



Making the Right Decisions: Adapting to Emerging Needs



**Southeastern Association of Shared Resources (SEASR)
Annual Meeting**

Emory Conference Center Hotel, Atlanta, GA

June 12-14, 2019

SEASR is a Chapter of the Association of Biomolecular Resource Facilities.



Welcome to the 2019 SEASR Annual Meeting!

As President of the Southeastern Association of Shared Resources (SEASR) I want to thank you for registering for the 2019 SEASR Annual Meeting. The meeting will be held at the Emory Conference Center Hotel (ECCH) located at 1615 Clifton Rd, Atlanta, GA 30329. The Executive Committee is excited to bring to you a number of professional development, scientific, and networking sessions that we hope meet your needs as a core director, administrator, manager, or staff member. Our strong vendor turnout allows us to showcase the latest technologies and has permitted us to offer free meeting registration. Please visit our website for the latest schedule of events: <http://seasr.abrf.org/program-schedule>

Below is some logistical information that may help you when you arrive.

Parking

Parking at the hotel is complimentary. Guests at the hotel can use their room key to enter and exit the parking garage. Attendees not staying at the hotel, but parking at ECCH, will be given a ticket during registration.

Badge Pickup

You may pick up your badge at the SEASR meeting registration desk located in the ECCH Main Lobby from 11 am-3 pm on Wednesday (6/12) or from 7:30 am-2 pm on Thursday (6/13). If you are attending the opening reception, we encourage you to pick up your badge on Wednesday as you will receive your drink ticket at that time.

Opening Reception

The Opening Reception will take place at Wisteria Lanes in ECCH on Wednesday from 7-9 pm. We will be serving light food and one drink is on us. A cash bar will also be available. Don't forget to sign up for a bowling team at the on-site registration table! Bring your socks!

Please contact the SEASR Executive Committee (oc@seasr.abrf.org) if you have any questions. I look forward to seeing you in Atlanta!

Sincerely

A handwritten signature in black ink that reads "Kimberly Dahlman". The signature is written in a cursive, flowing style.

Kim Dahlman, PhD

President, SEASR
Assistant Professor of Medicine (Hematology/Oncology)
Director, Innovative Translational Research Shared Resource
Vanderbilt University Medical Center, Nashville, TN

2019 SEASR Conference Program

Wednesday, June 12

Time	Event	Location*
11 am-3 pm	Registration Desk Open	Main Lobby
7 pm-12 am	Exhibitor set up	Salons 3/4/5
7-9 pm	Opening Reception (Sponsored by Illumina)	Wisteria Lanes

Thursday, June 13

Time	Event	
7-8 am	Continental Breakfast	Outside Salons 1/2
7:30 am-2 pm	Registration Desk Open	
7:30-8:30 am	Sponsored Breakfast Workshop: <i>Whole Genome Sequencing Using Oxford Nanopore Technologies to Enable High Quality Reference Genomes</i> Nanopore Technologies	Basswood
	Sponsored Breakfast Workshop: <i>Ultrasensitive Detection of Biomarkers Using Bead Based and Planar Technologies</i> Quanterix	Mountain Laurel
8:30-9 am	Welcome and Opening Remarks Kim Dahlman, PhD President, SEASR, Assistant Professor of Medicine, Vanderbilt University Medical Center, Director, Innovative Translational Research Shared Resource, Vanderbilt-Ingram Cancer Center, Nashville, TN Ken Schoppmann Executive Director, Association of Biomolecular Resource Facilities, Bethesda, MD	Salons 1/2
9-10 am	Keynote Lecture: <i>Heritable Gene Editing: What's at Stake and Where Should We Draw the Lines?</i> Marcy Darnovsky, PhD Executive Director, Center for Genetics and Society, Berkeley, CA	Salons 1/2
10-10:15 am	Sponsor Spotlight-Illumina	Salons 1/2
10 am-7 pm	Exhibit Hall Open	Salons 3/4/5
10:15-10:45 am	Coffee Break	
10:45-11:45 am	Administrative Breakout Session: <i>Speed Mentoring for Career Advancement</i> Nawal Boukli, PhD Full Professor of Microbiology and Immunology, Director, Biomedical Proteomics Facility, Central Caribbean University, Medical School, Puerto Rico Core directors, faculty, managers and staff members	Mountain Laurel
	Scientific Breakout Session: <i>Best Practices for Single Cell Sequencing</i> Rhonda Bacher, PhD Assistant Professor of Biostatistics, University of Florida, Gainesville, FL	Basswood
11:45 am-1 pm	Lunch	ECCH Restaurant
12-1 pm	Sponsored Lunch Workshop: <i>Bio Layer Interferometry (BLI) Label-Free Platforms: Providing Faster Solutions to Emerging Applications</i> FortéBio (attendees should get their lunch from the ECCH Restaurant and carry it to the workshop)	Salons 1/2
1:15-3:15 pm	Administrative Workshop: <i>Project Management</i> Joe Rando, MBA	Salons 1/2

