Mass Spectrometry and Separation Sciences for Laboratory Medicine
5th Annual Conference

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SPEAKER BIOS & DISCLOSURES

Sean C. Bendall, PhD, is Assistant Professor (Research) of Pathology, Stanford University School of Medicine (Palo Alto, CA).

Dr. Bendall has disclosed that he, or a member of his immediate family, has a financial relationship with a company as defined in the AACC policy on potential bias or conflict of interest. Specifically, Dr. Bendall discloses that he receives salary/consultant fees from Fluidigm, Inc., and holds stocks/bonds of that company. Dr. Bendall further discloses that he will mention products/services provided by Fluidigm, but will do so in generic terms rather than referring to specific names of those products/services.

Michael J. Bennett PhD, FRCPath, DABCC, FACB, is Professor of Pathology and Laboratory Medicine at the University of Pennsylvania, Chief of Laboratory Medicine and Director of Clinical chemistry and the Metabolic Disease laboratory at The Children's Hospital of Philadelphia. He holds the Evelyn Willing Bromley Endowed Chair in Clinical Laboratories and Pathology. He obtained his PhD at the University of Sheffield, UK, in the field of medical enzymology. Currently Dr. Bennett is Chair-Elect of the Proteomics and Metabolomics Division of AACC. He is an Associate Editor for *Clinical Chemistry* Journal, *Annals of Clinical Biochemistry* and sits on the editorial boards of *Journal of Inherited Metabolic Diseases* and *Molecular Genetics and Metabolism*. Dr. Bennett's research activities include the use of mass spectrometry in the investigation of inborn errors of mitochondrial energy metabolism with a special emphasis on disorders of fatty acid metabolism. He has published 280 original peer-reviewed articles in the field of pediatric clinical chemistry and inherited metabolic diseases.

Dr. Bennett has disclosed that neither he nor any member of his immediate family has a financial relationship with a company as defined in the AACC policy on disclosure of potential bias or conflict of interest.

Richard M. Caprioli, PhD, is the Stanley Cohen Professor of Biochemistry and Director of the Mass Spectrometry Research Center at Vanderbilt University School of Medicine (Nashville, TN), as well as Professor in the Departments of Chemistry and Pharmacology at Vanderbilt University. Dr. Caprioli received his BS and PhD from Columbia University in New York, NY, and served a one-year postdoctoral fellowship at Purdue University.

The research interests of this laboratory are aimed at the investigation of biological processes involving the synthesis, modification, storage and degradation of certain peptides and proteins using modern mass spectrometric methods of analysis to follow molecular events. In recent years there has been a great amount of interest in investigating the biochemical events involved in the metabolism of peptides, primarily in the brain and gut of mammals, encompassing the enzymatic breakdown of these peptides, their production from peptide and protein precursors, and the disruption of these processes by certain xenobiotics. Modern mass spectrometric techniques are used in these studies, including electrospray and matrix-assisted laser desorption ionization mass spectrometry.

Dr. Capriloi has disclosed that neither he nor any member of his immediate family has a financial relationship with a company as defined in the AACC policy on disclosure of potential bias or conflict of interest.

Steven W. Cotten, PhD, **DABCC,** is Assistant Professor Pathology at The Ohio State University and Associate Director of Clinical Chemistry and Toxicology, Ohio State University Wexner Medical Center (Columbus, OH). Dr. Cotten received his PhD in Pharmaceutical Sciences from the School of Pharmacy at the University of North Carolina at Chapel Hill. After obtaining his PhD he completed a two-year fellowship in Clinical Chemistry in the Department Pathology and Laboratory Medicine at UNC-Chapel Hill. Dr. Cotten is certified in Clinical Chemistry by both the American Board of Clinical Chemistry and the National Registry of Certified Chemists. Research interests include toxicology, natural product chemistry and affinity molecule development

Dr. Cotten has disclosed that neither he nor any member of his immediate family has a financial relationship with a company as defined in the AACC policy on disclosure of potential bias or conflict of interest.

