LMU-China Academic Network Scientific Forum at Ludwig-Maximilians-Universität
München, Munich, November 13 – 15, 2015

Under the auspices of Prof. Dr. Hans van Ess, Vice-President for International Affairs, LMU

Participating academic board members: Prof. Dr. Martin Biel (Pharmacology), Prof. Dr. Christof Mauch (Environment and Society), Prof. Dr. Eva Ruhnau (Human Science Center), Prof. Dr. Reinhard K. Straubinger, Ph.D. (Veterinary Medicine), Prof. Dr. Ernst Wagner (Pharmaceutical Biology and Biotechnology), Prof. Dr. Gert Wörheide (Geobiology)

Program management: Wencke Vonderhagen (LMU International Office)

Institutional responsibility: LMU International Office
Conference agenda
Friday, November 13th

Venue: LMU Main Building, Geschwister-Scholl-Platz 1, Senatssaal

06:00 – 06:45 p.m. Registration

WELCOME RECEPTION

07:00 – 07:45 p.m. Welcome addresses
  - LMU President Prof. Bernd Huber
  - LMU VP Prof. Hans van Ess
  - Prof. Dr. Chongling Huang, Chinese Consulate Munich

From 07:45 p.m. Dinner Buffet & Networking

Saturday, November 14th

Venue: LMU Campus Oettingenstr. 67, 80538 München

08:30 a.m. Registration & Welcoming Coffee (Foyer)

PLENUM BRIEFS

09:00 a.m. Opening: The LMU-ChAN Project
  - LMU International Office, Director Stefan Lauterbach
  - German Academic Exchange Service (DAAD), Ms. Karin Heistermann

09:20 a.m. Examples of Cooperation within the LMU-China Academic Network:

Health and Life Sciences
Chair: Prof. Dr. Karl-Walter Jauch, Director LMU Klinikum (09:20-10:00 a.m.);
Prof. Dr. Martin Biel, LMU (10:00-11:00)

09:20 a.m. “Cultural Neurosciences” *
  Prof. Dr. Shihui Han, Peking University / Prof. Dr. Ernst Pöppel, LMU

09:40 a.m. “Cooperative Cognitive Science from Past to Future”*
  Prof. Dr. Ernst Pöppel, LMU

10:00 a.m. “Sino-German Cooperation in Medical Science between bilateral Universities”*
  Prof. Dr. Ren Zhou, Zhejiang University

10:20 a.m. “Translational Application of Research - The Early Nutrition eAcademy (ENeA)”*
  Dr. Brigitte Brands, LMU Dr. von Hauner Children’s Hospital

10:40 a.m. Coffee Break

11:00 a.m. “Natural compounds in cancer research”*
  Prof. Dr. Stefan Zahler, LMU

11:20 a.m. “Nanoparticle based drug delivery to brain and brain tumors: Fudan University - LMU joint efforts”*
  Prof. Dr. Rongqin Huang, Fudan University
Societies and Education
Chair: Prof. Dr. Rudolph Tippelt, LMU

11:40 a.m. “Lost in Collaboration? Overcoming the Challenges and Harvesting the Benefits of Sino-German Teamwork in China”*
Prof. Dr. Martin Högl / Ms. Marie Haude, LMU Munich School of Management, Institute for Leadership & Organisation

12:00 a.m. “The comparison of the German Reunification and China’s Economic Transition”*
Prof. Dr. Xianguo Yao, Zhejiang University

12:20 a.m. “On relationship between income poverty and multidimensional poverty”*
Prof. Dr. Qingjie Xia, Peking University

12:40 a.m. “Yenching Academy”*
Prof. John Holden, Vice Dean Yenching Academy, Peking University

01:00 p.m. Buffet Lunch

02:00 p.m. “A Teaching Museum in China”*
Prof. Dr. Zhe Miao, Zhejiang University

02:20 p.m. “The Third Abstract: New Painting Connecting with Calligraphy”*
Prof. Dr. Qingsheng Zhu, Peking University

The Earth and its Environments
Chair: Prof. Dr. Christof Mauch, LMU

02:40 p.m. “Collaborative investigation on critical transitions in deep-time bio-evolution among Sino-German scientists”*
Prof. Dr. Qun Yang, Nanjing Institute of Geology and Palaeontology, Chinese Academy of Sciences

03:00 p.m. “Tonics of Nature: An Environmental History of Beer Brewing in China and Germany”*
Prof. Dr. Shen Hou, Renmin University

03:20 p.m. Coffee Break

03:50 p.m. POSTER SESSION
CSC Doctoral Students / Post-Docs from partnering universities

NETWORKING PLATFORM (in parallel)
Venue: Restaurant “Chinesischer Turm”, Englischer Garten 3, 80538 München

06:00 p.m. Dinner at the restaurant “Chinesischer Turm”
Sunday, November 15th

**Venue: LMU Campus Oettingenstr. 67, 80538 München**

09:00 a.m. Registration & Welcoming Coffee (Foyer)

**PARALLEL SESSIONS & WORKSHOPS**

**A. Health & Life Sciences (Sessions)**

**Session A1: Pharmacology, Nano and Health**
Chair: Prof. Dr. Ernst Wagner, LMU
Comments: Prof. Dr. Martin Biel, LMU; Dr. Ulrich Lächelt, LMU; Prof. Dr. Zhongping Xia, Zhejiang University

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<th>Time</th>
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<tr>
<td>09:30 a.m.</td>
<td>“The Hungry Fly: neural regulation of energy homeostasis in Drosophila”* Dr. Liming Wang, Zhejiang University</td>
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<td>09:45 a.m.</td>
<td>“LMU-Tongji Biomedical Junior Research Group Project”* Dr. Stylianos Michalakis, LMU Prof. Dr. Jianmin Fang, Tongji University</td>
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<td>10:00 a.m.</td>
<td>“Inorganic-organic nanoparticles as a new platform for drug delivery”* Dr. Stefan Wuttke, LMU</td>
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**Session A2: Clinical Medicine, Health**
Chair: Prof. Dr. Alexander Baethmann, LMU
Comments: Prof. Dr. Riccardo Giunta, LMU; Dr. Tanja Herrler, Trauma Center Murnau

