Georgia Tech Research Institute

Nov 2, 2023

GTRI CYBERBIOSECURITY SUMMIT 2023

GTRI Conference Center, Atlanta GA

7:30	*Sign-In and Breakfast*
8:00	**Kickoff: Dr. James Hudgens, GTRI Director**
8:15	**Keynote 1: Mr. Mike Steed, Paladin Capital**
8:45	**Keynote 2: Dr. Kate Sixt, OUSD R&E**
9:15	**Panel 1: Ensuring privacy and security of biological and health data.**
	Panelists: RADM (Ret.) Mark Montgomery (CCTI, lead), Dr. Shenita Freeman (GTRI and GA Dept. of Public Health), Dr. Joe Russell (MRI Global), Mr. Emil Lerch (AWS)
10:10	*Break*
10:25	**Panel 2: Mitigating emerging vulnerabilities of health and biotech instruments**
	Panelists: Dr. Kemper Talley (BBN, lead), Dr. James Diggans (Twist Bioscience), Dr. Cory Bernhards (Devcom CBC), Dr. Nicole Tensmeyer (Gryphon)
11:20	**Panel 3: Developing assured software tools for synbio and pharmaceutical design**
	Panelists: Mr. Matt Klusas (Amazon, lead), Dr. David Markowitz (STR), Dr. Bin Hu (Los Alamos National Lab), Mr. Alex Jordan (BBN)
12:15	*Lunch* + Workshop Discussion: *Building a CBS community: Why and how to grow a research consortium.* Workshop Lead: Ms. Elaine Sumera, ATI
13:20	**Panel 4: Applying cybersecurity principles to bio-based systems**
	Panelists: Dr. Rachel Fezzie (lead), Dr. Alex Voorhies (Ginkgo Bioworks), Dr. Shannon Greene (DARPA BTO), Dr. Chris Vaiana (Draper), Dr. Cassie Huang (MIT Lincoln Lab)
14:15	*Break*

(continued on next page)

EVENT SPONSORS: PALADIN CAPITAL GROUP, MRIGlobal

ORGANIZING PARTNERS: MRIGlobal, Raytheon BBN, ATI Advanced Technology International, NTA National Technology Alliance

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14:30 **Small group discussion workshops: session A**

- CRB: Classifed Breakout Session
  - Workshop Lead: Kate Sixt, OUSD R&E
- 119C: Bio-threat detection at the intent stage; e.g. DNA synthesis order screening
  - Workshop Lead: James Diggans, Twist Bioscience
- 119B: Deep dive on DNA sequencing: vulnerabilities, security, data considerations
  - Workshop Lead: Roman Aranda, GTRI
- 119A: Data security solutions: How can we protect bio and health related data?
  - Workshop Lead: Denzil Wessels, Dymium

15:30 *Break*

15:45 **Small group discussion workshops: session B**

- 119 Auditorium: What's next? What should the next CBS summit look like?
  - Workshop Lead: Tim Richardson, GTRI
- 119C: Trojan Horse and other vulnerabilities related to engineered organisms
  - Workshop Lead: Rebecca Hutchins, GTRI
- 119B: CBS for biomanufacturing: e.g. cybersecurity of automated control systems
  - Workshop Lead: David Pattie, GTRI
- 119A: Challenges and opportunities for advanced software assurance in healthcare
  - Workshop Lead: Adonis Bovell, GTRI

16:45 **Hotwash/Wrap: Dr. Nicholas Guise, GTRI**

17:00 **Post-event reception**

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GTRI CyberBioSecurity Summit 2003: Presenter Bios

Keynote Speakers:

Michael Steed is the Founder and Managing Partner and serves as Chairman of the Paladin Cyber Fund, Paladin Cyber Fund II and Paladin III Investment Committees. Mr. Steed provides management oversight of the firm's operations and investments and is responsible for the strategic direction of Paladin's current and future activities. Prior to forming Paladin Capital, Mr. Steed served as Senior Vice President of Investments of a major financial services company based in Washington, DC, and served as President of its SEC registered investment advisory firm. From 1981 to 1985, Mr. Steed served as Special Counsel to the Chairman and as the National Director of the Democratic Party of the United States of America (DNC). Previously, Mr. Steed engaged in the practice of law, both as a prosecutor in the Los Angeles City Attorney's Office and in private practice. Mr. Steed serves on the Board of Trustees of Loyola Marymount University. He is also a member of the Board of Visitors for Duke University's Sanford School of Public Policy, a member of the Board of Directors of Harvard University's Belfer Center's Defending Digital Democracy Project, a member of the Board of Directors of the John F. Kennedy Library Foundation, a founding board member of the National Democratic Institute for International Affairs (NDI) and is a member of the Board of National Alliance to End Homelessness. He received his Bachelor of Arts from Loyola Marymount University in Los Angeles and his JD from Loyola Law School.