R. Brent Dixon, PhD, FACB, is Chief Scientist and Director of Special Chemistry and Toxicology at PCLS (Rock Hill, SC). He is board certified as a High-complexity Clinical Laboratory Director by the American Board of Bioanalysis and National Registry of Certified Chemists. He is a Fellow of the National Academy of Clinical Biochemistry, and secretary for the Mass Spectrometry and Separation Sciences Division of the American Association for Clinical Chemistry. He is chair of the LCMS workshop for the 2016 annual ASMS Conference and has served on the LCMS workshop panel since 2011.

Dr. Dixon has disclosed that he, or a member of his immediate family, has a financial relationship with a company as defined in the AACC policy on potential bias or conflict of interest. Specifically, Dr. Dixon discloses that he receives salary/consultant fees from his employer, Physician's Choice Laboratory Services (PCLS). Dr. Dixon further discloses that he will mention services provided by PCLS, but will do so in generic terms rather than referring to specific names of products/services.

Uttam Garg, PhD, FABFT, DABCC, is the Division Director of Laboratory Medicine, Director of Clinical Chemistry and Toxicology Labs at Children's Mercy Hospital, and Professor at University of Missouri School of Medicine (Kansas City, MO). He received his PhD in Experimental Medicine from the Postgraduate Institute of Medical Education and Research in India. He did postdoctoral training in Pharmacology and Clinical Chemistry at New York Medical College and University of Minnesota Medical School. Before joining Children's Mercy Hospital, he served as faculty at NYU Medical Center and the University of Minnesota Medical School. He served on the Board of Directors of the ABCC and NRCC, and participated in several CLSI documents in the area of clinical chemistry and toxicology. He has

published over 150 research and review articles, and book chapters in the area of clinical chemistry, TDM and toxicology. He co-edited two books on Clinical Applications of Mass Spectrometry and Inherited Metabolic Diseases.

Dr. Garg has disclosed that neither he nor any member of his immediate family has a financial relationship with a company as defined in the AACC policy on disclosure of potential bias or conflict of interest.

Alberto Gutierrez, PhD, is the Director of FDA's Office of In Vitro Diagnostics and Radiological Health (Silver Spring, MD). Dr. Gutierrez received a bachelor's degree from Haverford College, and master and doctorate degrees in Chemistry from Princeton University. Dr. Gutierrez has over 10 years of experience in research in the area of structural organic and organometallic chemistry. Dr. Gutierrez joined the FDA in 1992 as researcher and reviewer in FDA's Center for Biologics Evaluation and Research working on vaccine adjuvants and method development for determination of purity and structure of vaccine components. In 2000, he joined the Office of *In Vitro* Diagnostics and Radiological Health as a scientific reviewer, becoming a Team leader for Toxicology in 2003, Director of the Division of Chemistry and Toxicology Devices in 2005 and Deputy Director of the Office of *In Vitro* Diagnostic Devices and Radiological Health in 2007 and Director in 2009.

Dr. Gutierrez has disclosed that neither he nor any member of his immediate family has a financial relationship with a company as defined in the AACC policy on disclosure of potential bias or conflict of interest.

Daniel T. Holmes, MD, **FRCPC,** earned his undergraduate degree in Chemical Physics from the University of Toronto. He went to medical school at the University of British Columbia (UBC) where he also did his residency in Medical Biochemistry. He is a Clinical Associate Professor of Pathology and Laboratory Medicine at UBC and Division Head of Clinical Chemistry at St. Paul's Hospital in Vancouver, BC. Research interests include laboratory medicine statistics, clinical endocrinology - particularly endocrine hypertension, clinical lipidology and clinical mass spectrometry. His mass spectrometry interests are focused on diagnostic tests for endocrine diseases.

Dr. Holmes has disclosed that he, or a member of his immediate family, has a financial relationship with a company as defined in the AACC policy on potential bias or conflict of interest. Specifically, Dr. Holmes discloses that he has received honorarium/expenses from Immunodiagnostic Systems. However, Dr. Holmes does not plan to mention specific products/services from these companies.

Saeed A. Jortani, PhD, **DABCC, FACB**, is Associate Professor of Pathology and Laboraotry Medicine, and Professor and Director of the Forensic Toxicology Program, Department of Pathology and Laboratory Medicine, University of Louisville School of Medicine (Louisville, KY). Dr. Jortani earned his PhD in Clinical and Forensic Toxicology from the Medical College of Virginia, and completed a fellowship in Clinical Chemistry at the University of Louisville.