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<td>09:30 a.m.</td>
<td>“Skin and soft tissue minor surgery in the training of young plastic surgeon in China”* Dr. Qi Bao, Zhejiang University</td>
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<td>09:45 a.m.</td>
<td>“Facial Beauty: Reconstruction and Rebuild”* Prof. Dr. Kai Liu, SJTU 9th People’s Hospital</td>
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<td>10:00 a.m.</td>
<td>“Autoimmune Liver Diseases” Prof. Dr. Xiong Ma, SJTU Renji Hospital</td>
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<td>10:15 a.m.</td>
<td>“Targeted therapies for the treatment of gastrointestinal tumors” PD Dr. Enrico De Toni, LMU</td>
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<td>11:00 a.m.</td>
<td>“Significant effect of genetic variants located in beta2 adrenergic receptor gene and miRNA let-7 binding site on breast cancer susceptibility and clinical outcomes”* Dr. Yueyao Du, SJTU Breast Cancer Center</td>
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<td>11:15 a.m.</td>
<td>“Continuing Medical Education in China – the Early Nutrition eAcademy”* Dr. Ying Huang, Fudan University Children’s Hospital</td>
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<td>11:30 a.m.</td>
<td>“Particulate Air Quality and Health in Beijing, China”*</td>
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<td>11:45 a.m.</td>
<td>“Effects of Metformin on Metabolite Profiles and LDL Cholesterol in Patients With Type 2 Diabetes”*</td>
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**B. Environmental History (Workshop)**

**Workshop B: Environmental History (09:30 - 12:00 a.m.)**

Chair: Prof. Dr. Christof Mauch, LMU Rachel Carson Center

Comments: Dr. Agnes Kneitz; Prof. Dr. Shen Hou, Renmin University

**Keynote presentation:**

“On the relationship between maize cultivation and the development of rocky desertification in Guizhou from the Mid-Qing to the Republic (1736-1949)”

Prof. Dr. Zhaoqing Han, Fudan University

**Work in-progress presentation:**

“Corn in the U.S.: A Cultural and Environmental History”

Annka Liepold, LMU Rachel Carson Center

“Clams, Tsingtao Beer, and Gout”

Prof. Dr. Shen Hou, Renmin University

**C. Humanities and Cognitive Sciences (Workshops)**

**Workshop C1: Cognitive Sciences (09:30 - 12:00 a.m.)**

Chair: Prof. Dr. Eva Ruhnau

Comments: Prof. Dr. Ernst Pöppel, LMU; Prof. Dr. Shihui Han, Peking University; Prof. Dr. Qingsheng Zhu, Peking University

“The comparison of “Big Five” and “Big Six” Personality models signify genetic and cultural influence.”*

Prof. Dr. Jianxin Zhang, Chinese Academy of Sciences, Institute of Psychology

“How language environment influences basic temporal information processing in our brain?”

Prof. Dr. Yan Bao, Peking University

**Workshop C2: Art History & Archaeology (09:30 – 12:00 a.m.)**

Chair: Dr. Anke Hein

“Reconstructing the Imperial Art of Han Dynasty”

Prof. Dr. Miao Zhe, Zhejiang University
## CLOSING PLENUM

### 12:00 a.m.
**Feedback from the Workshops**

- Prof. Dr. Ernst Wagner
- Prof. Dr. Alexander Baethmann
- Prof. Dr. Christof Mauch
- Prof. Dr. Eva Ruhnau
- Dr. Anke Hein

### 01:00 p.m.
**Lunch**

### 02:00 p.m.
**City Tour**

*Venue: Hofbräuhaus, Platzl 9, 80331 München*

### 06:00 p.m.
**Dinner at the Hofbräuhaus**

*Abstract available*
Participants
A. Life Sciences and Health

- **Prof. Dr. Marc Bramkamp (t.b.c.)**
  LMU, Microbiology, Bacteriology

- **Prof. Dr. Axel Imhof (t.b.c.)**
  LMU Biomedical Center, Adolf Butenandt Institute, Molecular Biology

- **Prof. Dr. Dario Leister**
  LMU, Plant Molecular Biology, Botany

- **Prof. Dr. Martin Biel**
  LMU, Head of Pharmacology

- **Dr. Ulrich Lächelt**
  LMU, Pharmaceutical Biotechnology, Center for System-based Drug Research

- **Dr. Stylianos Michalakis**
  LMU, Pharmacology, Cyclic Nucleotide-Gated Channels

- **Prof. Dr. Ernst Wagner**
  LMU, Chair of Pharmaceutical Biology and Biotechnology - Biotechnology and Nanomedicine, Member of Nanosystems Initiative Munich (NIM)

- **Dr. Stefan Wuttke**
  LMU, Material Chemistry and Nanoscience

- **Prof. Dr. Stefan Zahler,**
  LMU, Pharmaceutical Biology, Head of Imaging Facility

- **Prof. Dr. Jianmin Fang**
  Tongji University, School of Life Science and Technology

- **Dr. Rongqin Huang**
  Fudan University, School of Pharmacy, Department of Pharmaceutics, Associate Professor

- **Dr. Ying Meng**
  Fudan University, School of Pharmacy, Department of Pharmaceutics

- **Prof. Dr. Liming Wang**
  Zhejiang University, Institute for Life Sciences

- **Prof. Zongping Xia**
  Zhejiang University, Institute for Life Sciences

- **Dr. Brigitte Brands**
  LMU Medical Center, Dr. von Hauner Children’s Hospital

- **Simone Cramer (Ms.)**
  LMU Medical Center, Dr. von Hauner Children’s Hospital

- **Prof. Dr. Olivier Gires**
  LMU Clinics, Head of the ENT Research and of the Clinical Cooperation Group Molecular Oncology

- **Prof. Dr. Riccardo Giunta**
  LMU Clinics, Head of Department for Hand-, Plastic and Aesthetic Surgery

- **Mirella Gutser**
  LMU Medical Center, Dr. von Hauner Children’s Hospital
Dr. Tanja Herrler  
Trauma Center Murnau

Chang Ming (Mr.)  
LMU Medical Center, Dr. von Hauner Children’s Hospital

PD Dr. Enrico de Toni,  
LMU Clinics, Gastroenterology / Liver Surgery

Dr. Yueyao Du  
Shanghai Jiaotong University, SJTU Medical School, Renji Hospital, Breast Center

Dr. Ying Huang  
Fudan University, Children's Hospital, Metabolic and Nutritional Medicine

Prof. Dr. Kai Liu  
Shanghai Jiaotong University, SJTU Medical School, 9th People’s Hospital, Plastic and Reconstructive Surgery

Prof. Dr. Xiong Ma  
Shanghai Jiaotong University, SJTU Medical School, Renji Hospital, Gastroenterology

Dr. Bao Qi  
Zhejiang University, School of Medicine, Hand-, Plastic and Aesthetic Surgery

Prof. Dr. Ren Zhou  
Zhejiang University, School of Medicine, Institute of Pathology and Forensic Medicine

Prof. Dr. Jochen Herms  
LMU, Munich Center for Neurosciences – Brain & Mind, Chair for Translational Brain Research, German Center for Neurogenerative Diseases (t.b.c.)

