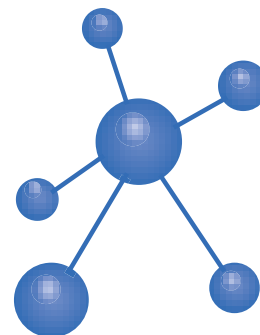


GE Healthcare
Life Sciences

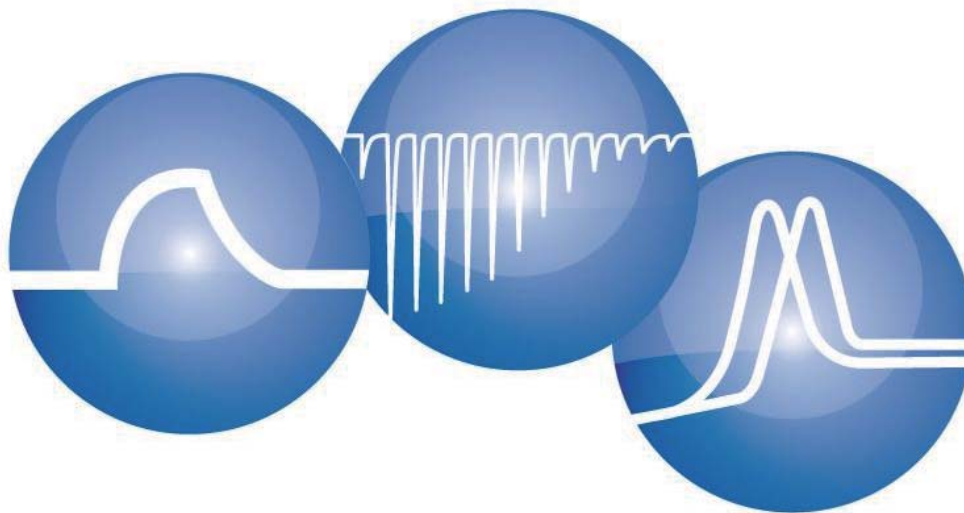
Developments in Protein Interaction Analysis



November 4-7, 2012

SunWorld Dynasty Hotel

Beijing, China



imagination at work

healthymagination

History of DiPIA

An annual event with a history of more than 20 years in North America and Europe covering topics from binding and stability studies, structure function relationships, small chemical drug compound discovery to biotherapeutic discovery and development and quality control.

DiPIA has become

- A leading conference for exchanging experiences and ideas on biomolecular interaction and stability analysis across the entire spectrum of biological research through case study presentations and panel discussions
- A unique forum that provides a great opportunity to meet with researcher, across the globe, working with label-free interaction analysis. Networking opportunities and sharing knowledge with highlesteemed peers at workshops and one-to-one meetings.
- Post event follow up providing all documentation from the meeting

DiPIA was successfully held in BALTIMORE USA in 2009, BARCELONA Spain in 2010, and BOSTON USA in 2011. In 2012, it's the first time for DiPIA in China.





DiPIA

2012 蛋白质相互作用
分析发展趋势大会
November 4-7, Beijing

Developments in Protein Interaction Analysis Conference Beijing, China in November 4-7, 2012

