NATIONAL ACADEMIES *Sciences Engineering Medicine*

Workshop on Law Enforcement Use of Probabilistic Genotyping, Forensic DNA Phenotyping, and Forensic Investigative Genetic Genealogy Technologies

Biographical Sketches

WORKSHOP PLANNING COMMITTEE

Chair: **Alicia Carriquiry (NAM)** is professor of statistics at Iowa State University. Between January of 2000 and July of 2004 she was Associate Provost at Iowa State. Her research interests are in Bayesian statistics and general methods. Her recent work focuses on nutrition and dietary assessment, as well as on problems in genomics, forensic sciences and traffic safety. She is an elected member of the International Statistical Institute and a fellow of the American Statistical Association. She serves on the Executive Committee of the Institute of Mathematical Statistics and has been a member of the Board of Trustees of the National Institute of Statistical Sciences since 1997. She is also a past president of the International Society for Bayesian Analysis (ISBA) and a past member of the Board of the Plant Sciences Institute at Iowa State University. She is editor of Statistical Sciences and of Bayesian Analysis, and serves on the editorial boards of several Latin American journals of statistics and mathematics. She has served on three National Academy of Sciences committees: the Subcommittee on Interpretation and Uses of Dietary Reference Intakes; the Committee on Evaluation of USDA's Methodology for Estimating Eligibility and Participation for the WIC Program and the Committee on Third Party Toxicity Research with Human Research Participants. Currently, she is a member of the standing Committee on Applied and Theoretical Statistics of the National Research Council, the Committee on Assessing the Feasibility, Accuracy and Technical Capability of a Ballistics National Database of the National Research Council and of the Committee on Gender Differences in the Careers in Science, Mathematics and Engineering Faculty of the National Academy of Sciences. She is a member of the Federal Steering Committee Future Directions for the CSFII/NHANES Diet/Nutrition Survey: What we Eat in America. She received a M.Sc. in animal science from the University of Illinois, and a M.Sc. in statistics and a PhD in statistics and animal genetics from Iowa State University.

Sarah Chu is the director of policy and reform and leads the Perlmutter Center's forensic science policy initiatives. Prior to joining the Perlmutter Center, she led the Innocence Project's policy portfolio on forensic science, forensic medicine, and police investigative technologies for 15 years. Her research interests include oversight and accountability of criminal investigative and forensic science methods and technologies; their ethical, legal, and social implications; and capacity for just and equitable implementation. She served on the Scientific Inquiry and Research Subcommittee of the National Commission on Forensic Science and was the 2021 recipient of the Legal Aid Society's Magnus Mukoro Award for Integrity in Forensic Science. A graduate of the University of California, San Diego, she holds BS degrees in Biochemistry/Cell Biology, Communication, and a MS in Biology. She also holds a MS in Epidemiology from Stanford University and completed her doctorate in Criminal Justice at John

Jay College of Criminal Justice/CUNY Graduate Center. She is a member of the 2023-2024 class of the Harvard Medical School Center for Bioethics Fellowship Program.

Michael Coble is an associate professor and the executive director of the Center for Human Identification at the University of North Texas Health Science Center in Fort Worth, Texas. He was an NRC Post-Doctoral Fellow at the National Institute of Standards and Technology. He has over 100 peer-reviewed publications in the areas of forensic DNA analysis and interpretation and is recognized among the top 2% of highly cited researcher worldwide, and in the top 100 of highly cited researchers in the U.S. in the area of forensic and legal medicine. He is a fellow of the American Academy of Forensic Sciences. Over his 28-year career in forensics, he has helped to resolve a number of high-profile historical cases using DNA testing including the two missing Romanov children and the unknown child of the RSS Titanic. He first characterized a set of novel non-CODIS DNA markers useful for degraded DNA, three of which have been adopted world-wide as standard markers for current DNA testing. He received his BS in Biology from the Appalachian State University, his MS in Forensic Science (concentration in Molecular Biology) and his PhD in Genetics from The George Washington University.