Prof. Dr. Ernst Pöppel  
LMU, Former Director of the Institute of Medical Psychology, Board Member of Human Science Center

Prof. Dr. Eva Ruhnau  
LMU, Scientific Director of Human Science Center

Prof. Dr Yan Bao  
Peking University, Department of Psychology

Prof. Dr. Shihui Han  
Peking University, Department of Psychology

Prof. Dr. Qingsheng Zhu  
Peking University, Director Institute for Han Art

Prof. Dr. Jianxin Zhang  
Chinese Academy of Sciences, Institute of Psychology, Director

Prof. Dr. Reinhard Straubinger  
LMU, Veterinary Medicine, Head of Infection Medicine, Zoonoses
B. Geosciences & Environmental Sciences

- **Prof. Dr. Horst Helle**  
  LMU Department of Sociology

- **Anka Liepold**  
  LMU Rachel Carson Center for Environment and Society

- **Prof. Dr. Christof Mauch**  
  LMU, Rachel Carson Center for Environment and Society, Director

- **Prof. Dr. Zhaoqing Han**  
  Fudan University, Institute of Historical Geography

- **Dr. Shen Hou**  
  Renmin University, School of History, Associate Professor

- **Dr. Agnes Kneitz**  
  Renmin University, School of History, Associate Professor and LMU Representative in Beijing

- **Dr. Stefan Brandmeier**  
  Helmholtz Zentrum für Gesundheit und Umwelt, Institute of Epidemiology II

- **Dr. Susanne Breitner**  
  Helmholtz Zentrum für Gesundheit und Umwelt, Institute of Epidemiology II

- **Dr. Alexandra Schneider**  
  Helmholtz Zentrum für Gesundheit und Umwelt, Institute of Epidemiology II

- **Dr. Chang Su**  
  Helmholtz Zentrum für Gesundheit und Umwelt, Institute of Epidemiology II

- **Dr. Rui Wang-Sattler**  
  Helmholtz Zentrum für Gesundheit und Umwelt, Institute of Epidemiology II

- **PD Dr. Mike Reich**  
  LMU, Department of Earth and Environmental, Palaeontology and Geobiology

- **PD Dr. Yu Liu**  
  LMU, Division of Neurobiology (AG-Boyan), Department Biology II

- **Prof. Dr. Gert Wörheide**  
  LMU, Department of Earth and Environmental, Chair of Palaeontology and Geobiology

- **Prof. Dr. Yang Qun**  
  Nanjing Institute of Geology and Palaeontology (NIPGAS), Director
<table>
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<tr>
<th>Name</th>
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<tr>
<td>Prof. Dr. Hans van Ess</td>
<td>LMU, Institute for Sinology, Vice President for International Affairs</td>
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<tr>
<td>Dr. Anke Hein</td>
<td>LMU, Institute for Sinology, Chinese Archaeology</td>
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<tr>
<td>Prof. Dr. Thomas Höllmann</td>
<td>LMU, Institute for Sinology (including Chinese Archaeology &amp; Art) and Institute for Ethnology</td>
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<tr>
<td>Dr. Catrin Kost</td>
<td>LMU Distant Worlds, Graduate School for Ancient Studies</td>
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<tr>
<td>Dr. Anna Stecher</td>
<td>LMU, Institute for Sinology</td>
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<tr>
<td>John Holden</td>
<td>Peking University, Associate Dean Yenching Academy</td>
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<td>Prof. Dr. Zhe Miao</td>
<td>Zhejiang University, The Art and Archaeology Research Center, Zhejiang University Museum of Art and Archaeology, Director</td>
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<tr>
<td>Prof. Dr. Thomas Hanitzsch</td>
<td>LMU, Department of Communication Studies and Media Research (t.b.c.)</td>
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<tr>
<td>Prof. Dr. Rudolf Tippelt</td>
<td>LMU, Chair in Faculty for Psychology and Education Science</td>
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<tr>
<td>Marie Haude</td>
<td>LMU, Munich School of Management, Institute for Leadership and Organisation</td>
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<td>Prof. Dr. Martin Högl</td>
<td>LMU, Munich School of Management, Head of Institute for Leadership and Organisation</td>
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<tr>
<td>Ms. Lu Li</td>
<td>LMU Institute of Risk Management and Insurance, Munich School of Management</td>
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<tr>
<td>Dr. Sebastian Watzka</td>
<td>LMU, Department of Economics, Seminar for Macroeconomics</td>
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<td>Prof. Dr. Qingjie Xia</td>
<td>Peking University, School of Economics</td>
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<tr>
<td>Prof. Dr. Xianguo Yao</td>
<td>Zhejiang University, Faculty of Social Sciences, Dean</td>
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D. Representatives from the Universities’ Administration and Partnering Institutions

- Prof. Dr. Bernd Huber  
  LMU, President

- Prof. Dr. Hans van Ess  
  LMU, Vice President for International Affairs

- Dr. Stefan Lauterbach  
  LMU, Director International Office

- Wencke Vonderhagen (Ms.)  
  LMU, Project Coordination LMU-China Academic Network

- Dr. Brigitte Weiss-Brummer  
  LMU, Head of Unit International Programs

- Dr. Dongmei Zhang  
  LMU, LMU-CSC Program Coordinator

- Min Li (Ms.)  
  Zhejiang University, Vice Director, Office of International Relations

- Ying Ye (Ms.)  
  Zhejiang University, Office of International Relations

- Prof. Xuemei Yu  
  Tongji University, Office of International Relations

- Karin Heisterman  
  German Academic Exchange Service (DAAD), Internationalization Programmes

- Prof. Dr. Chongling Huang  
  Chinese Consulate, Munich
Abstracts of lectures
Brain imaging research has shown increasing interests in finding neural correlates of cognition that are culturally universal and divergent. The amounting findings show evidence suggesting cultural influences on brain activity associated with multiple cognitive/affective processes. Moreover, these findings prompt a new integrative framework to account for dynamic interactions between culture, behavior, and the brain. Most importantly, cross-cultural brain imaging studies give birth to a new field, i.e., cultural neuroscience, which aims to understand whether and how the functional organization of the human brain is shaped by culture and by the interaction between culture and genes on different time scales.
Cooperative Cognitive Science from Past to Future

