

CLINICAL TRANSLATIONAL SCIENCE DIVISION
NEWSLETTER JULY 2016

**LI-RONG YU, PHD WINS THE BEST ABSTRACT
AWARD OF THE CTS DIVISION**



Abstract Title: A-071, Identification of Predictive Proteomic and Metabolomic Biomarkers of Doxorubicin-induced Cardiotoxicity

Li-Rong Yu is currently the Associate Co-Director of Biomarkers and Alternative Models Branch, Division of Systems Biology, National Center for Toxicological Research of U.S. FDA. His research interests focus on identification of biomarkers for early detection of drug-induced toxicity (e.g., cardiotoxicity, hepatotoxicity, and kidney injury), therapeutic efficacy, cancers, and outcomes of engineered nanomaterial exposure using systems biology approaches. A significant effort of his research has also been on the development of mass spectrometry-based assays for clinical biomarker verification in conjunction with multiplex immunoassays. Prior to joining FDA, Dr. Yu was a senior scientist and head of the quantitative proteomics group within SAIC-Frederick, Inc., National Cancer Institute at Frederick, Maryland. Dr. Yu obtained a Ph.D. degree in Biochemistry and Molecular Biology from Shanghai Institute of Biochemistry, Chinese Academy of Sciences, in 2000, followed by postdoctoral fellowship training in Dr. Richard D. Smith's group at Pacific Northwest National Laboratory, Richland, Washington. Dr. Yu has published over 80 peer-reviewed manuscripts and book chapters in the areas of biomarkers, proteomics, mass spectrometry, and toxicology. He has served Journal of Proteomics for over 5 years as an editorial board member.

**CTS DIVISION EVENTS AT THE UPCOMING
AACC 2015 ANNUAL MEETING**

AACC Pediatric and Maternal - Fetal, Clinical Translational Sciences, Industry and Informatics Divisions Joint Mixer – Sun., July 31st, 7:30-9 pm, Philadelphia Marriott Downtown – Independence Ballroom – Salon II

AACC Clinical Translational Sciences Division Luncheon and Symposium – Mon., August 1st, Noon- 2:30 pm, Philadelphia Marriott Downtown – Grand Ballroom – Salon 1.

Topics Include:

- 1) Advances in Mass Spectrometry and Application within Discovery and Translational Research. Speaker: Suraj Dhungana, Ph.D., Sponsored by Waters.
- 2) Pathways of Disease Progression in Health Failure: What Can Galectin-3 Tell Us? Speaker: Aram Adourian, PhD., Sponsored by Abbott Diagnostics,
- 3) Laboratory Developed Tests (LDTs): FDA and CMS task force. Speaker: Vincent Ricchiuti, PhD. Sponsored by Sebia

CTS Division "Poster Walk" – Tues., August 2th, 12:30-1:30 pm

Additionally the following education sessions have been developed in cooperation with the Clinical Translational Science Division:

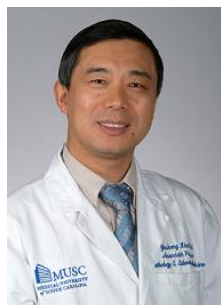
Building New or Adding On: Fundamentals for Overcoming Challenges in Operationalizing Clinical Mass Spectrometry -

Morning Short Course: #72106 Mon., August 1st, 10:30 am- Noon.

The Next Frontier in Precision Medicine – Targeted Peptide Diagnostic Mass Spectrometry Assays – Symposia: #33212. Tuesday, August 2nd, 2:30 – 5 pm.

