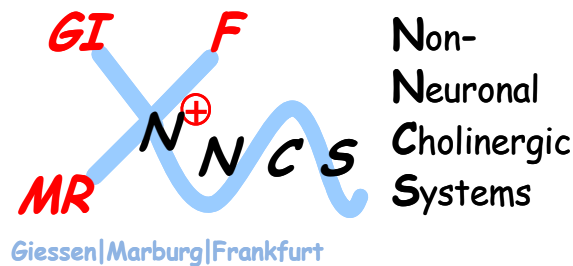


LOEWE-Research Focus *Non-Neuronal Cholinergic Systems*



1st annual meeting 10th November 2012, Giessen, Germany

Institute for Veterinary Physiology and Biochemistry, Justus-Liebig University
Giessen,
Giessen, Frankfurter Str. 100, 35392 Giessen, Germany

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|---------------|--|
| 09:00 – 09:10 | Welcome adress (organisators and speaker of the LOEWE research focus) |
| 09:10 – 09:30 | Kummer W (introductory lecture)
“The non- and pre-neuronal cholinergic system” |
| 09:30 – 10:10 | Indiveri C (Arcavacata di Rende; invited speaker)
“The human organic cation transporter OCTN1. Physiological and pathological implications in the non neuronal cholinergic system” |
| 10:10 – 10:30 | Lips KS, Yanko Ö, Kneffel M, Kauschke V, Panzer I, Henß A, Schmitz P, Rohnke M, Bäuerle T, Liu Y, Kampschulte M, Langheinrich A, Heiss C, Schnettler R, Kilian O (Giessen/Heidelberg/Bad Berka)
“Alterations in bone quality of female alpha7 nicotinic acetylcholine receptor knockout mice” |
| 10:30 – 10:50 | Mohr F, Krejci E, Klein J, Zimmermann M (Frankfurt/Paris)
“Cholinergic adaptations in PRiMA-deficient mice” |
| 10:50 – 11:20 | Coffee break |
| 11:20 – 12:00 | Soreq H (Jerusalem; invited speaker)
“MicroRNA regulators of cholinergic signaling in the interface between inflammation and anxiety” |
| 12:00 – 12:20 | Hecker A, Küllmar M, Atanasova S, Wilker S, Stumpf S, Kaufmann A, Kummer W, Padberg W, Grau V (Giessen/Marburg)
“Acetylcholine regulates ATP-mediated inflammasome activation” |
| 12:20 – 12:40 | Timm T, Grabitzki J, Severcan C, Kocak E, Lochnit G (Giessen)
“Phosphocholine (PC)-containing antigens from the parasite <i>Ascaris suum</i> as potential ligands of cholinergic receptors” |
| 12:40 – 13:40 | Lunch |

13:40 – 14:00	Deckmann K, Krasteva-Christ G, Rafiq A, Bschleipfer T, Althaus M, Fronius M, Kummer W (Giessen) „Chemosensation in urethral cholinergic brush cells“
14:00 – 14:20	Nandigama R, Ibañez-Tallon I, Lips KS, Schwantes U, Kummer W, Bschleipfer T (Giessen) “Expression of nicotinic acetylcholine receptor subunit mRNA in mouse bladder afferent neurons”
14:20 – 15:50	Poster session with coffee
15:50 – 16:10	Rafiq A, Canning BJ, Hartmann P, Weitz A, Deckmann, K, Kummer W, Krasteva-Christ G (Giessen/Baltimore) “Bitter chemosensation in the murine trachea”
16:10 – 16:30	Schütz B, Ringer C, Gäckler C, Krasteva G, Kummer W, Weihe E (Marburg/Giessen) “The cholinergic phenotype of brush cells in the mouse digestive tract”
16:30 – 17:10	Berggren PO (Stockholm; invited speaker) “Eye can report on the status of the endocrine pancreas”

Chairpersons:

09:10 – 10:50	E. Weihe
11:10 – 12:30	M. Zimmermann
13:30 – 17:10	M. Weigand

Technical information:

Please note that the time frame for **oral talks** is **15 minutes + 5 min discussion** (i.e. in total 20 min). A computer (Windows 7) with Powerpoint 2010, Open Office 3.4.1 and Acrobat Reader X is present in the lecture hall. For other operating systems (Apple, Linux...) or other graphic programs, please bring your laptop with you including a VGA-adapter for connection to the beamer.