Prof. Dr. Ernst Pöppel
Human Science Center, Ludwig-Maximilians-Universität

In 1981 a delegation of the Medical Faculty of LMU visited China like Beijing, Shanghai or Wuhan, and since then cooperations began with different Chinese institutions and faculties like Peking University or institutes of the Chinese Academy of Sciences. Highlights were ten Sino-German workshops either in Beijing or Munich (and other European cities) focusing on topics in the cognitive sciences in general. On the personal level the cooperation with Assoc. Prof. Yan Bao and her students from Peking University since the beginning of the new millennium have been proven to be very satisfying as documented in many joint publications in internationally reviewed journals; during the last years this bilateral cooperation has included also researchers from the Institute of Psychology of the Chinese Academy of Sciences. Substantial discoveries have been made in the field of visual perception, attentional control and temporal processing. (One question we have jointly addressed and pursue in the future: "Is subjective time, is time in the brain, continuous or discrete?" which is a question also in philosophical discourse or in theoretical physics). In addition to these projects, the relationship between "art and science" has become more important for us; this "syntopic" project links the humanities with the sciences within an intercultural frame; cognitive scientists can and should expand the perspectives towards the arts, i.e. in music, poetry, or the visual arts. Interdisciplinary and international cooperations as they have been developed in the past having created a basis of trust implicitly also have a political meaning: Scientists are Natural Ambassadors."
Sino-German Cooperation in Medical Science between bilateral Universities

Prof. Dr. Ren Zhou
School of Medicine, Institute of Pathology and Forensic Medicine, Zhejiang University

The presentation will introduce to the LMU-ChAN forum our achievements in Sino-German cooperation focusing on cancer pathology in previous decades between Zhejiang University and German universities, and also between Chinese universities and German universities.

During an earlier period of Sino-German inter-personal and inter-single-university cooperative activities, a project on “Molecular Mechanism of Tumors” was developed and organized in 2010 by the Institutes of Pathology at Zhejiang University and Würzburg University as the initiating universities, together with more than ten leading universities from both Germany and China. The cooperative project was supported by the Sino-German Cooperation Center located in both Beijing and Born, fully financially supported by NSFC in China and DFG in Germany.

The bilateral cooperators for the project on “Molecular Mechanism of Tumors” included: on the German side, Würzburg University, Humboldt University of Berlin – Charité, Ludwig Maximilian University of Munich, the University of Heidelberg, the University of Leipzig, Dresden University of Technology, the University of Regensburg, Friedrich Schiller University Jena, the University of Mannheim, the University of Giessen and the University of Goettingen; and on the Chinese side, Zhejiang University, Beijing University, the Beijing Union Medical College Hospital, Nanjing University, the Southern Medical University, Tongji Medical College of Huazhong University of Science and Technology, the West China Medical School in Sichuan University, the Third Military Medical University, the Second Military Medical University and the General Hospital of Nanjing Military Command.

During the executive period of the project in 2010-2014, Sino-German cooperation in medical science made substantial and fruitful progress. An annual symposium on “Molecular Mechanism of Tumors” was opened for bilateral cooperators in Germany or China and training courses on molecular diagnosis were developed for young doctors. In addition, bilateral medical scientists found plenty of opportunities to look for fields of mutual interest and reciprocal areas for cooperation. Some of the cooperators sent their scholars to labs in the other country for collaborative research work.
Our cooperation in recent years has formed close ties for medical science between universities on both sides and we hope to increase this cooperation both nationally and globally. As a result of our project cooperation, both sides are trying to develop a sustainable model and some new areas of cooperation, including tele-diagnosis and development of international quality control systems in medicine.

In terms of Sino-German cooperation in medical science, we hope our experience can be shared with bilateral colleagues in comprehensive fields on the LMU-ChAN forum and also hope the forum can form a comprehensive and substantial union which will attract the attention of governments, consortia, fund organizations and universities on both sides.
Translational Application of Research - The Early Nutrition eAcademy (ENeA)

Dr. Brigitte Brands and Prof. Berthold Koletzko
Div. Metabolic and Nutritional Medicine
Dr. von Hauner Children’s Hospital
University of Munich Medical Center

In 2014, an innovative initiative, based on a cooperation between LMU and Fudan University, evolved into the establishment of an e-learning platform in the area of pediatric nutritional medicine. This initiative was an extension of the Early Nutrition eAcademy (ENeA) (www.early-nutrition.org/ENeA), the brainchild of Prof. Berthold Koletzko from Dr. von Hauner Children’s Hospital. An advanced training initiative for aspiring and practicing health care professionals, the objective of ENeA is the transfer of scientific knowledge and evidence-based recommendations, in the area of ‘Early Nutrition and Lifestyle,’ into practical application.

This serves as a measure of sustainability for publicly funded, European as well as international research projects. The platform is currently the largest of its kind on an international level, with comprehensive worldwide coverage (currently more than 5,000 users from 141 countries). Especially for doctors in training, but also for other health care professionals such as midwives, pharmacists and dieticians in China, the first steps of cooperation between the research groups of Prof. Koletzko and the team of Prof. Wang at the Medical School of Fudan University were taken in 2014.

In the short time since then, some of the existing English-language modules have already been translated into Mandarin Chinese and a corresponding platform for the ENeA China project (ENeACN) established. The pioneer project ENeACN will make effective use of the collaborative e-learning platform in the fields of pre- and postgraduate teaching and advanced training: ENeACN stands for the direct translation of research findings - with an emphasis on Chinese perspective - into practice. Furthermore, ENeACN perpetuates through an exchange of knowledge, in the form of an e-learning platform, valuable global resources and as such establishes a commitment to the sustainability of cross-border co-operations in higher education within the agenda framework of LMU ChAN.

In addition, the virtual cooperation is complemented by annual joint project development phases in Munich and Shanghai, focused on implementation of the project. In this way, existing modules are not only linguistically translated and Chinese reference and research data integrated, but also adapted to the specific needs in China and teaching-learning didactic concepts further developed and evaluated. The basis for this initial comprehensive evaluation as well as the composition of a detailed profile of requirements, for the pre- and post-graduate teaching, is to ensure successful integration with other universities and relevant institutions in China and its Asian neighbours.

