduction:

Culturing and transplantation of human authologous keratinocytes, melanocytes

and fibroplast on chronic wounds and burned skin. Media preparation and citokin therapy.

The Research Group welcomes partners who would like to take part in our research and also who are interested about investment are welcome to contact us.

4.2 NEUROSCIENCES

4.2 Institute for Experimental Medicine, the Hungarian Academy of Sciences (Magyar Tudományos Akadémia Kísérleti Orvostudományi Kutatóintézete)

Research, a short introduction:

The Institute, located in Budapest, is the only research institution in Hungary dedicated exclusively to medical research. Its activity focuses on basic biomedical research, primarily in the field of Neuroscience, including studies on neurotransmission, learning and memory, behaviour, ischaemic and epileptic brain damage, as well as the central and peripheral control of hormone secretion. The research teams of the Institute employ multidisciplinary approaches: traditional well-established methodologies (e.g. in Anatomy, Electrophysiology, Neurochemistry and Pharmacology) are combined with novel gene technology and imaging techniques as well as with behaviour studies.

The Institute welcomes PhD students and young post-doctoral researchers subject to individual negotation for 6 months. Knowledge of English is essential.

The Institute would also like to participate in international Research and Development Projects.

4.2 Neuro-oncological Laboratory of the Department of Neurosurgery, University of Debrecen (Debreceni Egyetem, Idegsebészeti Klinika, Neuro-onkológiai Laboratórium)

Research, a short introduction:

The Neuro-oncological Laboratory has its own tumourbank. The tumour tissue samples are collected intra-operatively, frozen by liquid nitrogene, and stored at -80 °C. The nucleic acids (DNA, RNA) are also isolated from the tumours, and blood and skin samples are added to each tumor tissue as well and stored also in the ultradeep freezer. Neuro-oncological researches are performed by investigating the extracellular matrix and the membrane receptors (EGFR, integrins) of the intracranial tumours.

The Neuro-oncological Laboratory has no facilities to employ own researchers, but it is open for scientific cooperations.

4.2 Research Group on Neuroplasticity, Neurodegeneration and Neuroprotection Department of Comparative Physiology, University of Szeged (Szegedi Tudományegyetem, Neuro-protekció Tanszék, Munkacsoport az idegi plaszticitás, neurodegeneráció és neuroprotekció kutatására)

Research, a short introduction:

The effects of injury of the peripheral facial or trigeminal nerves and of the central nervous system (CNS) itself are studied. We are especially interested in the problem of the injury-induced reorganization and compensatory events in the CNS of

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developing and of adult animals. The mechanism of regeneration and compensatory events are studied in collaboration with partner institutes by behavioural, electrophysiological, morphological and molecular biological methods.

The following topics are studied:

- electrophysiological mapping of the cortex; changes in representational maps in sensorimotor and somatosensory cortices after peripheral impairment of the related nerves (microelectrode recordings),
- morphological and electrophysiological studies of changes in cortical and subcortical structures (MI, and primary somatosensory cortices, facial and trigeminal nuclei) after facial or trigeminal nerve injury (stereotaxic microelectrode recordings and immunohistochemistry) and
- possibilities of neuroprotection in the CNS by mani-pulation of the Kynurenergic pathway or with administration of steroids following focal or global ischemiainduced injury.

The Research Group welcomes

- PhD students in the fields of neuroplasticity, neurodegeneration and neuroprotection.
- Electrophysiologists, morphologists and scientists who carry out behavioural research activity.

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4.2 Group of Functional Neuroanatomy Department of Anatomy, Histology and Embryology, MHSC, University of Debrecen (Debreceni Egyetem, Funkcionális Neuroanatómia Csoport)

Research, a short introduction

The scientific interest of the group is focused on two topics:

- Organization of neural networks underlying nociceptive information processing and pain attenuation in the spinal cord and brainstem. Our research is focused on the synaptic relations, morphological, physiological and neurochemical properties of neural networks underlying nociceptive information processing and pain attenuation mechanisms in the spinal cord and brainstem. In addition to studying the nociceptive and antinociceptive mechanisms under normal conditions, we attempt to elucidate how the physiological, morphological and neurochemical properties of pain-processing neural networks in the spinal dorsal horn may change in inflammatory pain states. Results obtained from the proposed studies may lead us to a more exhaustive understanding of the structural, functional and chemical characteristics of neural networks that play crucial role in pain processing and attenuation, and through this may provide important data for the development of effective and non-addictive analgesics.
- Development, morphology and function of mammalian locomotor related spinal interneurons. The goal of this work is to identify, characterize and elucidate the development of groups of spinal interneurons that play a key role in generating and coordinating mammalian locomotion. In particular we propose to identify and characterize interneurons involved in left-right as well as flexor-extensor alternation by using a multidisciplinary approach that combines modern anatomical tracing techniques, electrophysiological recordings and neurotransmitter immunohistochemistry. Experiments are performed on prenatal, early postnatal and adult rats and mice to provide the opportunity for complementing these techniques with transgenic methodology for the elucidation of interneuron differentiation and synaptic connectivity during pre- and post-natal development. With this combination of approaches we should be able to obtain a new insight into genetic and epigenetic mechanisms by which mammalian motor circuits are established and function.

The Group welcomes researchers with documented experience in advanced neuroanatomical, in vivo and in vitro electrophysiological and molecular biological techniques.

4.2 Neurophysiology Research Group, Hungarian Academy of Sciences and University of Pécs (Magyar Tudományos Akadémia, Idegélettani Kutatócsoport és Pécsi Tudományegyetem)

Research, a short introduction:

Limbic mechanisms of endocrine regulation. Oestrogen receptors. Central regulation of hunger, satiety and body weight. Glucose receptor cells in the limbic system. Taste and odour related information processing. Motivation, learning and reinforcement. Neurochemical mechanisms of perception and addictive behaviour.

The Research Group welcomes PhD students, post-doctoral and young and senior researchers for less than 6 months and 1 year in Neurophysiology, Neuroanatomy, Neurochemistry, Endocrinology, Behavioural Sciences research fields. Knowledge of English is necessary.

4.2 Research Group for Neurobiology, Hungarian Academy of Sciences and Semmelweis University (Neurobiológiai Kutatócsoport, Magyar Tudományos Akadémia és Semmelweis Egyetem)

Research, a short introduction:

Neuroanatomy, neurobiology:

- Postnatal development, transmitter and receptor immunohystochemical architecture and plasticity of the cerebellum
- Morpho-functional changes following sensory deprivation; cross-modal plasticity. *Psychophysiology, psychophysics:*
- Types and mechanisms of visual attention
- Perceptual learning and plasticity of visual attentional modulation.

Mathematical neurobiology (computer simulation):

- Role of spike-trains in the possible coding of neuronal information in simple neuronal networks.

The Research Group welcomes PhD students for an academic year in neuroanatomy, Neurobiology, Psychophsysiology, Psychophsysiology, Mathematical Neurobiology (computer simulations). Knowledge of English is necessary.

The Research Group would also like to take part in international Research and Development Projects.

4.2 Neuroendocrine Research Laboratory, Hungarian Academy of Sciences and Semmelweis University (Neuroendokrin Kutatócsoport, Magyar Tudományos Akadémia és Semmelweis Egyetem)

Research, a short introduction:

The Neuroendocrine Research Laboratory has been dealing with neuroendocrinology for about three decades and has made several contributions to the field, providing data on the afferents of the hypophysiotrophic neurons, the asymmetry of the neuroendocrine system, autocrine and paracrine mechanisms, and on neuronal

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pathways involved in the control of anterior pituitary hormones. The research group is interested in the structural and functional organization of the hypothalamo-adenohypophysial-target endocrine gland system.

Currently the group is investigating:

- the neuromorphology and functional significance of glutamatergic innervation of hypothalamic cell groups;
- neural connections between the gonads and central nervous system structures and their role in the control of testosterone secretion and
- the control of prolactin secretion.

The research laboratory would welcome pre-doctoral researchers for 6 months or 1 year in various neuroendocrine fields, such as glutamatergic innervation of the hypothalamus, neural control of testosterone secretion and control of prolactin secretion. Knowledge of English is essential.

The research laboratory is also ready to participate in international Research and Development Projects.

4.3 PHARMACOLOGICAL SCIENCES

4.3 Institute of Pharmaceutical Chemistry, University of Szeged (Szegedi Tudományegyetem, Gyógyszerkémiai Intézet)

Research, a short introduction:

Synthetic Organic Chemistry, Medicinal Chemistry, Drug Research. Heterocyclic chemistry, Enantioselective transformations, Synthesis of small natural molecules, Enzyme-catalised selective transformations, Combinatorial chemistry, Peptide foldamers: Design, Synthesis, Structure Investigations

See research activities on the Institute's web-site:

www.szote.u-szeged.hu/gyki/indexe.htm

The Institute welcomes PhD students and pre- or post-doctoral young researchers for 6 months, 1 year and more in the fields of Heterocyclic Chemistry, Enantio-selective Transformations, Synthesis of Small Natural Molecules, Enzym-catalysed Selective Transformations, Combinatorial Chemistry, Peptide Foldamers: Design, Synthesis, Structure Investigations. Knowledge of English is essential. The Institute would like to have PhD students with a masters degree in Chemistry or Pharmacology. The Institute would accept pre- and post-doctoral researchers, too.

The Institute is also willing to participate in international Research and Development Projects.

Contact:

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Prof. Lajos GERGELY ■ Head of PhD School for Pharmacological Sciences ■ Institute of Medical Microbiology; Institute of Pharmacology, University of Debrecen ■ H-4012 Debrecen, P. O. Box 17. ■ (+36 52) 417 565 ■ mikro@jaguar.dote.hu

4.3 PhD School for Pharmacological Sciences, University of Debrecen (Debreceni Egyetem, Gyógyszertudományi Doktori Iskola)

Research, a short introduction:

Pharmacology:

- Neuro-humoral regulations of insulin sensitivity
- Ischaemia induced alterations in diabetic heart muscle *Microbiology:*
- Human papillomavirus infections of the lower genital tract
- Human immunodeficiency virus infections of natural killer cells

The PhD School welcomes PhD students and post-doctoral and young researchers for 1 year in Pharmacology Medical virology: herpes-, papilloma- and retroviruses research fields. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

4.3 PhD School for Pharmaceutical and Pharmacological Sciences, Semmelweis University (Semmelweis Egyetem, Gyógyszertudományi Doktori Iskola)

Research, a short introduction:

The PhD School for Pharmaceutical and Pharmacological sciences focuses on two scientific disciplines:

- Pharmacological research is needed to select new active substances, to develop and use medicinal products. In addition, new scientific results and discovered relationship may help to understand functions of human living organism.
- Pharmaceutical research is related to drug research, development of drug delivery systems as well as it is a prerequisite to produce and apply pharmaceutical preparations. Although pharmaceutical science involves the knowledge of other disciplines (e.g. chemistry and medical science), but the evaluation of medicinal products requires specialised knowledge from the viewpoint of this interdisciplinary science.

The PhD School welcomes PhD students, pre- and post-doctoral and young and senior researchers for up to 1 year in the following fields:

Study of bioactive substances of plant origin in connection with photochemical and biological evaluation as well as biotechnological production; pharmaceutical chemistry and analysis; design, manufacturing and biopharmaceutical evaluation of novel dosage forms; clinical pharmacy and pharmacoeconomics; study of organic compounds with potential bioactvity; investigation of medical and pharmaceutical aspects of biology and environmental protection; phamacodynamic investigations; pharmacokinetic and drug metabolism; influence on Neurochemical transmission; study of neurodegenerative and neuroprotactive mechanisms; cardiovascular pharmacological investigations; separation methods and their applicatons; study of drugs affecting on calcium and bone metabolism; human study of cytostatic drugs; role of iontransport mechanisms controlling Neurochemical transmission.

Knowledge of English or German is necessary.

The PhD School would also like to take part in international Research and Development Projects.