DON'T FORGET ABOUT THE OPENING MIXER: Sunday, July 31st 6:45pm – to 8 pm, Philadelphia Marriott Downtown, (immediately following the Opening Plenary Session)

CHAIR OF THE CLINICAL TRANSLATIONAL SCIENCE DIVISION



**Yusheng Zhu, PhD,
DABCC, FACB, Chair
AACC Clinical
Translational
Science Division**

Dr. Zhu is a tenured Professor and Medical Director of Clinical Chemistry and Toxicology, Director of Postdoctoral Clinical Chemistry Fellowship Program at the Medical University of South Carolina. He is board certified by the American Board of Clinical Chemistry (ABCC) in Clinical Chemistry, Toxicological Chemistry, and Molecular Diagnostics and a Fellow of the National Academy of Clinical Biochemistry (NACB). Yusheng had worked in clinical laboratories in China for over ten years before he moved to the United States in 2000. He completed postdoctoral fellowship in biochemistry and molecular biology at the University of Georgia and clinical chemistry and pharmacogenetics at the University of Louisville. Yusheng joined the American Association for Clinical Chemistry (AACC) in 2003 and served as the Chair of AACC Ohio Valley Section Awards Committee (2006) and Alternate Delegate of AACC Southeast Section (2007-2009). He served as the President of the North American Chinese Clinical Chemists Association (2012), President of the Commission on Accreditation in Clinical Chemistry (ComACC) and Chair of Southeast Section in 2015, and Secretary of Proteomics & Metabolomics Division (2013-15). Currently, he is the Director of ABCC, Chair of Clinical Translational Science Division and, Treasurer of Mass Spectrometry & Separation Science Division of AACC, Member of the AACC Asia-Pacific Working Group. He is also a member of the Organizing Committee of the AACC Mass Spectrometry & Separation Science Conference.

MESSAGE FROM THE CHAIR

Dear Fellow AACC Clinical Translational Science Division Members: On behalf of the AACC Clinical Translational Science Division Executive Committee, I would like to invite all of you to attend the following activities organized by the Division at the upcoming AACC Annual Meeting in Philadelphia, Pennsylvania.

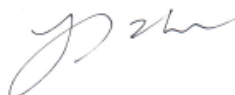
On Sunday, July 31, 2016, 7:30 pm – 9:00 pm, the CTS Division along with the Pediatric and Maternal-Fetal Division, Industry, and Informatics Divisions will hold a Joint Mixer at Philadelphia Marriott Downtown - Salon II. This is a great opportunity for you to network with other members. During the event, the Division will present the CTS Division Best Abstract Award.

The Division's traditional free "Lunch & Learn" session will take place at Marriott Philadelphia downtown, GRAND BALLROOM - Salon I, on Monday, August 1, 2016, 12:00 pm – 14:30 pm. Three experts will talk about mass spectrometry, heart failure biomarkers galectin-3, and laboratory developed tests. You will learn the advances in the area of clinical and translational science.

In addition, we will organize the CTS Division "Poster Walk" on Tuesday, August 2, 2016, 12:30 pm – 13:30 pm. You will have a chance to meet with many scientists conducting clinical and translational research and to exchange ideas with them.

I hope all Division members will be able to attend these exciting events and look forward to meeting you in Philadelphia, Pennsylvania.

Sincerely,



Yusheng Zhu, PhD, DABCC, FACB
Chair, AACC Clinical Translational Division



**Sihe Wang, PhD,
Chair-Elect
/Secretary
AACC Clinical
Translational
Science Division**

Sihe Wang, PhD

is Section Head and Medical Director of Clinical Biochemistry and Director of Clinical Biochemistry Fellowship Training Program at Cleveland Clinic. He chairs clinical chemistry integration and standardization effort for the Cleveland Clinic Health System which includes one Florida hospital, twelve community hospitals and eighteen family health centers in Northeast Ohio. Additionally, he is Clinical Chemistry Professor, Cleveland State University and Guest Professor, Guangzhou Medical University. His expertise includes general clinical chemistry, laboratory management, process improvement, and clinical application of mass spectrometry.

Sihe is a diplomate of the American Board of Clinical Chemistry since 2005, a fellow of the National Academy of Clinical Biochemistry since 2006, and a member of the Academy of Clinical Laboratory Physicians and Scientists since 2015.