An integration of ENeACN in the LMU ChAN can be the basis for the establishment of cooperative distance-learning programs offered in additional scientific fields and is thus of a model for translational application and simultaneously, international networking.
Natural compounds in cancer research

Prof. Dr. Stefan Zahler  
Pharmaceutical Biotechnology, Center for System-based Drug Research  
Ludwig-Maximilians-Universität

Chemical entities produced by organisms, which have been developed during millions of years of evolution, are predestined to show activity in biological systems. It is, therefore, not surprising that about 60% of the therapeutics we have at hand to date, are of natural origin or inspired by secondary metabolites of plants, fungi, bacteria or marine organisms. We investigate the therapeutic potential of natural compounds in the context of cancer biology, e.g. the induction of tumor cell death, the inhibition of cancer cell motility, or the inhibition of tumor blood supply. We follow a dual approach: the natural compounds are not only tested for their anti-tumor potency, but they are also used as tool compounds to learn more about general cell biology. Our vision is that systematically utilizing natural sources for compound development will help us to refill our pharmaceutical “pipelines”, which have run threateningly dry over the last decades.
Nanoparticle based drug delivery to brain and brain tumors: Fudan University - LMU joint efforts

Prof. Dr. Rongqin Huang  
School of Pharmacy, Department of Pharmaceutics, Fudan University

Brain disorders such as glioma and neurodegenerative diseases are now really difficult to treat. One of the most important factors is the presence of blood-brain barrier (BBB). Candidate drugs including >98% small molecules and almost all the macromolecular drugs have been halted mid-development due to the poor permeability of the BBB, presenting a major problem to the pharmaceutical industry. Great efforts have been made to overcome the BBB and then enhance drug accumulation with the diseased brain areas. In this field, Fudan University and LMU have done lots of work to increase the targeting efficiency of drug delivery systems via different strategies and reduce their systemic toxicity. We hope in the future, based on our joint efforts, meaningful progresses will be achieved to treat brain disorders.
Lost in Collaboration? Overcoming the Challenges and Harvesting the Benefits of Sino-German Teamwork in China

Prof. Dr. Martin Högl / Ms. Marie Haude
LMU Munich School of Management, Institute for Leadership & Organisation

Since 2008, as a Sino-German research team we have engaged in joint research based on intense knowledge exchange and shared cross-cultural and intercultural data collection efforts. Our research agenda has developed in the face of the ever-increasing relevance of Sino-German business collaboration at both strategic and operational levels. German investments in China are extensive and still increasing, while Chinese firms continue to enter the German market. In the wake of such organizational collaboration efforts, successful interpersonal cooperation also is critically important. Consequently, our research team’s general aim is to provide scientific guidance for how to foster effective and harmonious interpersonal collaboration and, by extension, performance and innovation in Sino-German alliances. As such, our presentation will give a brief overview of our project and its initial results.
The comparison of the German Reunification and China’s Economic Transition”

Prof. Dr. Xianguo Yao
Faculty of Social Sciences, Zhejiang University

Over the past 30 years, China and Germany have experienced enormous system reform. China’s economic system changed from a traditional planning economy to a market economy, following the way of gradual reform which belongs to a “supply-demand interaction” transitional model. The way in which the former East Germany was merged into Federal Germany, as a “supply oriented” transitional model for East Germany, adopted a one-step radical reform. Although China’s gradual reform experienced 30-year rapid growth, the transition of the system, accompanied by increasing social issues and conflicts of interest, is still far from completion. Two opposing perspectives of “The Collapse of China” and “Threat from China” had co-existed and alternated for a long time. Although not an economic miracle, the reunification of Germany was successful in integrating the economic and social systems in a short 20 years, which was a miracle of institutional reform. The comparison of two transition models brought enlightenment to research in institutional economics. Finally, the successful experience of German reunification could provide a useful lesson to the top-level design and systematic transition of China’s reform.
On relationship between income poverty and multidimensional poverty

Prof. Dr. Qingjie Xia
School of Economics, Peking University

This paper attempts to examine the theoretical relationship between income poverty and multidimensional poverty, and to explore the empirical linkage and discrepancy between these two types of poverty using AF multidimensional poverty measurement method with 2011 China health and nutrition survey (CHNS) data. Regarding the relationship between income poverty and multidimensional poverty, poverty can be summarized as not the mere lack of income, but the deprivation of human basic capability, covering both monetary and non-monetary poverty. The statistical analysis on income poverty and multidimensional poverty measurement shows that the coincidence of income poverty and multidimensional poverty is 31%. In other words, 69% of the multidimensional poverty-stricken households are not considered as the poor in terms of the income poverty. The econometric results indicate that the increase of income can significantly reduce the incidence of multidimensional poverty and each dimension of it, but the impact is limited.
The Yenching Academy at Peking University was established in 2014 as an interdisciplinary China Studies center. The Academy provides full fellowships for Chinese and international students to pursue an M.A. in China Studies, taught in English. Working with partner and cooperating universities, the Yenching Academy has recruited 96 students from 31 countries for its first cohort, which was enrolled in September this year.
A Teaching Museum in China

Prof. Zhe Miao  
The Art and Archaeology Research Center, Zhejiang University Museum of Art and Archaeology

The notion of the teaching museum as a “laboratory” for arts education was first developed in the United States at the turn of the twentieth century. With the increasing recognition and institutionalization of art history as a discrete humanities discipline, the teaching museum has come to be understood and function as a principle site for general education and art historical training based on object studies.

Modeled on teaching museums in the United States, Zhejiang University Museum of Art and Archaeology (ZUMAA) is the first teaching museum in China. Physically it is comprised of four parts: a museum, a library of art and archaeology, three classrooms for object teaching, and an office space for a projected department of art history. This physical configuration reflects clearly what it aspires to be: a basic teaching unit which will be responsible for the university’s core curriculum courses based on art objects and material culture.

To support the general education of the university at large, the scope of the collection fields at ZUMAA will feature various different civilizations corresponding to the teaching positions to be created at the new department of art history.

As a German invention, art history is yet to be established as an intellectual discipline in China. In light of this, ZUMAA will create a tangible symbol of the discipline as an institution in China; the professional operation within it aims to rescue the reputation of the field that in China has been tarnished for a long time by often uncritical and ahistorical local practices.
The Third Abstract: New Painting Connecting with Calligraphy

Prof. Dr. Qingsheng Zhu
Institute for Han Art, Peking University

The relationship between abstract art and modernity is not only a theoretical issue, but also a historical one. When I say it’s a theoretical issue, it means that abstract art itself is a purely theoretical art. Even though in reality it sometimes involves geometric shapes and spatial boundaries and divisions, abstract art did not derive from imitations of geometry. On the contrary, it originated from rejecting imitations. Therefore, abstraction itself is a theoretical topic.

Theoretical art practices in the name of abstraction have various directions and different levels. There are three basic levels: the first level is to summarize and create figures; the second level is to understand and regulate the world; and the third level is to cognize and express meanings. All three levels can transform into similar abstract artworks on the surface. However, they are not actually correlated to each other. Sometimes, their relationships are even more distant than the relationship between abstraction and realism. Therefore, if abstract art is discussed independently, it would be impossible to conduct comprehensive studies or find clear explanations.