Heather McKiernan is currently the senior manager of Forensics at RTI International, where she serves as the Forensic Services Program Manager for the National Missing and Unidentified Persons System (NamUs). In this capacity, she facilitates forensic and analytical services including anthropology, odontology, fingerprint analysis, traditional DNA testing, and forensic genetic genealogy for missing, unidentified, and unclaimed persons cases across the United States. She is an accomplished professional with experience spanning academia, research, casework, and executive leadership as a Laboratory Director overseeing operations. Throughout her career, she has worked to develop best practices for forensic evidence collection, testing, interpretation, and presentation in court. She is a Fellow of the American Academy of Forensic Sciences (AAFS), the International Society of Forensic Genetics (ISFG), and a member of the Vidocq cold case investigation unit. She has served as a guest editor for the journal Forensic Science International: Genetics, co-chair of the 2022 ISFG Congress, as a member of the OSAC Biological Data and Reporting Subcommittee, and past president of the Council of Forensic Science Educators (COFSE). She received her MS in Forensic Science from Arcadia University and her PhD in Biological Sciences from the University of Denver.

Craig O'Connor is currently deputy director in the Forensic Biology Department of the New York City Office of Chief Medical Examiner, the largest public forensic DNA laboratory in the United States with a staff of over 200. He oversees laboratory functions involving the processing of evidentiary material from a range of case types using DNA methods, applying statistical analysis using probabilistic genotyping to those cases as well as bringing on new and emerging technologies. He also holds a position as Clinical Assistant Professor in the Department of Forensic Medicine at New York University Grossman School of Medicine and previous adjunct positions

at John Jay College of Criminal Justice and the College of Mount St. Vincent's having taught courses in forensic biology and forensic science. He has provided expert testimonies over 80 times in jurisdictions inside and outside of New York City at the local and federal level since 2008, including admissibility hearings about the general acceptance of DNA technologies. He is a fellow in the American Academy of Forensic Sciences (AAFS) as well as a member of the International Society of Forensic Genetics (ISFG) and the American Society of Crime Laboratory Directors (ASCLD) and a trained Technical Assessor of the ANSI National Accreditation Board (ANAB). He received an MS and PhD in Genetics and Genomics from the University of Connecticut with an emphasis in forensic DNA identification and population genetics.

Natalie Ram is professor of law at the University of Maryland Francis King Carey School of Law and adjunct faculty with the Berman Institute of Bioethics at Johns Hopkins University. She is a leading scholar on the intersection of genetic privacy and the criminal legal system, including investigative genetic genealogy and the development and trade secrecy surrounding privately developed probabilistic genotyping tools. She is an elected member of the American Law Institute, and she was a 2021 Greenwall Faculty Scholar in Bioethics. She previously clerked for Associate Justice Stephen G. Breyer, U.S. Supreme Court, and for Judge Guido Calabresi, U.S. Court of Appeals for the Second Circuit. She earned her JD at Yale Law School and AB in public and international affairs at Princeton University.

WORKSHOP SPEAKERS

Todd Bille began his forensic career at the Indiana State Police Laboratory in Indianapolis in 1991 and performed the first DNA analysis on casework for the ISP Laboratory in 1994. He later was selected to be the DNA Technical Leader and a supervisor. In 2001, he moved to The Bode Technology Group as the Assistant Laboratory Director and later the Vice President of Special Projects. While at The Bode Technology Group, he led the research efforts investigating improved DNA extraction methods from skeletal remains used for the victims of the September 11 attacks and other mass fatality events. He also performed research on various topics related to "touch DNA". In 2006, he was hired by the Bureau of Alcohol, Tobacco, Firearms and Explosives Laboratory as the DNA Technical Leader to start the DNA Unit. Since then, the research performed at the ATF Laboratory has focused on improving the DNA analysis of "touch DNA" samples from incendiary devices, firearms / fired cartridge cases, and explosive devices. Mr. Bille received his Bachelor of Science degree in Biochemistry from Purdue University in 1990 and his Master of Science degree from Indiana University Purdue University at Indianapolis in 1998. He is certified through the American Board of Criminalistics (ABC) and a member of the American Academy of Forensic Sciences (AAFS) and the International Society for Forensic Genetics (ISFG).