Dr. Jortani is a Diplomate of the American Board of Clinical Chemistry and a fellow of the National Academy for Clinical BiochemistryHis research interests include discovery of biomarkers for detection and diagnosis of diabetes, diagnosis of sleep apnea and congestive heart failure through proteomics, and interaction mapping.

Dr. Jortani has disclosed that neither he nor any member of his immediate family has a financial relationship with a company as defined in the AACC policy on disclosure of potential bias or conflict of interest.

Hans H. Maurer is full Professor of Pharmacology & Toxicology and head of the Department of Experimental and Clinical Toxicology, Saarland University, Homburg (Germany). His main research areas are analytical toxicology and toxicokinetics. He has published over 250 papers, 30 reviews, and GC-MS, LC-MSn, LC-HR-MS/MS libraries.

He is editorial board member of over ten international journals and has received several awards: Young Investigator Award, Homburg, 1983; Irving Sunshine Award for Outstanding Contributions to CT of IATDMCT, Vancouver, 1997; Alan Curry Lifetime Achievement Award of TIAFT, Melbourne, 2003; AACC Outstanding Speaker Award, 2009 and in 2007, an Honorary Doctorate of the Ghent University in Belgium for his outstanding scientific achievements.

He is TIAFT Board member (2005-2017), GTFCh treasurer (1987-2017), and member of the expert committee for scheduling new drugs of abuse in Germany (2013-2016). He was the organizer of the 2010 TIAFT Meeting in Bonn (Germany), President (2007-2009) and Council member (1999-2011) of IATDMCT, and Dean of his Faculty (2012-2014).

Dr. Maurer has disclosed that neither he nor any member of his immediate family has a financial relationship with a company as defined in the AACC policy on disclosure of potential bias or conflict of interest.

Henry Rodriguez, PhD, **MBA**, is Director of the Office of Cancer Clinical Proteomics Research at the National Cancer Institute (NCI), National Institutes of Health (NIH). Dr. Rodriguez is recognized as a global leader in the implementation of proteogenomics to enhance our understanding of cancer biology and its diseases. Prior to joining the NCI, Dr. Rodriguez was Director of the Cell and Tissue Measurements Group (research areas in genomics, proteomics, imaging, and informatics) at the National Institute of Standards and Technology, (NIST), and prior to that served as Program Analyst to the NIST Director, was Director of the Tissue Engineering program, and served as Principal Scientist in the DNA Damage and Repair program, all at NIST. Dr. Rodriguez received his MS in biology/toxicology from Florida International University, PhD in cell and molecular biology from Boston University, and MBA in finance and management from Johns Hopkins University Carey Business School. Research fellowships were conducted at The Scripps Research Institute (La Jolla, California) and City of Hope National Medical Center (Duarte, California).

Dr. Rodriguez has disclosed that neither he nor any member of his immediate family has a financial relationship with a company as defined in the AACC policy on disclosure of potential bias or conflict of interest.

Charles B. Root, PhD, is CEO of CodeMap (Schaumberg, IL), a health-care consulting company that provides management and advisory services to physicians, hospitals, independent laboratories and industry on Medicare reimbursement, regulatory issues, economics and market trends. Prior to forming CodeMap, Dr. Root worked as a Research Scientist for the United States Navy and new products manager for Akzo Chemicals. Dr. Root previously served on AACC's Government Relations Committee and remains a Consultant to the group.

Dr. Root has disclosed that he, or a member of his immediate family, has a financial relationship with a company as defined in the AACC policy on potential bias or conflict of interest. Specifically, Dr. Root discloses that he receives consultant fees from Siemens Healthcare Diagnostics, Abbott Laboratories, and G.E. Health. However, Dr. Root does not plan to mention specific products/services from these companies.