As a historical issue, we are looking at abstract art as a phenomenon. Not all abstract art is created simultaneously, or in different places at the same time. It was found first in certain place or during certain time period, then it spread, transformed, combined, or was recreated independently, and finally abstract art became phenomena in art history. If these phenomena are viewed as a whole, we find a gradually developing process that is intrinsically related to the surrounding environment and culture. Briefly speaking, abstract art is a culture phenomenon that happened after modernity. More or less abstract elements exist in art of different cultures, and they appear in various forms in different art and art history. Therefore, when abstraction was found as a new art phenomenon, it was more or less related to the tradition of the local culture and resources, and even inspires, transforms, or returns to its original form.
The abstract art phenomena can be divided into three periods in the history of art, which are the First Abstraction, the Second Abstraction and the Third Abstraction. The First Abstraction refers to that after modernity appeared, because of the rapid development in industrial production and scientific theories, the way of exploring the essence and rule of nature by computing and reasoning spread into the arts, and found a spiritual match and a space to grow in art. Thus there appeared experiments of using paintings as models of imitation in order to trace the principle and essence in formal and spatial expressions. They even used forms and shapes to convey spiritual characters such as psychological and emotional expressions. Kandinsky and Mondrian’s art are examples of the First Abstraction, and each represent one extreme. Kandinsky represents the tendency of transforming emotions and meanings into symbols, signals and color codes, which are independently and creatively drawn and “discovered” by the artist, and then combined and composed into an art work. On the other hand, what Mondrian represents is to eliminate human emotions, and use shapes and colors to reflect the structures existing in the world as well as the calm and absolute relationships between the structures and the viewers.

The Second Abstraction refers to, after modernity was questioned and criticized, an art behavior of artists reflecting and rejecting fixed symbols and precise structures. On the one hand, it comes from chasing after mysteries and dreams and escaping from reality, rejecting engineering and technological explorations. On the other hand, objects produced from industrial civilization (mechanical environment and products, and even raw materials) are regarded as rejecting and surpassing human being’s reckless and random self-awareness. Abstract Expressionism and Minimalism are examples of the Second Abstraction, and are at two extremes. Abstract Expressionism have different styles, and came from different backgrounds with different culture elements. However, they all origin from the Surrealism movement, which stresses automatism and actions, even explores subconsciousness based on Chinese and Japanese Zen and calligraphy, and leaves anxious or calm brushworks and traces of color as the artwork. Minimalism, on the other side, completely ignores and even rejects human paintings, and random emotions and unconscious elements. It presents mechanical forms, repeated actions, and even whole pieces of raw materials in front of the audiences. It mixes senses and nonsenses altogether, transforms all subtle changes and beautiful meanings into direct textures and boring parts, and expresses meanings in the new world. This kind of “expression” can even be regarded as “anti-expression”. When meaning and substance, mind and matter are all fused together, infinite imaginations, strong feelings of sadness, and even industrial speed and productivity, all become characteristics of this kind of art.

The Third Abstraction means to go beyond modernity and anti-modernity. Instead it emphasizes embodying and expressing the integrity of human beings, and re-observing and re-experiencing the original state of matters. This trend was previously revealed in the works of Mark Rothko and Cy Twombly, and now it has also become a direction for the Chinese abstract art movement.
Collaborative investigation on critical transitions in deep-time bio-evolution among Sino-German scientists

Prof. Dr. Qun Yang
Nanjing Institute of Geology and Palaeontology, Chinese Academy of Sciences

The fossil record provides direct evidence for the evolution of life on the Earth since some 3.8 billion years ago. The history of the biotic evolution, as revealed and decoded by palaeontological documentation and analyses of the fossil data, exhibits richness, complexity and trends and events. Recent active researches conducted in China have resulted in numerous discoveries of critical evolutionary events, such as in the late Neoproterozoic Weng’an and Lantian Biotas in southern China, the Early Cambrian Chengjiang Fauna of Yunnan Province, and the Early Cretaceous Jehol Biota in northeastern China; these studies have also yielded huge datasets which allow quantitative analyses of paleontological diversity changes through time and their paleoenvironmental background. Chinese and German scientists have been long collaborating in a number of critical issues in paleontology and stratigraphy with focuses on comparative analysis of faunas and flora from German and Chinese localities. Recent collaborations include joint Sino-German investigation on “The Precambrian-Cambrian Biosphere (R)evolution and environmental background”; “Sino-German Cooperative Group in Late Paleozoic Paleobiology, Stratigraphy and Geochemistry” and discussions in micropaleontology, taphonomy and molecular paleobiology. A joint Sino-German meeting of the two national paleontological societies was organized in 2013 in Germany and the next joint meeting is to be held in China in 2017, providing a platform for academic discussions and joint research proposals. Although discussions and joint effort have started among paleobiologists from Ludwig-Maximilians-Universität München and Nanjing Institute of Geology and Palaeontology, Chinese Academy of Sciences, it is proposed here that wider scope cooperations among these two major institutions, both with strong paleobiological programs, should include a joint research program on systematic paleontology of important fossil groups and molecular paleobiology of cross-disciplinary nature, a program of regular student exchange and young professional training, and joint field collections in both countries.
Tonics of Nature:  
An Environmental History of Tsingtao Beer  

Prof. Dr. Shen Hou  
Renmin University

Tonic of nature for a green land—Tsingtao Beer! The most cheerful legacy left by the Germans! Along with the sea and the exotic Bavarian architecture on its label, the beer has been identified with the human settlement of Tsingtao (or Qingdao), the former German colony and now famous Chinese coastal garden city. It serves as a magical tie connecting the city’s present with its past, its own culture with that of Germany. No one has criticized this colonial product which has filled the locals with swigs of cool and fresh liquid and delightful memories.