	Associate Professor of the Practice of Managerial Studies, Vanderbilt University, Nashville, TN	
2:15-3:15 pm	Special Session: Georgia Core Facilities Partnership Meeting Michael Zwick, PhD Assistant Vice President for Research, Robert W. Woodruff Health Sciences Center, Director, Emory Integrated Genomics Core, Emory University School of Medicine, Atlanta, GA Faculty from other GA institutions	Mountain Laurel
3:15-4 pm	Coffee Break	Salons 3/4/5
4-5 pm	Administrative Breakout Session: Writing a Strategic Plan Tiffany Seagroves, PhD Associate Professor of Pathology, Executive Director, Molecular Resource Center, Associate Vice Chancellor for Research-Core Laboratories, The University of TN Health Science Center, Memphis, TN	Basswood
	Administrative Breakout Session: The Gap Between Goals and Execution Gary L. Teal, MBA Vice President, Robert W. Woodruff Health Sciences Center, Emory University, Atlanta, GA	Mountain Laurel
5:30-7 pm	Poster Session & Wine and Hors D'oeuvres Reception	Garden Overlook

Friday, June 14

Time	Event	
7-8 am	Continental Breakfast	Outside Salons 1/2
7:30-8:30 am	Sponsored Breakfast Workshop: Advances in Single Cell Multi-Omics Applications with the 10X ChromiumTM Platform 10X Genomics	Salons 1/2
8 am-12 pm	Exhibit Hall Open	Salons 3/4/5
8:30-9:30 am	Keynote Lecture: So you want us to stop a pandemic in 60 days? How aspirational projects push us to learn and grow Rob Carnahan, PhD Associate Professor of Pediatrics, Vaccine Center, Vanderbilt University Medical Center, Nashville, TN	Salons 1/2
9:30-9:45 am	Sponsor Spotlight- FortéBio	
10 -11 am	Administrative Breakout Session: Integration Across Shared Resources Kim Dahlman, PhD President, SEASR, Assistant Professor of Medicine, Vanderbilt University Medical Center, Director, Innovative Translational Research Shared Resource, Vanderbilt-Ingram Cancer Center, Nashville, TN Daniel Johnson, PhD Director, Molecular Bioinformatics Center, The University of TN Health Science Center, Memphis, TN Christine O'Connell, MMSc, FABC Senior Director, Laboratory Research Operations, Moffitt Cancer Center & Research Institute, Tampa, FL Michael Zwick, PhD Assistant Vice President for Research, Robert W. Woodruff Health Sciences Center, Director, Emory Integrated Genomics Core, Emory University School of Medicine, Atlanta, GA	Mountain Laurel

	Scientific Breakout Session: <i>Proteomics as Applied to Biomarker Detection</i> Nawal Boukli, PhD Full Professor of Microbiology and Immunology, Director, Biomedical Proteomics Facility, Central Caribbean University, Medical School, Puerto Rico	Basswood
11-11:30 am	Coffee Break	Salons 3/4/5
11:30 am-12:30 pm	Administrative Breakout Session: <i>Measuring Shared Resource Impact</i> Dean P. Edwards, PhD Professor, Departments of Molecular & Cellular Biology and Pathology & Immunology, Executive Director of Advanced Technology Cores, Associate Director of Research Infrastructure for Dan L. Duncan Cancer Center, Baylor College of Medicine, Houston, TX	Mountain Laurel
	Administrative Breakout Session: <i>Electronic Laboratory Notebooks</i> David Blum, PhD Associate Research Scientist, Director of Bioexpression and Fermentation Facility, University of Georgia, Athens, GA Timothy Gardner, PhD Founder and CEO, Riffyn, Oakland, CA	Basswood
12:30-1:30 pm	Sponsor and Attendee Roundtable Lunch	ECCH Restaurant

*all sessions are in the Emory Conference Center Hotel

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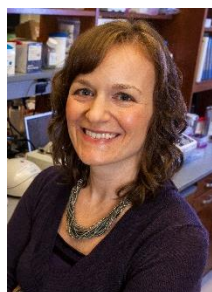
Silver



Bronze



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Assistant Professor of Medicine
(Hematology/Oncology)
Director, Innovative Translational
Research Shared Resource



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Universidad Central del Caribe, School of
Medicine, PR, USA
Full Professor of Microbiology and
Immunology
Director, Biomedical Proteomics Facility



Finesha Colton-Lee, *Treasurer-Elect*
Winship Cancer Institute of Emory
University
Division Administrator

Program Speakers



Rhonda Bacher, PhD
Assistant Professor of Biostatistics
University of Florida, Gainesville, FL

Dr. Rhonda Bacher joined the University of Florida as an Assistant Professor in the Department of Biostatistics in January 2018. Her research is driven by challenges in inferring accurate and novel biological discoveries from genetics and genomics data. Specifically, she develops statistical methods and computational software to help answer biological questions, then contributes and maintains these tools for the larger community. She has developed statistical methods for analyzing and pre-processing single-cell and time-course RNA sequencing data. These methods have proven useful to the community with over 1,500 unique downloads from Bioconductor, a worldwide bioinformatics software platform.