Steven J. Soldin PhD, DABCC, FACB is Senior Scientist, Chemistry Service, Department of Laboratory Medicine at the National Institutes of Medicine (Washington, DC). Dr. Soldin was appointed to the faculty at The Hospital for Sick Children in 1977 and rose to the position of Full Tenured Professor in the Departments of Pharmacology and Clinical Biochemistry at the University of Toronto in 1985. In 1988 he moved to Washington DC to head the Chemistry section at Children's National Medical Center, a position he held until November 2008. During this time he was a tenured Full Professor in the Department of Pathology at the George Washington University School of Medicine, Washington, DC. From 2002-2011 he directed the Bioanalytical Core Laboratory at Georgetown University where he held the position of Adjunct Full Professor in the Departments of Clinical Endocrinology and Metabolism and Pharmacology. In October 2011 he accepted the position of Senior Scientist in the Department of Laboratory Medicine in the Clinical Center at NIH.

Dr. Soldin currently oversees the mass spectrometry section of the clinical chemistry service and research programs and is also involved in the routine laboratory and postdoctoral training of PhD and MD clinical chemistry fellows. He has served as President of several National organizations including the National Academy of Clinical Biochemistry, the American Board of Clinical Chemistry and the International Association of Therapeutic Drug Monitoring and Clinical Toxicology. He has many patents, has supervised 16 post-graduate students to PhD or MS degrees and served as Editor of the Journal Therapeutic Drug Monitoring, Associate Editor of Clinical Biochemistry and as a member of the editorial board of Clinical Chemistry. He has published 2 textbooks, Pediatric Reference Intervals currently in its 7th edition, and The Biochemical Basis of Pediatric Disease in its 3rd edition. He has to date published 249 papers in peer reviewed journals.

His research interests focus on improving current diagnostic and therapeutic tests in clinical chemistry which include the measurement of steroid and thyroid hormone profiles by tandem mass spectrometry. New foci will include measurement of a neurosteroid profile and assessment of its role in diagnosis and treatment of illnesses such as epilepsy, depressive illnesses, PMS, etc. Also measurement of bioactive peptides such as Neuropeptide Y and evaluation of the role of NPY in cardiovascular diseases and oncology.

Dr. Soldin has disclosed that he, or a member of his immediate family, has a potential bias or conflict of interest as defined in the AACC policy on potential bias or conflict of interest. Specifically, Dr. Soldin discloses that he holds four patents related to clinical diagnostics and receives royalties from licensing those technologies. However, Dr. Soldin does not plan to mention any specific products/services based on these technologies.

Steven H. Wong, PhD, DABCC (TC), FACB, is Professor of Pathology with tenure, Director of Clinical Chemistry and Toxicology/Core Laboratory, Department of Pathology, Wake Forest School of Medicine. He is a member of the Point of Care Testing Committee and the Co-Director of Clinical and Translational Mass Spectrometry Center, equipped with both tandem and MALDI-TOF mass spectrometers. The Center enables the transitioning of late-phase discovery, translational proteomic and metabolomic

biomarkers to clinical service in both clinical chemistry/toxicology and microbiology. Dr. Wong's current scientific and clinical interests encompass clinical and translational applications of omics biomarkers for enabling personalized medicine: pharmacogenomics, proteomics, metabolomics and mass spectrometry for clinical chemistry; TDM with emphasis on immunosuppressant and pain management therapy with adjunct pharmacogenomics and metabolomics; and oral fluid proteome and metabolome for clinical and forensic toxicology/workplace testing, and pain management.

In addition to more than 119 publications and 143 abstracts, he edited/co-edited four books including Pharmacogenomics and Proteomics: Enabling the Practice of Personalized Medicine, a recent American Association of Clinical Chemistry (AACC) Press publication. He is certified as a Diplomat of the American Board of Clinical Chemistry – Toxicological Chemistry and is a Fellow of the National Academy of Clinical Biochemists.

Dr. Wong received his Ph.D. in chemistry from Virginia Polytechnic Institute and State University in 1977. Previously, he was a Professor of Pathology (1993-2011), Director/Co-Director, Clinical Chemistry/Toxicology, TDM, Pharmacogenomics and Proteomics, Department of Pathology, and Professor of Psychiatry and Behavioral Medicine, Medical College of Wisconsin. He also served as the Toxicology Scientific Director at the Milwaukee County Medical Examiner's Office. In 1995, Dr. Wong established a toxicology postdoctoral fellowship program, restructured in 2005 to a ComACC accredited fellowship for clinical chemistry/toxicology. He was an Associate Professor (1979-90) and Director, Drug Analysis Division of the Department of Laboratory Medicine, University of Connecticut School of Medicine, as well as Associate Professor of Pathology (1990-1993) and Associate Director of Clinical Chemistry, Johns Hopkins University School of Medicine.