Dr. Kate Sixt currently serves as the Principal Director for Biotechnology in the Office of the Under Secretary of Defense for Research and Engineering. In this capacity, Dr. Sixt leads the Department of Defense's research and engineering efforts to advance military capabilities through biotechnology innovation and maintain a competitive advantage in biotechnology. Prior to joining the Department, Dr. Sixt was an Assistant Director and then the Acting Director of the Strategy, Forces, and Resources Division at the Institute for Defense Analyses in Alexandria, Virginia, from 2019 to 2022. This Division houses a diverse body of technology and policy research in national security, including strategy and risk, international arms markets, forces and capabilities, readiness, and defenses against weapons of mass destruction. As a researcher, Dr. Sixt led the Chemical, Biological, Radiological, and Nuclear Analysis group, and she spearheaded technical analyses in national security topics related to weapons of mass destruction as well as emerging and dual-use technologies. This body of research included the technology opportunities for national security modernization focused on biotechnology, including technology protection and norms of biotechnology applications in military and civil domains. Dr. Sixt joined the Institute for Defense Analyses

in 2013 after completing her postdoctoral fellowship at the National Cancer Institute in Bethesda, Maryland. She holds a Ph.D. in biochemistry, cellular and molecular biology, and neuroscience from the Johns Hopkins School of Medicine in Baltimore, Maryland, and a bachelor's in biochemistry from St. Bonaventure University in St. Bonaventure, New York. In addition, she is completing her master's in the law of armed conflict at the Geneva Academy in Geneva, Switzerland, where her research focuses on the role of technology norms on the means and methods of warfare.

Panel 1:

Mark Montgomery is the Senior Director of the Center on Cyber and Technology Innovation and a Senior Fellow at the Foundation for Defense of Democracies. He serves as the Executive Director of Cybersolarium.org, a non-profit organization which works to implement the recommendations of the Cyberspace Solarium Commission, where he was Executive Director from 2019 to 2021. Prior to this, Mark was Policy Director for the Senate Armed Services Committee under the leadership of Senator John S. McCain and completed 32 years as a nuclear trained surface warfare officer in the U.S. Navy, retiring as a Rear Admiral in 2017.

Dr. Shenita R. Freeman is a health information and management systems leader who has significant experience directing health information technology and analytic teams in the federal, non-profit, and for-profit sectors on work related to healthcare quality improvement, monitoring and evaluation, and governance. Dr. Freeman is known for leveraging technology in support of strategic decision making, process and outcomes improvement, and operational excellence in the health and public health sector. She currently serves as Health Emerging and Advanced Technologies (HEAT) Division Chief Scientist at Georgia Tech Research Institute and Chief Technology Strategy Officer for the Georgia Department of Public Health. Dr. Freeman has earned a bachelor's in chemistry (Metropolitan State University of Denver), a master's in public health epidemiology (University of Colorado), a master's in health informatics administration (University of Maryland Global Campus), and a doctorate of science in cybersecurity (Marymount University). She holds certifications in public health (CPH), health information and management systems (CPHIMS), SAS Base 9 programming, healthcare information security & privacy (HCISPP), and health information administration (RHIA). She served as a Marymount University Cyberteach Institute Fellow evaluating cybersecurity education and workforce development in the healthcare and public health sectors. Dr. Freeman is a member of the Health Information Systems Society (HIMSS) Technology Informatics Guiding Education Reform (TIGER) International Task Force and she serves as both a Governing Councilor and Nominations Committee member for the American Public Health Association (APHA). In 2021, she co-authored a chapter on health information systems for healthy aging through the

social determinants of health for the APHA Press and developed a global education module covering analytics, machine learning, and data privacy and security for HIMSS.

Emil Lerch is a technology professional serving as a Principal Specialist within AWS. With multiple decades of experience in the IT industry, Emil's journey at Amazon began in 2015. He is a passionate advocate for guiding customers in harnessing the potential of AWS while championing responsible AI and data privacy. He has worked with public sector, NGO, and commercial organizations implementing new systems or migrating/rearchitecting existing ones.