But beneath these pleasant memories, lies a more critical, and in a way, more realistic side of the story. Since its birth, Tsingtao beer has been defined by the interaction between global economy and ecology. The production of such tonics of nature has been based on the exploitation of nature’s wealth and has turned many places, nearby or distant, into its dependent hinterlands. Studying the environmental history of Tsingtao beer leads us to see the water, the plants, the soils, the fertilizers and pesticides, the machines, and also the waste behind the beer, and to rethink the ecological dimension of this happy human invention.
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The Hungry Fly: neural regulation of energy homeostasis in Drosophila

Prof. Dr. Liming Wang
Institute for Life Sciences, Zhejiang University

The survival and well-being of animals rely on precisely maintained balance between food intake and expenditure. The central nervous system (CNS) plays a crucial role in maintaining energy homeostasis. It determines fluctuations of the internal energy state and initiates or terminates food intake behaviors accordingly. However, despite its striking accuracy, the ability of the CNS to maintain energy homeostasis can be disrupted by sustained environmental challenges, including high fat diet, insomnia and stress, which may contribute to the pathogenesis of prevailing metabolic disorders in post-industrialized societies, such as eating disorders, obesity and type II diabetes. It is therefore of both scientific and clinical interest to elucidate the mechanism underlying the regulation of food intake by the CNS. Our laboratory uses the fruit fly Drosophila melanogaster as a model system to investigate this problem. I will share our recent findings into the regulation of food intake behaviors and their implication in organismal energy homeostasis.
Development of gene therapy and antibody approaches for the therapy of human diseases

Stylianos Michalakis, Jianmin Fang, Martin Biel
1 Center for Integrated Protein Science CIPS-M and Department of Pharmacy, Ludwig-Maximilians-Universität München 2 School of Life Science and Technology, Tongji University Shanghai

The past decade has seen major developments in the field of gene therapy and antibody-based therapy approaches offering exciting options for the treatment of many diseases that cannot be treated by traditional methods (e.g. by small molecule drugs). The novel collaborative LMU-Tongji Junior Research Group based at the Tongji University in Shanghai aims at advancing both methods in selected disease areas, in particular cancer, neurodegenerative and ophthalmological diseases. A joined committee from both universities will oversee the program and support their research activities. This committee will be co-chaired by Professors Biel (LMU München) and Fang (Tongji University, Shanghai). The LMU-Tongji Junior Research Group will directly interact and collaborate with the Michalakis Junior Research Group at the LMU that has been previously established at the chair of Prof. Martin Biel.

The project aims at developing advanced therapeutics for unmet medical needs by using gene therapy and antibody technologies but also seeks to translate the results in a pharmaceutical and clinical setting. It builds on a strong basic research background and on extensive experience of partners from both universities from translational studies for gene therapy and antibody therapeutics for cancer, neurodegenerative and ophthalmological diseases. Here, one such example the development of a gene supplementation therapy for achromatopsia, will be presented.
Inorganic-organic nanoparticles as a new platform for drug delivery

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The development and study of novel functionalized nanoparticles as drug delivery systems is the goal of our research. The central idea is to design hybrid nanomaterials based on metal-organic frameworks (MOFs), which could offer a new platform for biomedical applications. These materials are expected to display novel and enhanced properties compared to more established nanomaterials such as polymers, gold nanoparticles, iron oxide nanoparticles, liposomes and mesoporous silica. MOFs are crystalline materials and have regular pores, with a large pore surface area, and a highly designable framework that permit tuning the pore shape, pore size, and internal and external surface functionality. As a result, MOF nanoparticles with well-defined and tuneable structures can be realized. Our research is focus on the design of MOF nanoparticles with inner pore functionalization for controlled interaction with biologically active molecules, as well as outer functionality for target cell uptake, triggered drug release, and with surface shielding against unwanted interactions inside the physiological environment (Figure). Here we describe the synthesis, characterization and internal as well as external surface functionalization of MOF nanoparticles intending their use as drug delivery vehicle. First we report the loading capacity and their reproducibility of the of MOF nanoparticles compared with other nanocarriers. Second focus will be the surface functionalization of the MOF particles with different Polymers (Polymer@MOF) and the formation of a lipid bilayer shell around the MOF nanoparticles (Lipid@MOF). Last but not least cytotoxic and anti-proliferative effects of the multifunctional MOF nanocarriers on different cells will be discussed.

Figure: A schematic drawing of a multifunctional MOF nanocarrier for controlled and targeted drug delivery.
Skin and soft tissue minor surgery in the training of young plastic surgeon in China

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Aim: To summarize the experience of the skin and soft tissue lump surgery in the outpatient operation room of our department, and to figure out the significance of these minor surgeries in the training of young plastic surgeon.

Methods: The pathological classification and treatment of 242 cases of skin and soft tissue lump were retrospectively analyzed.

Results: From Oct. 2014 to Aug. 2015, 212 patients with 242 lumps were operated in our outpatient OR. Among them, 76 cases were male and 136 cases were female, with an average age of 33.65. The youngest patient was 7-year old, while the oldest one was 74-year old. The most frequent pathologic types of these lumps intradermal nevus (33.5%), compound nevus (15.3%), epidermoid cyst (11.2%), seborrheic keratosis (8.3%), and hemangioma (4.5%). The top five operation sites were facial (42.1%), trunk (11.6%), neck (8.7%), scalp (8.3%) and nose (6.6%). The coincidence rate of pre-operation diagnosis and post-operation pathologic diagnosis was 92.98%, and the complication rate was 1.24%.

Conclusion: Skin and soft tissue minor surgery is the basic training method for young plastic surgeon. The plastic surgery department of public general hospital has a large number of outpatients of skin and soft tissue lump, with a variety of pathological types. This feature provides good platform for the training of young plastic surgeon.
Facial Beauty: Reconstruction and Rebuild

Prof. Dr. Kai Liu

Associated professor, Department of Plastic and Reconstructive Surgery, Shanghai Ninth People’s Hospital affiliated to Shanghai Jiao Tong University School of Medicine

Human faces are different by different races, genders and ages. All different faces have distinctive beauties. When the beauty is destroyed by accidents or changed by ages, we need to reconstruct and rebuild it. Several self-regenerative researches and operation styles for reconstruction and rebuild will be introduced in this topic.
Significant effect of genetic variants located in beta2 adrenergic receptor gene and miRNA let-7 binding site on breast cancer susceptibility and clinical outcomes

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**Background** Beta2 adrenergic receptor genes (ADRB2) is a target of microRNA (miRNA) let-7 and low let-7 expression may increase breast cancer risk. In this study, we investigated the effects of genetic variants located in adrenergic receptor genes and miRNA let-7 binding sites on breast cancer risk and clinical outcomes.

**Methods** The distribution frequency of 5 single nucleotide polymorphisms (SNPs) was investigated in patients with breast cancer and controls with benign mammary disease. We also investigated the effects of allelic variants located in adrenergic receptor genes and miRNA let-7 binding sites on disease-free survival (DFS) using the Kaplan-Meier method and Cox regression analysis.