David Blum, PhD
Associate Research Scientist
Director of Bioexpression and Fermentation Facility
University of Georgia, Athens, GA

Dr. Blum is the director of the Bioexpression and Fermentation Facility (BFF). Dr. Blum received his Bachelor of Science and Ph.D. degrees in Biochemistry and Molecular Biology from the University of Georgia. His graduate research under the direction of Dr. Lars G. Ljungdahl, focused on biochemical and genetic characterization of enzymes involved in the degradation of plant cell walls. After graduation, Dr. Blum joined Diversa Corporation where he continued his research on discovery and characterization of biomass degrading enzymes. While at Diversa, he was responsible for the direction of several sponsored research programs including one project concept that was awarded Phase I and Phase II SBIR funding from the Department of Energy. In addition, he was the original project manager leading research that resulted in the development of Diversa's Luminase product line. After leaving Diversa, Dr. Blum joined Vanderbilt University Medical Center where his research focused on mammalian protein expression and antibody discovery. His research at Vanderbilt utilized a novel technology that generates monoclonal antibodies from human peripheral blood. Dr. Blum has coauthored 15 peer-reviewed articles and has presented his work at national and international scientific meetings.



Nawal Boukli, PhD
Full Professor of Microbiology and Immunology
Director, Biomedical Proteomics Facility
Central Caribbean University, Medical School, Puerto Rico

Dr. Boukli is a Professor in the department of microbiology and immunology and is the Director of the Biomedical Proteomics Facility at the Universidad Central del Caribe, School of Medicine, PR, USA. Dr. Boukli got her Doctoral degree in Molecular Biology from the University of Geneva, Switzerland, where she worked in early molecular signaling events such as the type three secretion pathway in *Rhizobium* bacteria. Dr. Boukli did her postdoctoral fellowship at the University of Missouri where she gained more expertise in proteomics technology. She then joined the Universidad Central Del Caribe where she organized a high-throughput Proteomic Core Facility. Dr. Boukli's research uses the latest technologies, including quantitative proteomics *multiplexing* with *isobaric* tags approaches and molecular and *flow cytometric* analyses for the detection of biomarkers and molecular signatures in HIV, drug and alcohol of abuse, cancer and multiple sclerosis. Dr. Boukli has numerous peer-review articles and NIH funded grants on these and related topics. Dr. Boukli is also interested in how endoplasmic reticulum stress responses and cell fate decision can regulate the network of apoptotic and survival signal events in different cells and systems and the anti-cancer and anti-HIV mechanistic effects of natural compounds for cancer and HIV treatment. In addition to her research pursuits, Dr. Boukli has been active in training young

investigators, both individually (as a mentor and proteomics facility resource, post-doctoral fellows, medical students, Master and PhD trainees) and in the classroom (where she has developed a proteomics graduate-level course and several workshops on proteomics in clinical research).



Rob Carnahan, PhD
Associate Professor of Pediatrics, Vaccine Center
Vanderbilt University Medical Center, Nashville, TN

Dr. Carnahan is Associate Professor of Pediatrics and Director of Research within the Vanderbilt Vaccine Center. After working on bacterial antibiotic mechanisms for Eli Lilly in the US and in Strasbourg, France, and in collaboration with the Institute Pasteur in Paris, Rob returned to complete his PhD in Cell Biology at Vanderbilt University in the laboratory of Kathy Gould, PhD. After post-doctoral studies with Al Reynolds, PhD, he served as Director of the Vanderbilt Antibody and Protein Resource (VAPR). During his leadership of this institutional shared resource lab, he expanded the lab to provide expertise in a wide array of molecular approaches to antibody discovery, antibody and recombinant protein engineering, diagnostic and assay development, and biologics cell line development. Along with his team, he also developed and implemented Lean Lab strategies to maximize productivity and effectiveness and has served as an external expert on this topic. He has now taken this combination of scientific and operational leadership to his current role as Director of Research for the Vanderbilt Vaccine Center. He now oversees the broad operational and technical innovation processes of the Crowe lab, and coordinates this work with collaborators from around the world, including leading a national consortium of labs working to design and validate a universal Pandemic Prevention Platform (P3).