4.3 Department of Pharmaceutical Technology, University of Szeged (Szegedi Tudományegyetem, Gyógyszertechnológiai Tanszék, Gyógyszertechnológiai Munkacsoport)

Research, a short introduction:

Modification of physicochemical properties of drug materials

- change of the crystal habit (with additives or without additives): spherical crystallization (three solvent system); melt crystallization; surface treatment of the crystals; extrudation
- microwave irradiation in the change of crystal structure: treatment of the biopolymers (e.g. starches)
- amorphization of the crystalline materials: solvent evaporation method; hot melt technology; grinding method
- polymorphism: change of the polymorph modification

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Modification of bioavailability of drug materials

- modification of solubility and dissolution rate of drugs: liquid crystals; solubilization; change of the specific surface of drugs; micro- and nanoparticles; solid dispersion
- development of drug-carrier systems: transdermal system; gel emulsion; biodegredable system

Development of different dosage forms

- development of modified drug release
- solid dosage forms: tablet, capsule, coated tablet, etc.
- colloidal dosage forms: gel, solution, etc.
- dosage form for parenteral application: injection, infusion, etc.

The Department welcomes young researchers in the above listed topics. The Department of Pharmaceutical Technology offers a PhD programme.

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4.3 Rheological Research Group, Department of Pharmaceutical Technology, University of Szeged (Szegedi Tudományegyetem, Gyógyszertechnológiai Tanszék, Reológiai Kutatócsoport)

Research, a short introduction:

Investigation of rheological characteristics of ointments, creams, gels, different emulsions and suspensions; preparation and investigation of micro-and nanoparticles; examination of drug release from different semisolid and liquid dosage forms. The research group welcomes researchers dealing with pharmaceutical rheology and drug release.

4.3 Solid Dosage Forms Research Group, Department of Pharmaceutical Technology, University of Szeged (Szegedi Tudományegyetem, Gyógyszertechnológiai Tanszék, Szilárd Gyógyszerformák Kutatócsoport)

Research, a short introduction:

Research topics:

- Preformulation tests of drugs and auxiliary materials
- Tablet making and filmcoating. Capsule filling.
- Examination of compactibility of different materials
- Study of the process during compression with an instrumented tablet machine. Preparation and test of modified release tablets
- Study of the kinetic of the dissolution
- Study of the effect of components in the coating dispersion on the properties of films

Researchers who deal with solid dosage forms are welcome to our department.

4.3 Research Group for Antibiotics, Hungarian Academy of Sciences and Department of Pharmaceutical Chemistry, University of Debrecen (Magyar Tudományos Akadémia, Antibiotikum-kémiai Kutatócsoport és Debreceni Egyetem, OEC Gyógyszerészi Kémia Tanszék)

Research, a short introduction:

The Research Group works in a close cooperation with the Department of Pharmaceutical Chemistry at the University of Debrecen, and takes part in the basic teaching programmes of students in Chemistry and Pharmacology. The Group is carrying

out intensive scientific research on the structural elucidation, chemical synthesis, and structural modification of various antibiotics and related microbial products, including carbohydrate-containing representatives, beta-lactam antibiotics and beta-lactamaseinhibitors, etc. Further major research topics are: utilisation of carbohydrates and another substances as chiral pools in natural productssyntheses, molecular medicinal chemistry and drug design, computer-assisted molecular modelling of organic substances, and examination of the biomolecular recognition and structural features of organic substances by nuclear magnetic resonance (NMR) methods. The Group, along with the Hungarian Academy of Sciences, has developed fruitful international scientific collaboration with institutes at the major European and overseas academies.

The Research Group welcomes PhD students and young post-doctoral or senior researchers for 6 months or 1 year or more. In our post-graduate (PhD) programme the following major research topics are involved: search for new methodologies and reagents in organic synthesis, synthesis of glycopeptide-, carbohydrate-containing and beta-lactam antibiotics and their building blocks, de novo synthesis of carbohydrates, utilisation of carbohydrates and another substances as chiral pools in natural products syntheses, and examination of the biomolecular recognition and structural features of organic substances by nuclear magnetic resonance (NMR) methods. Knowledge of English, Russian or German is essential.

The Research Group would also like to participate in international Research and Development Projects.

4.3 R&D Unit, PannonPharma Ltd. (PannonPharma Kft., K&F Egység)

Research, a short introduction

- Generic pharmaceuticals of innovative, new drug delivery and corresponding development in clinical investigations, QC, QA, pharmaceutical technology.
- GMP driven and organized manufacturing of pharmaceutical and biotechnology processes
- GLP based method and porduct development

The Unit welcomes researchers:

- with high commitment to the development of new products, procedures
- with well evidenced ideas for joint business development.

4.3 HUMET Trade, Research and Development Plc. (HUMET Kereskedelmi, Kutatási és Fejlesztési Rt.)

Research, a short introduction:

Humifulvate is an unique material, a peat extract discovered by veterinary Dr. Elek Csucska. It is a special complex of amino-, humic and fulvic acids. Humifulvate is an active ingredient of HUMIFULVATE, HUMET(TA), HUMEVITA, HUMEA product family. The main effect of Humifulvate is removing heavy metals from human organism. Humifulvate based products are registered dietary ingredient in many countries around the world, registred as a medicine in Peru and listed as a NDI by FDA (USA). The research line is effective to develop Humifulvate as a medicine in Europe for two different efficacies.

The company welcomes chemists, medical doctors, biologists.

Contact:

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Contact

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Contact:

Mr. János CIVIN ■ Chairman of the Board ■ HUMET Trade, Research and Development Plc. ■ H-2000 Szentendre, Tavasz utca 8. ■ (+36 20) 421 1111 ■ civin@humet.hu ■ www.humet.hu

5 SOCIAL SCIENCES



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5.1 ANTHROPOLOGY

5.1 Institute of Ethnology of the Hungarian Academy of Sciences (Magyar Tudományos Akadémia Néprajzi Kutatóintézete)

Research, a short introduction:

The Institute of Ethnology was founded in 1967 with the intention to create better conditions for the development of ethnology in Hungary. The Institute deals with the study of the way of life, material culture and folklore of the Hungarian people in its ethnic, historical and social context and with regard to its European constituents, it investigates the rapid change of the contemporary peasantry as well as the general laws of social evolution. The Institute carries out and coordinates research in Hungary on all these targets. Publication of results, participation in international research and representation of Hungarian ethnology in international organizations were listed among its tasks, too.

The Institute welcomes PhD students, young pre- or post-doctoral or senior researchers in any of the fields covered by our research. Knowledge of English is essential.

5.1 PhD School for Hungarian and Comparative Folklore, Eötvös Loránd University (Eötvös Loránd Tudományegyetem, Néprajz és Kulturális Antropológiai Tudományok Doktori Iskola)

Research, a short introduction:

The PhD School of Hungarian and Comparative Folklore offers teaching and research activity for postgraduate students. The teachers in the School have published university handbooks and scholarly works.

The PhD School welcomes pre-doctoral researchers or students for stays of 6 months and less or 1 year and more in the fields of Hungarian and Comparative Folklore, Comparative Religion, Semiotics. Knowledge of various languages, including Hungarian is necessary.

The PhD School would also like to take part in international Research and Development Projects.

5.1 PhD School of Ethnology and Cultural Anthropology, Eötvös Loránd University (Eötvös Loránd Tudományegyetem, Néprajz és Kulturális Antropológiai Tudományok Doktori Iskola, Néprajz, Európai Etnológia program)

Research, a short introduction:

This doctoral programme intends to further infiltrate the modern concerns and research methods of European Ethnology in Hungary. The courses survey past and present ethnological (anthropological) trends in Germany, Britain, France, and Scandinavia, historical periods, theories and grand personalities of this branch of science. The programme consists of three major blocks:

- Levels of social organisation, local communities, families, households and the individual in society (life histories, social networks);
- The historical study of popular culture in European ethnology, its sources, methods and results (eras, periods, turning points, historical vertical and cross sections);
- Ecological interpretations, atlases, maps, and the possibilities of the cartographic method; folk culture in space, cultural borders, areas, zones, regions, and ethnic groups.

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Contact:

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Contact:

Mr. Tamás MOHAY ■ Head of
Department ■ Mr. Gyula KOCSIS ■
Senior Lecturer ■ PhD School for
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The majority of the research projects are related to the area of the former Hungary, the Carpathian basin, and Central Europe, priority is given to fieldwork in these areas. As far as topics are concerned priority is given to projects that examine historical forms, regional and local variations of material culture and traditional society in villages and other rural settlements. Besides projects with a historical approach, doctoral theses describing and analysing contemporary social and cultural processes are also welcome. If there are applicants to study the ethnic traditions of various ethnic groups in Hungary or other – mainly European – peoples, their research topic can also be fitted in with the research topics of the staff.

The PhD School welcomes PhD students, pre- or post-doctoral young and senior researchers for 6 months or 1 year. Knowledge of English or German is necessary. The PhD School would also like to take part in international Research and Development Projects.

Contact:

Prof. Eszter KISBÁN ■ Head of Interdisciplinary PhD School ■ PhD Programme of Ethnology–Cultural Anthropology, Interdisciplinary PhD School for Humanities, Department of Ethnology, University of Pécs ■ H-7624 Pécs, Rókus u. 2. ■ (+36 72) 503 650 ext. 3525 ■ ekisban@btk.pte.hu

5.1 PhD Programme of Ethnology-Cultural Anthropology, Interdisciplinary PhD School for Humanities, University of Pécs (Pécsi Tudományegyetem, Néprajz és Kulturális Antropológia Program, Interdiszciplináris Bölcsészettudományi Doktori Iskola)

Research, a short introduction:

European Ethnology, Hungarian and European Folklore, Cultural Anthropology, Finno-Ugric Studies.

The PhD School welcomes PhD students, pre- or post-doctoral and young and senior researchers for stays of 6 months and less or 1 year and more in the fields of European Ethnology, Hungarian and European Folklore, Cultural Anthropology, Finno-Ugric Studies. Knowledge of English, German, French or Russian is necessary. The PhD School would also like to take part in international Research and Development Projects.

5.2 ECONOMICS

5.2 Institute for World Economics, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Világgazdasági Kutatóintézet)

Contact:

Ms. Éva NAGY ■ Managing Director
■ Institute for World Economics,
Hungarian Academy of Sciences ■
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■ (+36 1) 224 6763 ■ nagyeva@vki.hu

Research, a short introduction:

- Comprehensive assessment of the processes occurring in world economy.
- Forecasting the changes and trends in the world economy to be expected in the medium and long term.
- Examining the enlarging and deepening processes in the EU, especially in relation to Hungary's accession.
- Comparative study of the economic transformation in the Central and Eastern European countries since the change of system.
- Monitoring the trends, industries, countries and groups of countries decisive to the Hungarian economy.
- Analysis of the trends and the global regional determinants and factors in international competitiveness.
- Examining the international competitiveness of Hungarian economy, exploring ways of increasing it through global, regional and bilateral cooperation, and devising economic-policy measures to enhance it.

The Institute would like to take part in international Research and Development Projects.

5.2 Institute of Economics of Hungarian Academy of Science (Magyar Tudományos Akadémia, Közgazdaságtudományi Intézet)

Research, a short introduction:

The Institute of Economics of the Hungarian Academy of Sciences is committed to international standards of fundamental and applied research in economics. It has focused increasingly on the analysis of the contemporary market economy and the transformation of Hungarian economy. The findings of the research programmes of the Institute are made available for and are regularly used by policy making bodies and universities.

The Institute puts emphasis on promoting academic cooperation with other Hungarian and European research centres. It also considers as a priority to develop stronger links with university departments and to take part in the education of the new generation of researchers.

5.2 PhD School for Management and Business Administration, Corvinus University of Budapest (Budapesti Corvinus Egyetem, Gazdálkodás és Szervezéstudományi Doktori Iskola)

Research, a short introduction:

Basic and applied research in areas related to Business Administration, Decision Theory, Business Economics, Production/Operations Management, Management and Organization, Marketing, Accounting, Corporate Finance, Environmental Management, Information Management, E-business, Behavioural Economics, Public Administration.

The PhD School welcomes PhD students and young post-doctoral or senior researchers for 6 months or 1 year in the research fields of Business Administration, Decision Theory, Business Economics, Production/Operation Management, Management and Organization, Marketing, Accounting, Corporate Finance, Environmental Management, Information Management, E-business, Behavioural Economics, Public Administration. Knowledge of English or German is essential. Faculty members would like to participate in international Research and Development Projects.