Dr. Joe Russell is a Senior Scientist in the Global Health Surveillance Division at MRIGlobal. Dr. Russell is experienced in genomics-based methods for clinical diagnostics, biosurveillance, and forensic applications. His work includes use of emerging hand-held molecular hardware and development of integrated mobile platforms to push genomics and metagenomics into the field, at the point-of-need. His technical skills involve researching and developing new bioinformatics solutions for actionable information in the clinical, epidemiological, biosurveillance, forensics, and public health space. With a Ph.D. in geomicrobiology from the University of Delaware, Dr. Russell has logged over four months at sea on various oceanographic research vessels studying subseafloor microbial ecology in the Atlantic and Pacific oceans. He has led several field deployments of experimental arbovirus surveillance in the Southeastern United States, and is a co-inventor and lead developer of MRIGlobal's ultra-portable laboratory platform, Mercury Lab.

Panel 2:

Dr. Kemper Talley is a senior scientist at Raytheon BBN in the Synthetic Biology group where he currently works on the intersection of AI and Biosecurity. Kemper's work primarily focuses on the development of algorithms, sensors, and applications for Chemical Biological Radiological and Nuclear (CBRN) defense. Dr. Talley started his career as a CBRN scientist in biophysics, where he published papers focused on protein-protein interactions, electrostatics, and protein stability. Dr. Talley previously led algorithm development and design to enhance the capabilities of numerous radiation detection products such as the IdentiFINDER R425, which is deployed and used by the International Atomic Energy Agency (IAEA). Dr. Talley has led augmented reality programs for various DoD organizations including the Defense Threat Reduction Agency (DTRA). His work has resulted in numerous patents, publications, and new technology solutions that advance the mission of reducing harm and lethal risk posed by CBRN threats. He is the recipient of the 2022 Joseph D. Weinand NDIA CBRN award for his work in Chemical Biological Radiological and Nuclear (CBRN) Defense.

Dr. Nicole Tensmeyer is an interdisciplinary biochemist with a passion for using her scientific expertise to improve global health. She currently works at Gryphon Scientific where her work has focused on advancing biosafety and biosecurity practices globally and defining best practices for performing and responding to risk assessments. Her experience spans many facets of health security, including laboratory safety, cyberbiosecurity, ethical risk assessments, dual-use research, and responsible conduct of research. Dr. Tensmeyer is passionate about applying an equity focus to all her work, recognizing the unique needs found in laboratories globally. Her work in cyberbiosecurity has focused on cyber threat assessment, analyzing cybersecurity risks in laboratories working with high-consequence pathogens, and promoting cybersecurity awareness globally.

Dr. R. Cory Bernhards is a Research Biologist in the BioDefense Branch of the U.S. Army DEVCOM Chemical Biological Center at Aberdeen Proving Ground, Maryland. His research programs focus on the development of fieldable and automated identification systems for biothreat agents including far-forward DNA/RNA sequencing systems. He also serves as a subject matter expert on environmental biological identification technologies for the Department of Defense. Previously, Dr. Bernhards worked as a Research Microbiologist for the Defense Threat Reduction Agency (DTRA) Research and Stem Center of Excellence Division. Prior to that, he was an NRC Postdoctoral Fellow at the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID) at Ft. Detrick, Maryland where he gained extensive BSL-3 research experience on bacterial biothreat agents. Dr. Bernhards received both his B.S. and Ph.D. degrees in Biological Sciences from Virginia Tech.

Dr. James Diggans is a Distinguished Scientist, Bioinformatics and Biosecurity, at Twist Bioscience, a DNA synthesis company based outside of San Francisco and is the current Chair of the International Gene Synthesis Consortium. He holds a PhD from George Mason University in Computational Biology and Bioinformatics and has worked in target discovery, molecular diagnostic development and biodefense. At Twist, he created and leads the company's biosecurity program, is a member of the government affairs and policy team and leads bioinformatics in the Advanced Development group on work including the storage of digital data in DNA.