Kim Dahlman, PhD
Assistant Professor of Medicine (Heme/Onc)
Director, Innovative Translational Research Shared Resource
Vanderbilt University Medical Center, Nashville, TN

Dr. Dahlman is an Assistant Professor of Medicine (Division of Hematology/Oncology) and Director of the Innovative Translational Research Shared Resource (ITR) at Vanderbilt University Medical Center. She earned a PhD in Cancer Biology at Vanderbilt University under the mentorship of Drs. Hal Moses and Jennifer Pietsenpol and completed her postdoctoral fellowship at Memorial Sloan-Kettering Cancer Center in the laboratory of Dr. Charles Sawyers. She then returned to Nashville and joined the Vanderbilt faculty in 2010. Her research interest is determining how genomic alterations modulate tumor growth and response to standard-of-care and investigational targeted therapies and immunotherapy, with the overall goal of uncovering novel cancer therapeutic targets. As ITR Director she designs and manages correlative study workflow, quality assurance, and quality control for cancer clinical trials. In addition to her research interests, Dr. Dahlman has demonstrated leadership in education. She currently oversees the development and execution of 16 Integrated Science Courses (ISCs) and co-directs the “Clinical Cancer Medicine” ISC at Vanderbilt University School of Medicine (VUSM). She has been recognized for her excellent contributions to VUSM education by election to the Academy for Excellence in Education and a Member-at-Large position on the Academy Board. Recently, she was awarded the distinction of Master Science Teacher from VUSM. Dr. Dahlman is also President of the Southeastern Association of Shared Resources where she oversees the educational programming and execution of a regional professional development meeting for shared resource directors, managers, administrators, and staff.



Marcy Darnovsky, PhD
Executive Director
Center for Genetics and Society, Berkeley, CA

Marcy Darnovsky, PhD, is Executive Director at the Center for Genetics and Society, a Berkeley, California-based social justice organization that works to ensure an equitable future in which human genetic and assisted reproductive technologies benefit the common good. She speaks and writes widely on human biotechnologies, focusing on their social justice, equity, human rights, and public interest implications. Her articles have appeared in *The New York Times*, *Nature*, *The Guardian*, *Los Angeles Times*, *New Scientist*, and many others. An anthology, *Beyond Bioethics: Towards a New Biopolitics* (co-edited with Osagie Obasogie), was published in March 2018 by the University of California Press. She has appeared on dozens of television, radio, and online news shows and has been interviewed and cited in hundreds of news and magazine articles. She has worked as an organizer and advocate in a range of environmental and progressive political movements, and taught courses at Sonoma State University and at California State University East Bay. Her PhD is from the History of Consciousness program at the University of California, Santa Cruz.



Dean P. Edwards, PhD
Professor, Departments of Molecular & Cellular Biology and Pathology & Immunology
Executive Director of Advanced Technology Cores
Associate Director of Research Infrastructure for Dan L. Duncan Cancer Center
Baylor College of Medicine, Houston, TX

Dr. Edwards is a Professor in the Department of Molecular and Cellular Biology at Baylor College of Medicine. His PhD is in Endocrinology from the Medical College of Georgia and his post-doctoral training was in the area of endocrine-dependent breast cancer research with William McGuire, MD at the University of Texas Health Sciences Center in San Antonio. He then joined the faculty in the Department of Pathology at the University of Colorado School of Medicine in Denver where he spent the majority of his research career. His research laboratory has been funded by NIH grants for over 30 years in the areas of the biology and mechanism of action of steroid hormone receptors in normal mammary gland development and in breast cancer. Currently, the main research interests are the role of progesterone receptor (PR) in early stage breast cancer, and structure-function analysis of PR and associated coregulatory complexes, with the goal of developing small molecule compounds that can target PR activity in a cell and tissue specific manner. In addition to research interests, Dr. Edwards has various Institutional leadership roles. He was the Director of the Inter-departmental PhD Program in Molecular Biology at the University of Colorado School of Medicine in Denver and was the PI of an NIH T32 training grant. At Baylor College of Medicine, he is currently the Associate Director for Research Infrastructure of the Dan L. Duncan NCI-designated Comprehensive Cancer Center and is the Executive Director of Institutional Advanced Technology Cores. Dr. Edwards is also the PI of a Cancer Prevention and Research Institute funded Proteomics and Metabolomics Core Facility that provides major support for cancer research requiring a range of proteomic and metabolomics technology platforms.



Timothy Gardner, PhD
Founder and CEO, Riffyn, Oakland, CA

Tim Gardner is the Founder and the CEO of Riffyn. He was previously Vice President of Research & Development at Amyris, where he led the engineering of yeast strain and processes technology for large-scale bio-manufacturing of renewable chemicals. Earlier, he was an Assistant Professor of Biomedical Engineering at Boston University, the Founder of Cellicon Biotechnologies, and a Programmer at ALK Associates. Tim has been recognized for his pioneering work in Synthetic Biology by *Scientific American*, the *New Scientist*, *Nature*, *Technology Review*, and the *New York Times*. He also served as an advisor to the European Union Scientific Committees and the Boston University Engineering Alumni Advisory Board. He holds BS in Mechanical Engineering from Princeton University and a PhD in Biomedical Engineering from Boston University.