5.2 PhD School for Management and Business Administration: Enterprise Theory and Practice, University of Miskolc (Miskolci Egyetem, Gazdálkodás és Szervezéstudományok: Vállalkozáselméleti és Gyakorlati Doktori Iskola)

Research, a short introduction:

- Economic application of quantitative methods
- Business Economics
- Management
- Economics of the European Union
- International comparative investigations

Contact:

Mr. Károly FAZEKAS ■ Director ■
Labour Research, Institute of Economics, Hungarian Academy of Science
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uni-corvinus.hu

Contact:

Prof. Sándor KARAJZ ■ Secretary of PhD School ■ PhD School for Management and Business Administration, Enterprise Theory and Practice, Department of International Comparative Economics, University of Miskolc ■ H-3515 Miskolc-Egyetemváros ■ (+36 46) 565 194 ■ gettothl@gold.uni-miskolc.hu

The PhD School welcomes PhD students, young pre- or post-doctoral researchers for 1 year in Economic application of Quantitative Methods, Business Economics, Management, Economics of the European Union, International Comparative Investigations. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

Contact

Mr. Iván MAJOR ■ Head of PhD
School for Management and
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of Veszprém ■ H-8200 Veszprém,
Egyetem u. 10. ■ (+36 88) 62 4648 ■
Majori@almos.vein.hu

5.2 PhD School for Management and Business Administration, University of Veszprém (Veszprémi Egyetem, Gazdálkodás- és Szervezéstudományi Doktori Iskola)

Research, a short introduction:

The PhD School of Business Economics conducts research in three main areas: Agricultural Economics, Management Sciences and Economics. You can find more information about the School on its web-page, at www.vein.hu /doktori /

The PhD School welcomes PhD students or post-doctoral and young and senior researchers for 1 year. Knowledge of English or German is necessary. The PhD School would also like to take part in international Research and Development Projects.

Contact:

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borbelycs@mail.atk.u-kaposvar.hu

5.2 PhD School for Management and Business Administration, University of Kaposvár (Kaposvári Egyetem, Gazdálkodás- és Szervezéstudományok Doktori Iskola)

Research, a short introduction:

We deal with the resources of agricultural enterprises, the macro- and microeconomic problems of production. Most important fields are:

- Marketing Research,
- Region and Rural Development,
- Regional Policy.

The PhD School welcomes PhD students, pre-and young post-doctoral researchers for up to 6 months or more in the fields of Economical Problems of Animal Husbandry and Its Production; the Dairy and Meat Economy; Marketing; Region and Rural Development. Knowledge of English, German is necessary.

The PhD School would also like to take part in international Research and Development Projects.

Contact

Mr. György KERÉKGYÁRTÓ ■ Head of PhD School for Management and Business Administration, Department of Economics, Budapest University of Technology and Economics ■ H-1111 Budapest, Sztoczek u. 2. ■ (+36 1) 463 2242 ■ kerekgyarto@ lucifer.kgt.bme.hu

5.2 PhD School for Management and Business Administration, Budapest University of Technology and Economics (Budapesti Műszaki és Gazdaságtudományi Egyetem, Gazdálkodási- és Szervezéstudományi Doktori Iskola)

Research, a short introduction:

- Special fields of education and research:
- Economic policy management
- Environmental management
- Financial management
- Industrial management
- Management of international business operations
- Marketing management

- Production management
- Quality management

The PhD School welcomes post-doctoral and young and senior researchers from 6 months to 1 year. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

5.2 PhD School for Economics, University of Szeged (Szegedi Tudományegyetem, Közgazdaságtudományi Doktori Iskola)

Research, a short introduction:

The programme consists of three levels. The first level, which is compulsory for all the students, includes the basic methodological and other subjects aiming at a wide intellectual horizon. The special courses of the second level supplement this. Optional courses that are useful and give solid knowledge for those not having an economics first degree are also offered at the second level. Individual research work and the writing of the dissertation paper are done at the third level.

The post-graduate programme prepares the students to obtain their PhD. One can receive a PhD degree after passing a doctoral examination and defendenig the doctoral dissertation. Both of these are public and are evaluated by a board of examiners. At the comprehensive examination the candidate is required to show his knowledge of the whole of his field.

The PhD School welcomes students for the following programmes:

- Economic psychology (programme director: Prof. Balázs HÁMORI, DSc, E-mail: bhamori@uni-corvinus.hu)
- Finance in globalization European economic (Programme director: Prof. Katalin BOTOS DSc, E-mail: drkbotos@freemail.hu)
- Dinamic and stochastic models in economics (Programme director: Prof. András KRÁMLI DSc, E-mail: kramli@math.u-szeged.hu)
- Enterprise development (Programme director: Prof. Imre LENGYEL DSc, E-mail: ilengyel@eco.u-szeged.hu)

The PhD School would like to participate in international Research and Development Projects.

5.2 Regional Policy and Economics Multidisciplinary Ph D School for Humanities, University of Pécs (Regionális Politika és Gazdaságtan Multidiszciplináris Társadalomtudományi Doktori Iskola, Pécsi Tudományegyetem)

Research, a short introduction:

The PhD School focuses on three main fields:

- The Development of Agricultural Policy and Management is continuously monitored both at Hungarian and international levels, Researchers at the School have been dealing with the issues of
- Environmental Policy and Management, placing a special emphasis on the environmental problems related to agriculture and the protection of the water quality of the Lake Balaton for two decades.
- In collaboration with the Centre for Regional Studies of the Hungarian Academy of Sciences, the Department has conducted comprehensive studies concerning all issues of regional concern.

Contact:

Prof. Katalin BOTOS DSc ■ Head of PhD School ■ Mr. Péter SZAKÁL ■ Dean's Office ■ Office of Scientific and Economic Services, PhD School of Economics, Faculty of Economics and Business Administration, Institute of Finances and International Economic Relations, University of Szeged ■ H-6722 Szeged, Honvéd tér 6. ■ (+36 62) 544 485, (+36 62) 544 499 ■ drkbotos@freemail.hu, szpeter@eco.u-szeged.hu ■ www.eco.u-szeged.hu

Contact:

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The PhD School welcomes PhD students, pre-doctoral and senior researchers in the fields of Regional Policy and Economics, Environmental Policy and Economics, Rural Policy, Agricultural Policy for 6 months and less. Knowledge of English is necessary. The PhD School would also like to take part in international Research and Development Projects.

Contact:

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Practice of Economic Processes" ■
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5.2 PhD School for "Theory and Practice of Economic Processes", Faculty of Economics, University of West Hungary (Nyugat-Magyarországi Egyetem, Közgazdaságtudományi Kar, "Gazdasági folyamatok elmélete és gyakorlata" Doktori Iskola)

Research, a short introduction:

- Corporate Economics and Management
- Community Management subprogramme
- Finance subprogramme
- International market strategies subprogramme
- Marketing subprogramme

The PhD School welcomes PhD students, young pre-doctoral researchers in the above mentioned research fields. Knowledge of English is essential.

The PhD School would also like to take part in international Research and Development Projects.

Contact:

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5.2 PhD School for Interdisciplinary Social and Agricultural Sciences, University of Debrecen (Debreceni Egyetem, Interdiszciplináris Társadalom- és Agrártudományi Doktori Iskola)

Research, a short introduction:

- Farm management
- Agricultural Economics and Policy
- Rural Development
- Environmental Economics and Policy Marketing
- Business Administration

The PhD School welcomes PhD students, or pre- and post-doctoral researchers in the field of Farm Management as well as Environmental Economics and Policy. Knowledge of English is necessary.

Contact:

Prof. János RECHNITZER ■ Dean ■ Multidisciplinary Social Science
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University ■ H-9026 Győr, Egyetem
tér 1. ■ (+36 96) 503 480 ■
rechnj@sze.hu ■ www.sze.hu/mtdi

5.2 Multidisciplinary Social Science PhD School, Széchenyi István University (Széchenyi István Egyetem, Multidiszciplináris Társadalomtudományi Doktori Iskola)

Research, a short introduction:

The Faculty of Law and Economics of Széchenyi István University launched its PhD School entitled "Economy, Law, Regionalism and Society in the integration of Central Europe".

The PhD School and its programme are focusing on researching the direction of future cooperation in the Central-European region and the factors which stimulate or impede them. They are also aiming to find the opportunities for economic, social and institutional contacts due to the increasing need for interdependence among various social actors, because more vivid and lasting future cooperations are need-

ed to encourage European integration. Potentially the dimension of cooperation is to visualize and to expand contacts at the regional level. This objective can only be achieved and stabilized in an adequate legal environment, i.e. it is necessary to study and compare governmental, local and community legal institutions. Studies referring to the system of political institutions cannot be omitted since the countries in this region have a particular concern in creating a system of plural democracy after the collapse of state socialism.

The PhD School launches research programmes that students are able to join. Lecturers from Széchenyi István University and notable Hungarian and foreign guest professors give lectures and consultations.

The PhD School welcomes PhD students in any fields covered by our programmes for one or two semesters.

5.2 Agricultural Economics Research Institute (Agrárgazdasági Kutatóintézet)

Research, a short introduction:

AKI has a twofold role. On one hand, research supports the decisions that government bodies and businesses need to make in the field of agricultural policy, on the other hand – as a research institute carrying out independent scientific research – produces and disseminates scientific research information for clients and other stakeholders concerned.

Special attention is paid to the following issues:

- the new situation of the Hungarian agricultural economy after EU accession;
- serving the national interests in the Common Agricultural Policy
- common market organisations and the impacts on the agricultural production
- outlook of agricultural markets
- support to rural development programmes,
- rural employment and income.

The Institute operates also a set of information systems required by both the scientific research and practice and by which the data supply requirements of the EU can also be met. These are the following:

- Farm Accountancy Data Network,
- Market Price Information System,
- Projections based on the Economic Accounts of Agriculture.

Other activities of AKI:

- research management in the field of agricultural economics
- assistance to agricultural universities,
- assistance to fellow researchers,
- extensive cooperation with foreign and Hungarian research institutes,
- analyses for international organisations (FAO, OECD, WTO),
- library,
- information on Teletext, Internet and by other media.

The Institute welcomes:

- researchers in the field of agricultural economics, agricultural statistics impact analyses of agricultural policy decisions,
- experts of agricultural models,
- experts in FADN and Market Price Information Systems. EEA based forecasts,
- experts in rural development.

Contact:

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Contact:

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(+36 72) 513 766 ■ derjane@ddrft.hu
■ www.ddriu.hu

5.2 South Transdanubian Regional Innovation Agency (Dél-Dunántúli Regionális Innovációs Ügynökség)

Research, a short introduction:

The functions of the Regional Innovation Agency are:

- Programming, implementation and monitoring of regional innovation development programmes
- Project generation and development
- Coordination of financial resources for innovation development (national and EU funds, private financing)
- Establishment and operating of the Regional Innovation Database and Information System
- Initiating international, interregional development projects
- Coordination of the regional innovation system, networking.

Our Agency would also like to take part in international Research and Development Projects.

Contact:

Dr. Éva PALÓCZ ■ Deputy General
Director for Research ■ KOPINTDATORG Economic Research,
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H-1081 Budapest, Csokonai u. 3. ■
(+36 1) 459 4240 ■
palocz@kopdat.hu ■ www.kopdat.hu

5.2 KOPINT-DATORG Economic Research, Marketing and Computing Company Limited Economic Research Division (KOPINT-DATORG Marketing és Számítástechnikai Kft., Közgazdasági Kutatási Divízió)

Research, a Short introduction:

KOPINT-DATORG Ltd. is one of the leading Hungarian economic research institutes, relying on more than four decades of experience in applied economic research. KOPINT-DATORG Ltd. was established in 1987 by the merger of the Institute for Economic and Market Research (Kopint) – founded in 1964 – and Datorg Foreign Trade Data Processing and Organizing Co. – founded in 1968.

The company welcomes PhD students interested in world economic research focusing on the EU and new member states, macroeconomic research, economic policy analyses, fiscal and monetary policy, regional economic policy, market research, egovernment, e-business.

Contact:

Ms. Ildikó LAKY ■ Managing Director
■ Terra Studio Kft. ■ H-1094 Budapest, Angyal u. 7/A ■ (+36 1) 456 5090
■ terra95@hu.inter.net ■
www.terra-studio.hu

5.2 Terra Studio Ltd. (Terra Studio Kft.)

Research, a short introduction

Terra Studio Ltd. was founded in 1995, its main activities cover several branches of regional and urban development planning and consultancy as well as research in regional sciences. The company aims to fill the gap between regional sciences in general and everyday practice in regional and urban development planning. As such, the research projects conducted by the 12-member team are mainly involved with methodological issues and applications of results of theoretical research. The main research projects of the last few years include the development of methodology for the study of synergic relations in regional actions, the modelling of accessibility based on transport infrastructure and the application of structural methods on different spatial systems at various levels. The analytical tools of statistics and geographic information systems are widely utilised during planning and research activities. As one of the most established companies in the field in Hungary, its research has contributed to the better analysis of regional, national and cross-boundary socio-economic systems and to developing advanced planning methodologies for development planning.