Lieutenant Paul Belli retired from the Sacramento County Sheriff's Office after 24 years serving in his last assignment as the Centralized Investigations Division assistant commander. In his tenure with the sheriff's office, Lieutenant Belli served assignments as a patrol officer, field training officer, motor officer, firearms instructor, force options instructor, and Evoc instructor. Upon selection to detectives in 2008 Lieutenant Belli was assigned to the Sexual Assault and Elder Abuse Bureau before being selected to join the Homicide Bureau where he spent 7 years as a homicide detective. Upon promotion to sergeant, Lt. Belli was again assigned to homicide as the bureau supervisor. As a manager Lieutenant Belli served as a patrol watch commander, assistant commander of the Main Jail Division, and assistant commander for the Centralized Investigations Division. Lieutenant Belli is a CAPOST instructor for the Officer Involved Shooting investigations course, a past committee member for the POST ICI Detective training symposium, Force Science Institute graduate, and Immediate Past President of the International Homicide Investigators Association. Lieutenant Belli holds a Bachelor's of Science degree in Criminal Justice from CSU Sacramento, in addition to Robert Presley Institute of Criminal Investigations certificates in Homicide and Narcotics investigations.

Tierra Bradford is the senior program manager for the Justice team at The Leadership Conference on Civil and Human Rights. She works on a broad range of justice issues with specialized interests in pretrial, police accountability, and community safety. Prior to her current role with The Leadership Conference, she gained experience working on local, state, and national issues at the ACLU of Pennsylvania, Common Cause Maryland and Common Cause National. She has a law degree from the University of Pittsburgh School of Law and a Bachelor's in Psychology from Hampton University.

Rebecca Brown is founder of Maat Strategies. Brown joins the Quattrone Center after founding Maat Strategies, a consultancy that advises social justice organizations engaged in criminal legal reform. Prior to founding Maat Strategies, Brown worked at the Innocence Project – which is nationally recognized as one of the most transformative criminal legal reform organizations in the nation – for 18 years, helping to build and then lead its policy department, directing its federal and state policy agenda. During her tenure, the Innocence Project successfully lobbied the passage of more than 200 criminal legal reform laws. She has presented at judicial and legal trainings, diverse criminal justice, and academic conferences, and has been sought out as a subject matter expert The New York Times, BBC News, ABC News, Slate, NBC News, CBS News, BNC News, Politico, NPR, and the American Bar Association Journal. Most recently, Brown appeared on a special episode of Meet the Press regarding police accountability.

John M. Butler is the president of the International Society for Forensic Genetics. His research, first conducted at the FBI Laboratory and now at the National Institute of Standards and Technology (NIST), pioneered the methods used today worldwide for DNA testing in criminal casework, paternity investigations, and many DNA ancestry assessments. He has written six books on forensic DNA analysis (2001, 2005, 2010, 2012, 2015, 2022) and is a NIST Fellow and Special Assistant to the Director for Forensic Science. He has been honored in multiple White House ceremonies (2002 and 2015) for his work in advancing DNA testing and has received the Gold Medal (2008, 2023) and Silver Medal (2002) from the U.S. Department of Commerce, the Scientific Prize of the International Society for Forensic Genetics (2003), the Paul L. Kirk Award from the American Academy of Forensic Sciences (2017), and the Magnus Mukoro Award for Integrity in Forensic Science from the NYC Legal Aid Society (2020). He served as the Vice-Chair of the National Commission on Forensic Science from 2013 to 2017. Butler holds a Ph.D. in analytical chemistry from the University of Virginia and is the most cited U.S. author in forensic science.

Leigh Clark is deputy director of forensic services at the Florida Department of Law Enforcement (FDLE). She discovered forensic science while teaching and working in police dispatch. Her forensic biology career commenced in 2002, with the majority of her tenure at the Florida Department of Law Enforcement. At FDLE, she served as DNA technical leader for more than a decade and became deputy director of forensic services in 2021. She assists in direction of 10 disciplines across six regional laboratories and the state DNA database, and she oversees the statewide rape kit tracking system. She has provided programmatic and management support for automated workflows, familial searching, sexual assault kit testing, probabilistic genotyping, and Forensic Investigative Genetic Genealogy (FIGG). Presently, she helps monitor FDLE lab capability and capacity; assists in solicitation and management of grants and budgets; and liaises with external stakeholders. An original member of FDLE's team, she continues working in FIGG, through the National Technology Validation and Implementation Collaborative, and as an advisor to the Investigative Genetic Genealogy Accreditation Board. She is a member of the American Society of Crime Laboratory Directors, an active accrediting body technical assessor, and has presented throughout the U.S. and abroad. She completed her B.A. at University of Missouri (St. Louis), attended graduate school at Florida State, and completed her M.S. at University of Florida.

