

SCHEDULE OF SESSIONS

G. ANALYTICAL TECHNIQUES IN LIFE SCIENCES

CHAIRMAN: Prof. Jianwei XIE

ORAL LECTURES

Time: Oct. 25, 2019 AM (Friday)

Location: Room 311B, China National Convention Center, Beijing

Topic: Single molecule/cell/particle analysis

Chairmen: Prof. Xiaomei YAN and Prof. Chunying CHEN

8:30-8:35	/	Opening Remarks
8:35-9:00	G2	IDENTIFYING VIRULENCE DETERMINANTS OF ZIKA VIRUS BY USING REVERSE GENETICS PLUS PLATFORM Chengfeng QIN (Keynote) Department of Virology, State Key Laboratory of Pathogen and Biosecurity, Beijing Institute of Microbiology and Epidemiology, Academy of Military Medical Sciences, Beijing, China
9:00-9:25	G3	FLOW CYTOMETRIC ANALYSIS OF SINGLE EXTRACELLULAR VESICLES FOR BIOMEDICAL RESEARCH Xiaomei YAN (Keynote) Department of Chemical Biology, College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, Fujian 361005, China
9:25-9:50	G4	DISCOVERY AND CHARACTERIZATION OF EXOGENOUS NANOPARTICLES IN HUMAN SERUM AND PLEURAL EFFUSION SAMPLES Qian LIU (Keynote) State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, China
9:50-10:15	G5	ANALYSIS AND DETECTION OF NANOPARTICLES IN A SINGLE CELL Chunying CHEN (Keynote) CAS Key Laboratory for Biomedical Effects of Nanomaterials and Nanosafety and CAS Center for Excellence in Nanoscience,

National Center for Nanoscience and Technology, Beijing,
China

10:15-10:25

Coffee Break

Chairmen: Prof. Peng CHEN and Prof. Jie SONG

10:25-10:50 G6 SINGLE-MOLECULE MICROSCOPY OF BACTERIAL
METAL HOMEOSTASIS

Peng CHEN (Keynote)

Department of Chemistry and Chemical Biology, Cornell Uni-
versity, Ithaca, New York, USA

10:50-11:15 G7 CREATE PROTEIN PATTERNS WITH DNA ORIGAMI

Jie SONG (Keynote)

Department of Instrument Science and Engineering in the
School of Electronic Information and Electrical Engineering,
Shanghai Jiao Tong University, 800 Dongchuan Road, Shang-
hai, China

11:15-11:30 G22 A NOVEL EXONUCLEASE-ASSISTED ISOTHERMAL NU-
CLEIC ACID AMPLIFICATION WITH ULTRAHIGH SPEC-
IFICITY MEDIATED BY FULL-LENGTH BST DNA POLY-
MERASE

Jilie KONG

Department of Chemistry and Institutes of Biomedical Sciences,
Fudan University, Shanghai, China

11:30-11:45 G23 THE UNEXPECTED DISCOVERY OF BIOMARKERS AND
MOLECULAR EVENTS BY CELL-SELEX

Tao BING

Beijing National Laboratory for Molecular Sciences, Key La-
boratory of Analytical Chemistry for Living Biosystems, CAS
Research/Education Center for Excellence in Molecular Sci-
ences, Institute of Chemistry, Chinese Academy of Sciences,
Beijing, China

11:45-12:00 G24 GRAPHENE ISOLATED BIOMEDICAL ANALYSIS

Zhuo CHEN

State Key Lab of Chemo/Biosensing and Chemometrics, Col-
lege of Chemistry and Chemical Engineering, Hunan Univer-
sity, Changsha, Hunan, China

Time: Oct. 25, 2019 PM (Friday)

Location: Room 311B, China National Convention Center, Beijing

Topic: Analytical Chemistry: Meet the Editor

Chairmen: Prof. Xinrong ZHANG and Prof. Jonathan SWEEDLER

13:00-13:15 / FROM AN EDITOR'S PERSPECTIVE
Jonathan V. SWEEDLER (Editor-in-Chief)
Department of Chemistry and the Beckman Institute, University of Illinois at Urbana-Champaign, Urbana IL, USA

13:15-14:15 / ONE-HOUR PANEL Q&A
Editors of Analytical Chemistry:
Jonathan V. SWEEDLER (Editor-in-Chief)
Xinrong ZHANG (Asso. Editor-in-Chief)

Time: Oct. 25, 2019 PM (Friday)

Location: Room 311B, China National Convention Center, Beijing

Topic: Precision medicine analysis and medical diagnosis

Chairmen: Prof. Yingfu LI and Prof. Chaoyong YANG

14:30-14:55 G8 IN PURSUIT OF SIMPLE AND ULTRA-SENSITIVE FUNCTIONAL DNA-BASED BIOSENSING SYSTEMS
Yingfu LI (Keynote)
Department of Biochemistry and Biomedical Sciences, McMaster University, Hamilton, Canada