The company welcomes national and international partners particularly interested in the applications of regional research in the above mentioned areas.

5.3 EDUCATIONAL SCIENCES

5.3 PhD School for Educational Science, Eötvös Loránd University (Eötvös Loránd Tudományegyetem, Neveléstudományi Doktori Iskola)

Research, a short introduction:

Philosophy of Education, Theories of Teaching and Learning, Methodology of Educational Research, Interdisciplinarity in Educational Theory, Comparative Education, Pedagogy of Higher Education.

The PhD School welcomes PhD students for full- and part-time studies. English or German language competences are necessary.

The PhD School would also like to take part in international Doctorate Study, Research and Development projects.

5.3 Education Policy Group, Hungarian Institute for Higher Education Research – The Professors' House (Magyarországi Felsőoktatási Kutatóintézet, Oktatáspolitikai Kutatócsoport – Professzorok Háza)

Research, a short introduction:

This group has grown out of a work team, which has been in existence since the beginning of the 1980's, and has the intention of supplementing the traditional empirical sociological point of view in social science research of educational issues with a political science one. Basic and applied researches are regarded with equal importance. The most important related fields of science are political science, history, sociology, law and economics. "Educational policy approach" means the observation of changes in education that are influenced by decisions and targets made and determined by general and individual preferences, on both micro and macro levels, choosing values, and by following tradition (with a more extended effect than just a certain individual's schooling). The venues of these educational policy decisions may range from particular educational institutes through government and parliament to international organizations. The other focus of the research is "politics of education" studying and interpreting the field of politics with its extended sense, as an "environmental condition" for education, as well as analysing the political effects, beyond educational policy, of educational decisions and educational processes. The group pays particular attention to Hungarian and European educational policies, especially tertiary education, up to the end of 20th and the beginning of 21st century.

The Group welcomes PhD students in the following fields: history of education; education policy; pedagogical sciences.

5.3 Regional Research Group, Institute for Higher Education Research – The Professors' House (Magyarországi Felsőoktatási Kutatóintézet, Regionális Kutatások Csoportja – Professzorok Háza)

Research, a short introduction:

Tertiary education is bound to place and community, which is why the geographic distribution and changes in social demand for tertiary education are observed. An analy-

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Contact:

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Contact:

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sis is carried out of those who would like to continue their studies, and what kind of programmes and where they look to continue their studies. Another factor is what the educational level and attainment of a certain location's social community (the population of a settlement, of a part of a settlement, of a certain region) is like, how it was formed, and also what the foreseeable tendencies are. Special attention is paid to certain minorities, thus to gipsy/Romani communities. The other area observed is the relationship between social and economic demand for tertiary education, the training supply, and the regional distribution of the latter. What kind of tertiary educational programmes are available? How is the structure of tertiary education changing? There is particular interest in new forms of tertiary education resulting from either local or regional initiatives (e.g local colleges, or regional universities), because they are seen as future forms of the changing of tertiary education.

The Group welcomes researchers in Comparative Education, Higher Education, Regional Analysis of the Educational Provisions.

Contact

Prof. Csaba FÖLDES ■ Dean of the Faculty of Teacher Training ■ PhD School for Interdisciplinary Humanity (Linguistics) and Social Sciences (Education), University of Veszprém

- H-8200 Veszprém, Egyetem u. 10.
- (+36 88) 624 405 foldes@ almos.vein.hu ■ www.vein.hu/phd

5.3 PhD School for Interdisciplinary Humanity (Linguistics) and Social Sciences (Education), University of Veszprém (Veszprémi Egyetem, Interdiszciplináris Bölcsészet- és társadalomtudományok Doktori Iskola)

Research, a short introduction:

- Intercultural linguistics: language groups, languages and language varieties, psycholinguistics, LSP communication
- Education: native language and literary pedagogy, foreign language education, pedagogy of teacher training

The Faculty and PhD School welcome PhD students, pre- and post-doctoral, young and senior researchers in the above mentioned fields for one academic year. Language competence in English or German is necessary.

The PhD School would also like to take part in international Research and Development projects.

5.3 Department of Psychology and Pedagogy, Corvinus University of Budapest, Faculty of Social Sciences (Budapesti Corvinus Egyetem, Társadalomtudományi Kar, Pszichológia és Pedagógia Tanszék) For details, see under the heading "Psychological Sciences" 5.7

Contact:

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Professor ■ Team of Chemical

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5.3 Team of Chemical Methodology, University of Debrecen (Debreceni Egyetem, Kémia Szakmódszertani Részleg)

Research, a short introduction:

Chemical misconceptions. Students' problem-solving strategies. Development of students' concepts of chemistry. Using knowledge space theory in study conceptual change and development.

The research group welcomes researchers on the field of chemical didactics, on the topics of chemical misconceptions, problem-solving, conceptual change and development, as well as on improving new teaching strategies and technics in chemical education.

5.4 GEOGRAPHY

5.4 Geographical Research Institute, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Földrajztudományi Kutatóintézete)

Research, a short introduction:

- Geomorphology, Geoecology, Research on Aridification, Environmental Assessment, Soil Erosion, Landscape Research
- Economic and Social Geography, Ethnic Geography, Political Geography, Urban Studies, Geography of Transportation and Telecommunication, Geography of Tourism, recent regional processes in Hungary.

The Institute welcomes PhD students and young post-doctoral researchers in the fields of Geomorphlogy, Aridification, Soil Erosion, Ethnical and Political Geography, Geography of Tourism for 6 months or 1 year. Knowledge of English, German, Italian (for Geography of Tourism) is necessary.

The Institute would also like to take part in international Research and Development Projects.

5.4 Centre for Regional Studies, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Regionális Kutatások Központja)

Research, a short introduction:

By combining the worlds of research, practice and education, the Centre aims at effecting positive changes in Hungarian spatial policy and thus in the country's spatial structure. To date, the efforts of the CRS to enhance the importance of urban and regional research in Hungary have been successful. The position of regional science has been reinforced both as a discipline within the academic curriculum and as a research field. A further objective is to extend the Centre's reach and to realise its potential of becoming a centre of excellence in academic and applied research on spatial issues in Central and Eastern Europe.

- 1. Great Plain Research Institute:
- Study of the economic, societal and environmental renewal of the Great Hungarian Plain
- Methodology of micro regional researches
- Rural development strategies
- Development concept and strategy for the Great Hungarian Plain
- Survey of the Carpathians Euro-region and the Tisza-Maros-Danube cooperation
- 2. Transdanubian Research Institute:
- Survey of Hungarian and international regionalism
- Regional development and policy in Europe
- The institutional system of public administration and regional development
- Methodology of regional development programming
- Regional requirements of sustainable development
- Complex survey of the infrastructure systems and networks
- Reginal development strategy for South Transdanubia
- Analysis of the development of the Alpine-Adriatic region
- 3. Central and North Hungarian Research Institute:
- Study of the regional structure of urban network and of society
- Analysis of the spatial structure of urban functions and urban network
- Survey of Budapest and its agglomeration based on international comparisons
- Development strategy for North Hungary

Contact:

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Fellow ■ Geographical Research
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baskuty@freemail.hu

Contact

Prof. Gyula HORVÁTH ■ Director General ■ Centre for Regional Studies, Hungarian Academy of Sciences ■ H-7621 Pécs, Papnövelde u. 22. ■ (+36 72) 523 801, fax: (+36 72) 523 803 ■ horvath@rkk.hu

- 4. West Hungarian Research Institute:
- Survey of the spatial spreading of innovation
- Analysis of regional financial and income processes
- Study of the Vienna-Bratislava-Győr cooperative region
- Comparative analysis of success regions, cities
- Regional development concept and strategy for North Transdanubia

Contact

Mr. László ZENTAI ■ Head of
Department ■ PhD School for Earth
Sciences, Department of Cartography
and Geoinformatics, Eötvös Loránd
University ■ H-1117 Budapest,
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laszlo.zentai@elte.hu

5.4 Cartography PhD Programme, PhD School for Earth Sciences, Eötvös Loránd University (Eötvös Loránd Tudományegyetem, Földtudományi Doktori Iskola, Kartográfia Doktori Program)

Research, a short introduction:

Digital Cartography, Webcartography, History of Maps and Cartography, Thematic Maps, Topographic Maps, Cartographic Projections, Cartographic Communication and Visualisation, GIS.

The PhD School welcomes PhD students in Cartography: Digital Cartography, Thematic Maps, History of Maps and Cartography. Knowledge of English is necessary. The PhD School would also like to take part in international Research and Development Projects.

Contact

Dr. Károly BREZSNYÁNSZKY ■
Director ■ Geological Institute of
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Stefánia út 14. ■ (+36 1) 251 4680 ■
brezsnyanszky@mafi.hu ■
www.mafi.hu

5.4 Geological Intstitute of Hungary (Magyar Állami Földtani Intézet)

Research, a short introduction:

The mission of the MÁFI is to contribute to the economic and social competitiveness of Hungary by providing up-to-date geosciences information for the government and the public. The Institute's major fields of interest are: geological base research, countrywide systematic surface geological mapping, continuous analysis of natural resources (mineral raw materials), research of subsurface water supply and interpretation of the data of the related monitoring system, survey of the state of geological environment with special emphasis to geological hazards (environmental geology, waste disposal, agrogeology, engineering geology, geological nature protection).

The Institute welcomes researchers in the fields of basic and applied geological sciences. Financial background is needed.

Contact:

Mr. Tamás BUDAI ■ Head of Division
Mr. László FODOR ■ Mr. Károly
NÉMETH ■ Department of Mountain
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5.4 Division of Geological Mapping Geological Institute of Hungary (Magyar Állami Földtani Intézet, Földtani Térképezési Főosztály)

Research, a short introduction:

The main focus on geological mapping of the mountain areas of Hungary is field-based research on structural geology, stratigraphy, volcanology, basin analysis, geomorphology, earth science education. Field research is supported by GIS laboratories and field logistic equipments. Basic analitical equipment (geochemistry, petrology, paleontology) is provided by the Geological Institute of Hungary.

Predominantly we expect cooperative research plans from institutes and universities (e.g. bilateral research agreements) in the field of structural geology especially related with alpine tectonics, platform and basin evolution, landscape evolution, explosive volcanism. This research plans should be prepared together and could

include extended research stay for undergraduate and postgraduate students, as well. Currently our group has bilateral research programmes with Argentina, Belgium, Germany, Slovenia, Slovakia.

5.5 JURIDICAL SCIENCES

5.5 Institute for Legal Studies, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Jogtudományi Intézete)

Research, a short introduction:

Research at the Institute covers a wide range of legal topics, including Administrative Law, Civil Law, Comparative Law, Constitutional Law, European Law, International Public and Private Law, Criminal Law, Philosophy of Law, Environmental Law. The main fields of research are European Law and the Hungarian legal system; currently issues concerning Business Law and Private Law; Environmental Law, rule of law and the Hungarian legal system; the European system of protection of Human rights and fundamental freedoms; and general questions pertaining to the theory of the legal system.

The Institute welcomes PhD students and young post-doctoral or senior researchers in each field of the institute for less than 6 months. Knowledge of English or German is essential.

The Institute would also like to participate in international Research and Development Projects.

5.5 PhD School for Law, University of Pécs (Pécsi Tudományegyetem, Állam- és Jogtudományi Doktori Iskola)

Research, a short introduction:

- Place and role of lawmaking under the rule of law
- Emergence and operation of local governments
- Legislation
- The international legal system of space and territory and environmental protection
- Public Law bases of the European Union and the European Communities
- The development of international and European civil procedural law
- Legal and non-legal means of fight against crime
- Constitution-making, constitutional institutions and the protection of the constitution
- Trends in the development of responsibility in civil law
- Legal informatics
- Criminological aspects of fight and crime prevention
- Economic crime and criminal acts
- Hungarian labour law in the process of approximation to the European law

The PhD School welcomes pre- and post-doctoral, young and senior researchers in the above mentioned research fields for up to 6 months. Knowledge of English, German or French is necessary.

The PhD School would also like to take part in international Research and Development Projects.