Panel 3:

Matt Klusas is a Principal and Head of Business Development for a confidential initiative in Amazon's Special Projects organization. Previously at Amazon, Matt led the hardware strategy for the AWS S3 Glacier service and led hard disk drive storage procurement for AWS. Prior to Amazon, Matt was the Chief Commercial Officer of OmniSeq (now part of LabCorp, NYSE: LH), a molecular diagnostic laboratory startup focusing on personalized medicine for cancer immunotherapy. At OmniSeq, Matt led fundraising efforts for the company's Series B and led a sales organization in the field. Matt held senior leadership roles at Thermo Fisher Scientific (NYSE: TMO), including legacy companies Invitrogen, Life Technologies, and Ion Torrent, with an emphasis on DNA sequencing technologies. Matt was a consultant at McKinsey & Co. and started his career in the financial services industry at Deutsche Bank, the Chicago Board of Trade, and the

Federal Reserve Bank of Chicago. His publications include the McKinsey Quarterly, the 2021 Decadal Plan for Semiconductors, the Journal of Commercial Biotechnology, and the Credit Union Journal. He received an MSc from the London School of Economics and a BS from Illinois State University, where he received the Outstanding Young Alumni Award in 2015.

Dr. David A. Markowitz is Chief Scientist at STR, an advanced technology R&D company. He is a biotechnologist whose 25-year career spans industry, public service, and academia. At STR, David leads the biotechnology business unit, which bridges biology with information science to accelerate discovery and deliver new capabilities for customers. Previously, David served as a Program Manager at IARPA, where he led biotechnology R&D for the U.S. intelligence community and successfully transitioned platforms to U.S. and international partners for operational use. Prior to public service, David led academic research in neural engineering and computational neuroscience. For this work, he was recognized with a Presidential Early Career Award for Scientists and Engineers (PECASE), the highest honor bestowed by the U.S. government on outstanding scientists and engineers beginning their independent careers. David holds an S.B. in Management Science from MIT and a Ph.D. in Molecular Biology and Neuroscience from Princeton University, where he also completed DOE-sponsored fellowship training in high-performance computing.

Alex Jordan is an Engineering Fellow at Raytheon BBN in the Networking and Cyber Technologies (NCT) group. He has served as the principal investigator on numerous cyber-focused S&T projects focused on automated program analysis with applications in mobile application security, operating system internals, reverse engineering, cyber capability development, and software development for embedded devices. These efforts supported partners at DARPA, IARPA, AFRL, and the Intelligence Community. In addition to his work in the cyber domain, Alex led work in satellite networking that built a resilient on-orbit cloud computing environment for proliferated low earth orbit satellite constellations. He has previously worked on network- and host-based anomaly detection, multi-hypothesis tracking, and stochastic control systems. Alex received M.S., B.Eng., and A.B. degrees in Computer Engineering from Dartmouth College, and is a senior member of the IEEE.

Dr. Bin Hu is a staff scientist in the Bioanalytics and Genomics group at the Los Alamos National Laboratory. His research revolves around applied machine learning and computational tools, specifically designed for processing biological data to bolster biosecurity and public health. He serves as the technical lead on several bioinformatics focused projects funded by DOD and DOE. Prior to his tenure at Los Alamos he worked at the Centers for Disease Control and Prevention as a senior bioinformatics scientist and project manager. He received a Ph.D. in Bioinformatics from Keio University in Japan and studied medicine in China.

Panel 4:

Dr. Rachel Fezzie is CEO of Cristae Consulting, LLC and owner of Fezzie Life Sciences LLC. In both roles, she applies her bioscience expertise and nearly 30 years of experience in academic, government, and industry settings to bring new technologies to bear on challenges of national and global importance. Prior to founding Cristae, Rachel worked independently under Fezzie Life Sciences LLC to help startup companies apply their technologies to national security, public health and energy challenges, while working with established defense contractors to grow their bioscience portfolios. She served as a Distinguished Member of the Technical Staff at The Charles Stark Draper laboratory. There, she led capture efforts and served as program manager and principal investigator on high-risk, high-reward defense and intelligence contracts. Before Draper, Rachel served as a Program Manager, Deputy Division Head and Technical Director in the US Intelligence Community. Her foundational experiences included obtaining a B.S. in Biology from MIT, a Ph.D. in Molecular and Cell Biology from UC Berkeley, working at a startup pharmaceutical company, and serving as a Science, Engineering and Technical Assistance (SETA) contractor at DARPA.