14:55-15:20 G9 HIGH THROUGHPUT SINGLE CELL SEQUENCING FOR PRECISION MEDICINE
Chaoyong YANG (Keynote)
Department of Chemical Biology, Xiamen University, Xiamen, China

15:20-15:35 G25 MOLECULAR CANCER IMAGING USING RENAL-EXCRETED NIR-II FLUOROPHORE-PEPTIDE PROBES
Weizhi WANG
School of Chemistry and Chemical Engineering, Beijing Institute of Technology, Beijing, China

15:35-15:45 **Coffee Break**

Chairmen: Prof. Fan ZHANG and Prof. Chuanliu WU

15:45-16:10 G15 DESIGN AND SCREENING OF MULTICYCLIC PEPTIDE AFFINITY REAGENTS FOR PROTEIN ANALYSIS

- Chuanliu WU** (Keynote)
Department of Chemistry, College of Chemistry and Chemical Engineering, The MOE Key Laboratory of Spectrochemical Analysis and Instrumentation, Xiamen University, Xiamen, China
- 16:10-16:35 G11 NIR-II LANTHANIDE PROBES FOR IN VIVO MULTIPLEXED BIO DETECTION
Fan ZHANG (Keynote)
Department of Chemistry & Laboratory of Advanced Materials & Collaborative Innovation Center of Chemistry for Energy Materials & State Key Laboratory of Molecular Engineering of Polymers, Fudan University, Shanghai, China
- 16:35-16:50 G26 CAPILLARY ELECTROPHORESIS: AN EFFICIENT TECHNOLOGY FOR BIOSEPARATION AND BIOANALYSIS
Feng QU
School of Life Science, Beijing Institute of Technology, Beijing, China
- 16:50-17:05 G27 EXPLORING BINDING SITES ON APTAMERS IN APTAMER-IMMUNOGLOBULIN E BINDING BY FLUORESCENCE ANISOTROPY ANALYSIS
Qiang ZHAO
State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, China
- 17:05-17:20 G28 FUNCTIONAL NUCLEIC ACIDS TAILORING AND ITS APPLICATION IN BIOHYBRID INTERFACE SENSOR
Longjiao ZHU
Beijing Advanced Innovation Center for Food Nutrition and Human Health, College of Food Science & Nutritional Engineering, China Agricultural University, Beijing, China

Time: Oct. 26, 2019 AM (Saturday)

Location: Room 311B, China National Convention Center, Beijing

Topic: -omics analysis

Chairman: Prof. Jonathan V. Sweedler and Prof. Haiteng DENG

- 8:30-8:55 G12 HIGH THROUGHPUT SINGLE CELL MASS SPECTROMETRY OF THE BRAIN
Jonathan V. SWEEDLER(Keynote)

- Department of Chemistry and the Beckman Institute, University of Illinois at Urbana-Champaign, Urbana IL, USA
- 8:55-9:20 G13 SYSTEMATIC ANALYSIS OF BIOLOGICAL FUNCTIONS OF NAD⁺ IN AGING-ASSOCIATED DISEASE
Haiteng DENG (Keynote)
MOE Key Laboratory of Bioinformatics and the Center for Synthetic and Systematic Biology, School of Life Sciences, Tsinghua University, Beijing, China
- 9:20-9:45 G14 DEEP COVERAGE QUANTITATIVE PROTEOMICS REVEALS MULTIPLE BIOLOGICAL FUNCTION OF UBIQUITIN CHAINS
Ping XU (Keynote)
State Key Laboratory of Proteomics, Beijing Proteome Research Center, National Center for Protein Sciences (Beijing), Institute of Lifeomics, Beijing, China
- 9:45-10:00 G29 PREDICTING INDIVIDUAL RESPONSE TO WARFARIN WITH PHARMACO-METABOLOMIC, PHARMACO-GENETIC METAGENOMIC METHOD
Guohua ZHOU
Department of Pharmacology, Jinling Hospital, Medical School, Nanjing University, Nanjing, China
- 10:10-10:15 G30 HIGH THROUGHPUT, INTEGRATIVE SINGLE-CELL SECRETOMIC ANALYSIS
Yao LU
Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian, Liaoning , China
- 10:15-10:25 **Coffee Break**
- Chairman: Prof. Ping XU and Prof. Yang WANG**
- 10:25-10:50 G10 NANOSCALE OPTICAL PROBES FOR LONG-TERM BIOIMAGING
Chengzhi HUANG (Keynote)
Key Laboratory of Luminescent and Real-Time Analytical Chemistry (Southwest University), Ministry of Education, College of Pharmaceutical Sciences, Southwest University, Chongqing, China
- 10:50-11:15 G16 GENOME-BASED XDR PATHOGEN SURVEILLANCE IN THE ANIMAL PRODUCTION CHAIN

