

CONTENTS

- i. Welcome Remark
- ii. Host and Committee
- iii. Invited Speakers
- iv. Good Research Publication Forum
- v. *Nature Nanotechnology* Session
- vi. Future Scientists Forum
- vii. Scientific Program
- viii. Poster Sessions



Dear Colleagues,

Welcome to the 6th International Conference on Nanotoxicology (Nanotoxicology 2012) in Beijing, China!

After all the exciting ideas and results brought up on the 5th International Conference on Nanotoxicology in Edinburgh, UK (2010), the 4th in Zurich, Switzerland (2008), and other previous ones, we are now ready to welcome you to Beijing to present your newest progresses in nanotoxicology.

With great pleasure, we have 10 invited plenary speakers, 60 invited keynote speakers, and more than 100 oral and 200 poster presentations, with about 450 participants from over 20 countries of six continents. This guarantees a truly timely and international forum covering a vast range of current and emerging sciences, from nano/bio interface to pharmacokinetics, from environmental and health effects to ethical, legal and social issues of nanoscience and nanotechnology.

On the conference we have other three special forums. (1) **Editors Forum**: to be held at the night of September 4, it is expected to help scientists gain insights on good research publication. Ten eminent editors from SCI journals of nanoscience, chemistry, materials sciences, toxicology, etc. will directly communicate with audience of the Conference. (2) **Nature Nanotechnology Session**: to be held in the afternoon of September 5, it is designed by Dr. Ailin Chun (the senior editor of the journal) to discuss and highlight on a set of physical and chemical characterization requirements and some criteria for publishing nanotoxicology papers. (3) **Future Scientists Forum**: to be held at the night of September 5, it is a platform specially designed for students to present their current research and discuss with attendees of the conference. For most students, it will be the first time they have the experience of presenting their work at an international conference. It is expected to attract young minds to engage in nanoscience researches.

Due to the rapid development of nanotechnology applications, the safety assessment of nano-products has become more important than ever before. We hope that the 6th nanotoxicology conference, by facilitating discussions of latest research results and promoting future collaborations, will eventually advance our all-round knowledge on nanotoxicology to the sustainable development of nanotechnology.

We would like to thank all participants for your heart-warming enthusiasm to Nanotoxicology 2012. Grateful thanks are also dedicated to all the local committee staffs for their selfless hard work in preparation of the Conference.

I thank you for sharing with us your new discoveries, wish you enjoy a good time in Beijing and a memorable conference of Nanotoxicology 2012.

With best regards,

A handwritten signature in black ink, appearing to read 'Y. L. Zhao'.

Yuliang Zhao, PhD, Professor
Conference Chair

HOST & COMMITTEE

Host

National Center for Nanoscience and Technology, China
Chinese Academy of Sciences

Conference Committee

Yuanfang Liu (Honorary Chair)
Peking University, China

Yuliang Zhao (Conference Chair)
National Center for Nanoscience and Technology, China
Institute of High Energy Physics, Chinese Academy of Sciences, China

Chunying Chen (Secretary-General)
National Center for Nanoscience and Technology, China

International Steering Committee

Zhifang Chai (Chair)
Chinese Academy of Sciences, China

Chad Mirkin (Co-chair)
Northwest University, USA

Paul Weiss (Co-chair)
California NanoSystems Institute, UCLA, USA

Andre Nel (Co-chair)
Division of Nanomedicine, UCLA, USA

Vicki Stone (Co-chair)
Heriot-Watt University, UK

(in alphabetical order)

Herman Autrup

University of Aarhus, Denmark

Vicki Colvin

Rice University, USA

Liangnian Ji

Sun Yat - Sen University, China

Wolfgang Kreyling

HMGU, Germany

Yuanfang Liu

Peking University, China

Yasuo Morimoto

UOEH, Japan

Gunter Oberdorster

Rochester University, USA

Francois Rossi

JRC, Ispra, Italy

Anna Shvedova

National Institute for Occupational Safety
and Health, USA

Lijun Wan

Institute of Chemistry, CAS, China

Erkang Wang

Changchun Institute of Applied Chemistry,
CAS, China

Shouzhao Yao

Hunan Normal University, China

Ruqin Yu

Hunan University, China

Pingkun Zhou

Beijing Institute of Radiation Medicine, China

Hongyuan Chen

Nanjing University, China

Bengt Fadeel

Karolinska Institute, Sweden

Taeghwan Hyeon,

Seoul National University, Korea

Harald Krug

EMPA, Switzerland

Lutz Mädler

Institute of Materials Science, Bremen, Germany

Shuming Nie

Emory University, USA

Wolfgang Parak

Philipps - University Marburg, Germany

Kai Savolainen

Finnish Institute of Occupational Health, Finland

Lang Tran

Institute of Occupational Medicine, UK

Chen Wang

National Center for Nanoscience and
Technology, China

Kui Wang

Peking University, China

Il Je Yu

Hoseo University, Korea

Xian'en Zhang

Ministry of Science and Technology, China

Zhixiong Zhuang

Sun Yat - Sen University, China

Local Organizing Committee

Chunying Chen (Chair)

National Center for Nanoscience and Technology, China

(in alphabetical order)

Ru Bai

National Center for Nanoscience and Technology, China

Rui Chen

National Center for Nanoscience and Technology, China

Yiye Li

National Center for Nanoscience and Technology, China

Jun Liu

National Center for Nanoscience and Technology, China

Jing Wang

National Center for Nanoscience and Technology, China

Jing Wang

National Center for Nanoscience and Technology, China

Yingying Xu

National Center for Nanoscience and Technology, China

Chunhong Yan

Center for International Scientific Exchanges, CAS, China

Hui Yuan

Institute of High Energy Physics, Chinese Academy of Sciences, China

Motao Zhu

National Center for Nanoscience and Technology, China

Yan Zu

Institute of High Energy Physics, Chinese Academy of Sciences, China

INVITED SPEAKERS

Plenary Speakers



Kai Savolainen

Work Environment Promotion

Finnish Institute of Occupational Health, Finland

Professor Kai Savolainen, MD, is currently Research Professor and Director of Nanosafety Research Centre at the Finnish Institute of Occupational Health. His research interests cover toxicology and safety assessment of engineered nanoparticles in the occupational and general environment. He has conducted research on immunotoxicology of engineered nanomaterials and exposure to these materials. He has published about 400 scientific papers, about 200 of them in peer reviewed papers. He has also served in numerous national and international scientific expert groups and has given more than 100 talks in international congresses. He has also led several European Union funded large research consortia and national research consortia with a focus on the safety of engineered nanoparticles. He was the President of International Union of Toxicology 2007-2010.



Taeghwan Hyeon

Seoul National University, Korea

Taeghwan Hyeon received his B. S. (1987) and M. S. (1989) in Chemistry from the Seoul National University, Korea. He obtained his Ph.D. in Chemistry from the University of Illinois at Urbana-Champaign (1996). Since he joined the faculty of the School of Chemical and Biological Engineering of Seoul National University in September 1997, he has been focused on the synthesis and applications of uniform-sized nanoparticles and nanoporous materials, and published more than 200 papers in prominent international journals. In June 2012, he was appointed as a Director of Center for Nanoparticle Research, Institute for Basic Science (IBS, Korean version of MPI or RIKEN). In 2010 he was appointed as the first "SNU Distinguished Fellow" (Distinguished University Professor) of the Seoul National University. He received many awards including the Korean Young Scientist Award from the Korean President (2002), DuPont Science and Technology Award (2005), POSCO-T. J. Park Award (2008), and Samsung Hoam Prize (2012). Since September 2010, he has served as an Associate Editor of Journal of the American Chemical Society. He is currently serving as editorial (advisory) board member of Advanced Materials, Chemical Communications (2005-2010), Chemistry of Materials (2009-2011), Nanoscale, Nano Today, and Small.



Ai Lin Chun

NPG Nature Asia-Pacific

Ai Lin joined *Nature Nanotechnology* from the National Institute for Nanotechnology in Alberta, Canada. She has a first degree from the University of San Francisco and a PhD in biomedical engineering from Purdue University in the US. Her research has focused on nanobiomaterials for applications in orthopaedics and tissue engineering, and she handles papers in the areas of nanomedicine, biomaterials, environmental, health and safety issues. Ai Lin is based in Hong Kong.



Vicki Stone

Heriot-Watt University, UK

Vicki Stone is Director of the Nano Safety Research Group at Heriot-Watt University, Edinburgh, and Director of Toxicology for SAFENANO (www.safenano.org). She has acted as the Editor-in-chief of the journal *Nanotoxicology* (<http://informahealthcare.com/nan>) for 6 years (2006-2011). Vicki has also published over 100 publications pertaining to particle toxicology over the last 13 years and has provided evidence for the government commissioned reports published by the Royal Society (2003) and the on Environmental Pollution (2008). Vicki is a member of the UK Government Committee on the Medical Effects of Air Pollution (COMEAP) and an advisory board member for the Center for the Environmental Implications of NanoTechnology (CEINT; funded by the US Environmental Protection Agency).

Current projects investigate the mechanism of toxicity of a range of nanomaterials in macrophages, hepatocytes, gastrointestinal epithelium, endothelium and lung, interactions between nanoparticles and proteins and how this influences toxicity, and development of in vitro alternatives using microfluidics. In addition Vicki collaborates with ecotoxicologists to investigate the impacts of nanoparticles on aquatic invertebrates.

