



BIG BRAIN 2018

Conference for Collaboration in EurAsia Конференция по сотрудничеству в Евразии 2018г

2018年亚欧地区合作会议

पूर्व-पाश्चात्य जीवविज्ञानम्-2018

2nd Transcontinental Conference GeneSEES Impact 2018

"Comprehensive Understanding of Human Health and Impact from Person's Life-Sphere Surroundings in Populations across the Eurasian Landmass"

Steering Committee

MAU Jochen (Heinrich Heine University, Düsseldorf, Germany) Chair GERASIMOV Andrey (Sechenov University, Moscow, Russia) TIAN Wen-Hua (Fudan University, Shanghai, China) WANG Guanyu (SUSTech, Shenzhen, China)

Co-Organizers and Executives

DAI Yi-Yang (Zhejiang University Med School, China)
LI Jian (Ludwig Maximilians University, Munich, Germany)
LÜ Mo (Southern University of Science and Technology, Shenzhen, China)
XU Shuhua (SIBS CAS MPG Partner Institute, Shanghai, China)
ZHANG Jianhua (Olso Metropolitain University, Oslo, Norway)

5th Annual "Arbeitstreffen" Initiative Biokybernetik HEALTH CYBERNETICS - Coherent Control of Health Impacts

Initiator: Jochen Mau, Heinrich Heine University Düsseldorf

10-12 December 2018
TRYP Hotel Düsseldorf Krefeld
Europa-Park A1, Krefeld Fichtenhain



BIG BRAIN 2018 - Conference for Collaboration in EurAsia 10-12 December 2018, Krefeld, Germany

Program on Monday 10 December 2018

09:00-09:15 BEGRÜSSUNG ПРИВЕТСТВИЕ 欢迎 WELCOME

MAU Jochen

09:15-10:15 Introduction to and Discussion of Eurasian Collaboration

MAU Jochen, Düsseldorf/Krefeld, Germany

The Shenzhen Eurasian-Health-and-Medicine Initiative: Rationale, goals, concepts, and significance for EurAsia's science

10:15 Morning break (15')

10:30-11:30 The Key Note Lecture on Genetic Admixing in EurAsia

XU Shu-Hua, Shanghai, China

Human genetic admixture along the Silk Road and its impact on Eurasian population diversity

11:30-12:00 Lecture on Genetics

ROZHNOVA Tatiana, Moscow, Russia

Genetics of co-dependency

12:00-13:00 LUNCH BREAK

13:00-13:45 The Key Note Lecture on Epidemic Control

GERASIMOV Andrey, Moscow, Russia

Mathematical model of epidemic spread of tuberculosis among children

13:45 After-lunch Break (15')

14:00-14:30 TUTORIAL «Systems Theory for Eurasian Collaboration» No. 1

MAU Jochen, Düsseldorf/Krefeld, Germany

SYSTEM FUNCTION ARCHITECTURE: A holistic standard structure for exploration and modeling of humanbody system controls

14:30-15:00 TUTORIAL «Systems Theory for Eurasian Collaboration» No. 2

MAU Jochen, Düsseldorf/Krefeld, Germany

Mathematical theory of multi-scale effectuation dynamics in System Function Architecture

15:00 Afternoon Break (15')

15:15-16:00 Lecture on Statistical Methodology in Cohort Follow-up Population Studies

WAGENPFEIL Stefan, Homburg (Saar), Germany

Estimation of adjusted relative risks in log-binomial regression: work in progress

16:00-16:45 The Special Lecture on Systems-theory Understanding of Aging

KHALYAVKIN Alexander, Moscow, Russia

Holistic and contextual approach to origin of aging

16:45-17:00 Round-up of Day 1

17:00 Closure of Day 1

Program on Tuesday 11 December 2018

09:00-09:30 The Special Invited Insight on Clinical Culture in China

DAI Yi-Yang, Yiwu, Zhejiang, China

"Inside" - The Department of Gastroenterology

09:30-10:15 The Key Note Lecture on Health System Management from «Silk Road East»