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Contact:

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Contact:

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Contact:

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5.6 POLITICAL SCIENCES

5.6 Institute for Political Sciences of the Hungarian Academy of Sciences (Magyar Tudományos Akadémia Politikatudományok Intézete)

Research, a short introduction:

The Institute conducts theoretical, empirical and comparative research primarily in the field of Political Science, and to a considerable extent in the field of Political Science, and to a considerable extent in the field of related Social Sciences as well. The Institute's activity is characterised by a marked inter- and multidisciplinary approach. The Institute has established a broad domestic research network; it serves as a centre and a background institution for political science research conducted at several locations in Hungary. It participates in a number of international projects together with other Hungarian institutions. The fellows of the Institute are involved in higher education both at the graduate and postgraduate levels.

The Institute welcomes PhD students, young pre- or post-doctoral or senior researchers in any of the fields covered by our research, preferably in the topics of EU Enlargement, Globalisation, Parties, Political Sociology, Political Communications. Knowledge of the English language is essential.

The Institute would also like to participate in international Research and Development Projects.

5.6 PhD School for Political Science, Corvinus University of Budapest (Budapesti Corvinus Egyetem, Politikatudományi Doktori Iskola)

Research, a short introduction:

The Department of Political Science at Corvinus University is the host and organiser of the PhD School. After an application procedure the PhD students participate in a three year programme during which various courses are offered while the PhD students also proceed with their research work. Then, in the next phase they prepare their doctoral dissertation. The language of instruction is Hungarian but the dissertation can be written in English.

Research areas:

- the EU dimension, including the EU environment and its potential impact on the Hungarian policy and public policy,
- major institutions and actors in Hungary and CEE from the perspective of their democratic potentials

The PhD School welcomes PhD students or post-doctoral researchers in the above mentioned research field preferably for short visits. Knowledge of English is essential. The PhD School is open to to participate in international Research and Development Projects.

5.6 PhD School for Multidisciplinary Social Sciences: International Relations, Corvinus University of Budapest (Budapesti Corvinus Egyetem, Multidiszciplináris Társadalomtudományok: Nemzetközi Kapcsolatok Doktori Iskola)

Research, a short introduction:

- Integration Maturity
- Global Issues

- Economic Policies and the EMU
- International political development
- International diplomacy
- International economics

The PhD School would also like to participate in international research and development projects.

Ongoing international research project: Strengthening the Multifunctional Use of Agricultural Land: Coping with Marginalisation. (EUROLAN)EC No. QLK5-CT-2002-02346

5.6 Research Group for "Together for Europe", Hungarian Academy of Sciences and Corvinus University of Budapest (Magyar Tudományos Akadémia, Együtt Európáért Kutatócsoport és Budapesti Műszaki és Gazdaságtudományi Egyetem)

Research, a short introduction:

Together for Europe is a research group supported by the Hungarian Academy of Sciences and attached to the Political Science Department of the Corvinus University of Budapest. It conducts and organises research in the field of institution at transformation in Hungary as an accommodation to the EU in the process of accession and after. The research group is participating in a large international project called "Organising for Europe" in the Fifth Framework Programme as well as in Hungarian projects and Hungarian Academy of Sciences matching funds for this research. Together for Europe is closely affiliated with the political science PhD programme of the Political Science Department led by Professor Attila ÁGH and organised by Associate Professor Gabriella ILONSZKI.

The Research Group welcomes researchers in the field of EU and institutional reforms for more than 1 year. Knowledge of English is essential.

The Research Group would also like to participate in international Research and Development Projects.

5.6 West Hungarian Research Institute, Centre for Regional Studies, Hungarian Academy of Sciences (Magyar Tudományos Akadémia, Regionális Kutatások Központja, Nyugat-magyarországi Tudományos Intézet)

Research, a short introduction:

The Institute was founded in 1986 as a unit of Hungarian Academy of Sciences. Currently the institute employs 15 researchers and 7 administrative and maintains an office in Székesfehérvár.

- Research topics within the regional science include institution and instrument system of regional policy and their applications. We have sound knowledge on the planning and programming systems of regions, microregions and settlements.
- The second segment of the research is the analysis of cross-border regional cooperations concerning the whole country. In the frame of this programme we examine the connections of different actors, the institution system, the development effects of planned and implemented programmes.
- The third element of our research is the analysis of the factors affecting regional development. Because of the political, economic transition new regional problems appeared, the analysis of these factors, compered with international (mainly European Union) experiences, gives useful information to the leaders of regional policy, and the formation of regional science.

Contact:

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Contact:

Prof. János RECHNITZER ■

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The Institute welcomes PhD students and pre-doctoral researchers for 6 months and less in the fields of Transformation Theory, Regional Cooperations, Analysis and Modelling of Regional Economic Structure, Spatial Planning. English or German language knowledge is necessary for the research work.

The Institute would also like to take part in international Research and Development Projects.

Contact

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Adviser ■ Transdanubian Research

Institute, Centre for Regional Studies,

Hungarian Academy of Sciences ■

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5.6 Transdanubian Research Institute, Centre for Regional Studies, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Regionális Kutatások Központjának Dunántúli Tudományos Intézete)

Research, a short introduction:

- Regional Development
- Regional Administration
- Regional Environment Protection

The Institute welcomes young post-doctoral researchers in the fields of regional Policy and Regional Development for less than 6 months. Knowledge of English is essential.

The Institute would also like to participate in international Research and Development Projects.

Contact

Ms. Erzsébet N. RÓZSA ■ Senior
Research Fellow, Scientific Secretar
■ Centre for Foreign Policy Studies,
Teleki László Institute ■ H-1125
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tla.hu ■ www.telekiintezet.hu/kulpol

5.6 Centre for Foreign Policy Studies of Teleki László Institute (Teleki László Intézet, Külpolitikai Tanulmányok Központja)

Research, a short introduction:

The Centre for Foreign Policy Studies (Teleki László Institute) studies the place and role of Hungary in a broader international context and within the region, analyzes the global and Central European social, political, economical and cultural trends and processes.

- Security Policy in a changing European environment,
- From Europe to EU-rope. National and community policies,
- Regions out of Europe: the Far East, the Middle East, the Euro-Mediterranean region,
- Russia and Central Europe,
- Hungary and its neighbours,
- National identity and foreign policy,
- Culture as a dimension of foreign policy cultural foreign policy and its options after the East-West conflict.

The Centre welcomes PhD students and researchers working on the topics related to the Centre's research programmes, who has an established financial basis for their research from other sources.

Contact:

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5.6 Centre for Central European Studies, Teleki László Institute (Teleki László Intézet, Közép-európai Tanulmányok Központja)

Research, a short introduction:

Research in the framework of the Centre for Central European Studies aims to examine the demographic, political, sociological and socio-political history of the Central European region (19th and 20th centuries), with special reference to the

multi-coloured ethnic and cultural nature of the region and to the situation of national minorities, in particular the Hungarian minorities in the Carpathian Basin. Regular documentation and statistical data collection are connected to all the basic research. Regio – Minority, Politics, Society is the journal of the Centre (four issues per annum and a selection in English).

Book series published by the Centre or with its cooperation are Regio Books, Central Europe Books, Minority Database, Our Past, The Hungarian Minority, Nostra tempora, Sources for the History of the Hungarian Minority in Romania and the annually published volumes of studies edited from conference materials.

On the basis of research, colleagues of the Centre also prepare background materials and elaborate expert opinions for political decision makers. In order to achieve its scientific aims the Centre closely cooperates with other Hungarian and foreign research institutes and academic bodies.

The Centre welcomes PhD students and researchers working on the topics related to the Centre's research programmes who has an established financial basis for their research from other sources.

5.7 PSYCHOLOGICAL SCIENCES

5.7 Research Institute of Psychology, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Pszichológiai Kutató Intézete)

Research, a short introduction:

The Institute conducts research in the field of Psychology, General Psychology, Social and Developmental Psychology. Presently, special research programmes are running — mostly in the form of international Cupertino in such areas as the Psychophysiology of perception and attention processes, Cognitive development of the infant, the Social Psychology of prejudice, social representation of History, the problem of narrative identity, the cross-cultural study of competition, and Decision Making Theory. The senior researchers of the Institute play leading roles in the Hungarian PhD education at various universities. The Institute itself ensures research possibilities and facilities for PhD students, young researchers and postdoctoral fellows.

The Institute welcomes PhD students and young post-doctoral re-searchers in the fields of General Psychology, Psychophysiology, Cognitive Develomental Psychology, Social Psychology, Cross-cultural Psychology, Decision Making Theory for 1 year. Knowledge of English is essential.

The Institute would also like to participate in international Research and Development Projects.

5.7 PhD School for Psychology, University of Pécs (Pécsi Tudományegyetem, Pszichológiai Tudományok Doktori Iskola)

Research, a short introduction:

The PhD School offers four programmes:

- Social Psychology (Social representations, narrative approaches to social psychology)
- Personality Psychology (Cultural approaches, early personality development)
- Theoretical Psychoanalysis (Budapest School, cultural theories)
- Applied Psychology (organisational, educational, physical education and sport)

Contact:

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Contact:

Prof. János LÁSZLÓ ■ Head of
PhD School for Psychology ■
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The PhD School welcomes PhD students and pre-doctoral researchers in the fields of Developmental Psychology, Evolutionary Psychology, Social Representation, Narrative Psychology, Personality Psychology, Psychoanalysis for 6 months or 1 year. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

Contact

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Dr. habil. István PERJÉS ■
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attila.forgacs@uni-corvinus.hu

5.7 Department of Psychology and Pedagogy, Faculty of Social Sciences, Corvinus University of Budapest (Budapesti Corvinus Egyetem, Társadalomtudományi Kar, Pszichológia és Pedagógia Tanszék)

Research, a short Introduction:

- Pedagogy
- Theory of Teaching, Interdisciplinarity in Educational Theory, Pedagogy of School, Social Pedagogy
- Psychology
- Organizational Psychology: Organizational Culture, Organizational Justice, Organizational Trust, Organizational Citizenship Behaviour
- Social Psychology: Prosocial Behavior, Social Support
- Economical Psychology: Public Opinion Research Psychology of Eating and Consumption
- Pedagogical Psychology: Development and Research of E-learning Methods
- Psychoarcheology

The department welcomes students, PhD students, pre- or post-doctoral and young or senior researches. The department would also like to take part in international Research and Development Projects.

Contact:

Ms. Andrea DÚLL ■ Associate

Professor, Secretary of the School ■
(Head: Prof. György HUNYADY) ■
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■ www.ppk.elte.hu

5.7 PhD School of Psychology, Eötvös Loránd University (Eötvös Loránd Tudományegyetem, Pszichológia Doktori Iskola)

Research, a short introduction:

Doctoral education at the school started in 1993 and is characterized by a wide spectrum of topics and fields: from the basic and applied research to the modern interdisciplinary relationships. Examples of recommended research topics for the applicants are as follows:

- Behavioural science: altered states of consciousness, environmental psychology;
- Cognitive psychology: attention, dyslexia, autism, language;
- Cognitive developmental psychology: cognitive development;
- Health psychology: coping, health and illness behaviours, smoking;
- Personality psychology: cognitive therapies;
- Social psychology and socialization: stereotypes, political psychology, cross-cultural psychology, media;
- Work psychology and organization development: work process, computer ergonomy.

The School welcomes PhD students in all topics outlined above, and others – upon conciliation of the leaders of programmes.

5.7 "Formation of the inner conditions and the stability of the personality regarding professional socialisation" Research Group, Berzsenyi Dániel College (Berzsenyi Dániel Főiskola, "A személyiség belső feltételeinek és stabilitásának alakulása a pályaszocializáció függvényében")

Research, a short introduction:

We would like to analise whether the inner conditions of the personality can be identified among intellectuals. We expect that typical patterns of professional socialisation can be identified. The situation of the teachers is rather different from of those who work in the business field. Such diverse expectations and opportunities are in interaction with the personality features. Important question whether the professional socialisation shapes the typical features of the personality or these features are present when choosing a profession. The results help prevent the burnout syndrome and work out aimed methods for personality development.

The Group welcomes PhD Students interested in the following topics: personality traits, coping, burnout.

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5.8 SOCIOLOGY

5.8 Center for Social Studies, Hungarian Academy of Sciences (Magyar Tudományos Akadémia, Társadalomkutató Központ)

Research, a short introduction:

Coordination of crucial research activities in social, demographical, environmental, historical, political, information and juridical studies at the Hungarian Academy of Sciences, organising conferences, establishment and management of a Hungarian publication system and conference-base, including the necessary management of scientific infrastructure, and financial issues at the Academy. Another important task is to maintain our databases and libraries.