The nanotoxicology work at Heriot-Watt University involves funding from Research Councils (NERC and EPSRC), the European Commission (ITS-Nano, ENRHES, ENPRA, InLiveTox, NanoImpactNet, Marina and Qnano), charities (The Colt Foundation and The Cunningham Trust), the UK Government (<http://www.iom-world.org/research/nanoparticles.php>) and industry (Unilever and GlaxoSmithKline).



Yuliang Zhao

National Center for Nanoscience and Technology, China

Yuliang Zhao, Ph.D. is a Professor and Deputy Director-General of National Center for Nanoscience and Technology of China, the Director of Chinese Academy of Sciences Key Laboratory for Biomedical Effects of Nanomaterials and Nanosafety, Institute of High Energy Physics, Chinese Academy of Sciences (CAS), and the Director of Research Center for Cancer Nanotechnology, CAS & Tianjin Cancer Hospital. His research interests span both basic and translational research including Nanotoxicology, Low-toxic nanomedicine for cancer therapy, Nanochemistry for lowering the toxicity of nanomaterials/nanomedicines, and Molecular Dynamics simulation of biochemical processes at nano-bio interface. His primary research focus is on the toxic properties of nanomaterials, and development of novel nanomedicine of low-toxicity (without delivery systems) for low-toxic cancer chemotherapy, especially, proposed the use of non-killing cell mechanism to inhibit cancer growth by nanostructure materials. He is the author of over 240 publications, 10 books, and 17 book chapters as well as an inventor on eight patents. He has delivered more than 150 invited talks and is now serving as Associate Editor/Advisory Editorial Board member for 7 SCI journals in USA, UK and Germany.



Günter Oberdörster

University of Rochester, USA

Günter Oberdörster, DVM, Ph.D., is Professor in the Department of Environmental Medicine at the University of Rochester, Director of the University of Rochester Ultrafine Particle Center, PI of a Multidisciplinary Research Initiative in Nanotoxicology and Head of the Pulmonary Core of the NIEHS Center Grant and CO-PI on an NIH Challenge Grant. His research includes the effects and underlying mechanisms of lung injury induced by inhaled non-fibrous and fibrous particles, including extrapolation modeling and risk assessment. His studies with ultrafine particles influenced the field of inhalation toxicology, raising awareness of the unique biokinetics and toxicological potential of nano-sized particles. He earned his D.V.M. and Ph.D. (Pharmacology) from the University of Giessen in Germany. He has served on many national and international committees and is recipient of several scientific awards. He is on the editorial boards of the Journal of Aerosol Medicine; Particle & Fibre Toxicology; Nanotoxicology; International J. Hygiene & Environmental Health; and Associate Editor of Environmental Health Perspectives.



Shuming Nie

Emory University, USA

Professor Nie received his BS degree from Nankai University (China) in 1983, earned his MS and PhD degrees from Northwestern University (1984-1990), and did postdoctoral research at both Georgia Institute of Technology and Stanford University (1990-1994). He is currently the Wallace H. Coulter Distinguished Chair Professor in Biomedical Engineering at Emory University and the Georgia Institute of Technology, with joint appointments in chemistry, materials science and engineering, and hematology and oncology. His research is broadly in the areas of molecular engineering and nanotechnology, with a focus on bioconjugated nanoparticles for cancer molecular imaging, molecular profiling, and targeted therapy. His major academic achievements include the discovery of colloidal metal nanoparticles that are able to amplify the efficiencies of surface-enhanced Raman scattering (SERS) by 14-15 orders of magnitude, his pioneering work on water-soluble semiconductor quantum dots, and his breakthrough work in developing multifunctional smart nanoparticles for integrated biomedical imaging and therapy, including image-guided surgery of breast and lung tumors. Professor Nie has published over 290 papers, patents, and book chapters, and his scholarly work has been cited more than 26,000 times (Google Scholar). Professor Nie has received many awards and honors including a Special Achievement Award in Nanomedicine from Nature (2012), "Deal of the Year" Award in Technology Licensing (Emory University, 2012), the NIH Director's Transformative Research Award (2011), etc.



José Oliveira

Wiley-VCH Verlag GmbH & Co. KGaA, Germany

Dr. José Oliveira studied chemistry at the University of the Witwatersrand (Johannesburg, South Africa). He obtained his PhD at the same university in 2000 in organic synthesis, working on reaction methodology and natural product synthesis. He worked for a year as a postdoctoral researcher in the Department of Pharmacy at the Universiteit Antwerpen (Antwerp, Belgium) developing mass spectrometric techniques for analyzing trace organic contaminants in the atmosphere. He joined Wiley-VCH (Weinheim, Germany) in January 2001 and served as Senior Associate Editor of *Angewandte Chemie*. He helped launch *Chemistry – An Asian Journal*, for which he served as Deputy Editor. In 2008 he assumed his current role as Editor-in-Chief of the nano- and microtechnology journal *Small*. He is also the Editor-in-Chief of the newly launched *Advanced Healthcare Materials* and is currently based in the Wiley offices in Beijing.



Andre Nel

California NanoSystems Institute, UCLA, USA

Dr. André Nel is a Professor of Medicine and Chief/founder of the Division of NanoMedicine at UCLA. He is the Director of the UC Center for the Environmental Impact of Nanotechnology (CEIN) and the UCLA Center for Nano Biology and Predictive Toxicology which are housed in the California NanoSystems Institute (CNSI) at UCLA. Dr Nel served a Chair of an NIH Study Section, has been nominated as a Distinguished Foreign Professor by the Chinese Academy of Science, a peer-selected member of Best Doctors of America, recipient of the John Salvaggio Memorial Award recognizing his outstanding service to the specialty and science of Allergy and Immunology, and has represented the NIH and State Department in establishing cooperative research agreements with Japan, the Chinese Academy of Sciences and Russia. He is associate editor of ACS Nano and his chief research interests are nanomedicine, nanotechnology environmental health and safety, and nanobiology.



Ruhong Zhou

IBM Watson Research Center, Columbia University, USA

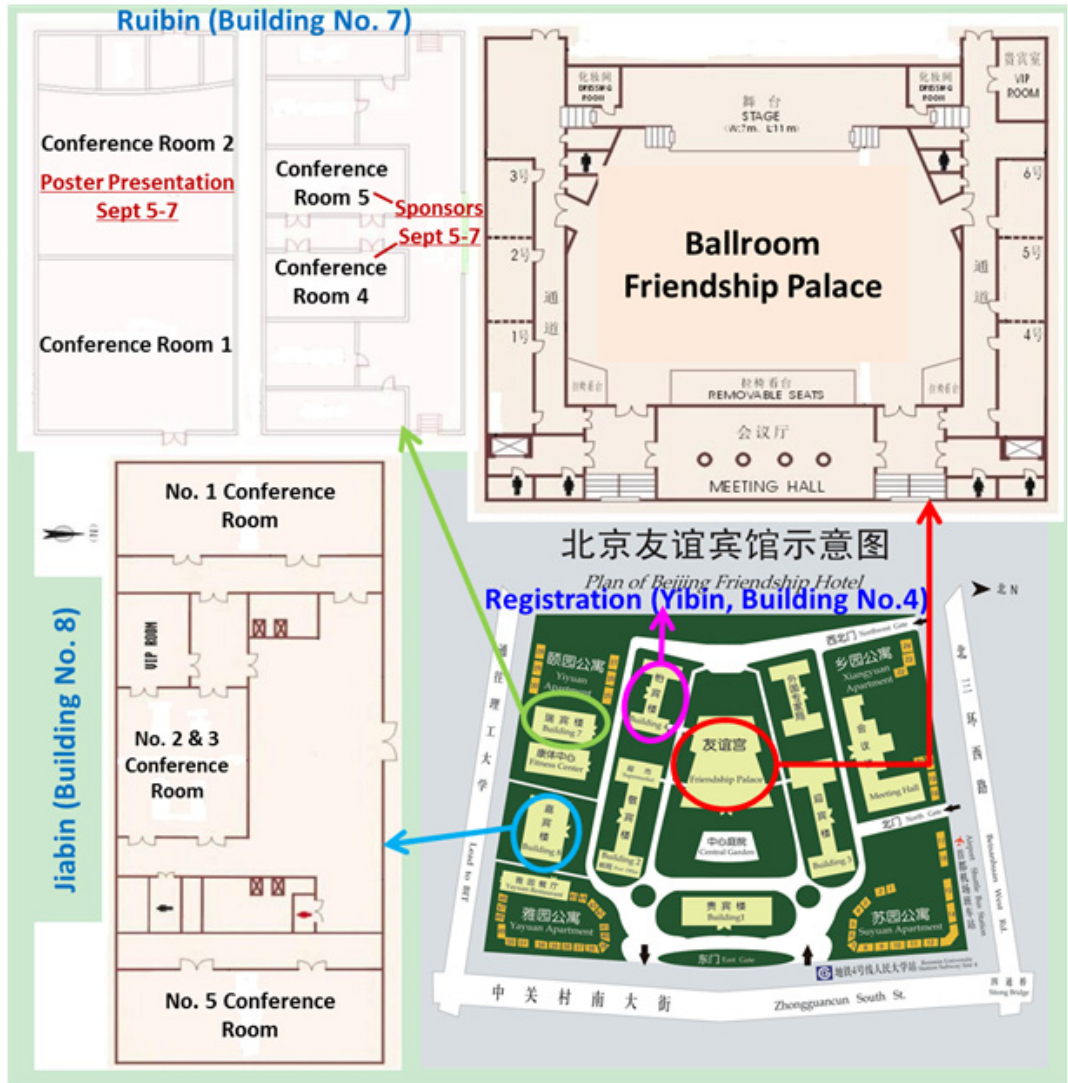
Ruhong Zhou is currently a Research Staff Scientist and Manager of Soft Matter Theory and Simulation Group, Computational Biology Center, IBM Thomas J. Watson Research Center, and an Adjunct Professor at Department of Chemistry, Columbia University. He received his Ph.D. with Prof. Bruce Berne in chemistry from Columbia University in 1997. He joined IBM Research in 2000, after spending two and a half years working with Prof. Richard Friesner (Columbia Univ) and Prof. William Jorgensen (Yale Univ) on polarizable force fields. He has authored and co-authored 110 journal publications and 15 patents, delivered 150+ invited talks at major conferences and universities worldwide, and chaired and co-chaired many conferences in computational biology, computational chemistry and biophysics fields. He is part of the IBM Blue Gene team who won the 2009 National Medal on Technology and Innovation. He has won the IBM Outstanding Innovation Award in 2011, IBM Outstanding Technical Achievement Award (the highest technical award within IBM) in 2008 and 2005, IBM Research Division Award in 2005, Columbia University Hammett Award in 1997 (for best graduates), and American Chemical Society DEC Award on computational chemistry in 1995. His current research interests include development of novel methods and algorithms for computational biology and bioinformatics, and large scale simulations for protein folding, ligand-receptor binding, protein-protein interaction, and protein nanoparticle interactions. He was elected to AAAS Fellow (American Association of Advancement of Science) and APS Fellow (American Physical Society) in 2011.