The exciting scientific program is focused on six research topics

Structure-function relationships

Fragments and small chemical
molecules

Health and disease research

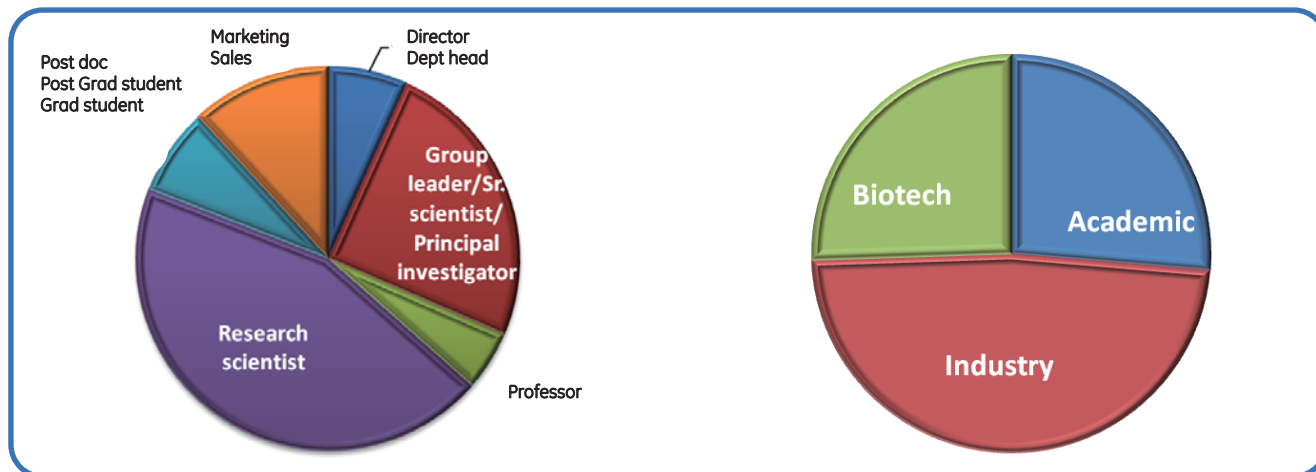
Antibodies and vaccines

Chemistry and materials in
solution

Process development,
formulation and quality control

For more information and to register visit,
www.gelifesciences.com/DiPIA2012

Who joined DiPIA 2011 in Boston, MA, USA



DiPIA delegate testimonials

"Has been a great meeting to expose me to other techniques that I normally wouldn't do at my day to day work such as ITC and SPR"

Scientist, Fujifilm Diosynth Biotechnologie

"A great conference and it's nice to meet people in the field, and to share experience and get hints on how to perform SPR analysis"

Scientist, NOXXON Pharma AG

"Thank you also for your help in the organization of DiPIA, what was an excellent meeting in Barcelona"

Scientist, University of Texas

"Combination of Biacore™ and MicroCal™ technology in one meeting was very interesting and helpful"

Come to join the label-free scientific community at DiPIA!

The registration fee covers all conference material, coffee breaks, lunch, the welcome reception and Gala Dinner.

- Industry Rate - US\$ 525
- Academic/Government Rate - US\$ 420
- Day pass - US\$ 250

2nd registration from same accounts has 50% off.

Registration @ <http://dipia2012.forcemotrice.com/conference-home.aspx>



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Learn from experts and opinion leaders in the field of labelfree interaction analysis during the Scientific series.

Academic and Applied Research, Chemical and Materials

Luhua Lai, PhD

Peking University

BNLMS, State Key Laboratory for Structural Chemistry of Unstable and Stable Species, College of Chemistry and Molecular Engineering, & Center for Quantitative Biology

Abstract title: *«Quantitative Measurement of Biomolecular Binding Helps to Discover Novel Protein Interaction Pairs and Ligands»*



Luhua Lai's group uses combined approaches of computational and experimental to study biological problems. They are working on understanding protein-protein interactions, protein design, structural and systems based drug design. For structural based drug design, they use in silico virtual screening and rational design methods to discover potential leads for several disease-related targets. They also study disease related networks at the systems level and developed methods for key target identification and multiple targets optimum intervention. For novel protein-protein interaction pair design, they have developed strategies based on key residue grafting, de novo design, as well as docking based screen. Their strategies have been successfully applied in a number of systems and experimentally verified by SPR, ITC, and cell based studies.

Xu Shen, PhD

Director, Department of Pharmacology III, Shanghai Institute of Materia medica, Chinese Academy of Sciences

Abstract title: *«SPR technology based Biacore in the assay for drug lead compound discovery»*

Dr. Xu Shen's current interest includes "Protein-small molecule interaction based drug design".

He is now editorial board members of several scientific journals, including Acta Pharmacologica Sinica, Journal of Microbes and Infection and PPAR Research. Prof. Shen was awarded the "Shanghai leading talent", and won the Second Prize of National Natural Science Award and the First Prize of Debio-CCRF China Award. In 2006, he obtained the National Outstanding Youth Grant.