The size of the poster boards is

- Height (vertical extension): maximum 130 cm
- Width (horizontal extension): maximum 95 cm

Accepted posters:

Poster 1:

The non-neuronal cholinergic system in rat colonic epithelium

Bader S, Diener M

Institute for Veterinary Physiology and Biochemistry, Justus-Liebig-University Giessen,
Frankfurter Str. 100, 35392 Giessen

Poster 2:

Expression of choline transporters in the synovial tissue and cartilage of joints from patients with osteoarthritis and rheumatoid arthritis

Beckmann J¹, Schubert J¹, Morhenn HG¹, Szalay G², Schnettler R^{1,2}, Lips SK¹

¹Laboratory for Experimental Trauma Surgery, Justus-Liebig University, Giessen, Germany¹

²Department of Trauma Surgery Giessen, University Hospital of Giessen-Marburg, Giessen, Germany

Poster 3:

Role of non-neuronal acetylcholine in porcine airway epithelium

Dittrich NP, Clauss WG, Fronius M

Institute of Animal Physiology, Molecular Cell physiology, Justus-Liebig-University Giessen,
Giessen, Germany

Poster 4:

Cholinergic brush cells expressing chemoreceptor traits in the murine urethra

Filipski K¹, Papadakis T¹, Wolff M¹, Schütz B², Weihe E², Bschleipfer T³, Krasteva-Christ G¹, Kummer W¹,

Institute of Anatomy and Cell Biology ¹JLU Giessen and ²PU Marburg¹

³Department of Urology, Pediatric Urology and Andrology, JLU Giessen

Poster 5:

Analysis of bending stiffness from bones of a murine sepsis model

Floel W¹, Dürselen L², Ignatius A², Ott J³, Meyer K³, Weigand M⁴, Schnettler R^{1,5}, Lips KS¹

¹Laboratory for Experimental Trauma Surgery, JLU Giessen;

²Institute of Orthopaedic Research and Biomechanics, Center of Musculoskeletal Research,
University of Ulm;

³University of Giessen Lung Center;

⁴Department of Anaesthesiology;

⁵Department of Trauma Surgery, JLU Giessen

Poster 6:

Regulation of acetylcholine receptors in osteoporotic bone and their influence during titanium alloy integration

Kauschke V¹, Dakischew O¹, Helth A³, Gebert A³, Heiss C², Alt V², Schlewitz G², Panzer I¹,
Kilian O^{1,4}, Schnettler R^{1,2}, Lips KS¹

¹Labor für experimentelle Unfallchirurgie;

²Klinik und Poliklinik für Unfallchirurgie;

³ Leibniz-Institut für Festkörper- und Werkstoffforschung;

⁴ Zentralklinik Bad Berka

Poster 7:

Biomechanical analysis of bone from muscarinic (M3) and nicotinic (alpha7) receptor knockout mice

Mathias Kneffel, Vivien Kauschke, Imke Panzer, Lutz Dürselen, Anita Ignatius, Olaf Kilian, Reinhard Schnettler, Katrin Susanne Lips

Poster 8:

Cilia-driven particle transport in mouse respiratory epithelium is stimulated by nicotine
Krasteva-Christ G, Weitz A, Boseva I, Hartmann P, Faulhammer Mermer P, Papadakis T, Ibañez-Tallon I*, Fronius M, Kummer W

Institute of Anatomy and Cell Biology, JLU Giessen, * Max-Delbrück-Center for Molecular Medicine, Berlin.

Poster 9:

Cholinergic control of the murine trachealis muscle via non-vesicular acetylcholine release
Nassenstein C¹, Lips KS², Lockridge O³, Weigand S¹, Kummer W¹

¹ Inst. Anat. Cell Biol.;

² Lab. Exptl. Trauma Surgery, JLU Giessen;

³ Eppley Inst., Univ. Nebraska Med. Ctr., Omaha, USA

Poster 10:

Cholinergic modulation of epithelial integrity in the colon of pigs.

Lesko S¹, Wessler I², Gäbel G¹, Kaiser B¹, Pfannkuche H¹.