Dr. Shannon Greene joined DARPA in February 2023 as a program manager in the Biological Technologies Office (BTO). She specializes in microbiology, and her research interests include developing platform technologies for medical countermeasure discovery and manufacturing for national security. Dr. Greene's portfolio includes the Nucleic acids On-demand Worldwide (NOW), Pandemic Prevention Platform (P3), and PReemptive Expression of Protective Alleles and Response Elements (PREPARE) programs, among others. She manages external collaborations with advanced development partners and key stakeholders across the United States (US) Government, including U.S. Special Operations Command (USSOCOM), the Joint Program Executive Office (JPEO), and the Biomedical Advanced Research and Development Authority (BARDA), to coordinate transition of DARPA-funded discoveries and technologies. Dr. Greene received a Bachelor of Science with Honors degree in geobiology from California Institute of Technology and a doctorate in microbiology from the University of California, Berkeley's Department of Plant and Microbial Biology.

Dr. Christopher Anthony Vaiana was born and raised in New York City. He attended college at the State University of New York (SUNY) Binghamton on an Air Force ROTC scholarship. He graduated with a Masters in Biology. As a 2nd Lieutenant, Christopher was assigned to the Materials and Manufacturing Directorate, Air Force Research Laboratory, Wright Patterson AFB in Dayton, OH. There, he oversaw external research contracts in materials science, and conducted research in biologically functionalized materials as a member of the Bio-Nano Materials Branch, under the technical supervision of Dr. Rajesh Naik. While at Wright Patt, Christopher attended graduate school at Wright State University under the advice of Prof. Madhavi Kadakia. Here he obtained a Master of Science in Biochemistry and Molecular Biology, where his research focused on the functionalization of clay nanomaterials with human epidermal growth factor as a bio-functionalized wound healing material. Upon separation from active duty, Christopher returned to NYC to attend (more) graduate school, this time in the Chemistry Ph.D. program at New York University. Under the advice of Prof. Lara Mahal, he studied cell surface glycosylation patterns of cancer cells. He published on the use of microRNA expression patterns to predict the role of beta(1,4) branched N-glycans on the cell cycle of human cancer cell lines. Christopher next worked as a post-doc under the advice of Prof. Chris Voigt and Prof. Cullen Buie at MIT. Funded by the DARPA Engineered Living Materials program, he developed a co-culture device using porous materials for studying small molecule signaling between isolated engineered microbes. He also developed genetic circuits for programming *E . coli* differentiation and colony morphogenesis. Currently, Christopher is a Principal Member of the Technical Staff at Draper, where he serves as a task lead on a number of government sponsored synthetic biology efforts.

Dr. Alex Voorhies is the Director of National Security Business for Ginkgo Bioworks and uses state of the art synthetic biology and genome surveillance technologies to address National Security challenges. Dr. Voorhies oversees design and execution of biomonitoring and biosurveillance programs, as well as scientific research projects in bioproduction, biomanufacturing, synthetic biology, space biology, and chem/bio defense. These projects bring state of the art biosecurity and synthetic biology technologies to address emerging challenges in the national security space. Before coming to Ginkgo, Dr. Voorhies provided programmatic and technical expertise to the DARPA Biological Technologies Office for multiple programs related to synthetic biology, metabolic engineering, and microbiology. Prior to supporting DARPA, Dr. Voorhies spent 10 years as a computational bioinformatician leading teams developing DNA sequencing approaches, genome assembly techniques and performing statistical analysis of communities of eukaryotes, bacteria, archaea and viruses for human health, infectious disease, synthetic biology and environmental microbiology. His research utilized 'Omics technologies to identify microbial communities and define chemical functions of laboratory isolates, culture enrichments, environmental communities and synthetic organisms. Recent work included the NASA funded Astronaut Microbiome Project and genomic surveillance of engineered viruses. Dr. Voorhies holds a Ph.D. in Geomicrobiology/Microbial Genomics from the University of Michigan, Ann Arbor, and a BS in Molecular Environmental Biology from the University of California, Berkeley.

Dr. Cassie Huang is a member of the technical staff in the Cyber Physical Systems group at MIT Lincoln Laboratory. She joined the Laboratory in September 2023 and has supported a variety of hardware-related cybersecurity efforts within her group and across divisions. Her current research interests include firmware reverse engineering and microfluidic design automation. Previously to joining the Laboratory, she worked for over a decade at Draper, working on projects varying from phased array antennas to enzymatic DNA synthesis. She received her PhD from Boston University in 2015, with her research focusing on design tools and automation for microfluidics and synthetic biology. She also holds a MEng and BS in EECS from MIT.