Gregory DeCrescenzo, PhD

Associate Professor, Dept of Chemical Engineering, École Polytechnique de Montréal Canada

Abstract title: *«Reducing experimental duration with Biacore T100 instruments - A software-based approach»*

De Crescenzo's group focuses on the generation of smart scaffolds and nanoparticles being decorated with bioactive proteins for various biomedical applications, including vascular implants. In that endeavor, SPR biosensors are routinely used in his laboratory to control the bioactivity of proteins that are produced in-house as well as to test new protein immobilization/capture strategies. De Crescenzo's lab is also part of the pan-Canadian monoclonal antibody network (MabNET) that gathers more than 30 researchers working on the production and characterization of single-glycoform monoclonal antibodies

Zhongxiu Chen, PhD

Professor, Zhejiang Gongshang University

Abstract title: *«The mechanistic research of sweet taste recognition using Isothermal Titration Calorimetry technique»*

Dr. Zhongxiu Chen is currently a professor of the Zhejiang Gongshang University. She got her bachelor degree in 1992 and master degree in 1999 from China University of Mining and Technology, majoring in chemical engineering. In 2005, she got Ph.D in organic chemistry from the University of Science and Technology of China. She has ever worked as a post-doctoral researcher at Texas Tech University and the University of Minnesota in the United States for one year since Jan 2008. Her work interests include organicsynthesis and characterization of the chemical mechanism involved in sweet sensation as well as the thermo dynamics in self assembly and molecular recognition of novel amphiphilic molecules for exploitation in chemosensor design.

Anne Imberty, PhD

Research Director, the Centre de Recherches sur les Macromolécules Végétales (CERMAV)

Abstract title: *«Sweet-talk between pathogen and host: structure and thermodynamics of protein-glycan interaction»*



Dr. Imberty's research interests are in the field of structural glycobiology, with main interest on biologically active oligosaccharides and their interaction with lectins and glycosyltransferases. She solved several crystal structures of oligosaccharides and of lectin/carbohydrate complexes. Her main interest is the characterization of the molecular basis of recognition between lectins from pathogens and human glycoconjugates and design of glycoconjugates with anti-infectious properties.



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Jin Biao Ma, PhD

Professor, School of Life Science, *Fudan University*

Abstract title: *«Study of molecular recognition and mechanism of protein-nucleic acid interaction»*

Professor Jinbiao Ma is a structural biologist, with a PhD in 2002 from Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, in bio-organic chemistry focused on protein-ligand interaction with Prof. Hou-Ming Wu, and with a postdoctoral study in structural biology at Memorial Sloan-Kettering Cancer Center with Prof. Dinshaw Patel on protein-RNA interaction. After 2007, he was an assistant professor of Department of Biochemistry and Molecular Genetics, University of Alabama at Birmingham. And now he is a professor at Fudan University in Shanghai, China.

Xiao Dong Su, PhD

Professor, School of Life Sciences, Peking University

Abstract title: *«Protein - nucleic acid interaction elucidated by ITC and crystallographic studies»*

Dr. Xiao-Dong Su is interested in developing and applying new methods and techniques to biomedical researches, including X-ray crystallography, single molecular biology, NGS techniques and biophysical methods in general. Su lab is interested in structural and functional studies of proteins and nucleic acids and their complexes with important function and biomedical applications.

Tohru Kozasa, PhD

Professor, Division of Signal Transduction, Laboratory of Systems Biology and Medicine, Research Center for Advanced Science, University of Tokyo

Abstract title: *« Characterization of the conformational change of LARG(leukemia associated RhoGEF) during the interaction with Galpha13»*

Yong Chen, PhD

Professor, Nankai University

Abstract title: *« Construction and Application of Some Bioactive Cyclodextrin Systems»*

Yong Chen has been a faculty member majoring organometallic and macromolecular chemistry at Institute of Chemistry, Chinese Academy of Science and a post-doctor at Ecole Normale Supérieure (ENS, France) majoring the synthesis and study of new system based on permethylated cyclodextrins. In 2003, he joined Prof. Yu Liu's group at Nankai University as an associated professor and became a full professor in 2009. His research interests are mainly focused on supramolecular chemistry of cyclodextrins.