- Yang WANG** (Keynote)
College of Veterinary Medicine, China Agricultural University,
Beijing, China
- 11:15-11:30 G31 MECHANISM ILLUSTRATION OF XENOBIOTIC EXPOSURE IMPAIRMENT BASED ON METABOLOMICS ANALYSIS TECHNOLOGY
Wenpeng ZHANG
State Key Laboratory of Toxicology and Medical Countermeasures, Beijing Institute of Pharmacology and Toxicology, Beijing, China
- 11:30-11:45 G32 NEW REAGENTS AND METHODS FOR LARGE-SCALE ENRICHMENT, DETECTION AND IDENTIFICATION OF PROTEIN O-GLCNACYLATION
Wanjun ZHANG
National Center for Protein Sciences (Beijing), Beijing Institute of Lifeomics, Beijing Proteome Research Center, Beijing, China

Time: Oct. 26, 2019 PM (Saturday)

Location: Room 311B, China National Convention Center, Beijing

Topic: Health and safety/ Precise medical diagnosis

Chairman: Prof. Jinlan ZHANG and Prof. Guangming HUANG

- 13:30-13:55 G17 INVESTIGATION OF METABOLIC PATHWAY IN BRAIN WITH NOVEL MASS SPECTROMETRY METHODS
Guangming HUANG (Keynote)
Medicine School of Chemistry and Materials Science, University of Science and Technology of China, Hefei, China
- 13:55-14:20 G18 UHPLC-HRMS /MS METHODS FOR DISCOVERY OF NEW CHOLESTERY ESTERS
Jinlan ZHANG (Keynote)
State Key Laboratory of Bioactive Substances and Functions of Natural Medicines, Institute of Materia Medica, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China.
- 14:20-14:45 G19 IMAGING OF POLAR AND NONPOLAR SPECIES USING COMPACT DESORPTION ELECTROSPRAY IONIZATION/POSTPHOTOIONIZATION MASS SPECTROMETRY
Yang PAN (Keynote)

- National Synchrotron Radiation Laboratory, University of Science and Technology of China, Hefei, China
- 14:45-15:00 G33 RAPID SCREENING TECHNOLOGIES FOR HIGHLY TOXIC SUBSTANCES IN FOOD MATRICES
Jiefang SUN
Beijing Key Laboratory of Diagnostic and Traceability Technologies for Food Poisoning, Beijing Center for Disease Prevention and Control, Beijing, China
- 15:00-15:15 G34 RESEARCH ON THE ACTIVITY OF TELOMERASE AND SCREENING G-QUADRUPLEX LIGANDS
Yan JIN
Key Laboratory of Analytical Chemistry for Life Science of Shaanxi Province, School of Chemistry and Chemical Engineering, Shaanxi Normal University, Xi'An, China
- 15:15-15:30 G35 COMPUTATIONAL ASSISTED PRODUCTION OF ANTIBODY WITH DESIRED CHARACTERISTICS AND IMMUNOASSAY DEVELOPMENT THEREOF
Cunzheng ZHANG
Institute of Food Safety and Nutrition, Jiangsu Academy of Agricultural Sciences, Nanjing, China
- 15:30-15:40 **Coffee Break**
- Chairman: Prof. XiuJun James LI and Prof. Gaolin LIANG**
- 15:40-16:05 G20 CATHEPSIN B TURNS BIOLUMINESCENCE “ON” FOR TUMOR IMAGING
Gaolin LIANG (Keynote)
Hefei National Laboratory of Physical Sciences at Microscale, Department of Chemistry, University of Science and Technology of China, Hefei, Anhui, China
- 16:05-16:30 G21 PAPER/POLYMER HYBRID MICROFLUIDIC PLATFORMS FOR LOW-COST DISEASE DIAGNOSIS
XiuJun James LI(Keynote)
Department of Chemistry & Biochemistry, Biomedical Engineering, Border Biomedical Research Center, University of Texas at El Paso, Texas, USA
- 16:30-16:45 G36 THERMAL SENSITIVE FLUORESCENT POLYMERS AND ITS APPLICATION IN INTRACELLULAR TEMPERATURE SENSING

		Juan QIAO Key Laboratory of Analytical Chemistry for Living Biosystems, Institute of Chemistry, Chinese Academy of Sciences, Beijing, China
16:45-17:00	G37	ULTRA-SENSITIVE AND MULTIPLEX DIGITAL-PCR BY USING INVASIVE REACTION TO IDENTIFY AMPLI- CONS IN EACH REACTION UNIT Bingjie ZOU Department of Pharmacology, Jinling Hospital, Medical School, Nanjing University, Nanjing, China
17:00-17:15	G38	THE APPLICATION OF DROPLET MICROFLUIDICS IN MICROBIAL ANALYSIS Wenbin DU State Key Laboratory of Microbial Resources, Institute of Mi- crobiology, Chinese Academy of Sciences, Beijing, China
17:15-17:30	G39	GENETIC BIOMARKERS DIAGNOSIS USING COMMER- CIAL POCT DEVICES Yan DU State Key Laboratory of Electroanalytical Chemistry, Chang- chun Institute of Applied Chemistry, Chinese Academy of Sci- ences, Changchun, Jilin, China
17:30-17:40		Closing Remarks & Session Poster Awards