The Center welcomes PhD students interested in social studies, with a firm knowledge of Hungarian or another language.

5.8 **Minority Studies Institute, Hungarian Academy of Sciences** (Magyar Tudományos Akadémia, Etnikai-nemzeti Kisebbségkutató Intézet)

Research, a short introduction:

The main academic objective of the institute is the study of the situation of ethnic minorities living in East Central Europe. The Institute is also involved in preparing alternatives for minority conflict management in the region. Research carried out within the Institute focuses on the history and situation of ethnic minorities in Hungary and of Hungarian minority groups abroad. Special attention has been paid to the situation of the Roma in Hungary and all over Europe.

The Institute welcomes PhD students in the Analysis of Ethnic Processes and Interethnic Relations for up to 6 months. Knowledge of English and/or German is necessary.

The Institute would also like to take part in international Research and Development Projects.

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5.8 Education Sociology Group, Institute for Higher Education Research - The Professors' House (Magyarországi Felsőoktatási Kutatóintézet – Professzorok Háza, Oktatásszociológiai Kutatócsoport)

Research, a short introduction:

For decades the researchers belonging to this group have carried out empirical surveys on how the Hungarian education system works, how secondary education has changed, and how education opportunities of the socially disadvantaged youngsters, amongst them Romany children, have changed. Owing to the different age groups that researchers belong to and to their different interests, there is a comprehensive overview covering the questions of the relationship between labour market and training/professional training, participation in adult education, training outside formal education, or lifelong learning. In the last couple of years analyses have been made based on empirical surveys on distance learning, e-learning, and on use of ICT in schools, and on informal learning. Reports have been assessed for many international organizations on the situation of adult education, on the characteristic features of the transition from leaving school to entry into the labour market, as well as on the challenges the Hungarian teacher training is facing.

The Group welcomes sociologists.

5.8 Youth Research Group, Institute for Higher Education Research - The Professors' House (Magyarországi Felsőoktatási Kutatóintézet – Professzorok Háza, Ifjúságkutatási Csoport)

Research, a short introduction:

The researches of the group formed in 1995 used to be focused on establishing correlations between the transition of society in general and youth, in particular, entering a new era. At present, the main fields of research are social and career mobility for youth, observation of elite groups of youth, with particular attention to the transition of the educational system, to the value orientation of young people that has changed, and to the question of identity of the young. One of the focal points when a biographical survey of youth is carried out is to reveal to what extent they are endangered (by smoking, alcohol or drugs), besides highlighting the changes in the way they spend their free time, or how their patterns for participation in politics have changed and, within this, special attention is given to the questions of students' rights and violence. Also taken into consideration when these fields are studied, the different class identities, gender differences and the differences due to different geographic places. Comparative surveys have been found to be vital from the very beginning, so that is why the situation of Hungarian ethnic students living in the neighbouring countries has been studied since the 1990's.

The Group welcomes sociologist in youth research and higher education.

5.8 PhD School for Sociology, Faculty of Social Sciences, Eötvös Loránd University (Eötvös Loránd Tudományegyetem, Szociológiai Tudományok Doktori Iskola)

Research, a short introduction:

The School has two PhD programmes: sociology and social policy The main areas of research at the PhD School are: problems of social stratification and mobility; Cultural Sociology; Urban Sociology, Sociology of Communication; Discourse Analysis; Sociology of Family; History of Sociology and Social Thought; Ethnic and Minority Studies; Methodology of Social Research; Problems of Social Policy; Sociology of Health.

The PhD School welcomes PhD students and young post-doctoral or senior researchers in the fields given above for 1 year. Knowledge of English is essential; if possible some knowledge of Hungarian.

The PhD School would also like to participate in international Research and Development Projects.

5.8 PhD School for Sociology, Corvinus University of Budapest (Budapesti Corvinus Egyetem, Szociológiai Tudományi Doktori Iskola)

Research, a short introduction:

The major research profile is empirically established analytic work in the following areas:

Economic sociology (enterprise panel survey, enterprise behaviour, economic elites, entrepreneurs), Indicators of information society, Subjective well-being, Uncertainty, risk and trust, Sociology of Education, Sociology of drugs and deviant behaviour, Social exclusion, Gender and perception of success, Social perception of the European integration, Civil society, local leader and central elite.

The PhD School welcomes PhD students, young post-doctoral or senior researchers for less than 6 months,1 year and more in the fields of economic sociology, elite studies, entrepreneurship, information society, subjective well-being, trust, European identity. Knowledge of English or Hungarian is preferable.

Our PhD School would also like to participate in international Research and Development Projects.

5.8 Institute of Sociology, Pázmány Péter Catholic University (Pázmány Péter Katolikus Egyetem, Szociológiai Intézet)

Research, a short introduction:

- European/World Value Study
- Comparative Study in Social Sciences
- Minority relations
- Sociology of Religion

The Institute welcomes PhD students in the following topics

- European/World Value Study
- Comparative Study in Social Sciences
- Minority relations
- Sociology of Religion

5.8 Research Group for Complex Futures Studies, the Hungarian Academy of Sciences and the Corvinus University of Budapest (Magyar Tudományos Akadémia – Budapesti Corvinus Egyetem, Komplex Jövőkutatási Kutatócsoport)

Research, a short introduction:

Distinguished fields of research:

- Developing theories of Futures Studies: future images in philosophical theories; futures in economic theories; space and time concept of Futures Studies; change and future.
- Developing methodologies and methods in Futures Studies: what and how can we foresee now; complexity in Futures Studies; evolutionary modelling and evolution-

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- ary models; participatory foresight methods; artificial intelligence modelling; floating models; scenario building; causal layered analysis, reliability of forecasts.
- "Hungary Beyond Tomorrow": the frameworks for Hungarian futures; acceptable future's alternatives and future images; applied strategic planning; cultural roots within the emerging information society.
- Organizational survival; bankruptcy forecasting
- Values, identity, anticipations, expectations and future-shaping power of the youth and of youth-groups showing alternative or distinguished characteristics

The Research Group welcomes PhD students, pre- or post-doctoral colleagues, young and senior researchers for stays of 6 months, 1 year or more than one year in the fields of Futures Research, Futures Studies, Foresighting, and Forecasting. The Research Group would also like to take part in international Research and Development Projects.

6 HUMANITIES



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6.1 ARTS

6.1 PhD School for History of Art, Eötvös Loránd University (Eötvös Loránd Tudományegyetem, Művészeti és Művelődéstörténeti Tudományi Doktori Iskola)

Research, a short introduction:

- Medieval, Renaissance, Baroque and Modern Art (19th-20th centuries)
- Contemporary Art
- Art Theory, Iconography

For more details see under the heading 'History' 6.2.

The PhD School welcomes PhD students in the field of 20th century European Art for less than 6 months. Knowledge of English, French or Hungarian is necessary. The PhD School would also like to take part in international Research and Development Projects.

6.1 Master's School of Fine Arts, University of Pécs (Pécsi Tudományegyetem, Képzőművészeti Doktori Iskola)

Research, a short introduction:

- Painting Programme: oil-, acril- and table-picture painting, techniques of monumental wall-painting
- Sculpture Programme I: Stone Sculpture
- Sculpture Programme II.: Bronze and Metal Scull Sculpture
- Sculpture Programme III.: Ceramic Sculpture

The DLA programme provides the chance for the further education of those outstandingly talented young artists, who, after having completed their undergraduate studies, show the qualities of an individual erative artists and in the case of whom a continuous and emphasising supported, professional further development is needed.

The Master's School welcomes PhD Students, post-doctoral young or senior researchers in the fields of Contemporary Fine Arts (Painting and Sculpture) and History of Art for stays of 6 months and less or 1 year. Knowledge of English is necessary.

The Master's School would also like to take part in international Research and Development Projects.

6.2 HISTORY

6.2 Institute of History, Hungarian Academy of Science (Magyar Tudományos Akadémia, Történettudományi Intézete)

Research, a short introduction:

Publication of major sources of Hungarian History, editing and publishing manuals, monographs, collections of studies and reviews on Hungarian and European History, organising historical research projects, organising conferences, congresses, popularisation of the results of historical research.

Ongoing international research project: Strengthening the Multifunctional Use of Agricultural Land: Coping with Marginalisation.(EUROLAN)EC No. QLK5-CT-2002-02346

The Institute would like to participate in international Research and Development Projects.

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6.2 Archaeological Institute, Hungarian Academy of Sciences (Magyar Tudományos Akadémia, Régészeti Intézet)

Research, a short introduction:

The activity of the Institute targets the archaeology of the Carpathian Basin and the historically related areas. The Institute aspires to span with its research activity the entire period from the Neolithic to the Late Middle Ages. The Institute helps the publication of the results by editing the annals of the Institute called Antaeus, a monograph series the Varia Archaeologica Hungarica, and other books and monographs. *Recent programmes:*

- Archaeological Topography of Hungary. The Institute considered this programme
 as its central projects at the time of its foundation. It is a work of national importance, scientifically justified and necessary for the protection of archaeological
 sites. Ten volumes have already been edited, and three are being prepared on the
 sites of Békés, Fejér and Pest counties.
- Archaeological research into prehistoric societies and settlements. The researchers of prehistory take part in international programmes first of all with the intensive multiaspectual study of smaller territories. The project aiming at the recognition of the settlement history of seven thousand years in the SW-Hungarian Kerka valley has just been finished, a monograph about its early prehistory is published in 2004.
- The Roman Empire and its borderline territories. Beside studies of the settlements of the province, an internationally acknowledged excavation at San Potito (Italy) runs for one and a half decade, and the internationally esteemed Nubiologist of the Institute organised a significant and successful exhibition on the Koptic period in the Budapest Museum of Fine Arts, in 2005.
- Avars, Hungarians and their neighbours. The colleagues studying this topic work in a close partnership: several research fellows study the settlement history of the Carpathian Basin and the neighbouring territories in the 7th–10th centuries, analyse the social processes of the area and their interrelations. A monograph about the Nagyszentmiklós treasure appeared in 2004.
- Medieval studies. Colleagues studying the medieval times have achieved significant results in the mapping of the earthen forts of the Árpádian Era, and in the study of the medieval settlement system, the use of boundaries, the medieval towns of Székesfehérvár, Vác and the one at Decs, the bronze metallurgy in Transylvania and the find material from the time of the Turkish occupation of Hungary. A large-scale NKFP project won in 2001 provides a new impetus to the monographic publication of the yet unanalysed find material of formerly unearthed castles and royal centres.
- Natural scientific studies. Besides a newly built genetic laboratory, defining DNA from archaeological human remains, an anthropologist, a zoologist, a botanists and a geologist help the archaeologists with conclusions concerning the environment, the climatic and anthropogenetic characteristics of the various periods.

The Institute welcomes PhD students interested in the following topics: archaeology, anthropology, archaeogenetics, archaeological geology.

6.2 PhD School for History, University of Debrecen (Debreceni Egyetem, Történelemtudományi Doktori Iskola)

Research, a short introduction:

East Central European, particularly Hungarian History. Economic, Social and Cultural-intellectual Development and Problems of the Middle, Early Modern and

Modern Ages, Regional and Ethnic Consciousness in the Carpathian Basin and, Inter-ethnic Relations and Multiculturalism in East-Central Europe.

The PhD School welcomes PhD students, pre- and post-doctoral young and senior researchers in the abovementioned research fields for up to one academic year. Knowledge of English or German is necessary.

The PhD School would also like to take part in International Research and Development Projects.

6.2 PhD Programme in History, Faculty of Humanities, Pázmány Péter Catholic University (Pázmány Péter Katolikus Egyetem, Bölcsészettudományi Kar, Történelem Tudományi Doktori Iskola)

Research, a short introduction:

The PhD Programme contains 8 workshops, emphasising research areas as follows:

- History of Antiquity, concentrating on the History of the Near- and Middle- East
- History of the Middle Ages, dealing with the History of Medieval Hungary and Central Europe
- History of Ideas, dealing with the History of Modern Ideas and the History of Religions
- History of Civilisation, focusing on the History of Civilisation and Culture in Hungary during the 16th–17th and 18th centuries
- History of Politics, dealing with the History of Politics of Hungary and Central Europe in the 20th century
- History of Economics, emphasising the Hungarian and Central European History of Economics in the 20th century
- History of Regions, concentrating on the roles of regions in Central-Eastern Europe
- History of Churches, dealing with the History of different Hungarian Churches from the 16th century

The PhD Programme welcomes post-doctoral young and senior researchers in research fields in Medieval History, Modern and Contemporary European Economic History, Modern and Contemporary Central European History for 6 months. Knowledge of English or German is necessary.