Drug Discovery , Antibodies & Vaccines

David Swinney, PhD

CEO , Institute for Rare and Neglected Diseases Drug Discovery , IRND3

Abstract title: « *The value of binding kinetics to drug discovery for the topic* »

Dr. Swinney has devoted the majority of his career to the identification of effective mechanisms of drug action, promising leads and clinical candidates to address unmet medical needs. He has also developed an expertise in the understanding and application of binding kinetics to drug discovery. Dr. Swinney has a PhD in medicinal chemistry from the University of Washington, Seattle, over 20 years of industrial experience (Roche, Syntex) and is currently CEO and co-founder of the non-profit, Institute for Rare and Neglected Diseases Drug Discovery (iRND3, www.irnd3.org).

Michael Schrämel, PhD

Roche Diagnostics GmbH

Abstract title: « *Temperature-Dependent Kinetics as a Tool in Antibody Lead Selection* »

Dr. Schramel studied Biotechnology at the University of Applied Sciences Weihenstephan-Triesdorf (Dipl. Ing. FH Biotechnology)

(1999-2000) Started with QCM and SAW biosensor development at the Fraunhofer Institute for Microelectronic Circuits and Systems (IMS).

(2000) Working with SPR (Biacore 2000). Site directed presentation of cell-free expressed, cotranslationally monobiotinylated proteins on streptavidin coated sensors at Roche in Penzberg.

(2001-2004) Dissertation in Biotechnology at the Martin Luther Universität Halle-Wittenberg in the Biotechnology Institute of Prof. Rainer Rudolph

2004-2007 Scil Proteins GmbH, Germany "Head of Affilin Technology", responsible for the development of artificial binding proteins "Affilins" by means of Ribosome Display and Phage Display. Establishing de novo binding sites on protein surfaces. Protein library construction, recombinant protein expression, purification, thermodynamics and interaction analytics. (Biacore 3000)

(2007 to now) Roche Diagnostics GmbH, Penzberg, Germany, Roche Professional Diagnostics (RPD), Biotechnology Department, Antibody Development, "Head Bio Interaction Analysis" Development of diagnostic and pharmaceutical antibodies. Specialized on biosensor interaction analyses. Also dealing with recombinant scaffold technologies, molecular display technologies and all kinds of binding molecules.

Equipped with SPR-based Screening instruments (2x Biacore 4000). For functional assays (1x 2000, 2x 3000, 2xT200, 1x SAMX from SAW Instruments, FRET).

Aparna Kasinath, PhD

Scientific Manager , Bioanalytical Laboratory for Large Molecules , Clinigene International Limited

Abstract title: « *Immunoanalytical Techniques and Biologics Drug Development: Where do they really meet?* »



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Masahiko Katayama, PhD

Chief Scientist, Eisai Co., Ltd., KAN product creation unit

Abstract title: *«Kinetic analysis of high affinity therapeutic lead monoclonal antibodies by capture method in Biacore A100 system»*

Dr. Katayama's Current position is Chief Scientist, KAN Product Creation Unit, Eisai Co., Ltd. Educational Career: March, 1984; Graduated from Department of Biochemistry, Faculty of Science, Osaka City University, Japan Professional Career: 1984-94; Cell Technology Section, Biotech Research Labs, Takara Shuzo Co., Ltd., Japan 1995; Drug Discovery, Tsukuba Research Labs, Eisai Co., Ltd., Japan

Kehao Zhao, PhD

Senior Investigator I, China Novartis Institutes for Biomedical Research, Shanghai

Abstract title: *«Fragment based approach to identify small molecular probe towards target discovery»*

Dr. Kehao Zhao, is a senior research investigator of China Novartis Institutes for Biomedical Research. He got his PhD in X-ray crystallography from the Institute of Biophysics, the Chinese Academy of Sciences. He received his post-doc training at the Wistar Institute. He then joined Procter & Gamble Pharmaceuticals and worked on early stage drug discovery programs. Later he joined Ophthalmology Disease area in Novartis Institutes for Biomedical Research, Cambridge. He is currently the group leader of Structural Biology and Biophysics to focus on small molecular drug discovery.