Lunch Workshop:

Elaine Sumera serves as Vice President of Business Development and Communications. In this role, she evaluates areas of potential business, assists with client and partner relationships, and develops new opportunities within existing business, as well as new market opportunities. Additionally, she provides oversight of ATI's corporate communications and marketing strategies. Prior to joining the ATI team, Ms. Sumera served as Deputy Director of the Applied Biological and Biosecurity Research Laboratory at the Pennsylvania State University where she led a diverse team that provided innovative solutions for science and technology programs in biosecurity, enabling the Pennsylvania State University to take a leadership role in securing U.S. national interests and protecting global health. She oversaw the organization's business strategies and operations, market and program development, as well as research activities supported through grants and contracts from various sponsors. Ms. Sumera is a dedicated leader with more than 20 years of service in the U.S. Air Force. She entered the Air Force in 1998 through the Commissioned Officer Training program, serving in a variety of positions at the squadron, group, wing, Field Operating Agency, Direct Reporting Unit and Joint level. As the Medical Director of the Chemical and Biological Detection and Diagnostic Division, she guided a 30-member research management team, overseeing global strategic research and development portfolio and facilitating scientific innovation from Department of Defense, academia, and industry and directly leading programs in Australia, Peru, Thailand, and Africa. Ms. Sumera also served as subject matter expert on the Defense Threat Reduction Agency Other Transaction Authority (OTA) agreements and developed the Joint Science and Technology Office OTA process, facilitating rapid and expedited acquisition strategy. She earned a Bachelor of Science degree in Clinical Laboratory Science and is a certified Clinical Laboratory Scientist through the American Society for Clinical Pathology. She earned a Masters of Military Operational Art and Science, Maxwell AFB, Alabama and a Master of Science degree in Engineering System Management from Saint Mary's University at San Antonio, Texas.

Closing Session:

Dr. Nicholas Guise is a Principal Research Scientist at GTRI and Chief Scientist of GTRI's CIPHER Lab, a unit of 300+ engineers and scientists supporting diverse DoD and IC programs in cybersecurity, information protection, and hardware evaluation. Dr. Guise also serves as Associate Chief of GTRI's Quantum Systems Division. He has developed and led research programs in secure quantum communications, scalable quantum computing with nanofabricated ion traps, and molecular information storage. From 2019-2023, Dr. Guise led the Scalable Molecular Archival Software and Hardware (SMASH) performer team for IARPA's MIST program, a large interdisciplinary collaboration towards large-scale storage of digital data in synthetic DNA, coordinating a team that spanned academia and the biotech industry. Dr. Guise obtained his B.S. in Physics from Caltech and his Ph.D. in Physics from Harvard University. He was an NRC postdoctoral fellow at the National Institute of Standards and Technology (NIST) in Gaithersburg, MD.

Workshop Discussion Leads:

Dr. David C. Pattie is the Branch Chief for the Counterproliferation & Counter Weapons of Mass Destruction (CWMD) Capabilities Branch within GTRI's Advanced Concepts Lab. Prior to joining GTRI, Dr. Pattie was the Group Leader for the Counter WMD Group at the MITRE Corp. in McLean, Virginia.

Dr. Adonis Bovell is a Senior Research Scientist and head of the Algorithm Assurance branch in GTRI's CIPHER Lab. He has been the PI/Technical Lead of several innovative science and technology development projects focused on machine learning and knowledge representation for cyber systems.

Rebecca Hutchins is Chief Engineer of GTRI's Advanced Concepts Lab. She leads the CDC-funded Pathogen Genomics Center of Excellence (PGCoE), in collaboration with the University of Georgia (UGA) and the Georgia Department of Public Health.

Denzil Wessels is Founder and CEO of Dymium, Inc., a cybersecurity startup based in Santa Cruz, CA, that aims to enable access to secure data within a company and between companies. A longtime technology entrepreneur, he was one of the pioneers of SSL/VPN.

Dr. Roman Aranda is a Principal Research Scientist in GTRI's Advanced Concepts Lab. He was previously a Senior Forensic Researcher at the Defense Forensic Science Center (DFSC). He leads GTRI's performer team (Rapid Automated Biosourcing with Machine Learning) on IARPA's B24IC program.

Tim Richardson is a Venture Partner at Paladin Capital Group and strategic advisor to GTRI. He was a founder and senior executive of Liquid Robotics, President and CEO of Micro Linear Corporation (Nasdaq: MLIN), and President and Co-Founder of VeriFiber Technologies. He currently serves on the board of IXYS Corporation (Nasdaq: IXYS), a public semiconductor company.

Thank you for attending the summit!