Daniel Johnson, PhD
Director, Molecular Bioinformatics Center
The University of TN Health Science Center, Memphis, TN

Dr. Daniel Johnson joined University of Tennessee Health Science Center (UTHSC) in Memphis, TN as Director of the Molecular Bioinformatics core (mBIO) in May 2015. He earned his BS degree in Computer Science and Mathematics, his MS degree in Computer Science, and his PhD in Molecular Biosciences at Arkansas State University. Dr. Johnson was previously the lab manager for Arkansas State University's bioinformatics program. Dr. Johnson has published multiple papers in the field of bioinformatics, centering on differential expression algorithms. His current research focuses on novel workflow development and automated analysis tools for whole genome sequencing, SNP detection, microarray analysis, RNA-Seq differential expression analysis, and proteomics differential analysis. Dr. Johnson frequently consults in conjunction with the Directors of the UTHSC Molecular Resource Center (MRC), a genomics core, and the Proteomics and Metabolomics Core (PMC) and core customers in order to advise on an experimental design that most effectively leverages molecular tools, both in terms of costs and for downstream robust statistics analysis. Consultation on experimental design is a requirement to use the mBIO, MRC and PMC cores at UTHSC prior to sample submission. Of note, all three of these institutional-level cores are housed in the same physical footprint on the campus, allowing "one-stop shopping" for molecular-based research projects.



Christine O'Connell, MMSc, FABC
Senior Director, Laboratory Research Operations
Moffitt Cancer Center & Research Institute, Tampa, FL

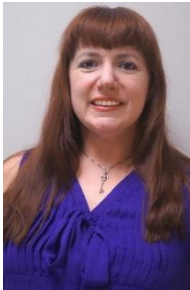
Christine O'Connell, MMSc, serves as the Senior Director of Laboratory Research Operations at the H. Lee Moffitt Cancer Center & Research Institute. Ms. O'Connell has 30 years of experience in Research Administration. In 1986 Ms. O'Connell received an MMSc degree in Immunology from Emory University. In addition, she has received post-graduate training in the area of Health Policy and Management. In 2007, Ms. O'Connell completed a two-year fellowship at the Advisory Board, an organization focused on healthcare operations and leadership best practices. Ms. O'Connell joined Moffitt in 1988 and has held several positions within research administration with increasing responsibility. In her current role, as Sr. Director Laboratory Research Operations, Ms. O'Connell provides leadership and oversight Moffitt Shared Resources. Duties and responsibilities include the administrative oversight of operating and capital budgets, purchasing, chargeback/fee schedule development and implementation, strategic planning, and the facilitation of the Core Leadership Committee. In addition to providing leadership to Moffitt's Shared Resources, Ms. O'Connell is responsible for the oversight of the Research Environmental Health & Safety and research space management.



Joe Rando, MBA
Associate Professor of the Practice of Managerial Studies
Vanderbilt University, Nashville, TN

Joe Rando's career spans over 30 years and includes work at all levels of management with Fortune 1000 companies, as well as the founding of and leadership of early stage start-ups. Mr. Rando has managed companies through the early years of development, during fast-paced years of explosive growth, through the challenges of acquisitions, and through the later stages of maturity, optimization, and stabilization. Mr. Rando has held the title of GM, SVP, COO, CEO and Founder in numerous companies in industries such as computer software, high-tech consulting, market research consulting, management consulting, insurance, manufacturing, wireless, real estate, restaurants, and retail. As an investor in several seed capital and growth capital funds, he has advised dozens of start-ups and high growth companies through the early years of formation and high growth. Today, Mr. Rando is the Director of Vanderbilt's Managerial Studies Program and is an Associate Professor of Management and Entrepreneurship. Past and present board service consists

of for-profit and non-profit boards including the Middle Tennessee YMCA in Brentwood, the TJMartell Cancer Research Foundation, the Dunkin Brands Community Foundation, the Wrigley Foodservice Advisory Board, Vanderbilt Student Media, and Learning Matters Inc. Mr. Rando earned his bachelor's degree from Tufts University (Biology) and his MBA from the F.W. Olin School of Business at Babson College (Finance).



Tiffany Seagroves, PhD, MBA
Associate Professor of Pathology
Executive Director, Molecular Resource Center
Associate Vice Chancellor for Research-Core Laboratories
The University of TN Health Science Center, Memphis, TN

Tiffany N. Seagroves received her BS with Honors degree from the University of North Carolina Chapel Hill (UNC-CH) in 1994. From 1994-1999, she trained as a graduate student with Dr. Jeffrey Rosen at Baylor College of Medicine in Houston, TX with a focus on understanding the role of the C/EBP family of transcription factors in normal mammary gland development and lactation. She earned her PhD in Cell and Molecular Biology in 1999. As a postdoctoral fellow with Dr. Randall Johnson at the University of California San Diego (UCSD) from 2000-2005, she studied the role of the Hypoxia Inducible Factor (HIF)-1 transcription factor and the hypoxic response in normal mammary gland development and breast cancer progression. While completing postdoctoral training, she obtained her MBA degree from San Diego State University (SDSU), with concentrations in Marketing and Food and Drug Law. In 2005, she was recruited to the Department of Pathology at the University of Tennessee Health Science Center (UTHSC), in Memphis, TN. Her research laboratory delineates how genes downstream of HIF-1 promote breast cancer progression and metastasis. She also manages collaborations with medicinal chemists to test anti-cancer efficacies of novel drug therapies using pre-clinical models of metastatic breast cancer. In 2014, she was appointed as the Executive Director of the Molecular Resource Center of Excellence, a genomics campus core. In 2015, she was appointed as the Associate Vice Chancellor for Research—Core Labs, a new position created in 2015 by the UTHSC Office of Research to manage institutional-level core facilities. In addition to these administrative duties, Dr. Seagroves continues to manage an active research program that has been funded by the NCI, the American Cancer Society, METAvivor and the Department of Defense. She serves as an editor for *PLOS One*, *Scientific Reports* and *Journal of the Endocrine Society* (JES). Tiffany became a member of the national ABRF organization in 2015 and she was appointed to the SEASR Executive Board in 2018 (2018-2022 term).