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(GEHC China)



Brian Lang
(GEHC, USA)





Process Development, Formulation and Quality Control

Sandro Keller, PhD

Assistant professor, Molecular Biophysics, Faculty of Biology University of Kaiserslautern

Abstract title: « *1/1 Copper ion binding studied by isothermal titration calorimetry* »



Sandro Keller received his Ph.D. from the Department of Chemistry and Physics at the Martin Luther University Halle-Wittenberg, Germany, in 2006. He then was appointed leader of an independent junior research group at the Leibniz Institute of Molecular Pharmacology (FMP) in Berlin, Germany, where he developed microcalorimetric and spectroscopic methods for studying membrane proteins and protein–ligand interactions. During this time, his particular interest was in the application of isothermal titration calorimetry to the functional reconstitution of membrane proteins and the characterization of high-affinity interactions. In 2009, Sandro Keller moved to the University of Kaiserslautern, Germany, where he now holds a tenure-tracked assistant professorship in Molecular Biophysics. In 2010, the North American Calorimetry Conference (CALCON) awarded him with the Stig Sunner Memorial Award in recognition of his contributions to the field of high-sensitivity microcalorimetry.

Takaaki Miura, PhD

Research group leader, Chugai Pharmaceutical Co., Ltd,

Abstract: « *Use of co-injection to characterize molecular interactions by SPR* »



Dr. Takaaki Miura is the group leader of the biostructure research group of Discovery Research Department at Chugai Pharmaceutical Co., Ltd. located in Kanagawa, Japan. He has long been responsible for the biophysical characterization of the interactions between small molecules and proteins, mainly using NMR and SPR spectroscopy and has recently extended his responsibilities to all biostructural activities including protein engineering/production and X-ray crystallography. He joined Nippon Roche in 1993 as a research scientist in the screening department and moved to the chemistry department in 1996. There he began to conduct protein NMR research and applied SPR technology to small molecule drug discovery. As a result of the strategic alliance between Nippon Roche and Chugai in 2002, he became an employee of Chugai Pharmaceutical Co., Ltd. He obtained his PhD in biochemistry from the University of Tokyo.



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Katherine Bowers, PhD

Associate Principal Scientist, Analytical and Formulation Development Fujifilm Diosynth Biotechnologies

Abstract title: *«Using capillary DSC as a core technique in protein formulation and process development support»*

Katherine Bowers received her B.S. in Chemistry from Shepherd University in Shepherdstown WV, followed by her PhD in Chemistry at the Pennsylvania State University. Her graduate research focused on studying the protein folding mechanisms of E. coli DHFR and the α -subunit of tryptophan synthase, using a protein fragmentation approach coupled to biophysical techniques to search for independent folding domains. Katherine Bowers then conducted Postdoctoral training in mechanistic enzymology at the University of Michigan, Department of Chemistry. This research involved probing the chemical mechanism of mammalian farnesyltransferase, an enzyme involved in the post-translation lipidation of key signaling proteins, using site-directed mutagenesis, transient kinetics and kinetic isotope effects. After Postdoctoral training, Katherine Bowers worked as a Formulation Development Scientist at Regeneron Pharmaceuticals in Tarrytown NY. Katherine Bowers is currently employed at Fujifilm Diosynth Biotechnologies as a Formulation and Analytical Development Scientist for this contract manufacturer of protein-based therapeutics. In this role, Dr. Bowers works with a wide variety of protein molecules, using biophysical techniques to support manufacturing process development and the development of stable parenteral formulations.

Martin Baumann, PhD

Research Scientist, Novozymes A/S

Abstract: *«Thermochemical screening of cellulolytic enzymes for second generation bioethanol»*

Martin Johannes Baumann

2011–present, Research Scientist, Novozymes Denmark.

2009-2011, Post doc at Roskilde University in the Department for Nature, Systems and Models with Prof. Peter Westhina shared project between Novozymes and Roskilde University.

2007-2009, Hans-Christian Ørsted Postdoc fellowship with Prof. Birte Svensson in the group for enzyme and protein chemistry, Biosys, Technical University of Denmark.

2001-2007, Doctoral studies with Prof. Tuula Teeri and Assoc. Prof. Harry Brumer in the group for Wood Biotechnology, School of Biotechnology at the Royal Institute of Technology, Stockholm, Sweden.

2000, Diplom in Biology at the "Heinrich-Heine-Universität" Düsseldorf. Biochemistry, Physical Biology and Organic Chemistry.

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Natalia Markova,
(GEHC, Sweden)



Ronan O'Brien,
(GEHC, USA)



He Rong
(GEHC, China)



Tomoya Mitani
(GEHC Japan)





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