**Results** We found that rs1042713 in ADRB2 and rs11292 in the miRNA let-7 binding site in the 3’-untranslated region (UTR) of HIF1AN were associated with susceptibility to breast cancer. A significant association was observed between the GG and AG+GG genotypes of SNP rs1042713 and decreased breast cancer risk. The TC and TC+CC genotypes of SNP rs11292 were associated with increased breast cancer risk. The genotype of CLDN12 rs1017105 was associated with ER and PR status in breast cancer patients. In the survival analysis, rs1042713 in ADRB2 was significantly associated with DFS of breast cancer patients. The GG genotype of SNP rs1042713 was associated with better DFS of these patients.

**Conclusion** Different genetic variants of miRNA let-7 binding sites in the 3’-UTR region are associated with up- or down-regulation of its target genes, and let-7 may affect breast cancer risk through its target genes including ADRB2 and HIF1AN. Polymorphism in ADRB2 might be important predictor for the prognosis of patients with breast cancer.

**Keywords** breast cancer, ADRB2 gene, miRNA let-7, polymorphism
Continuing Medical Education in China – 
the early nutrition eAcademy

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Continuing medical education (CME) is essential for each health care provider. There are more than 3.5 million people engaged in health care work in China, who need several times a year to participate in continuing education and training included conferences, workshops and internet study to get credit. Most e-learning project in China is domestic medical progress. However, our clinical nutrition level is relatively backward, especially in perinatal and pediatric nutrition. Pediatricians in China are in urgent need of strengthen personnel training of clinical nutrition through CME. The Early Nutrition eAcademy (ENeA) is a free of charge e-learning co-operation initiated by the Early Nutrition Academy (ENA) and LMU Medical Center Munich. ENeA’s aim is to provide CME accredited e-learning modules on topics in the area of early nutrition by translating the latest scientific findings from international research collaborations. The modules are especially aimed at pediatricians, gynecologists, general practitioners and midwives or nurses who have close contact with pregnant and lactating women, their infants and young families. ENeA’s Chinese version is initiated by Children’s Hospital of Fudan University in Shanghai, followed the international forefront by multidisciplinary teamwork with modules translation updating online. It provides a convenient Chinese learning platform for health care professionals and young investigators, made in parallel to international progress in the field of early nutrition.
Particulate Air Quality and Health in Beijing, China

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Ambient particulate air pollution is a challenging problem as current guidelines are exceeded in many locations. Epidemiological studies showing that current levels of particulate air pollution in the cities of developed and developing countries are associated with increased rates of mortality and morbidity have heightened concern that air pollution continues to pose a threat to public health. The Global Burden of Disease Study 2010 estimated that worldwide over 3.2 million premature deaths and over 74 million years of healthy life lost have been attributable to ambient particulate matter pollution, ranking it one of the top global risk factors.

While the air quality in Beijing has been improved significantly in the last decade due to manifold air pollution control strategies, this improvement is undermined by rapid increases in the number of vehicles and energy consumption. Therefore, the air quality in Beijing was a serious concern with regard to the Olympic Games 2008. Facing the environmental and health hazards of the enormous air pollution, air quality improvement strategies were developed, and actions were taken before and during the 2008 Olympic and Paralympic Games.

Such unprecedented measures to reduce the sources of air pollution offered a unique research opportunity to investigate whether the change in air quality would lead to changes in human health outcomes.

This talk will present results of a bilateral co-operation between German and Chinese partners that evaluated the association between particulate air pollution and mortality as well as emergency room visits due to cardiovascular and respiratory diseases for the years 2004-2008.

Daily cardio-respiratory death counts were obtained for the urban area of Beijing, whereas daily emergency visit counts were obtained from the Peking University Third Hospital located in the Haidian district. Concurrently, concentrations of particulate air pollution and meteorological parameters were obtained from official networks and monitoring sites located on the Peking University campus. Poisson regression models adjusting for trend, seasonality, day of the week, and meteorology were used to estimate particle effects.

Overall, we observed adverse effects of particulate air pollution on cardiorespiratory mortality and morbidity. Further, results indicated that the reduction of air pollution due to air quality control measures in 2008 led to a decreased risk of mortality in Beijing.
Effects of Metformin on Metabolite Profiles and LDL Cholesterol in Patients With Type 2 Diabetes

Dr. Stefan Brandmaier
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Metformin is used as a first-line oral treatment for type 2 diabetes (T2D). However, the underlying mechanism is not fully understood. Here, we aimed to comprehensively investigate the pleiotropic effects of metformin.

We analyzed both metabolomic and genomic data of the population-based KORA cohort. To evaluate the effect of metformin treatment on metabolite concentrations, we quantified 131 metabolites in fasting serum samples and used multivariable linear regression models in three independent cross-sectional studies (n = 151 patients with T2D treated with metformin [mt-T2D]). Additionally, we used linear mixed-effect models to study the longitudinal KORA samples (n = 912) and performed mediation analyses to investigate the effects of metformin intake on blood lipid profiles. We combined genotyping data with the identified metformin-associated metabolites in KORA individuals (n = 1,809) and explored the underlying pathways.

We found significantly lower (P < 5.0E-06) concentrations of three metabolites (acyl-alkyl phosphatidylcholines [PCs]) when comparing mt-T2D with four control groups who were not using glucose-lowering oral medication. These findings were controlled for conventional risk factors of T2D and replicated in two independent studies. Furthermore, we observed that the levels of these metabolites decreased significantly in patients after they started metformin treatment during 7 years’ follow-up. The reduction of these metabolites was also associated with a lowered blood level of LDL cholesterol (LDL-C). Variations of these three metabolites were significantly associated with 17 genes (including FADS1 and FADS2) and controlled by AMPK, a metformin target.

Our results indicate that metformin intake activates AMPK and consequently suppresses FADS, which leads to reduced levels of the three acyl-alkyl PCs and LDL-C. Our findings suggest potential beneficial effects of metformin in the prevention of cardiovascular disease.
The comparison of “Big Five” and “Big Six” Personality models signify genetic and cultural influence.

Prof. Dr. Jianxin Zhang
Chinese Academy of Sciences, Institute of Psychology

Among personality psychologists, the “Big Five” personality factor structure is a well-known model of personality and received many researches after its proposal. In exploring its universality in non-western cultures, Chinese psychologists found a “Big Six” factor structure. Comparison of these two models shows that there are both commonality and uniqueness between these them. Extraversion-introversion and neuroticism are the two factors most commonly shared by the two models. The factor of “Openness to new experience” is much salient one in Big Five, so is the factor of “Interpersonal relatedness” in Big Six. A hypotheses will be proposed and discussed in this representation.
Notes ***
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