Nanotoxicology 2012 Session Programme

	TUESDAY, Sept 4, 2012	WEDNESDAY, Sept 5, 2012	THURSDAY, Sept 6, 2012	FRIDAY, Sept 7, 2012						
7:30		Registration Lobby, Building 7	Registration Lobby, Building 7	Registration Lobby, Building 7						
8:00										
8:30										
9:00		Opening Ceremony Ballroom, Friendship Palace	T1-3 Room 5 Building 8	T5-1 Room 1 Building 8	T6-1 Room 1 Building 7	T4-3 Room 2 & 3 Building 8	T1-7 Room 5 Building 8	T5-2 Room 1 Building 8	T3-2 Room 1 Building 7	
9:30										
10:00										
10:30		Plenary Presentation-1 Ballroom, Friendship Palace	Plenary Presentation-2 Ballroom, Friendship Palace	Lunch	Lunch	Lunch	Lunch			
11:00										
11:30										
12:00										
12:30										
13:00	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch				
13:30										
14:00										
14:30										
15:00										
15:30	Registration Lobby, Building 4	T1-1 Room 5 Building 8	T2-1 Room 1 Building 8	Nanotechnology Session Room 1 Building 7	T4-1 Room 2 & 3 Building 8	T1-5 Room 5 Building 8	T2-4 Room 1 Building 8	T6-2 Room 1 Building 7	T7-1 Room 2 & 3 Building 8	Plenary Presentation-3 Ballroom, Friendship Palace
16:00										
16:30										
17:00										
17:30										
18:00	Reception Room 1&2, Building 7	T1-2 Room 5 Building 8	T2-2 Room 1 Building 8	Poster Session Room 2, Building 7	T4-2 Room 2 & 3 Building 8	T1-6 Room 5 Building 8	T2-5 Room 1 Building 8	T6-3 Room 1 Building 7	T7-2 Room 2 & 3 Building 8	Plenary Presentation-4 Ballroom, Friendship Palace
18:30										
19:00										
20:00										
21:00										
	Good Research Publication Forum Room 1&2, Building 7	Future Scientists Forum Room 1 & 5, Building 8	Banquet Ballroom, Friendship Palace	Closing Ceremony and Awarding Ballroom, Friendship Palace						

* T: Theme

Conference Venue



Conference Venue is arranged at Ballroom on the second floor of Friendship Palace (indicated with **red circle**) for Plenary Lectures. No. 1, 2, 3, 5 Conference Room of Jiabin (Building 8 in **blue circle**) and Conference Room 1 on the second floor of Ruibin (Building 7 in **green circle**) for Keynote and oral sessions. Poster session will be held at Conference Room 2 on the second floor of Building 7. Building 7 also will hold exhibition for sponsors at Conference Room 4 and 5 on the first floor.

Nanotoxicology 2012

Editor Forum

主 编 论 坛

Good Research Publication Forum will provide researchers/scientists a good opportunity to communicate with the editors of top journals in nanosciences, chemistry, material sciences, and toxicology to gain insights and advices from editors on how to get your research publication in these top journals. Please join us to meet and discuss with the editors listed below.

Time: September 4, 2012, from 19:00 p.m. – 21:00 p.m.

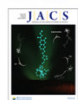
时间: 2012年9月4日, 晚19:00 – 21:00

Place: Conference Room 1 & 2, Second Floor, Ruibin (Building No.7)

地点: 北京友谊宾馆, 北京市海淀区中关村南大街一号, 瑞宾楼, 二层会议室



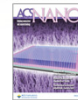
Taeghwan Hyeon
JACS



Yuliang Zhao
Chairman of
the Editor Forum



Andre Nel
ACS Nano



José Oliveira
Small, Advanced Healthcare Materials



Lajos P. Balogh
Nanomedicine: NBM



Alison Elder
Nanotoxicology



Wolfgang Parak
ACS Nano



Flemming R. Cassee
Particle and Fibre Toxicology



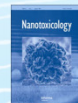
Günter Oberdörster
Environmental Health Perspectives



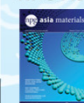
Saber Hussain
Toxicological Sciences



Håkan Wallin
Nanotoxicology



Shutao Wang
NPG Asia Materials



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6th

International Conference on Nanotoxicology

September 4-7, 2012, Beijing Friendship Hotel, Beijing, China

Nature Nanotechnology session

Nature Nanotechnology currently does not have any formal guidelines or requirements for reporting nanotoxicology papers specifically and we have received feedback from our authors/readers asking for these. Our position is that characterization should be done based on relevance to the study but there are a number of parameters that are quite standard and should be included in all papers. The aim of this 2 hr session, which consists of four speakers, is to consult the community so a formal set of characterization requirements for reporting nanotoxicology papers can be established. *Nature Nanotechnology* will offer to disseminate this information and/or revise our Guide to Authors. Please join the dialogue.

Date: September 5, 2012

Time: 2:00-4:00 pm

Venue: Room 1, Second Floor, Rui Bin (Building No. 7), Friendship Hotel

2012年9月5日, 下午2:00-4:00, 北京友谊宾馆, 瑞宾楼, 2层, 1号会议室

Speakers:

1. Justin Teeguarden, Pacific Northwest National Laboratory
2. Michael Winchester, National Institute of Standards and Technology
3. Rick Pleus, Intertox Inc. representing ISO/TC 229
4. Håkan Wallin, Editor-in-chief of *Nanotoxicology*

Moderator: Ai Lin Chun, Senior Editor *Nature Nanotechnology*

*Please visit poster "0" in conference room 2, Ruibin (Building No. 7) for a draft of the Guidelines for Reporting Nanotoxicology Research. Comments and feedback welcomed at naturenano@nature.com (closing date: November 30, 2012).

The 6th International Conference on Nanotoxicology, September 4-7, 2012, Beijing, China

Contact information: Conference Chair, Prof. Yuliang Zhao; zhaoyuliang@ihep.ac.cn

Secretary General, Prof. Chunying Chen; chenchy@nanocr.cn; nanotoxicology@nanocr.cn



The 6th International Conference on Nanotoxicology



FUTURE SCIENTISTS FORUM Student Innovation

*Over 20 countries...
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You are all welcome!

Wednesday, Sept. 5, 7:00 p.m. – 10:00 p.m.

Conference room No. 1 & 5

Building No. 8, Friendship Hotel

2012年9月5日, 晚7:00 – 10:00

北京友谊宾馆, 嘉宾楼, 1号和5号会议室

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Secretary General, Prof. Chunying Chen; chenchy@nanoctr.cn; nanotoxicology@nanoctr.cn



SCIENTIFIC PROGRAM

Presentation Guideline

Oral Presentation

The official language of the conference is English. The time allocations for plenary, keynote, and selected presentations will be 35, 25, and 15 minutes including discussion, respectively. Time allocation for Future Scientists Forum presentations will be 10 minutes including discussion. Multi-media projector with laptop will be available for presentations. Multi-media presentations should be prepared in Windows compatible format in English.

The presentation file should be pre-loaded in the conference computer **six hours** before the session begins. For presenters who use their own removable storage devices, the device and the file must be tested on the conference room computer **six hours** prior to the session.

Poster Presentation

1. Poster Preparation

Poster should be confined to 120 cm high by 90 cm wide. Display board will be provided for each poster presentation. The poster can be mounted with adhesive bands, which will be provided at the registration site.