Claire Glynn is a professor of forensic science at the University of New Haven, Connecticut. She is also the executive director of the Henry C. Lee Institute of Forensic Science. She previously was employed as a forensic scientist at LGC Forensics (now called Eurofins) in Oxfordshire, United Kingdom. She joined the faculty at the University of New Haven in 2014, where she teaches courses and conducts extensive research focused on forensic biology, forensic DNA analysis, and Forensic Investigative Genetic Genealogy (FIGG). She is the founding director of the online Graduate Certificate in Forensic Investigative Genetic Genealogy (FIGG) at the University of New Haven, which is the first

program of its kind in the world. She actively consults and provides subject matter expertise on FIGG and Forensic Science to law enforcement agencies in the United States and internationally.

Rafaela Granja is a researcher at Communication and Society Research Centre (CECS) of the same university. Granja is currently the Principal Investigator of the research project E-MONITORING, Electronic monitoring in the criminal justice system: Projected futures and lived experiences (ref. 2023.00030.RESTART) funded by the Portuguese Foundation for Science and Technology (FCT). Her research interests lie at the intersection of sociology of crime and justice and social studies of science and technology and deal with the technological surveillance of criminalized populations at different stages of the criminal justice system, namely: criminal investigations, electronic monitoring and imprisonment. Her most recent publications include the books Genetic Surveillance and Crime Control (Routledge, 2022), Modes of Bio-Bordering: The Hidden (Dis)Integration of Europe (Palgrave, 2021), Forensic Genetics in the Governance of Crime (Palgrave, 2020). Rafaela Granja holds a Ph.D. in Sociology (2015) from the Institute of Social Sciences, University of Minho.

Christi Guerrini is assistant professor in the Center for Medical Ethics and Health Policy at Baylor College of Medicine and Director of the Health Policy Pathway. She conducts research on the ethical, legal, and social implications of biomedical research and technologies, with a focus on genetics and genomics. She has served as principal investigator or co-investigator of NIH-funded studies on investigative genetic genealogy (IGG), citizen science, and genomic data sharing. She has published on these and other topics in traditional law reviews and scientific journals, including Science and Nature Biotechnology. Related to IGG, she has served on the Investigative Genetic Genealogy Working Group of the Scientific Working Group on DNA Analysis Methods (SWGDAM); the Policy and Procedure Subcommittee of the National Technology Validation and Implementation Collaborative (NTVIC) Forensic Investigative Genetic Genealogy Technical Validation Working Group; and the Advisory Board of the Investigative Genetic Genealogy Accreditation Board (IGGAB). Prior to joining Baylor College of Medicine, she practiced law in Chicago and Houston. She received a JD from Harvard Law School, MPH from the University of Texas Health Science Center at Houston School of Public Health, and BA from the University of Virginia.

Dan Katz has been with the Maryland State Police – Forensic Sciences Division for 16 years; 9 years in his current role as Director, 5 years as Deputy Director, and 2 years as the Forensic Biology Section Manager. Prior to coming to the Maryland State Police, he worked for 7 years at the Delaware Office of the Chief Medical Examiner where he was the DNA Unit Manager and DNA Technical Leader during his entire tenure. Dan started his forensic career at the Armed Forces DNA Identification Laboratory where started as a technician and then as an analyst, in both the Mitochondrial DNA and Nuclear DNA sections. Dan is a member of the American Society of Crime Laboratory Directors since 2010. He is a member of the Maryland Forensic Laboratory Advisory Committee since 2014 and a member of the Maryland Sexual Assault Evidence Kit Policy and Funding Committee since 2017. Dan is a former president of the Mid-Atlantic Association of Forensic Scientists, a Fellow of the American Academy of Forensic Sciences, a past Commissioner on the Forensic Science Education Program Accreditation Commission, and a founding member of the National Association of Forensic Science Boards. Dan attended the University of Delaware receiving a B.S. in Biotechnology and then getting his M.F.S. in Forensic Science at the George Washington University. Dan also earned a Certificate in Forensic Laboratory Management from the University of California at Davis. Dan is certified by the American Board of Criminalistics as a Diplomate in Comprehensive Criminalistics.