Sihe is a member of the American Association for Clinical Chemistry (AACC) since 2000. He served as chair of AACC Northeast Ohio Section in 2008 and 2009 and the president of North American Chinese Clinical Chemistry Association (NACCCA) 2008-2009. Currently he serves as treasurer for AACC Pediatric and Maternal Fetal division, secretary and president-elect for AACC Clinical Translational Sciences division, and president for the Commission on Accreditation in Clinical Chemistry (ComACC). Sihe has authored over 210 journal articles, book chapters, and abstracts. He is one of the two chief editors for the book "Application of liquid chromatography-mass spectrometry in clinical laboratories" published in October 2014.



**Vincent Ricchiuti,
PhD, Past-Chair
/Treasurer AACC
Clinical Translational
Science Division**

Dr. Ricchiuti is the founder and past-president of the Clinical Translational Science (CTS) Division of the AACC. In April 2015, Dr. Ricchiuti joined Laboratory Corporation of America (LabCorp) in Dublin, Ohio as Laboratory Director/Medical Director and Technical Director. He is currently past-Chair of the AACC Ohio Valley Section. Previously, from 2012-2015, Dr. Ricchiuti was the Director of Clinical Chemistry and Toxicology at the University of Cincinnati Medical Center (UCMC), and Associate Professor at the University of Cincinnati, Department of Pathology and Laboratory Medicine at the College of Medicine, in Cincinnati, Ohio. Prior to working at UCMC, Dr. Ricchiuti was the Senior Director of Clinical Biomarkers at Medpace Reference Laboratories (MRL), in Cincinnati, OH. At MRL, Dr. Ricchiuti was the clinical chemistry and scientific liaison with sponsors for assay development at a global level including the USA, China, Europe and India. For 12 years, Dr. Ricchiuti was head of Clinical Research and Endocrinology Division Clinical Research Laboratories at Brigham and Women's Hospital (BWH) and Harvard Medical School (HMS), Boston MA. From 2008-2011, he was the Director of Harvard Catalyst Central Laboratories, formerly National Institute of Health-Clinical Research and Translational Medicine Center. Dr. Ricchiuti was very involved in AACC local section and was Chair of the Northeast Division of the AACC during his time in Boston. Dr. Ricchiuti received his Ph.D. at University Louis Pasteur, Strasbourg, France followed by a one-year post-doctoral research fellowship and two-year Clinical Chemistry fellowship training under Dr. Fred Apple, Hennepin County Medical Center, Minneapolis, MN.



**Octavia M Palmer
Legislative Liaison
AACC Clinical
Translational
Science Division**

Dr. Peck Palmer is an Assistant Professor at the University of Pittsburgh School of Medicine with appointments in the Departments of Pathology, Critical Care Medicine and Clinical and Translational Sciences. She is the Director of the Automated Testing Laboratories at the University of Pittsburgh Medical Center Presbyterian and Shadyside Hospitals and Children's Hospital of Pittsburgh. She earned a B.S. in Biology from Columbia College, Columbia, SC, a Ph.D. in Physiology from the Medical University of South Carolina in Charleston, SC and completed a postdoctoral fellowship in clinical chemistry at Washington University School of Medicine in Saint Louis, MO. She has received numerous awards for her research which includes: Best Poster Winner-Animal Clinical Chemistry Division, Paul E. Strandjord Young Investigator Award with Distinction from ACLPS, the Society of Young Clinical Laboratorians Travel Grant, and 1st Place Poster Winner-Pediatric Maternal Fetal Division. Currently, her research program is funded by a NIH KL2 grant that is focused on understanding the role that single-nucleotide polymorphisms in zinc proteins play in mediating racial differences in the susceptibility to community-acquired pneumonia and risk of severe sepsis.