2. General Appearance

Poster presentation should include the title, abstract, main text figures and/or tables, diagrams and conclusions. Please include your contact data (names, institute, address, phone, fax, E-mail). Use of color in the poster presentation makes visual communication more effective. Textual and graphic illustrations should be kept simple but effective.

3. Lettering

All poster lettering should be typewritten. Since your poster will be read at distance of a couple of meters, use appropriate size lettering.

SCIENTIFIC PROGRAM – DAY 1

TUESDAY, Sept 4, 2012

GOOD RESEARCH PUBLICATION FORUM: Direct Communications with Editors Chair: Yuliang Zhao		
19:00-21:00		
Name of Editors (in alphabetical order)	Journals	Email
Lajos P. Balogh USA	Nanomedicine: Nanotechnology, Biology and Medicine	Baloghlp@gmail.com
Flemming R. Cassee Netherlands	Particle and Fibre Toxicology	flemming.cassee@rivm.nl
Alison Elder USA	Nanotoxicology	alison_elder@urmc.rochester.edu
Saber Hussain USA	Toxicological Sciences	saber.hussain@wpafb.af.mil
Taeghwan Hyeon Korea	Journal of the American Chemical Society	thyeon@snu.ac.kr
André E. Nel USA	ACS Nano	anel@mednet.ucla.edu
Günter Oberdörster USA	Environmental Health Perspectives	gunter_oberdorster@urmc.rochester.edu
José Oliveira Germany	Small Advanced Healthcare Materials	joliveir@wiley.com
Wolfgang Parak Germany	ACS Nano	wolfgang.parak@physik.uni-marburg.de
Håkan Wallin Denmark	Nanotoxicology	hwa@arbejdsmiljoforskning.dk
Shutao Wang China	NPG Asia Materials	stwang@iccas.ac.cn
Yuliang Zhao China	Particle and Fibre Toxicology Journal of Biomedical Nanotechnology	zhaoyuliang@ihep.ac.cn

SCIENTIFIC PROGRAM – DAY 2

WEDNESDAY, Sept 5, 2012

Opening Ceremony Chair: Yuliang Zhao		
8:30-9:00	Prof. Chunli Bai (Chinese Academy of Sciences, CAS) President of Chinese Academy of Sciences	Welcome Speech
	Prof. Yuanfang Liu (Peking University) Honorary Chair of the Conference	Welcome Speech
	Prof. Xian'en Zhang (Ministry of Science and Technology, MOST) Director-General, Department of Basic Research, Ministry of Science and Technology of China	Welcome Speech
	Prof. Sishen Xie (Institute of Physics, IP/CAS) Vice Chair of Scientific Committee of National Center for Nanoscience and Technology of China	Welcome Speech
	Prof. Zhifang Chai (Institute of High Energy Physics, IHEP/CAS) Chair, International Steering Committee of the Conference	Welcome Speech
9:00-9:30	Group Photo	

WEDNESDAY, Sept 5, 2012

Plenary Presentation I Chairs: Yuanfang Liu and André E. Nel			
9:30-10:05	Kai Savolainen Finland	Emerging Toxicity Mechanisms and Diversity of Engineered Nanomaterials: A Challenge for Safety Assessment	PL1
10:05-10:40	Taeghwan Hyeon Korea	Designed Synthesis and Assembly of Uniform-sized Nanocrystals for Medical Applications	PL2
Plenary Presentation II Chairs: Zhifang Chai and Taeghwan Hyeon			
10:40-11:15	Ai Lin Chun NPG <i>Nature</i>	Publishing Nanotoxicology Papers in <i>Nature Nanotechnology</i>	PL3
11:15-11:50	Vicki Stone UK	Using in vivo and in vitro Models to Relate Route of Exposure to Nanomaterial Systemic Effects	PL4
11:50-12:25	Yuliang Zhao China	Nanotoxicity and Chemical Mechanism	PL5
12:25-14:00	Lunch		
Nature Nanotechnology Session Chair: Ai Lin Chun			
14:00-14:30	Justin Teeguarden USA	Dosimetry: An evolutionary force for the field of nanotoxicology	N1
14:30-15:00	Michael R. Winchester USA	Reference Materials and Standard Test Methods for Characterizing Nanomaterials	N2
15:00-15:30	Richard C. Pleus USA	Guidance on Physicochemical Characterization for Manufacture Nano-objects Submitted for Toxicological Testing ISO TC-229 Project Work	N3
15:30-16:00	Håkan Wallin Denmark	Editorial Policies of <i>Nanotoxicology</i>	N4
16:00-16:30	Coffee and Poster Session		

WEDNESDAY, Sept 5, 2012

Theme 1-1 Nanotoxicology and Human Toxicology Chairs: Kenneth Dawson and Yasuo Morimoto			
14:00-14:25	Kenneth Dawson Ireland	(Keynote) Interactions of living organisms with nanoparticles	K1
14:25-14:50	Yasuo Morimoto Japan	(Keynote) Pulmonary Toxicity of Manufactured Nanomaterials in National Project in Japan	K2
14:50-15:05	Motao Zhu China	Trojan Horse Causes Nanoparticle Allergy: Exosomes as Signaling Conveyors for Nanoparticle-induced Immune Activation	O1
15:05-15:20	Jürgen Pauluhn Germany	Kinetic Modeling-based Study Design for Inhalation Toxicity Testing and Risk Assessment of Nano- & Ultrafine Particles	O2
15:20-15:35	Lan Ma-Hock Germany	Comparative Inhalation Toxicity of Multi-wall Carbon Nanotubes, Graphene, Graphite Platelets and Low-surface Carbon Black	O3
15:35-15:50	Jared M. Brown USA	A Novel Carbon Nanotube Toxicity Paradigm Driven by Mast Cells and the IL-33/ST2 Axis	O4
15:50-16:05	Annette Kraegeloh Germany	Nanosilver and Ionic Silver: Applications and Interactions with Bacterial and Human Cells	O5
16:05-16:30	Coffee and Poster Session		
Theme 1-2 Nanotoxicology and Human Toxicology Chairs: William K. Boyes and Taotao Wei			
16:30-16:55	William K. Boyes USA	(Keynote) A Research Program on the Potential for Effects of Engineered Nanomaterials on Biological Systems	K3
16:55-17:20	Taotao Wei China	(Keynote) The Interactions between Pristine Graphene and Macrophages	K4
17:20-17:35	Zhuge Xi China	Comparative Proteomic Analysis of Lung Toxicity in Rats Induced by Three Types of Nanomaterials	O6
17:35-17:50	Karine Elihn Sweden	Cellular Doses of Cu Nanoparticles in an ALI system	O7
17:50-18:05	Volker Mersch-Sundermann Germany	Assessment of Adverse Effects Caused by Toner Powders and Laser Printer Emissions in Human Cell Cultures and Patients	O8
18:05-18:20	Cindy Gunawan Australia	Cytotoxicity Paradigms: Understanding Various Cellular Responses toward Different Classes of Nanomaterials	O9

WEDNESDAY, Sept 5, 2012

Theme 2-1 Nanomedicine, Pharmacokinetics and Particokinetics			
Chairs: Esther Chang and Jun Wang			
14:00-14:25	Esther Chang USA	(Keynote) Clinical Studies on Systemic Delivery of Cancer Therapeutics via Tumor-Targeting Nanoparticles	K17
14:25-14:50	Jun Wang China	(Keynote) Polymeric Nanoparticles for Drug and siRNA Delivery	K18
14:50-15:05	Robert A. Yokel USA	Biodistribution, Biopersistence and Toxicity of Systemically-introduced Nanoceria in the Rat	O35
15:05-15:20	Zhiwen Zhang China	Lipid Based Nano-delivery System Improves the Oral Absorption of Lipophilic Drugs	O36
15:20-15:35	Rachel Smith UK	Size Dependent Translocation of Inhaled Ir-192 Nanoparticles	O37
15:35-15:50	Jianfu Xu China	Pharmacokinetics Characteristics of Abrin P ₂ Loaded PLGA Nanoparticles After Oral Administration in Mice	O38
15:50-16:05	David Leong Singapore	Cellular DNA Damage Response to Zinc Oxide Nanoparticles Hinges on the Tumor Suppressor p53 Pathway	O39
16:05-16:30	Coffee and Poster Session		
Theme 2-2 Nanomedicine, Pharmacokinetics and Particokinetics			
Chairs: Robert A. Yokel and Daxiang Cui			
16:30-16:55	Lajos P. Balogh USA	(Keynote) Research Directions and Global Trends in Nanomedicine	K19
16:55-17:20	Daxiang Cui China	(Keynote) Targeted Imaging and Therapy of <i>in Vivo</i> Early Gastric Cancer by Stem Cell Nanotechnology	K20
17:20-17:35	Aiguo Wu China	Contrast Agents for Biomedical Imaging in Next Generation: Contrast Enhancement with Multiple Modalities+Potential Therapeutic Functions	O40
17:35-17:50	Ying Liu China	The Effect of Gd@C ₈₂ (OH) ₂₂ Nanoparticles on the Release of Th1/Th2 Cytokines and Induction of TNF-α Mediated Cellular Immunity	O41
17:50-18:05	Alexander Kharlamov Russia	Silica-Gold Nanoparticles for Plasmonic Photothermal Therapy of Atherosclerosis: Efficacy and Safety	O42
18:05-18:20	Kai Xiao USA	A Versatile Micelle-based Nanocarrier Platform for Drug Delivery in Cancer Therapy	O43

