About us

The LOEWE Research Focus “Non-neuronal cholinergic systems” is an interdisciplinary collaborative research effort funded by the State of Hesse. It is focused upon cholinergic mechanisms regulating barrier and immune functions. Twelve independent but strongly connected projects aim to decipher the molecular and cellular components of this regulatory system in health and disease to improve biological understanding and to foster therapeutic strategies.

Institutions involved

Justus-Liebig-Universität Giessen
Institutes for Anatomy and Cell Biology, Biochemistry, Veterinary Physiology, Zoophysiology
Clinics for Anesthesiology and Intensive Care Medicine, Psychosomatic Medicine, General and Thoracic Surgery, Traumatic Surgery, Urology

Philips-Universität Marburg
Institutes for Anatomy and Cell Biology, Physiology and Pathophysiology
Clinic for Anesthesiology and Intensive Care Medicine

Goethe-Universität Frankfurt
Department of Pharmacology

Associated:
Department of Dermatology, University of California, Irvine, CA, Prof. Dr. S. A. Grando
National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, MD, USA, Dr. J. Wess

Speaker
Prof. Dr. Wolfgang Kummer
Institut für Anatomie und Zellbiologie
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Administrative Coordinator
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Positions available

Starting at January 1st, 2012, for a period of 3 years.

We seek enthusiastic

PostDocs
for projects A1, A5, A6, B2, B5 and B6

PhD/Doctoral students
for projects A2, A3, A4, B1, B3 and B7

Besides working in a highly cooperative atmosphere on cutting edge projects, we offer structured education

• Specific “Cholinergic Seminars”
  http://www.uni-giessen.de/cms/fbz/fb11/institute/anatomie/lehre/seminare/cholsem

• Option to join structured doctoral programs in GI, MR or F, depending on affiliation of your supervisor; e.g.
  • http://www.uni-giessen.de/cms/fbz/fb11/forschung/graduierte/phd/
  • http://www.uni-giessen.de/cms/fbz/fb11/forschung/graduierte/ggl
  • http://www.uni-marburg.de/mara
  • http://www.first-gradschool.de/

Enquiries directly to the principal investigators or to the speaker. More at:
http://www.uni-giessen.de/cms/fbz/fb11/institute/anatomie/assoz/loewe

Projects

A1 Parasitic choline-modified antigens as ligands of cholinergic receptors - G. Lochnit, GI

A2 Non-neuronal cholinergic signal transduction and lipid rafts - R. Tikkanen, A. Banning, GI

A3 Cholinergic regulation of intestinal ion transport - M. Diener, GI

A4 Characterization and function of the non-neuronal system in ion transport in the murine tracheal epithelium - W. Clauss, M. Frohnu, GI

A5 Function and molecular anatomy of cholinergic urethral epithelial cells - W. Kummer, T. Bsheitlper, GI

A6 Bidirectional interaction of non-neuronal acetylcholine and neuronal noradrenaline in the spleen – A. del Rey, MR

B1 Acetylcholine and cholinesterases: Biomarkers in models of stress - M. Zimmermann, J. Klein, F

B2 Expression and regulation of the NNCS in arthrosis and rheumatoid arthritis - K. S. Lips, GI

B3 Regulation of the cholinergic gene locus in keratinocytes - B. Schütz, E. Weihe, MR

B5 The NNCS in adaption to stress in chronic inflammatory skin diseases - E. Peters, U. Gieler, GI

B6 Leukocytic acetylcholine in the pathogenesis of chronic transplant vasculopathy - V. Grau, GI

B7 Regulatory role of non-neuronal acetylcholine in human sepsis - M. A. Weigand, C. Rolles, GI/MR
“Cholinergic“ joint publications in 2010 and 2011


How to reach us

There are two train stations (local and long distance) that connect Frankfurt Airport with Frankfurt Main Station (10 min ride). From there, Giessen and Marburg can be reached via direct connections in 45-60 minutes.

Positions available!

To be launched at January 1st, 2012

Speaker
Prof. Dr. Wolfgang Kummer

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