The PhD Programme would also like to take part in international Research and Development Projects.

6.2 PhD School of Historical Studies Eötvös Loránd University (Eötvös Loránd Tudományegyetem, Történelemtudományok Doktori Iskola)

Research, a short introduction:

Hungarian and World History; ecclesiastical history, cultural history, social history, archaeology, classical studies.

6.2 European Art History Research Group, Hungarian Academy of Sciences TKI and Institute of Art History, Eötvös Loránd University Budapest (Magyar Tudományos Akadémia és Eötvös Loránd Tudományegyetem Egyetemes Művészettörténeti Kutatóhely)

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Research, a short introduction:

The Research Group was founded in 2003 for research of art in the middle ages and modern Europe. The Head of the Group is Professor Krisztina Passuth Dsc. Her publications are available in several european scientific papers and books. (About modern art of Europe, László Moholy-Nagy, László Péri, Brancusi, French and Hungarian Fauves and avant-garde artists).

The three research fellows in the PhD Programme of Institute of History of Art, and their research fields are the following:

Mrs. Anna BORECZKY published some studies about codex illuminations of the 14–15th centuries in Europe (Concordantiae Caritatis).

Mr. Gergely BARKI is one of the main participants of the research team of Connections of French and Hungarian Fauves 1904–1914. His fields are the art studios in Budapest, art of Róbert Berény.

Mr. Istvan BIZZER's main research field is the connections of modern and antimodern tendences in art of the 1920–30 Hungarian painting and etching, and ars sacra in modern Europe.

6.2 History of Art and Cultural History Sciences PhD Programme Eötvös Loránd University (Eötvös Loránd Tudományegyetem, Művészettörténet és Művelődéstörténettudományok Doktori Iskola)

Research, a short introduction:

The programme of Institute of Art History, is the only one in this scientific field in postgraduate studies in Hungarian educational system for the fellows specialized on Hungarian art. The main aims of the PhD Programme are researching and teaching about art in Hungary (painting, sculpture, architecture). The education programme is specialized on the fundamental theoretical and practical problems and themes in the art of the middle ages, the modernism and of today. Including protection of historic monuments, history of art collection and museum, collecting monumenta Hungarica, the art critics and the most important Hungarian artists and art historians.

6.2 "Atelier" Franco–Hungarian Ph D Workshop in Social Sciences, Eötvös Loránd University (Eötvös Loránd Tudományegyetem, "Atelier" Magyar–Francia Társadalomtudományi Tanszék és Doktorképző)

Research, a short introduction:

Three main research interest of our PhD Workshop:

- European Historiographies and Europe of Histories
- Social History of Space and Territory
- Cultural Heritage and Cultural History

We organize a Socrates Curriculum Development Project with six other Universities. Our topic is: European territories (civilisation, nation, region, city): Identity and development.

Researchers interested in the above mentioned topics are welcome.

The PhD workshop would also like to take part in international Research and Development Projects.

6.2 Institute of Habsburg History, Public Foundation for Habsburg Studies (Habsburg Történeti Intézet, Habsburg Tanulmányok Közalapítvány)

Research, a short introduction:

The purpose of the Institute is to encourage and coordinate research into the Habsburg era.

The Institute has an international character, just like its subject. It sets out to give opportunities for the pursuit – at appropriate academic standards – of inter-ethnic and multinational considerations.

6.2 National Széchényi Library (Országos Széchényi Könyvtár)

Researh, a short introduction:

- The history and literature of Hungary
- The history of the Hungarian printing
- Retrospective national bibliographies (16-18th century, 19-20th century)
- Readings of the Carpathian Basin
- Book and library history
- History of periodicals
- Reading culture, library sociology
- The public library and its social setting
- Development of libraries, quality management in libraries
- Research and development in the field of electronic materials
- Medieval Latin fragments of Hungarian collections

The Library welcomes researchers interested in history and literature of Hungary, book and library history.

6.2 PhD School for Multidisciplinary Humanities: History of Science, Technology and Engineering, Budapest University of Technology and Economics (Budapesti Műszaki és Gazdaságtudományi Egyetem, Multidiszciplináris Bölcsészettudományi Doktori Iskola: Technika-, Mérnök- és Tudománytörténet)

Research, a short introduction:

- Social History of Science, the 17th century Birth of Early Modern Science.
- History of Scientific Methodology The Birth and Development of Quantification, Measurement, Experimentation, Confirmation and Falsification in the Natural Sciences.
- Philosophy of Science and Technology in the 20th Century.
- History of Industry and Engineering in 19th and 20th century Hungary.
- Science Policy and Innovation Management in Hungary and in the EU.

The PhD School welcomes PhD students, post-doctoral, young and senior researchers for less than 6 months or for 1 academic year in the fields of History and Phylosophy of Science and Technology. Knowledge of English or Hungarian is necessary.

The PhD School would also like to take part in international Research and Development Projects.

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6.3 LANGUAGE SCIENCES

6.3 Research Institute for Linguistics, Hungarian Academy of Sciences (Magyar Tudományos Akadémia Nyelvtudományi Intézete)

Research, a short introduction:

The Institute specialises in research in the following branches of Linguistics: Sociolinguistics, Finno-Ugric Linguistics, Phonetics, Corpus Linguistics, (Computtional) Lexicology and Lexicography, Neurolinguistics, Historical Linguistics, and Theoretical Linguistics, in particular Phonology (Government Phonology, Optimality Theory), Syntax (the Minimalist Framework, LFG, Construction Grammar), and Semantics.

The Institute welcomes PhD students and young post-doctoral or senior researchers for 6 months, 1 year or more in the fields of Sociolinguistics, Finno-Ugric Linguistics, Phonetics, Corpus Linguistics, (Computational) Lexicology and Lexicography, Neurolinguistics, Historical Linguistics, and Theoretical Linguistics, in Particular Phonology, Syntax, and Semantics. Knowledge of Hungarian, English, German or French language is essential.

The Institute would also like to participate in international Research and Development Projects.

6.3 PhD School for Linguistics, Eötvös Loránd University (Eötvös Loránd Tudományegyetem, Nyelvtudományi Doktori Iskola)

Research, a short introduction:

The Linguistics Doctorate School has several Programmes: Slavic, Germanic, Uralian, Romanic, Hungarian, and Chinese studies.

The PhD School welcomes PhD students, pre- and post-doctoral young and senior researchers in the above mentioned research fields for less than 6 months. Knowledge of English, German, French or Russian, depending on the research field, is necessary.

The PhD School would also like to take part in international Research and Development Projects.

6.3 School of German Studies, Faculty of Humanities, Eötvös Loránd University (Eötvös Loránd Tudományegyetem, Bölcsészettudományi Kar, Germanisztikai Intézet)

Research, a short introduction:

The School of German Studies carries out research work in the fields of German, Scandinavian and Dutch linguistics and literature.

The School welcomes PhD Students in the fields of German, Scandinavian and Dutch Studies.

6.3 PhD School for Linguistics, University of Szeged (Szegedi Tudományegyetem, Nyelvtudományi Doktori Iskola)

Research, a short introduction:

Research and teaching programmes of the School include Theoretical, Applied, Descriptive and Historical Liguistics, as well as Hungarian, English, French,

German, Russian and Slavic Linguistics, in addition to Altaic Studies. Research methods and schools represent a range from Generative Grammar to Nontransformational Grammar, Formai Semantics, Government Phonology, Sociolinguistics, Gender Linguistics, Lexicology and Lexicography, Computational Linguitics, Valenzentheorie, etc.

The PhD School welcomes PhD students, young post-doctoral or senior researchers in the field of linguistics research for 6 months to 1 year. Knowledge of one of the following languages: English, French, German, Russian (depending on research area/interest) is essential.

Our PhD School would like to participate in international Research and Development Projects.

6.3 PhD Programme in Linguistics and Literature Pázmány Péter Catholic University, Faculty of Humanities (Pázmány Péter Katolikus Egyetem, Bölcsészettudományi Kar, Nyelv- és Irodalomtudományi Doktori Iskola)

Research, a short introduction:

The PhD Programme, which focuses on Rhetoric in its Literary and Linguistics Aspects, consists of 13 workshops, where research is pursued in the following areas:

- Arabic Linguistics and Literature
- Classical Philology
- Finno-Ugric Linguistics
- French and Francophone Linguistics and Literature
- Hungarian Literature
- Theoretical Linguistics
- Slavonic studies Western Slavic Linguistics and Literature
- British and American Linguistics and Literature
- Italian Studies
- German Studies
- Hungarian Linguistics
- Hebrew Literature
- Spanish Linguistics and Literature.

The PhD Programme would also like to take part in international Research and Development Projects.

6.3 PhD School for Interdisciplinary Humanity (Linguistics) and Social Sciences (Education), University of Veszprém (Veszprémi Egyetem, Interdiszciplináris Bölcsészet- és Társadalomtudományok Doktori Iskola)

Research, a short introduction:

Intercultural linguistics: language groups, languages and language varieties, psycholinguistics, LSP communication

Education: native language and literary pedagogy, foreign language education, pedagogy of teacher training.

The Faculty and PhD School welcome PhD students, pre- and postdoctoral, young and senior researchers in the above mentioned fields for an academic year. Language competence in English or German is necessary.

The PhD School would also like to take part in international Research and Development Projects.

Contact:

Ms. Szilvia CSIHA ■ Head of the Office for PhD and Habilitation Affairs ■ Mr. András CSER ■ Secretary of the PhD Programme in Linguistics and Literature ■ Faculty of Humanities, Pázmány Péter Catholic University ■ H-2087 Piliscsaba, Egyetem u. 1. ■ Tel/fax: (+36 26) 375 375 ext. 2862, ext. 2901 ■ agros@btk.ppke.hu,

cser@btk.ppke.hu

Contact:

Prof. Csaba FÖLDES ■ Dean of the Faculty of Teacher Training ■ University of Veszprém ■ H-8200 Veszprém, Egyetem u. 10. ■ (+36 88) 624 405 ■ foldes@almos.vein.hu

Prof. András KERTÉSZ ■ Director ■
PhD School for Linguistics, University
of Debrecen ■ H-4032 Debrecen,
Egyetem tér 1. ■ (+36 52) 512 900 ■
kert.esz@freemai.hu ■
http://denydi.unideb.hu

6.3 PhD School for Linguistics, University of Debrecen (Debreceni Egyetem, Nyelvtudományi Doktori Iskola)

Research, a short introduction:

The PhD School for Linguistics of the University Debrecen consists of the following programmes: Theoretical, Computational, English, German, French, Russian, Hungarian, Finno-Ugric Linguistics, and Classical Studies.

The PhD School welcomes PhD students, young and senior researchers interested in the research topics announced on the website of the School. The School would also like to take part in international research projects.

Contact:

Prof. András KERTÉSZ ■ Director ■
Research Group for Theoretical
Linguistics, Hungarian Academy of
Sciences and University of Debrecen

- H-4032 Debrecen, Egyetem tér 1.
- **(+36 52) 512 900**
- kert.esz@freemai.hu http://web.t-online.hu/andras ■ kertesz/elmeletinyelveszet

6.3 Research Group for Theoretical Linguistics of the Hungarian Academy of Sciences and University of Debrecen (Magyar Tudományos Akadémia, Elméleti Nyelvészeti Kutatócsoport és Debreceni Egyetem)

Research, a short introduction:

The Research Group focuses on methodological, philosophical and theoretical problems of linguistic research.

The Group welcomes PhD students in the field of the philosphy of science, the philosophy of language, generative syntax, formal and cognitive semnatics.

The Research Group would also like to participate in international research projects.

6.4 LITERATURE

6.4 Institute for Literary Studies of Hungarian Academy of Sciences (Magyar Tudományos Akadémia, Irodalomtudományi Intézet)

Contact:

Mr József JANKOVICS ■ Vice

Director ■ Research Group for

Renaissance and Baroque Studies,

Hungarian Academy of Sciences ■

H-1118 Budapest, Ménesi út 11–13.

- (+36 1) 279 2776 iti@iti.mta.hu
- www.iti.mta.hu

Research, a short introduction:

- textology (critical editions of Hungarian classical literature)
- history of criticism in Hungary (16-21th century)
- theory of literature
- international relations of Hungarian literature
- Neo-latin literature in Hungary and in Europe

The Institute welcomes researchers of comparative studies of Hungarian literature and history of literature.