WEDNESDAY, Sept 5, 2012

Theme 4-1 Nano-Biochemistry and Nano-Analysis Chairs: Tomonobu Nakayama and Jian Liu			
14:00-14:25	Tomonobu Nakayama Japan	(Keynote) Multiple-Probe Scanning Probe Microscopy: A Potential Application to System Biology and Bio-inspired Materials Research	K35
14:25-14:50	Lehui Lu China	(Keynote) Nanoparticulate Contrast Agents for <i>in vivo</i> X-Ray Computed Tomography Imaging	K36
14:50-15:05	Jian Liu China	Detecting Tumor Cells with Advanced Nanotechnologies	O64
15:05-15:20	Jian He Germany	μ-CP 3.0 – a Novel Platform for the Fabrication of Three-dimensional Structures and Surface Modification in Biotechnology	O65
15:20-15:35	Li Cui China	In-situ Study of the Antibacterial Mechanism of Silver Nanoparticles by Surface-enhanced Raman Spectroscopy	O66
15:35-15:50	Shu-Feng Hsieh USA	A High Throughput Approach to Examine Biological Oxidative Damage Elicited by Multiple Classes of Engineered Nanomaterials	O67
15:50-16:05	Xiue Jiang China	Cellular Uptake of Nanoparticles: A Study Combining Confocal Microscopy with FTIR Spectroelectrochemistry	O68
16:05-16:30	Coffee and Poster Session		
Theme 4-2 Nano-Biochemistry and Nano-Analysis Chairs: Xiaodong Chen and Qiangbin Wang			
16:30-16:55	Xiaodong Chen Singapore	(Keynote) Plasmonic Structures for Biological and Environmental Monitoring	K37
16:55-17:20	Jingyuan Li China	(Keynote) A Molecular Dynamics Study of the Amazing Effect of Carbon Nanotube on the Calmodulin Structure	K38
17:20-17:35	Guoqing Hu China	Molecular Simulation of the Initial Nano-Bio Interaction in Lungs	O69
17:35-17:50	Qiangbin Wang China	Tunable, Discrete, Three-Dimensional Hybrid Nanoarchitectures	O70
17:50-18:05	Lina Marcela Hoyos Palacio Colombia	Nanostructured Coatings for Vascular Stent	O71
18:05-18:20	Zhengwei Mao China	Cellular Internalization of Metal Oxide Nanoparticles and Their Influences on Cell Functions	O72

WEDNESDAY, Sept 5, 2012

Future Scientists Forum: Student Innovation Session 1-A, Chairs: Jürgen Pauluhn and Zhanjun Gu			
19:00-19:10	Brittany (Serke) Baisch USA	Rate of Titanium Dioxide Nanoparticle Deposition in the Respiratory Tract Impacts the Acute Inflammatory Response	F1
19:10-19:20	Xinxin Chen China	Identification and Characterization of Nano-titanium Dioxide Additive in Sugar-coated Chewing Gum	F2
19:20-19:30	Narges Bayat Sweden	The Effects of TiO ₂ Nanoparticles and Single Walled Carbon Nanotubes on Human Dermal Microvascular Endothelial Cells: An Omics Approach	F3
19:30-19:40	Marie Carrière France	Translocation of Nano-TiO ₂ through the Gastrointestinal Barrier: From <i>in vitro</i> to <i>in vivo</i> Models	F4
19:40-19:50	Aaron Stella USA	Multiple Intracellular Approaches to Determine Toxicity of Micro and Nano-sized Titanium Dioxide	F5
19:50-20:00	Zhiyun Chen China	Surface-Engineered Gold Nanorods: Promising Low-toxic Vehicles for Gene Delivery	F6
20:00-20:10	Manosij Ghosh India	Ecotoxicological Effect of ZnO-NP towards Different Organisms	F7
20:10-20:20	Hamid Maadi Iran	Toxicological Effect of NiO Nanoparticles <i>in vivo</i>	F8
20:20-20:30	Wendi Zhang China	Unraveling Stress-inducible Toxicity Properties of Graphene Oxide <i>in vivo</i> and Underlying Chemical Mechanisms	F9
Future Scientists Forum: Student Innovation Session 1-B, Chairs: Karine Elihn and Xingfa Gao			
20:30-20:40	Maider Olasagasti Spain	Selection of a Suitable Protocol for the Study of nAg Effects on Zebrafish and Evaluation of the Mechanism of Toxicity by Transcriptomic Analysis	F10
20:40-20:50	Ying Qu China	Fate and Physiological Behavior Assessments of Nanomaterial Utilizing <i>Caenorhabditis Elegans</i> as a Model Organism	F11
20:50-21:00	Anja Schinwald UK	Length Dependent Effects of Silver Nanowires on Random Migration of Bone-marrow Derived Macrophage	F12
21:00-21:10	Tian Chen China	The Genotoxicity Effect of Multi-walled Carbon Nanotube Based on Its Different Aspect Ratios and Surface Functionalization	F13
21:10-21:20	Sanchali Gupta Mukherjee Ireland	Mechanistic Studies of Temporal Evolution of Cellular Responses upon Silver Nanoparticle Exposure to Human Cell Lines: Correlation of Dosimetric and Size Dependant effects	F14
21:20-21:30	Fengjuan Wang Ireland	The Role of Biomolecular Corona in the Toxicity Induced by Cationic Nanoparticles	F15
21:30-21:40	Xin Wang Sweden	Surface-protein Interactions on Stainless Steel– protein Induced Metal Release	F16
21:40-21:50	Yi Cao Denmark	Modest Endothelial Effect and Oxidative Stress Caused by <i>in vitro</i> Nano-size Carbon Black Exposure on HUVEC, THP-1 and THP-1 Activated Cells	F17
21:50-22:00	Shanze Chen Germany	Alveolar Macrophage-Epithelial Cell Interactions in the Pathogenesis of Carbon Nanotube Induced Chronic Lung Inflammation	F18

WEDNESDAY, Sept 5, 2012

Future Scientists Forum: Student Innovation Session 2-A, Chairs: Jared M. Brown and Xiao He			
19:00-19:10	Chenchen Bao China	Comparison of Glucose and RGD Functionalized Gold Nanoparticles for Pulmonary Gene Therapy	F19
19:10-19:20	Jonathon Hauser UK	Placental Toxicity of a Novel Nanoparticle Drug Delivery System	F20
19:20-19:30	Yan Zhou USA	Antibacterial Activities of Gold and Silver Nanoparticles against <i>Escherichia coli</i> and Bacillus Calmette-Guérin	F21
19:30-19:40	Chao Wang China	Functional Nanomaterials for Stem Cell Labeling and Multimodal <i>in vivo</i> Imaging	F22
19:40-19:50	Alesha Harris USA	Synthesis and Characterization of Copper Releasing Polymer Nanoparticles	F23
19:50-20:00	Xiangsheng Liu China	<i>In vitro</i> and <i>in vivo</i> Study of pH-sensitive Stealth Zwitterionic Gold Nanoparticles at Tumor Acidic Extracellular pH	F24
20:00-20:10	Yanhua Tian China	Natural Nanocarrier Exosome as Novel Drug Delivery Strategy for Tumor Treatment	F25
20:10-20:20	Neus Feliu Sweden	PAMAM Dendrimers Induce Epigenetic Changes in Primary Human Bronchial Epithelial Cells and in Lung Carcinoma Cells	F26
20:20-20:30	Ruihua Zhang China	Preparation and Characteration of Loaded-abrin P ₂ Nanoparticles	F27
Future Scientists Forum: Student Innovation Session 2-B, Chairs: Rachel Smith and Jingyuan Li			
20:30-20:40	Kai Yang China	Graphene in Biomedicine	F28
20:40-20:50	Daishun Ling Korea	Mussel Adhesive Protein Inspired Multi-Interaction Ligands for Highly Stable and Biocompatible Nanoparticles	F29
20:50-21:00	Mo Dan USA	Hyperthermia and Anti-PECAM-1 Surface Modification Increase Fe ₃ O ₄ Nanoparticle Flux Across Blood Brain Barrier Cells	F30
21:00-21:10	Jianan Shen China	Pluronic P85-PEI/TPGS Complex Nanoparticles Co-deliver Paclitaxel and Survivin shRNA to Overcome Paclitaxel Resistance in Lung Cancer	F31
21:10-21:20	Katharina Narr Germany	A Microscopic Analysis of Gold Nanoparticle Internalization in A549 Cells	F32
21:20-21:30	P. Sivakumar China	Highly Sensitive, Selective, and Fast Responsive Colorimetric Determination of Dopamine by Using Gold Nanoparticles	F33
21:30-21:40	Fanben Meng Singapore	Protein-Based Memristive Nanodevices	F34
21:40-21:50	Huaiyong Xing China	Upconversion Nanoprobes for CT and NIR-to-NIR Fluorescent Bimodal-Imaging	F35
21:50-22:00	Anoop K. Pal USA	In-solution Characterization and Morphology Determination of Carbon Nanotubes (CNTs) for <i>in-vitro</i> Studies Based on Scanning Ion Occlusion Sensing (SIOS) Technology.	F36