Gary Teal, MBA
Vice President, Robert W. Woodruff Health Sciences Center
Emory University, Atlanta, GA

Gary L. Teal is the vice president of Emory University's Woodruff Health Sciences Center in Atlanta, Georgia. He also serves as the Chief of Staff to the President, CEO, and Chairman of the Board for Emory Healthcare. Prior to his current position, he served in the roles of chief administrative officer, senior associate vice president for health affairs, associate vice president for health affairs, director of financial operations for Emory Healthcare, and director of disbursements for Emory University. He also serves as founding director of the Woodruff Leadership Academy, currently in its 17th year. Mr. Teal has been at Emory since 1986, and was a financial officer at Georgia State University in Atlanta prior to coming to Emory. In his current role at Emory, he serves in numerous financial and administrative capacities. Mr. Teal is involved with finance, communications, governmental affairs, public affairs, marketing, development, facilities, and strategic planning for all components of the Woodruff Health Sciences Center, including the Schools of Medicine, Nursing, and Public Health, the Yerkes National Primate Research Center, and Emory Healthcare. Mr. Teal oversees the Robert W. Woodruff Health Sciences Center Fund, Inc., a \$1.4+ billion research and education enhancement endowment for facilities development and programmatic initiatives. He is a member of the Woodruff Health Sciences Center Executive Committee and Leadership Council, the Emory University Information Technology Steering Committee, Emory Healthcare Systems Strategy, Emory Healthcare Network Strategy, and other administrative and financial committees.

across Emory University and Emory Healthcare. Mr. Teal is a member of the National Association of College and University Business Officers (NACUBO), the Southern Association of College and University Business Officers (SACUBO), the Association of American Medical Colleges (AAMC) Group on Business Affairs, the American College of Healthcare Executives, the Georgia Association of Healthcare Executives, and the Senior Administrative and Fiscal Officers of the Association of Academic Health Centers. Mr. Teal has MBA and BBA degrees from Georgia State University, and is an Atlanta native, born at Emory University Hospital Midtown.



Michael Zwick, PhD

**Assistant Vice President for Research, Robert W. Woodruff Health Sciences Center
Director, Emory Integrated Genomics Core
Emory University School of Medicine, Atlanta, GA**

Michael E. Zwick, PhD, is Associate Professor in the Department of Human Genetics at Emory University School of Medicine. Dr. Zwick also serves as the Assistant Vice President for Research at Robert W. Woodruff Health Sciences Center, and the Director of the Emory Integrated Genomics Core at Emory University School of Medicine. Dr. Zwick leads Emory University's participation in the SouthEast Enrollment Center (SEEC) network. The SEEC network helps extend the geographic coverage to the southeastern states of Georgia and Florida of the All of Us program, a National Institutes of Health effort with more than 25 collaborating institutions charged with advancing research into precision medicine. Dr. Zwick received a BS from Cornell University and a PhD from the University of California at Davis. He conducted his postdoctoral work at Case Western Reserve University School of Medicine and Johns Hopkins University School of Medicine. Dr. Zwick's areas of specialization and research interests include human disease gene mapping, population biology, population genetics, population genomics, methods of targeted enrichment and next generation sequencing, and open source software tools for genomics.

Poster Abstracts

Poster #1

Authors and Affiliations:

Daniel Johnson, University of Tennessee Health Science Center; William Taylor, University of Tennessee Health Science Center; David Kahnashvili, University of Tennessee Health Science Center; Michelle Puchowicz, University of Tennessee Health Science Center; Tiffany Seagroves, University of Tennessee Health Science Center

Title:

Building a Customer Service Oriented Molecular Research Facility

Abstract:

In 2015, the University of Tennessee Health Science Center (UTHSC) determined that a one-stop service center was needed to support the ongoing molecular research and support translation research in the University of Tennessee System and regional community. The Molecular Resource Center(MRC), Proteomics and Metabolomics Core(PMC), and Molecular Bioinformatics Core(mBIO) were all moved to a shared lab spaced designed exclusively for molecular research in the new Translation Science Research Building. The Metabolic Phenotyping Mass Spectrometry lab (MPMS) joined in 2018. By housing all four cores in the same shared space and creating a close relationship between the cores, the customer now has the capability to access all of the expertise needed to design, perform, and analysis the molecular experiments needed for their research. MRC provides automated extraction of DNA / RNA, genome sequencing, and transcript expression profiling. PMC and MPMS provide proteomics, metabolomics, and lipidomics profiling. mBIO provides the computational and analytical tools needed to analyze all data generated in house; allowing for rapid turnaround as well as real time problem detection and solutions. The facility also provides experimental design consultation through its staff that is trained in computer science, bioinformatics, biostatistics, biochemistry, and molecular biology.