An active AACC member since 1980, Dr. Wong is concurrently serving as President-elect (President 2014). As past Chair of the Proteomics Division and current chair of the North Carolina Section, he has always been supportive of collaborations among divisions – Proteomics, Molecular Pathology, Clinical Translational Science and Clinical Diagnostics and Immunology, and with other neighboring local sections. He was a member of the Board of Directors (2005-7) and of the organizing committee of the 2006 Proteomics conference. He served as chair of, and held other offices with, the Connecticut Valley and Chicago Sections, where he received the Seligson/Golden and the Samuel Natelson Awards, respectively. He is a member of NACB, and of three divisions: TDM-CT (Founding Chair), Proteomics (Current Chair) and Molecular Pathology (Past Chair). As MPD chair in 2005, Dr. Wong initiated the awareness for, on inter-divisional levels, Molecular Pathology Education, Personalized Medicine, Nutritional Genomics and Proteomics. He served on the AACC Nominating Committee (1988-9), as chair of the Pharmacogenomics Advisory Group, and as 1990 ClinChem chair. As the chair of the TDM Renaissance Committee/TDM-T Division (2002-2004), he chaired three meetings, roundtables and contributed to technical documents co-developed with FDA-CDRH. Subsequently, he was recognized by an FDA–CDRH Certificate of Appreciation from the FDA/Stakeholder TDM Review Development Team. He has actively participated in AACC annual meetings as speaker/chair in symposium sessions, pharmacogenomics workshops and roundtables.

Outside AACC, Dr. Wong is a member of the Drug Testing Advisory Board of Substance Abuse and Mental Health Services Administration/NIH, as well as the Antibody Committee of the National Cancer Institute. He was a reviewer for NIH Glue grants. As a BOD member of the American Board of Clinical Chemistry, he served as Vice-President for Continuing Education. He received the Young Investigator's Award from the Association of Clinical Scientists. He served as the founding President of the International Association for TDM and Clinical Toxicology, president of the North American Chinese Clinical Chemistry Association, founding chair of the Midwest Association for Toxicology and TDM, co-chair of the 2000 annual meeting of the Society of Forensic Toxicologists, and organizing committee

member of the 2005 pharmacogenomics workshop organized by Drug Information Association and FDA. He is an editorial board member for Pharmacogenomics, Therapeutic Drug Monitoring, Annuals of Clinical & Laboratory Science, the Egyptian Journal of Hospital Medicine and the Journal of Pediatric Biochemistry, and a past board member for Clinical Chemistry and Laboratory Medicine and Journal of Analytical Toxicology.

Dr. Wong has disclosed that he, or a member of his immediate family, has a potential bias or conflict of interest as defined in the AACC policy on potential bias or conflict of interest. Specifically, Dr. Wong discloses that he has received salary/consultant fees from Preferred Pain Management and honorarium/expenses from Beckman Coulter. However, Dr. Wong does not plan to mention any specific products/services from these companies.

Y. Victoria Zhang, PhD, **DABCC**, is Assistant Professor of Pathology & Laboratory Medicine and Director, Regional Toxicology Lab at the Rochester Medical Center (Rochester, NY).

Dr. Zhang has disclosed that she, or a member of her immediate family, has a financial relationship with a company as defined in the AACC policy on potential bias or conflict of interest. Specifically, Dr. Zhang discloses that she has received honorarium from AACC. However, Dr. Zhang does not plan to mention specific products/services from this company.

Yusheng Zhu, PhD, DABCC, FACB, is Director of Clinical Chemistry & Toxicology, Director of Postdoctoral Clinical Chemistry Fellowship Program and Associate Professor of Pathology in the Medical University of South Carolina's Department of Pathology & Laboratory Medicine (Charleston, SC).

Dr. Zhu has disclosed that he, or a member of his immediate family, has a financial relationship with a company as defined in the AACC policy on potential bias or conflict of interest. Specifically, Dr. Zhu discloses that he receives grant/research support from Fujirebio, Inc. However, Dr. Zhu does not plan to mention specific products/services from this company.