SCIENTIFIC PROGRAM – DAY 3

THURSDAY, Sept 6, 2012

Theme 1-3 Nanotoxicology and Human Toxicology Chairs: Herman Nybro Autrup and Alison Elder			
8:30-8:55	Herman Nybro Autrup Denmark	(Keynote) Genotoxicity of Nanoparticles	K5
8:55-9:20	Alison Elder USA	(Keynote) Effects of Nanoparticles in the Central Nervous System Following Inhalation Exposures in Rodents	K6
9:20-9:35	Quan Li Hong Kong, China	Genotoxic Effect Specifically Induced by Crystalline SiO ₂ Nanoparticles in p-53 Deficient Human Cells	O10
9:35-9:50	Yves Guichard France	Genotoxicity <i>in vitro</i> of Different Types of Manufactured Silica Nanoparticles	O11
9:50-10:05	Hannu Norppa Finland	Challenges in Genotoxicity Testing of Nanomaterials	O12
10:05-10:20	Xiao He China	Nano-CeO ₂ Exhibits Adverse Effects at Environmental Relevant Concentrations	O13
10:20-10:35	Chang Guo UK	Gene Expression Analysis of the Reduction of Oxidant-mediated Apoptosis of CeO ₂ Nanoparticles	O14
10:35-11:00	Coffee and Poster Session		
Theme 1-4 Nanotoxicology and Human Toxicology Chairs: Saber Mohammed Hussain and Jinshun Zhao			
11:00-11:25	Saber Hussain USA	(Keynote) Toxicity of Engineered Nanomaterials: Linking Bioeffects to Physical Parameters	K7
11:25-11:50	Chunying Chen China	(Keynote) Tuning the <i>in vivo</i> Fate and Toxicity of Nanomaterials Driven by Surface Properties	K8
11:50-12:05	Gemma Janer Spain	<i>In vitro</i> Toxicity of Functionalized Nanoclays Mainly Driven by the Presence of Organic Modifiers	O15
12:05-12:20	Jinshun Zhao China	Metallic Nickel Nanoparticles May Exhibit Higher Carcinogenic Potential than Fine Particles in JB6 Cells	O16
12:20-12:35	Konrad Rydzynski Poland	Time-dependant Cytotoxic Effects <i>in vitro</i> of Exposure to Silica Nanoparticles with Different Physico-chemical Properties.	O17
12:35-13:30	Lunch		

THURSDAY, Sept 6, 2012

Theme 1-5 Nanotoxicology and Human Toxicology Chairs: Anna A. Shvedova and Sijin Liu			
14:00-14:25	Anna A. Shvedova USA	(Keynote) Interactions of Nanoparticles with Immune Cells – from Principles to Consequences and Toxicity	K9
14:25-14:50	Bengt Fadeel Sweden	(Keynote) Understanding the Synthetic and Biological Identities of Engineered Nanomaterials: Focus on the Immune System	K10
14:50-15:05	Martin J. D. Clift Switzerland	Evaluating the Potential Genotoxic Impact of a Series of Carbon Nanotubes with Varying Physico-chemical Properties on the Epithelial Airway Barrier <i>in vitro</i>	O18
15:05-15:20	Megan J Osmond-McLeod Australia	Durability and Inflammogenicity of Carbon Nanotubes Compared with Asbestos Fibres	O19
15:20-15:35	Seungjae Kim Korea	ROS and NO Induced by Silver Nanoparticles Activate Mast Cells	O20
15:35-15:50	Anna Huk Norway	Toxic Potential of Nanosilver with Different Sizes.Cytotoxicity, Oxidative DNA Damage, Mutagenicity and Immunotoxicity	O21
15:50-16:05	Sijin Liu China	Quantum Dots Impair Macrophagic Morphology and the Ability of Phagocytosis by Inhibiting the Rho-associated Kinase Signaling	O22
16:05-16:30	Coffee and Poster Session		
Theme 1-6 Nanotoxicology and Human Toxicology Chairs: Michael T. Tseng and Weiyue Feng			
16:30-16:55	Michael T. Tseng USA	(Keynote) Systemic Accumulation, Biological Responses, and Fate of Vascular-infused Nanocerium in the Rat	K11
16:55-17:20	Weiyue Feng China	(Keynote) Chemical Origin for Understanding of Nanotoxicity	K12
17:20-17:35	Sujittra Srisung Thailand	A Method for the Determination of Potential Dermal Exposure in Nanoproducts of Silver	O23
17:35-17:50	Jiangxue Wang China	Effect of TiO ₂ Nanoparticles on the Growth of Rat Synovial Cell Line	O24
17:50-18:05	Martin Roursgaard Denmark	Optimizing <i>in vitro</i> Nanotoxicology by Using Co-Cultures?	O25
18:05-18:20	Mohammed T. Al Samri UAE	<i>In vitro</i> Study on Lung Toxicities of Core-Shell-Shell Nanomaterials Composed of Carbon, Cobalt and Silica	O26

THURSDAY, Sept 6, 2012

Theme 5-1 Exposure Scenarios and Risk Assessment of Nanomaterials			
Chairs: Harald F. Krug and Xue Z. Wang			
8:30-8:55	Harald F. Krug Switzerland	(Keynote) Nanosafety and Risk Assessment: Controversial Results of Toxicological Studies	K45
8:55-9:20	Yongbin Zhang USA	(Keynote) Interdisciplinary Approaches to Evaluate the Toxic Potential of Engineered Gold Nanoparticles and Carbon Nanotubes	K46
9:20-9:35	Xue Z. Wang UK	QSAR Toxicity (<i>in vitro</i>) Analysis for a Panel of Eighteen Nanoparticles	O77
9:35-9:50	Nina Bednarsek Slovenia	Toxicity of Paints and Dyes Containing TiO ₂ and ZnO Nanoparticles after Environmental Exposure Scenarios	O78
9:50-10:05	Yan Li China	The Health Hazards of Manufacturing Workers Exposed to Nano-CeO ₂	O79
10:05-10:20	Ali Kermanizadeh UK	Nanomaterial Impact on the Liver Following Intratracheal Instillation and Intravenous Injection – Anti-oxidant Status, Gene Expression and Polymorphonuclear Leukocyte Migration	O80
10:20-10:35	Gaixia Xu China	Reproductive Toxicity of CdSe/ZnS on Mouse <i>in vivo</i> Oogenesis and <i>in vitro</i> Fertilization	O81
10:35-11:00	Coffee and Poster Session		
Theme 2-3 Nanomedicine, Pharmacokinetics and Particokinetics			
Chairs: Kristina Riehemann and Zhuang Liu			
11:00-11:25	Kristina Riehemann Germany	(Keynote) Nanotechnology for Medicine: Cellular Response to Nanoscale Materials	K21
11:25-11:50	Zhuang Liu China	(Keynote) Functional Nanomaterials for Phototherapies of Cancer	K22
11:50-12:05	Kenneth KY Wong Hong Kong, China	Dendrimer Encapsulation Enhances Anti-inflammatory Efficacy of Silver Nanoparticles	O44
12:05-12:20	Anjie Dong China	Reconstituted and Injectable Hydrogel of a Novel Amphiphilic Copolymer Nanoparticles for Local Drug Delivery to Tumor Sites	O45
12:20-12:35	Shiwen Huang China	Development of Mesoporous Iron Oxide Nanoparticles and Nanorods for Drug Delivery: Effect of Shape on Cellular Uptake	O46
12:35-13:30	Lunch		

THURSDAY, Sept 6, 2012

Theme 2-4 Nanomedicine, Pharmacokinetics and Particokinetics			
Chairs: Paul C. Wang and Baoquan Ding			
14:00-14:25	Paul C. Wang USA	(Keynote) Study of TOPO-Quantum Dot Degradation by ³¹ P NMR	K23
14:25-14:50	Baoquan Ding China	(Keynote) DNA Origami as a Carrier for Circumvention of Drug Resistance	K24
14:50-15:15	Xianggui Kong China	(Keynote) Multifunctional Nanoplatfrom Excied by NIR Laser and for Simultaneous Fluorescence Imaging and Photodynamic Therapy of Cancer	K25
15:15-15:30	Pierre Hugounenq France	Nanoflowers: Promising Heating Agents for Magnetic Hyperthermia	O47
15:30-15:45	Juan Li China	The Effects of [C ₆₀ (C(COOH) ₂) ₂]N-FITC on Proliferation and Differentiation of Human Mesenchymal Stem Cells <i>in vitro</i>	O48
15:45-16:00	Chunying Shu China	Biomedical Application of Fullerenes	O49
16:00-16:30	Coffee and Poster Session		
Theme 2-5 Nanomedicine, Pharmacokinetics and Particokinetics			
Chairs: Chris Whiteley and Xueyun Gao			
16:30-16:55	Chris Whiteley South Africa	(Keynote) Are Nanoparticles Safe?Neurotoxic Effects of Biologically Synthesized Nanoparticles on the Central Nervous System	K26
16:55-17:20	Xueyun Gao China	(Keynote) The Suppression of Prostate LNCap Cancer Cells Growth by Selenium Nanoparticles through Akt/Mdm2/AR Controlled Apoptosis of Presentation	K27
17:20-17:35	Qing Huang China	The Biocompatibility of Nanodiamonds and Their Application in Drug Delivery Systems	O50
17:35-17:50	Yanshu Zhang USA	Copper Transport at the Blood-Cerebrospinal Fluid Barrier at Different Age	O51
17:50-18:05	Xiaodong Zhang China	GSH-Protected Gold Nanoclusters:Metabolizable and Low-toxic Nanomaterials by Renal Clearance	O52
18:05-18:20	Liang Guo China	Effects of Enrofloxacin-loaded Lipid Nanoparticles on Jejunal Epithelium Cytoactive and Blood Biochemical Indices in Weaned Piglets	O53