Jennifer Lynch is the general counsel at the Electronic Frontier Foundation (EFF), a nonprofit dedicated to the protection of privacy and civil liberties in new technologies. She has led EFF's legal work challenging government abuse of search and seizure technologies through lititgation in state and federal courts, including the U.S. Supreme Court and founded EFF's Street Level Surveillance Project, which informs advocates, defense attorneys, and decisionmakers about new police tools. She has written influential white papers on forensic genetic genealogy searches, law enforcement use of facial recognition, and biometric data collection in immigrant communities. She has also published articles on forensic genetic genealogy searches with the National Association of Criminal Defense Lawyers (NACDL) and on suspicionless police searches of consumer data for the Hoover Institution. In 2021, The Daily Journal named her to its list of top lawyers of the decade for her work "guarding privacy in an over-policed world." she speaks frequently on technologies like location tracking, biometrics, and AI, and has testified on facial recognition before committees in the Senate and House of Representatives. She is regularly consulted as an expert on these subjects and others by major and technical news media.

Daphne Martschenko is an assistant professor at the Stanford Center for Biomedical Ethics. Her work advocates for and facilitates research efforts that promote the socially and ethically responsible conduct and communication of and public engagement with human genetics and genomics. She is currently co-writing a book (under contract with Princeton University Press) with Sam Trejo, a quantitative sociologist who uses genomic data in his research. The book, titled the "The Acid

We Inherit," is an adversarial collaboration that delves into the debates and controversies surrounding research connecting DNA to social and behavioral outcomes.

Jeanna Matthews is a professor of computer science at Clarkson University. She is a founding Chair of the ACM Technology Policy Subcommittee on Artificial Intelligence and Algorithmic Accountability, a Vice-Chair of Institute of Electrical and Electronics Engineers (IEEE) - USA AI Policy Committee, and a member of the ACM Technology Policy Committee. She has been a faculty fellow at NIST, a member of the NSF CISE Advisory Council, an affiliate at Data and Society, a member of the ACM Council, a chair of the ACM Special Interest Group Governing Board, the chair of the ACM Special Interest Group on Operating Systems (SIGOPS), chair of the Viewpoints section of the CACM magazine, an ACM Distinguished Speaker, and a Fulbright Scholar. She has published work in a broad range of systems topics from virtualization and cloud computing. She received a 2018-2019 Brown Institute Magic Grant to research differences in DNA software programs used in the criminal justice system. Matthews received her PhD in Computer Science from the University of California at Berkeley, a BS in Mathematics and Computer Science from Ohio State University and a BA in Spanish from the State University of New York at Potsdam.

Carole McCartney is professor of law and criminal justice at the University of Leicester. She is currently a commissioner on the APPG Westminster Commission on Forensic Science. Previously at Northumbria University, where she established the Science and Justice Research Interest Group, she has been researching issues around criminal evidence and forensic science for over twenty years, and has written on miscarriages of justice, DNA and biometrics, forensic science and criminal justice more widely.

Dennis McNevin is professor of forensic genetics at the University of Technology Sydney. His teaching and research is focused on the use of technology to enhance the value of DNA in forensic investigations. He has previously worked for the Australian Federal Police and has provided DNA analysis services to multiple jurisdictions in Australia. He has over one hundred publications in journals including Nature Communications, the Journal of Biological Chemistry, Forensic Science International, Forensic Science International Genetics, the International Journal of Legal Medicine, Forensic Science Medicine and Pathology and Science and Justice.