Poster #2

Authors and Affiliations:

Jin Zou, Tony Griffin, Valerie Otero-Marah, Clark Atlanta University

Title:

FACILITIES IMPROVEMENT OF CCRTD CORE FACILITIES IN CAU

Abstract:

The core facilities in center for cancer research and therapeutics development (CCRTD), Clark Atlanta University (CAU) provides a state-of-the-art research support including instruments, technology, education, and training for all investigators and research staffs engaged in health-related scientific research. During the past 10 years, the core facilities has renovated and reorganized all facilities to address new challenges of health-related research and satisfy growing demands of investigators. With the continued support from NIH RCMI program and Georgia Research Alliance, several cutting-edge instruments including BioRad CFX Connect Real-Time System, Carl Zeiss Axio Imager.Z1 microscopy with Apotome, Carl Zeiss Axiovert 200M inverted microscope, Carl Zeiss LSM 700 confocal microscopy, Leica LMD6000 Laser microdissection microscope, BD FACSJazz cell sorter, DAKO Autostainer, and Leica Aperio VERSA 8 were purchased in the Core Facilities. Moreover, a web-based core facility management system, iLab Solutions, has been applied to improve the service and management of the core facilities. Major instruments, services, and related information of the core facilities were listed in the system. It enabled users inside CCRTD to make their reservations of special instruments and service online easily. It also helped core manager and staffs in instrument usage tracking, billing and invoicing, reporting, and lab supplies requisitioning. The enhancement of existing core facilities and creation of new sub-core facilities successfully supported the health-related scientific research in CAU. Acknowledgement: The study was

supported by the NIH/NIMHD/RCMI Grant #5 G12 MD007590 and NIH/NIMHD/P20 Grant #2P20MD002285.

Poster #3

Authors and Affiliations:

P Winston Miller, University of Tennessee; Daniel L. Johnson, University of Tennessee

Title:

Extended Automated Analysis Package using System on a Chip (E-ABAPSoC)

Abstract:

Molecular tools are becoming more and more common practice in the field of health science and personal medicine. Petabytes of data are generated each year. Publicly available workflows, such as GTK and GALAXY, offer the bioinformatics tools; however, most investigators and physicians are not well-versed enough in data analysis to make decisions regarding the best methods. Typically there is a lack of support for these public platforms. Moreover, the cost of the systems and a core administrator can constrain budgets of smaller institutions. Commercial tools are much better in terms of customer support; however, these tend to be extremely expensive and proprietary. In this space we introduce our Extended Automated Analysis Package using System on a Chip (E-ABAPSoC). The package includes three distinct, automated workflows for RNA-Seq, microarray, and Quantitative Mass-Spectrometry data analysis. The automation is housed within an accessible and easy to use graphical user interface and is optimized to run on a portable and cost-effective Raspberry Pi system. The RNA-Seq package accepts SAM files as input, performs counts per million normalization across the experiment; calculates descriptive statistics within each sample group, and then calculates all possible pairwise comparisons using the DEseq2 R library. The proteomics and microarray workflows calculate the same descriptive statistics, however, they each use the Student's t-test to determine statistically significant genes. They perform quantile-quantile normalization and cyclic Loess normalization respectively. All three workflows produce PCA plots, heatmaps, or Pearson's plots on command. The input for the RNA-Seq analysis is SAM format files from the aligner. The input for microarray and proteomics analysis is a tab separated file with the first column as the gene or protein ids. This platform was developed to allow wet bench researchers and physicians to quickly extract primary results from their experiments, particularly when extensive bioinformatics support is not available locally.

Poster # 4

Authors and Affiliations:

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Title:

The Usual Suspects? An Assessment of Biospecimen Collection Deviations

Abstract:

Biospecimen collection deviations are detrimental to clinical trial outcomes and operations; they may result in spurious data, are costly, time-consuming, and may be inconvenient to patients. As a result, it is necessary to systematically track these deviations in order to identify when, and to what extent, they are occurring. Historically, the clinical trials management system used by the Vanderbilt-Ingram Cancer Center (VICC) did not have a convenient method for extracting these data for comprehensive analyses. The objective of our project was to create and streamline a system to track, extract, and present deviated biospecimens data in a dashboard format. Using the REDCap reporting tool, we built and launched a database that included 18 cancer groups and their respective studies across 22 different Vanderbilt University Medical Center clinic locations. Data from currently >1,070 REDCap records are being collected (since February 2016), exported, and automated for analysis and dashboarding in Tableau. For the first time, we have a comprehensive overview of total biospecimen collections and deviations collected by the

Clinical Trials Processing Core at the VICC that is viewable and analyzable, in real-time. We are using this data to review actionable areas of change and to perform cost analyses to determine what resources are lost due to deviations. These initiatives will improve the quality and standards of the clinical trials enterprise at the VICC.