THURSDAY, Sept 6, 2012

Theme 6-1 Environmental Health and Nanosafety Chairs: Mary Gulumian and Xiaochun Wu			
8:30-8:55	Mary Gulumian South Africa	(Keynote) Surface Changes of Nanoparticles as Determinants of Their Enhanced or Reduced Toxicity	K51
8:55-9:20	Xiaochun Wu China	(Keynote) Progress of Nanoscale Reference Materials (RMs) Related to Environmental Health and Nanosafety	K52
9:20-9:35	Asako Aoyagi France	Nanotoxicology and OECD's Working Party on Manufactured Nanomaterials	O90
9:35-9:50	Adil Loya UK	Characterisation of Pure and Systematically Modified CuO Nanoparticles.	O91
9:50-10:05	Jin Huang China	Physiological Investigation of Magnetic Iron Oxide Nanoparticles towards Watermelon	O92
10:05-10:20	Yuhui Ma China	Comparative Toxicity of Nanoparticulate/Bulk Yb ₂ O ₃ And YbCl ₃ to Cucumber (Cucumis Sativus)	O93
10:20-10:35	Giuseppe Vecchio Italy	Nanomaterials Genotoxicity in Drosophila Melanogaster	O94
10:35-11:00	Coffee and Poster Session		
Theme 3-1 Nanobiotechnology, Nano-Bio Interface, and Nanobiomaterials Chairs: Wolfgang Parak and Duncan S. Sutherland			
11:00-11:25	Wolfgang Parak German	(Keynote) Charge Dependent Protein Corona and Cellular Uptake of Polymer-coated Colloidal Nanoparticles	K28
11:25-11:50	Zhanjun Gu China	(Keynote) Mn ²⁺ Dopant-Controlled Synthesis of NaYF ₄ :Yb/Er Upconversion Nanoparticles for <i>in vivo</i> Imaging and Drug Delivery	K29
11:50-12:05	Duncan S. Sutherland Denmark	Stabilized Zinc Oxide Nanoparticles Show Higher Cytotoxicity than Zinc Ions at Equivalent Concentrations	O54
12:05-12:20	Liming Wang China	Surface Properties of Gold Nanorods Mediated Cell Responses	O55
12:20-12:35	Nengqin Jia China	Multifunctional Spherical Nanoparticles Composed of Upconversion Luminescent and Magnetic Core/Mesoporous Shell for Optical and MR Imaging	O56
12:35-13:30	Lunch		

THURSDAY, Sept 6, 2012

Theme 6-2 Environmental Health and Nanosafety Chairs: Flemming Cassee and Haiyan Xu			
14:00-14:25	Flemming R. Cassee Netherlands	(Keynote) Metrics that Drive Biodistribution and Toxic Effects after Inhalation of Nanomaterials	K53
14:25-14:50	Haiyan Xu China	(Keynote) Silver Nanorods Disrupt Cell Membrane and Affect Kidney Function in Mice by Subcutaneous Administration	K54
14:50-15:05	Liyang Wang USA	Potential <i>in vitro</i> Model for Testing the Effect of Exposure to Nanoparticles on the Lung Alveolar Epithelial Barrier	O95
15:05-15:20	Alison Buckley UK	Unravelling the Relationship between CNT Morphology, Aerosol Dynamics and Lung Deposition	O96
15:20-15:35	Mei Li China	Combined Toxicity of Carbon Nanotubes and Sodium Pentachlorophenate on Earthworm <i>Eisenia Foetida</i>	O97
15:35-15:50	Lan Song Netherlands	Toxicity of Nano Copper Among Cladoceran Species	O98
15:50-16:05	Yang Clark USA	Protect Yourself from Toxic Environment of Nano Particles	O99
16:05-16:30	Coffee and Poster Session		
Theme 6-3 Environmental Health and Nanosafety Chairs: Zhiyong Zhang and Vincent Jamier			
16:30-16:55	Zhiyong Zhang China	(Keynote) Ecotoxicity of Rare Earth Oxide Nanomaterials	K55
16:55-17:20	Zhonghong Gao China	(Keynote) The Role of Nitrite in the Photo-Catalytic Damage of Zinc Oxide Nanoparticles under Ultraviolet Irradiation	K56
17:20-17:35	Ning Gong China	Toxicity Mechanisms of Nickel Oxide Nanoparticles on Marine <i>Chlorella Vulgaris</i>	O100
17:35-17:50	Vincent Jamier Spain	Tracking the Nanosafety Evolution of Nanoparticles	O101
17:50-18:05	Liyan Yin China	Effects of Silver Nanoparticle Exposure on Germination and Early Growth of Eleven Wetland Plants	O102
18:05-18:20	Ying Zhu China	Cytotoxicity of Phenol Red in Toxicity Assays for Carbon Nanoparticles	O103
18:05-18:20	Yongqiang Yuan China	Biosynthesis of Nano-Se by <i>Bacillus Cereus</i>	O104

THURSDAY, Sept 6, 2012

Theme 4-3 Nano-Biochemistry and Nano-Analysis Chairs: François Rossi and Yulan Wang			
8:30-8:55	François Rossi Italy	(Keynote) <i>In vitro</i> Approaches to Nanotoxicology Studies: the JRC Programme	K39
8:55-9:20	Haichen Wu China	(Keynote) Detection of Heavy Metal Ions Using A-Hemolysin Based Nanopore System	K40
9:20-9:45	Yulan Wang China	(Keynote) Potential Applications of Metabonomics in Nano-World	K41
9:45-10:00	Chengyu Jin China	Carbohydrate Metabolomic Study on the Cytotoxicity of Titanium Dioxide Nanoparticles in Mouse Fibroblast Cells	O73
10:00-10:15	Gabriele Maiorano Italy	The Study of NP Biointeractions and Toxicity Assesement by Proteomics	O74
10:15-10:30	Carlos P. Roca Spain	Novel Genomics Approaches for Environmental Risk Assessment of Metal Nanoparticles	O75
10:30-11:00	Coffee and Poster Session		
Theme 4- 4 Nano-Biochemistry and Nano-Analysis Chairs: Chen-zhong Li and Hans-Joachim Galla			
11:00-11:25	Chen-zhong Li USA	(Keynote) Biosensors for Rapid Analysis of Nanotoxic Kinetics	K42
11:25-11:50	Hao Wang China	(Keynote) High-Throughput Preparation and Screening of Self-Assembled Nanoparticles for Cancer Theranostics	K43
11:50-12:15	Xingfa Gao China	(Keynote) Structural Models for Sp ² Nanocarbons	K44
12:15-12:30	Hans-Joachim Galla Germany	Breakthrough in Cell Quality Control under Physiological Conditions-Introducing Fully Automated Impedance Measuring 'Cellscope' System	O76
12:30-13:30	Lunch		

THURSDAY, Sept 6, 2012

Theme 7-1 Ethical, Legal and Social Issues of Nanotechnology Chairs: George Khushf and Renzong Qiu			
14:00-14:25	Alfred Nordmann Germany	(Keynote) The Forms of Nanotoxicological Knowledge: On the Discrepancy between What We Want and What We Get	K57
14:25-14:50	Guoyu Wang China	(Keynote) Nanoethics: From Reflection on Possibility to Consideration of Public Acceptability	K58
14:50-15:05	Miao Liao China	Laboratory Collaboration as a Way of Practicing Nano-ELSI	O105
15:05-15:20	Siguang Zhang China	A Study of Social Responsibility of Nano Scientific Community	O106
15:20-15:35	Can Zhang China	Safety and Ethical Issues in the Nanotechnology Workplace —On the Basis of Survey of Nanotechnology Researchers	O107
15:35-16:05	Coffee and Poster Session		
Theme 7-2 Ethical, Legal and Social Issues of Nanotechnology Chairs: Alfred Nordmann and Guoyu Wang			
16:05-16:30	George Khushf USA	(Keynote) Can We Develop Useful Regulatory Guidelines that Treat Nanomaterials as a Special Class?	K59
16:30-16:55	Renzong Qiu China	(Keynote) Ethical Concerns over the Proactionary Approach to Nanotechnology	K60
16:55-17:10	Chao Wang China	Research on Nanotechnology Ethical Risk and Its Specification Construction	O108
17:10-17:25	Xiaolin Zhu China	The Nanotechnology Standardization and the Related Value Conflict——A Case Study of Nanofood	O109
19:00-21:00	Banquet		