Contact

gold.uni-miskolc.hu

Prof. Lóránt KABDEBÓ ■ Head of PhD School for Literary Sciences, Faculty of Arts, University of Miskolc ■ H-3515 Miskolc-Egyetemváros ■ (+36 46) 565 224 ■ bolkrisz@

6.4 PhD School for Literary Sciences, University of Miskolc (Miskolci Egyetem, Irodalomtudományi Doktori Iskola)

Research, a short introduction:

The PhD School of the Literary Sciences has three doctoral programmes (Textology 1995, The Historical and Theoretical Models of Modern Hungarian Literture 1996, The Historical and Theoretical Connections of Politics and Literature 1999). Full-time and correspondence PhD students carry out research in these three fields. Their results are continuously published in Hungarian and international forums, and some of them have already defended their PhD dissertations.

The PhD School welcomes post-doctoral and young and senior researchers in Textology, Literary Sciences, Political Sciences research fields for less than 6 months. Knowledge of English is necessary.

The PhD School would also like to take part in international Research and Development Projects.

6.4 PhD School for Literary Studies, University of Debrecen (Debreceni Egyetem, Irodalomtudományi Doktori Iskola)

Research, a short introduction:

The PhD School has 3 programmes:

- Hungarian and Comparative Literary Studies
- British and North American Studies
- French Literary Studies

Literary Configurations in multicultural regions

- The possibilities of Hungarian literature outside of Hungary; its genres, types of text, its relations; variations of representating identity
- Literary consciousness; self definition, regional and national identity in German speaking regions (Austrian, Swiss and German versions)
- Special forms of multiculturalism in British and North American literature (post-colonialism, cultural studies, multidisciplinary, the co-existence of English and French culture and Canadian literature)
- The cultural relevance of modern literary studies (intertextuality, French post-modern movements, drama theories, Russian formalism)

History of rhetoric, textology

- The principles and practice of organising texts in early and later modern times (handbooks of rhetoric in Hungary in the Renaissance and Baroque age, confessionalism and rhetoric, the rhetorical manifestations of identity in the literatures of the Carpthian Basin)
- The application of contemporary theories interpretations. (hermeneutics, narratology, psychoanalysis,etc.)

Theories of the novel

- The theoretical questions of narrative identity
- The medieval novel in French literature
- The genres of the modern novel, its links with other forms (diary, travelogues, epistles, etc.)
- Space, fictional space the dimensions of cultural impact

The PhD School welcomes PhD students, pre- or post-doctoral young and senior researchers for 6 months and less or 1 year and more in Amercan Studies, British Studies, Canadian Studies, Comparative Literature, French Literary Studies, German Literary Studies, Hungarian Literary Studies, Irish Studies, Polish Literary Studies, Russian Literary Studies. Depending on the field knowledge of English, French, German, Polish or Russian is necessary.

The PhD School would also like to take part in international Research and Development Projects.

6.4 PhD School for Literary Studies, University of Pécs (Pécsi Tudományegyetem, Irodalomtudományi Doktori Iskola)

Research, a short introduction:

PhD School of Literary Studies is not organised around the traditional branches of literary studies, but its structure follows an interdisciplinary logic (comprised of narratology, philosophy, aesthetics, studies of the visual arts, the study of drama, cultural anthropology, etc.).

Contact:

Ms. Erika KISS ■ Programme Coordinator ■ PhD School for Literary Studies, Faculty of Arts and Humanities, Faculty of Arts, University of Debrecen ■ H-4032 Debrecen, Egyetem tér 1. ■ (+36 52) 512 900 ext. 22071 ■ kerika@delfin.unideb.hu

Contact:

Ms. Erna NAGY ■ PhD Student ■ PhD School for Literary Studies, Faculty of Arts, Department of Modern Literatures and Literary Theory, University of Pécs ■ H-7624 Pécs, Ifjúság u. 6. ■ (+36 72) 501 521 ■ cattitude@axelero.hu

Parallel projects run by staff and PhD students constitute the different workshops that deal with the various fields of study. These are as follows:

- The representation of the past and its genres: literatery, historical and cultural memories
- The interdisciplinary, cultural and historical anthropological approaches to the city
- Cultural and regional identities.

The PhD School welcomes post-doctoral young researchers in the knowledge based society and solidarity research fields for less than 6 month. Knowledge of European languages is necessary.

The PhD School would also like to take part in international Research and Development Projects.

Contact

Mr. Géza KÁLLAY PhD, habil. ■
Member of the Doctoral School
Renaissance and Baroque English
Literature ■ Faculty of Humanities,
Eötvös Loránd University ■ H-1088
Budapest, Múzeum krt. 4. ■
(+36 1) 460 4400, ext. 4475,
(+36) 30 488 8245 ■
kallay@melania.hu ■
http://epika.web.elte.hu/doktori

6.4 Doctoral (PhD) School in Literary Studies, Faculty of Humanities, Eötvös Loránd University (Eötvös Loránd Tudományegyetem, Bölcsészettudományi Kar, Irodalomtudományi Doktori Iskola)

Research, a short introduction:

- Modern English and American Literature
- English Renaissance and Baroque Literature
- American Studies
- German Literary Studies
- Dutch Studies
- Scandinavian Studies
- Hungarian and Uralic Literary Studies (Folklore) and Library Sciences
- Literary Theory
- Comparative Literary Studies
- The Literature of the Hungarian Renaissance
- The Literature of the Hungarian Baroque
- Hungarian and European Enlightenment
- Hungarian Romanticism
- Literature of the First Half of the 20th Century. The Periodical "Nyugat"
- Contemporary Hungarian Literature
- The Folklore and Literature of the Uralic Peoples
- Library Science
- Slavic Studies
- Russian Literature and Literary Criticism
- Slavic Literatures
- Russian Literature and Culture between Two Poles: the East and the West
- The Literature of Roman Languages
- French Literature from the Middle Ages to the Age of Enlightenment
- French Literature from the Age of Enlightenment to the Present
- Italian Studies in Literature and the History of Civilisation
- Textual Analysis of Contemporary Latin-American Narrative Literature
- English and American Modern English and American Literature,
- English Renaissance and Baroque Literature

The Doctoral (PhD) School welcomes students and researchers: in all the above fields. The various groups conduct research and offer classes in the respective languages (English, German, Hungarian, etc.).

For prompt contact write to: kallay@melania.hu

- **6.4** PhD Programme in Linguistics and Literature Pázmány Péter Catholic University (Pázmány Péter Katolikus Egyetem, Bölcsészettudományi Kar, Nyelv- és Irodalomtudományi Doktori Iskola)

 For details see under the heading "Language Sciences" 6.3
- 6.4 Workshop for Hungarian Literary Studies, PhD School for Linguistics and Literary Studies, Institution of Hungarian Literature, Faculty of Humanities, Pázmány Péter Catholic University (Pázmány Péter Katolikus Egyetem, Bölcsészettudományi Kar, Nyelv- és Irodalomtudományi Doktori Iskola, Magyar Irodalomtudományi Műhely)

Research, a short introduction:

At the Department of Hungarian Literature both education and research are carried out in various fields of literary studies including Old, 19th Century, Modern and Contemporary Hungarian Literature along with Literary Theory and Criticism. The professors at the Department also contribute to the doctoral programmes.

The PhD School of Hungarian Literature and the Workshop for Hungarian Literary Studies welcome students interested in Hungarian language, literature and Hungarology both in graduate and doctoral programmes.

6.4 Research Group for Textology, Szabó Lőrinc Research Centre, Hungarian Academy of Sciences and University of Miskolc (Textológiai Kutatócsoport, Szabó Lőrinc Kutatóközpont, Magyar Tudományos Akadémia és Miskolci Egyetem)

Research, a short introduction:

The primary purpose of Szabó Lőrinc Research Centre is to introduce the poet to the canon of Hungarian and World literature. The national value of Szabó's poetry, his international comparability and his classical poetical achievements make him one of the most important classics. Another chief aim of the Research Centre is to collect and analyse the entirety of his oeuvre (text edition, biography, complete bibliography).

The Research Group welcomes PhD students, pre- or post-doctoral and young and senior researchers in Literary Sciences for less than 6 months. Knowledge of English is necessary.

The Research Group would also like to take part in international Research and Development Projects.

Contact:

Mr. Emil HARGITTAY ■ Head of Institution ■ Ms. Judit BOGÁR ■ Workshop for Hungarian Literary Studies, PhD School for Linguistics and Literary Studies, Pázmány Péter Catholic University ■ H-2087 Piliscaba, Egyetem u. 1. ■ (+36 26) 375 375 ext. 2954, 2912 ■ hargittay.emil@btk.ppke.hu; bogar.judit@btk.ppke.hu ■ www.btk.ppke.hu/magyarirodalomtudint_index.php

Contact:

Prof. Lóránt KABDEBÓ ■ Head of the Szabó Lőrinc Research Centre, Research Group for Textology, Faculty of Arts, University of Miskolc ■ H-3515 Miskolc-Egyetemváros ■ (+36 46) 565 224 ■ bolkab@gold.uni-miskolc.hu

6.5 PHILOSOPHY

6.5 Institute for Philosophical Research of Hungarian Academy of Sciences (Magyar Tudományos Akadémia Filozófiai Kutatóintézete)

Research, a short introduction:

Philosophical questions of the information society, studies on the knowledge based society from the point of view of the philosophy of science, studies on the history of philosophy.

The Institute welcomes young post doctoral and senior researchers in any field of philosophy.

Contact:

Mrs. Katalin BANGHA ■ Director of Library ■ Institute for Philosophical Research, Hungarian Academy of Sciences ■ H-1398 Budapest, Szemere u. 10., P. O. Box 594. ■ (+36 1) 331 2795 ■ bangha@ zeus.phil-inst.hu ■ www.phil-inst.hu

Mr. András MÁTÉ ■ Associate

Professor ■ Department of Logics,
Institute of Philosophy, Eötvös

University Budapest ■ H-1088 Budapest, Múzeum krt. 4/I ■

(+36 1) 485 5245 ■

mate@ludens.elte.hu ■

www.btk.elte.hu/logikat

6.5 Graduate School of Logics, Institute of Philosophy, Eötvös Loránd University (Eötvös Loránd Tudományegyetem, Filozófia Intézet, Logika Doktori Program)

Research, a short introduction

Formalist foundation of mathematics – pros and contras

The aim of the project is, on the one hand, to clarify the possible arguments for a formalist foundation of mathematics, and, on the other hand, to reconsider those results which have been interpreted in the philosophy of mathematics of the last decades as no-go proofs for the formalist programme. 1) On the basis of the metaphysical commitments of a radical physicalism, we will consider the possibility of continuation of the formalist programme. 2) As a possible alternative of the formalist approach, we will examine the possible reconstructions of the second order arithmetic and second order set theory. In the historic background of the problem, 3) we would like to clarify what Hilbert's formalist programme actually means and 4) why contemporary mathematicians – like von Neumann – regarded Gödel's incompletness theorem as the end of Hilbert's programme. In order to get a closer understanding of Lakatos's criticism on the formalist approach to mathematics, 5) we plan to survey the contemporary – partly Hungarian – reception of his Proofs and Refutations and to investigate his unpublished letters and works.

The School welcomes PhD students in the fields of the philosophy and the foundations of mathematics and history of logic.

6.6 RELIGIOUS SCIENCE

6.6 Hungarian Religious Research Centre, Pázmány Péter Catholic University (Pázmány Péter Katolikus Egyetem, Vallásszociológiai Központ)

Research, a short introduction:

Comparative religious research in Central and Eastern Europe, especially in Hungary and among ethnic Hungarian minorities in neighbouring countries. Hungarian Religious Research Centra coordinates the 10-countries research Aufbruch and participates in several national and international research projects on sociology of religion. The Centre is now the secretariat of ISORECEA, the Inter-national Study of Religion in Eastern and Central Europe Association.

Contact

Mr. Miklós TOMKA ■ Professor ■

Ms. Edit RÉVAY ■ Research

Assistant ■ Institute of Sociology,

Pázmány Péter Catholic University ■

H-2087 Piliscsaba, Egyetem út 1. ■

(+36 26) 375 375 ext. 2561, ext. 2552

■ tomka@hcbc.hu, revay@btk.ppke.hu