**Judith A Finlay, PhD,
Internet Coordinator
AACC Clinical
Translational Science
Division**

Judith Finlay has a Ph.D. in biochemistry from the University of Wisconsin-Madison and was a postdoctoral scholar at the University of California Los Angeles. She has extensive research and development experience at a variety of internationally known clinical diagnostic and biotechnology companies such as Hybritech Incorporated, Beckman Coulter, Invitrogen and Gen-Probe. She has authored numerous peer-reviewed publications on the use of biomarkers for cancer diagnostics. She is currently Director of Scientific Affairs at The Binding Site, Inc. in San Diego, California. At The Binding Site, she educates physicians, clinical laboratory personnel and patients on the use of the company's serum free immunoglobulin light chain (Freelite™) and Heavy-chain, light chain pair (Hevylite™) immunoassays for management of multiple myeloma. She also educates clinical laboratory personnel on the use of immunoassays for the assessment of patients with primary immunodeficiency.

PROGRAM:

Lunch & Learn

Marriott Philadelphia downtown, GRAND BALLROOM - Salon I

August 1st, 2016

Agenda

12:00 - 12:20 Registration

12:20 - 12:30 Welcome: Yusheng Zhu, PhD, Chair of the CTS Division

12:30 - 13:10 Advances in Mass Spectrometry and Applications within Discovery and Translational Research

Speaker: Suraj Dhungana, Ph.D.

Sponsored by Waters

13:10 - 13:50 Pathways of Disease Progression in Heart Failure: What Can Galectin-3 Tell Us?

Aram Adourian, PhD

Sponsored by Abbott Diagnostics

13:50 - 14:30 Laboratory Developed Tests (LDTs): FDA and CMS task force

Vincent Ricchiuti, PhD

Sponsored by Sebia

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Sponsors of the American Association for Clinical Chemistry, Clinical Translational Science Division, Lunch and Learn Symposium Mon., August 1st, Noon- 2:30 pm, Philadelphia Marriott Downtown – Grand Ballroom – Salon I.



Abbott

Abbott Diagnostics:



Sebia Electroporesis:

Waters

Waters Corporation :

THE SCIENCE OF WHAT'S POSSIBLE.®

A-066

Optimization and Validation of a Multiplex Cardiac Biomarker Assay

A-347

A novel biomarker (UCN3) for sleep apnea measured by mass spectrometry using multiple reaction monitoring

B-102

Serum fibrosis marker panels FIB-4 and APRI are statistically equivalent to AST alone at predicting liver fibrosis in a cohort of 1733 hepatitis C virus infected patients

A-275

Development of a Reporting Algorithm to Facilitate the Release of LDH Results from In Vivo Hemolyzed Samples

A-071

Identification of Predictive Proteomic and Metabolomic Biomarkers of Doxorubicin-induced Cardiotoxicity

A-013

EGFR analysis in cfDNA reflects tumor heterogeneity and has prognostic value in non-small cell lung cancer

B-311

Comparison of paired umbilical cord tissue and meconium samples for detection of in utero drug exposure

B-207

The Shortening of Leukocyte Telomere Length in Type 2 Diabetes Mellitus with LINE1 Gene DNA Hypermethylation

B-262

Development of a Novel Quantum Dot-based Immunoassay for Point-of-Care Testing

A-374

Development and validation of a LC-MS/MS method for hydroxybutyric acid-a potential novel esophageal cancer marker in human serum

A-042

Antibody-free microfluidics-based circulating tumor cell enrichment by Angle PLC Parsortix and downstream molecular characterization by Affymetrix branched DNA technology

A-140

The Discordance Between Serum and Vitreous Vascular Endothelial Growth Factor Levels in Proliferative Diabetic Retinopathy

A-141

Does heat shock protein 70 play a role on pathogenesis of proliferative diabetic retinopathy?

B-244

Low-density protein microarray method for detecting three antibodies associated with invasive fungal infections

Newsletter Edited by: Peggy Emmett, MA, MT(ASCP)

General Manager, Clinical Translational Research Center Core Laboratory

University of Colorado Denver at Children's Hospital Colorado.