SCIENTIFIC PROGRAM – DAY 4

FRIDAY, Sept 7, 2012

Theme 1-7 Nanotoxicology and Human Toxicology Chairs: Jun-Jie Yin and Il Je Yu			
8:30-8:55	Jun-Jie Yin USA	(Keynote) Use of Electron Spin Resonance Spectroscopy (ESR) and Biomarkers of Oxidative Damage to Assess the Safety of Nanoscale Materials Used in Foods and Cosmetics	K13
8:55-9:20	Il Je Yu Korea	(Keynote) Biopersistence of Silver Nanoparticles in the Central Nerve System and Reproductive Organ	K14
9:20-9:35	Andrea Haase Germany	Effects of Silver Nanoparticles in Primary Mixed Neural Cultures: Oxidative Stress and Interference with Calcium Signalling	O27
9:35-9:50	Masakazu Umezawa Japan	Effect of Titanium Dioxide Nanoparticle Transferred from Pregnant Mice to Their Offspring on Urinary and Cranial Nerve Systems	O28
9:50-10:05	Kumarasamy Murali Hungary	Surface Dependent Neurotoxicity of Polystyrene Nanoparticles	O29
10:05-10:20	Wenjun Ding China	Apoptotic Effect of ZnO Nanoparticles-induced Oxidative Stress in Primary Cultured Glia Cells via JNK Pathway	O30
10:20-10:35	Agnieszka Kinsner-Ovaskainen Italy	Evaluation of Cytotoxicity, Intracellular Uptake and Translocation of Amorphous Silica Nanoparticles Across the <i>in vitro</i> Human Intestinal Barrier Model	O31
10:35-11:00	Coffee and Poster Session		
Theme 1-8 Nanotoxicology and Human Toxicology Chairs: Paul Howard and David Grainger			
11:00-11:25	Paul Howard USA	(Keynote) Dermal Penetration of Nanoscale Materials and Nanotechnology Safety at the U.S. Food and Drug Administration	K15
11:25-11:50	David W. Grainger USA	(Keynote) Cationic PAMAM dendrimers as potent procoagulant stimulus	K16
11:50-12:05	Yasuo Yoshioka Japan	Effect of Nanosilica Particle against Coagulation after Systemic Exposure	O32
12:05-12:20	Bo Zhang China	C ₆₀ Fullerenes Aggregates Induced Apoptosis of RAW264.7	O33
12:20-12:35	Eun-Jung Park Korea	Comparison of Toxicity between Iron Oxide Nanoparticels with Different Properties on Ten Different Cell Lines	O34
12:35-13:30	Lunch		

FRIDAY, Sept 7, 2012

Theme 5-2 Exposure Scenarios and Risk Assessment of Nanomaterials Chairs: Teresa F Fernandes and Haifang Wang			
8:30-8:55	Teresa F. Fernandes UK	(Keynote) Deriving Relationships between Characteristics and Environmental Effects of Nanomaterials	K47
8:55-9:20	Haifang Wang China	(Keynote) Biodistribution and Toxicity of Graphene Oxide in Mice	K48
9:20-9:35	Takayuki Anzai Japan	The Newly Developed Safety Evaluation Scheme for Nanomaterial	O82
9:35-9:50	Yun Wang China	Susceptibility of Young and Adult Rats to the Oral Toxicity of Titanium Dioxide Nanoparticle	O83
9:50-10:05	Qiuli Wu China	Toxicity Evaluation of Graphene Oxide Using <i>C. elegans</i> as an <i>In vivo</i> Assay System	O84
10:05-10:20	Kiao Inthavong Australia	Predictions of Nanoparticle Deposition in the Human Respiratory System through Inhalation Exposure	O85
10:20-10:35	Alexander A. Gusev Russia	Phytotoxic Effects and Bioaccumulation of Nanomaterials in Agriculture Plants	O86
10:35-11:00	Coffee and Poster Session		
Theme 5-3 Exposure Scenarios and Risk Assessment of Nanomaterials Chairs: Dhimiter Bello and Lihong Liu			
11:00-11:25	Dhimiter Bello USA	(Keynote) Linking Exposures to Engineered Nanomaterials with Human Health: From Emissions to Exposure Biology	K49
11:25-11:50	Lihong Liu Australia	(Keynote) Investigations on the Differential Cytotoxicity of Chemical Properties and Particle Size of Silver Species	K50
11:50-12:05	Yon Rojanasakul USA	Neoplastic Transformation and Toxicogenomic Responses of Human Small Airway Epithelial Cells to Subchronic Exposure of Carbon Nanotubes vs. Asbestos	O87
12:05-12:20	Bing Wang China	Enhanced Removal of Bisphenol A and 4-tert-octylphenol in Water by Single-Walled Carbon Nanotubes in the Presence of Humic Acid and Metal Ions	O88
12:20-12:35	P.S.Navaraj India	Toxicological Evaluation of Nano Silver in O.Mossambicus	O89
12:35-13:30	Lunch		

FRIDAY, Sept 7, 2012

Theme 3-2 Nanobiotechnology, Nano-Bio Interface, and Nanobiomaterials Chairs: Peter Bode and Daiwen Pang			
8:30-8:55	Peter Bode Netherlands	(Keynote) Prognostication of the Toxicological Safety of Nanoparticles in Use with Medical Imaging and Radiation Therapy	K30
8:55-9:20	Daiwen Pang China	(Keynote) Exploring Accurate Tuning of the Properties of Biolabeling Nanomaterials for Biotracking	K31
9:20-9:45	Guangjun Nie China	(Keynote) Nanoparticle Platform for Simultaneous Delivery of Multiple Theranostic Agents for Cancer Therapy and Imaging	K32
9:45-10:00	Anna Salvati Ireland	Nanoparticle Uptake and Impact on Lysosomes: Role of Cell Cycle and of the Proteins Adsorbed on the Nanoparticle Surface	O57
10:00-10:15	Xinghua Shi China	Cell Entry of One-Dimensional Nanomaterials Occurs by Tip Recognition and Rotation	O58
10:15-10:30	Yao He China	Fluorescent Nano-Probes for <i>in vivo</i> and <i>in vitro</i> Imaging	O59
10:30-11:00	Coffee and Poster Session		
Theme 3-3 Nanobiotechnology, Nano-Bio Interface, and Nanobiomaterials Chairs: Xiaogang Liu and Chunhai Fan			
11:00-11:25	Xiaogang Liu Singapore	(Keynote) Upconversion Nanocrystals: A New Class of Luminescent Bioprobes	K33
11:25-11:50	Chunhai Fan China	(Keynote) Emerging DNA Nanotechnology for Diagnostic and Therapeutic Applications	K34
11:50-12:05	Xiaomin Liu China	Synthesis and Remarkable Enhancement of Luminescence of Ce ³⁺ , Tb ³⁺ : NaYF ₄ Nanoparticles Modified by Active-shell	O60
12:05-12:20	Stefaan J. Soenen Belgium	The Cytotoxic Effects of Inorganic Nanoparticles: A Multiparametric Assessment of Polymer-Coated Quantum Dots.	O61
12:20-12:35	Rui Peng China	Functionalized Graphene Oxide as Selective Regulators of Protease, Serum Factors, Gene Expression, and Microbial Growth	O62
12:35-12:50	Hongda Wang China	Studying the Interactions between Nanoparticles and Living Cells by AFM	O63
12:50-13:30	Lunch		

FRIDAY, Sept 7, 2012

Plenary Presentation III Chairs: Lajos P. Balogh and Bengt Fadeel			
14:00-14:35	Günter Oberdörster USA	Assessing the Safety of Airborne Engineered Nanomaterials: Challenges and Limitations	PL6
14:35-15:10	Shuming Nie USA	Cadmium-Free Quantum Dots: Unusual Chemical Reactions and Cellular Toxicity at the Nanometer Scale	PL7
15:10-15:45	José Oliveira Germany	Publishing in Materials Science	PL8
15:45-16:15	Coffee and Poster Session		
Plenary Presentation IV Chairs: Günter Oberdörster and and Shuming Nie			
16:15-16:50	André E. Nel USA	Nanomaterial Toxicity Testing in the 21st Century: Use of High Throughput Approaches to Understand Oxide Nanoparticle Toxicity	PL9
16:50-17:25	Ruhong Zhou USA	Modeling Nanotoxicity: Large Scale Molecular Simulation of Nanoparticle-Protein Interactions with IBM Blue Gene	PL10
17:25-18:30	Closing Ceremony and Awarding Chair: Chunying Chen		

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Posters should be mounted by 12:30 on Wednesday 5 September, and removed by 11:00 on Friday 7 September. Pins will be provided at the registration desk. Presenting authors are requested to stand alongside their posters during 13:30-14:00 and 18:00-19:00 on Wednesday 5 September, Thursday 6 September, and whenever possible outwith this.

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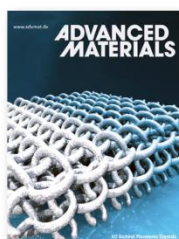
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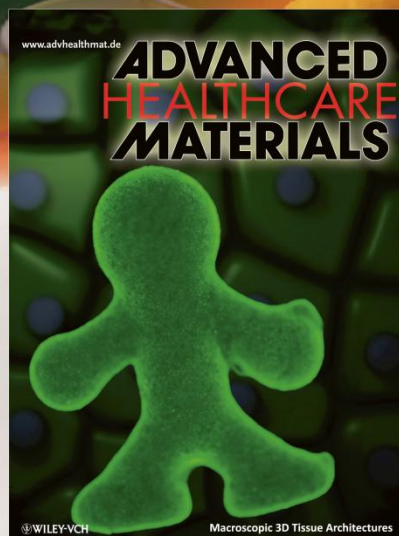
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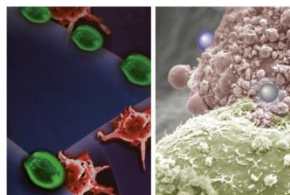
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