Poster #5

Authors and Affiliations:

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Title:

Emory Mouse Transgenic and Gene Targeting Core

Abstract:

This poster will describe the services provided by the Emory Mouse Transgenic and Gene Targeting Core (<http://www.cores.emory.edu/tmc/>), one of the Emory Integrated Core Facilities at Emory University.

Poster #6

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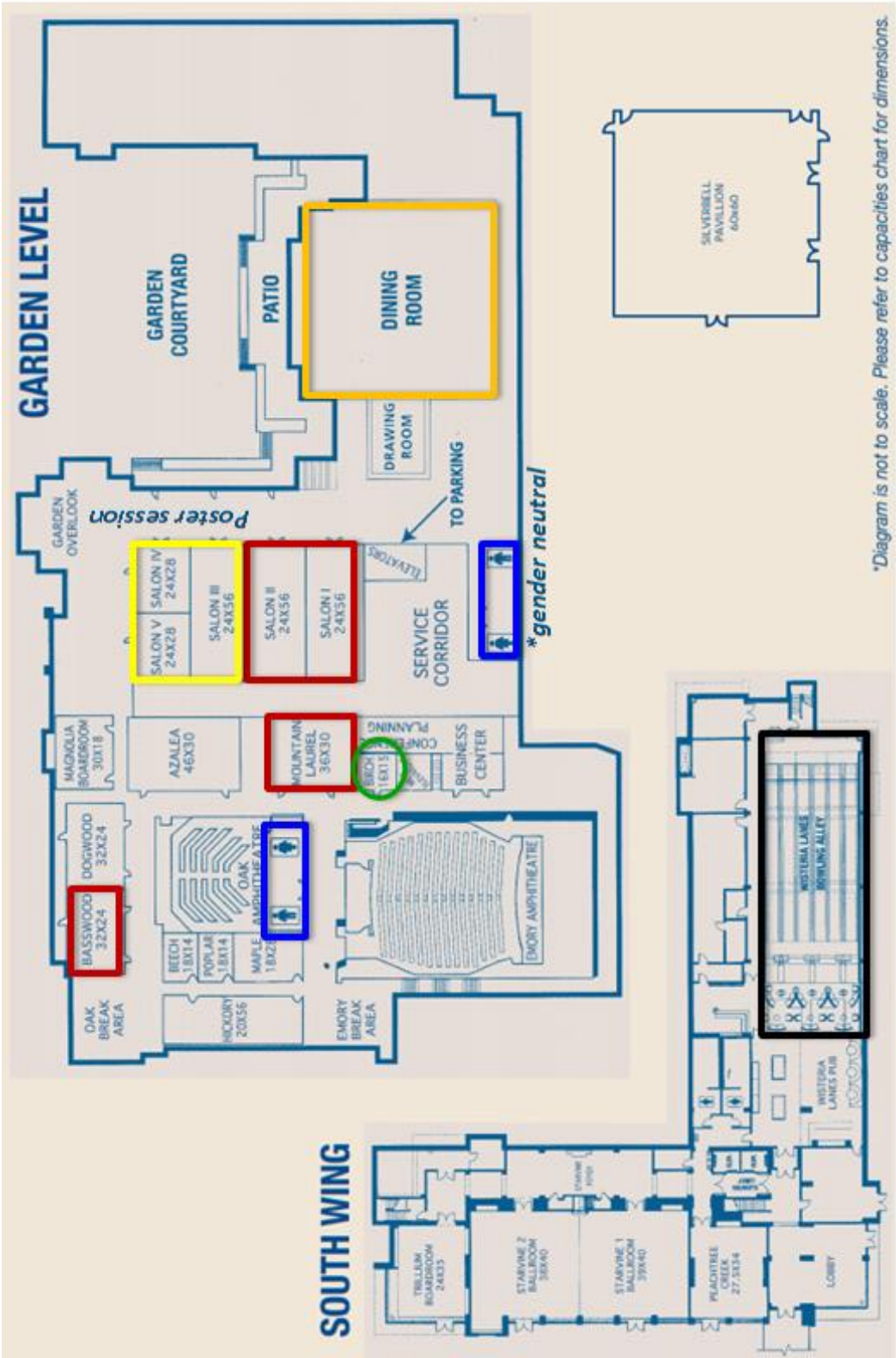
Title:

Emory Integrated Genomics Core

Abstract:

The Emory Integrated Genomics Core (EIGC) is a consolidation of genomics cores from the Winship Cancer Institute and the School of Medicine. The goal of this effort is to create a top-tier genomics resource that is widely available to the Emory research community, integrating cutting-edge genomics technologies with downstream bioinformatics analysis. The EIGC is a full-service genomics core providing services in a research and CLIA setting in addition to the computational requirements (though the EICC) necessary for high-throughput genomic assay.

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