TIAN Wen-Hua, SU Peng, DING Hansheng, ZHANG Wei, DUAN Guangfeng, Shanghai, China

The association of multimorbidity and disability in a community-based sample of elderly aged 80 or older in Shanghai, China

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10:15 Morning break (10')

 $10:25-11:10 \ \underline{The\ Key\ Note\ Lecture\ on\ Health\ System\ Management\ from\ «Silk\ Road\ West»}$

SIBBEL Rainer, Frankfurt (Main), Germany

Healthcare system in transition - challenges from dynamics and complexity

11:10-11:55 Special Invited Lecture on Bio-Metrology

LEONHARDT Steffen, Aachen, Germany

Camera-based physiological measurements

12:00-13:00 LUNCH BREAK

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13:00-13:35 Special Invited Lecture on Neuroergometry

ROZHNOVA Kseniya, Moscow, Russia

Neuro-ergometry Based on Direct-Current Potentials – Concept and Application

13:35 Short After-lunch Break (5')

13:40-14:25 The Key Note Lecture on Immune, Hormone and Nervous Systems Interaction

PONGRATZ Georg, Düsseldorf, Germany

Interrelation of autonomic nervous system, endocrine system and inflammation control - implications for health and diseases

14:25 Early Afternoon Break (10')

14:35-15:20 The Key Note Lecture on Brain Dynamics

VILLA Alessandro, Lausanne, Switzerland

Neuro-heuristic perspective on brain dynamics

15:20-16:05 The Key Note Lecture on Energy Utilisation in the Brain

BINKOFSKI Ferdinand, Aachen, Germany

Selfish brain - mechanisms of energy utilisation in the brain

16:05 Late Afternoon Break (10')

16:15-17:00 The Key Note Lecture on Living Nature's «Material Option»

HESCHELER Jürgen, Cologne, Germany

Back to the beginning: Learning from pluripotent stem cells how our body and brain originate

17:00 Closure of Day 2

18:00-21:00 The 10-Years «Health in EurAsia» Celebration Dinner (Season's Style)

Rheinhotel «Vier Jahreszeiten», Zur Rheinfähre 15, 40668 Meerbusch

Program on Wednesday 12 December 2018

09:00-09:45 The Key Note Lecture on Endocrine Control in Neuroscience

VUKOJEVIĆ Vladana, Solna, Sweden

Regulation in the hypothalamic pituitary adrenal (HPA) axis from the neuroscience perspective

09:45-10:30 The Key Note Lecture on Thyroid Allostasis

DIETRICH Johannes W, Bochum, Germany

Thyroid allostasis - a common, yet understudied condition from a systems perspective

10:30 Morning Break and Hotel Check-outs (30')

11:00-11:45 The Special Lecture on Modelling in Endocrine Control

MÜLLER Matthias A., BERBERICH Julian, DIETRICH Johannes W., HOERMANN Rudolf; Stuttgart, Germany

Mathematical modeling of the thyroid-pituitary feedback loop: role of a TSH-T3 shunt and sensitivity analysis

11:45-12:00 Round-up on Endocrine Control

12:00-13:00 LUNCH BREAK

13:00-13:45

TBA

13:45 After-lunch Break (15')

14:00-14:30 TUTORIAL «Systems Theory for Eurasian Collaboration» No. 3

MAU Jochen, Duesseldorf / Krefeld, Germany

IDENTIFICATION - Underpinning theory for statistical estimation of "wirkgefüge" dynamics in System Function Architecture

14:30-15:00 TUTORIAL «Systems Theory for Eurasian Collaboration» No. 4

MAU Jochen, Düsseldorf / Krefeld, Germany

ROBOTIC COMMUNITY: Systems-theory concepts of human behavior in body-system socio-sphere

 $\textbf{15:00-15:15 Round-up of Tutorial} \quad \textbf{«Systems Theory for Eurasian Collaboration} \\$

15:15-15:30 <u>GUTE HEIMKEHR ДОБРОЕ ВОЗВРАЩЕНИЕ ДОМОЙ 话别 FAREWELL</u> MAU Jochen

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15:30 Closure of Conference

NOTE: Schedule may be subject to changes.