¹Institute of Veterinary-Physiology, Faculty of Veterinary Medicine, Leipzig University;

² Institute of Pathology, University Medical Centre, University of Mainz

Poster 11:

Staurosporine-induced apoptosis present with unexpected cholinergic effects in a differentiated neuroblastoma cell line.

Li GF, Gleinich A, Lau H, Zimmermann M

Department of Pharmacology. School of Pharmacy. Biocenter N260, Max-von-Laue Str. 9, Goethe university Frankfurt. Germany

Poster 12:

Expression of nicotinic and muscarinic acetylcholine receptors in experimental chronic allograft nephropathy

Meixner M, Atanasova S, Kummer W, Grau V

Laboratory of Experimental Surgery, Department of General and Thoracic Surgery, Justus-Liebig-University Giessen, Giessen, Germany

Poster 13:

Role of membrane raft associated flotillins in cholinergic signaling
Ockenga W, Kühne S, Bocksberger S, Banning A, Tikkanen R
Biochemical Institute of Biochemistry, Medical Faculty, JLU Giessen

Poster 14:

A cholinergic cell with brush cell characteristics in the thymic medulla
Panneck A¹, Papadakis T¹, Rafiq A¹, Kripp G¹, Magdowski G¹, Schütz B², Weihe E²,
Krašteva-Christ G¹, Kummer W¹
Institute of Anatomy and Cell Biology, ¹JLU Giessen and ²PU Marburg

Poster 15:

Peters
Psychoneuroimmunology Laboratory, Department of Psychosomatic Medicine and
Psychotherapy, JLU Giessen
To be completed

Poster 16:

Rommel
Psychoneuroimmunology Laboratory, Department of Psychosomatic Medicine and
Psychotherapy, JLU Giessen
To be completed

Poster 17:

Loss of vagal tone aggravates systemic inflammation and cardiac impairment in endotoxemic
rats
Schulte A, Uhle F, Henrich M, Lichtenstern C, Weigand MA
Dept. of Anaesthesiology, Intensive Care Medicine and Pain Therapy, Justus Liebig
University Giessen

Poster 18:

The cholinergic system in immune cells under inflammatory conditions.
Ullsperger SN¹, Uhle F¹, Rolfes C², Weigand MA¹
¹ Department of Anaesthesiology, Intensive Care Medicine and Pain Therapy, Justus Liebig
University Giessen;
² Department of Anaesthesiology and Intensive Care Therapy, Phillips-University Marburg

List of participants

Oral presentations by:

Deckmann	Klaus
Hecker	Andreas
Lips	Katrin Susanne
Mohr	Franziska
Nandigama	Rajender
Rafiq	Amir
Schütz	Burkhard
Timm	Thomas

Poster presentations by:

Bader	Sandra
Beckmann	Janet
Dittrich	Nikolaus, Paul
Filipski	Katharina Johanna
Floel	Wolfgang Günther
Kauschke	Vivien
Kneffel	Mathias
Krasteva-Christ	Gabriela
Kummer	Wolfgang
Lesko	Szilvia
Li	Guangfeng
Meixner	Marion
Ockenga	Wymke
Panneck	Alexandra
Peters	Eva
Rommel	Frank Risto
Schulte	Astrid
Ullsperger	Sandra-Natascha

Attendancy without poster/talk:

Banning	Antje
Bell	Anna
Bocksberger	Simone Angelika
Clauss	Cornelia
Clauss	Wolfgang
Diener	Martin
En-Nosse	Maryam
Fronius	Martin
Füllkrug	Ralf
Gerstberger	Rüdiger
Hainke	Susanne
Hollenhorst	Monika
John	Bincy Anu
Jurastow	Innokentij
Kaiser	Bastian
Klein	Jochen
Koenig	Sandy
Kühne	Sina
Küllmar	Mira
Lobentanzer	Sebastian
Lochnit	Günter
Meister	Melanie
Pfannkuche	Helga
Pollatzek	Eric
Pouokam Kamgne	Ervice Vidal
Richter	Katrin
Rummel	Christoph
Steidle	Julia
Tikkanen	Ritva
Uhle	Florian
Vitzthum	Constanze
Weigand	Markus A.
Weihe	Eberhard
Würner	Lisa
Zimmermann	Martina