Erin Murphy is Norman Dorsen professor of civil liberties at NYU Law. She is an internationally-recognized expert in forensic DNA typing, and the author of Inside the Cell: The Dark Side of Forensic DNA (2015) and co-editor of the Modern Scientific Evidence treatise. From 2012 to 2021, Murphy served as the associate reporter for the American Law Institute's successful revision of Article 213 (Sexual Assault and Related Offenses) of the Model Penal Code. From 2021 to 2022, she served as senior policy

advisor for criminal justice at the White House Domestic Policy Council. Her research focuses on the criminal legal system, with a particular focus on questions related to forensic science, policing and new technologies, sexual assault and drug policy. She has translated her scholarly writing for more popular audiences by publishing in Science, Scientific American, New Scientist, New York Times, Washington Post, San Francisco Chronicle, USA Today, Slate, The Atlantic, and New Republic, and has offered commentary for numerous media outlets, including NPR, PBS, CNN, Fox, MSNBC, and NBC Nightly News. A proud recipient of the Podell Distinguished Teaching Award, Murphy's course offerings include criminal law and procedure, evidence, forensic evidence, and professional responsibility in the criminal context.

Mark Pooley is the director, investigative support (AI/AN) for The University of North Texas Health Science Center's Center for Human Identification (CHI). In this position, he assists law enforcement agencies seeking to provide answers for missing and unidentified persons, their families, and the community, with a focus on American Indian/Alaska Native communities. He joined CHI in March 2023. In August of 2020, He retired as a Sergeant from the Tempe Police Department in Arizona. During his tenure in law enforcement, he held several detective positions in Robbery, the Joint Terrorism Task Force (JTTF/FBI), Homicide/Missing Persons and as a supervisor in the Professional Standard's Bureau. He who is Navajo and Hopi, was also a tribal prosecutor for the Salt River Pima-Maricopa Indian Community where he dealt with criminal and civil issues within the tribal court. In 2021, He started a 501c3 nonprofit called "Native Search Solutions". The organization's mission is to finding Missing & Murdered Indigenous People (MMIP) on and off the reservation(s) by using technology and other resources. In 2022, He was the inaugural Tribal Fellow for the National Center for Missing & Exploited Children (NCMEC), where he supported outreach to Native, Indigenous, and tribal communities. He holds a Masters of Education, Counseling-Human Relations with Distinction, from Northern Arizona University, and a Bachelor of Arts, Political Science, from Brigham Young University.

Norah Rudin holds a B.A. from Pomona College and a Ph.D. from Brandeis University. She is a member of the California Association of Criminalists, a fellow of the American Academy of Forensic Sciences, and has been a Diplomate of the American Board of Criminalistics. After completing a post-doctoral fellowship at Lawrence Berkeley Laboratory, she served three years as a full-time consultant/technical leader for the California Department of Justice DNA Laboratory and has also served as consulting technical leader for the Idaho Department of Law Enforcement DNA Laboratory, the San Francisco Crime Laboratory DNA Section, and the San Diego County Sheriff's Department DNA Laboratory. Dr. Rudin has co-authored An Introduction to DNA Forensic Analysis and Principles and Practice of Criminalistics: The Profession of Forensic Science. She is also the author of the Dictionary of Modern Biology. Dr. Rudin has taught a variety of general forensic and forensic DNA courses for the University of California at Berkeley extension and on-line. She is frequently invited to speak at various legal symposia and forensic conferences. She has served a gubernatorial appointment to the Virginia Department of Forensic Science Scientific Advisory Committee and has been a co-chair of the Constitution Project Committee on DNA Collection. Dr. Rudin was part of the group that developed Lab Retriever, an early probabilistic genotyping software tool. She has co-authored peer-reviewed articles on the topic of

probabilistic genotyping and provided training to both scientists and attorneys on the subject. She remains active as an independent consultant and expert witness in forensic DNA.

Jeremy Triplett is the director of the Kentucky State Police Central Forensic Laboratory in Frankfort, Kentucky where he oversees the day-to-day operations of the full service, ISO 17025 accredited laboratory. Jeremy has more than twenty years of experience in forensic science with a background in seized drugs analysis and has testified in local, state, and federal courts. Jeremy is a Past-President of the American Society of Crime Laboratory Directors (ASCLD), an organization of crime laboratory directors and managers dedicated to providing excellence in forensic science through leadership and innovation. From 2014-2017, Jeremy served as chairman of the Forensic Science Standards Board of the NIST Organization of Scientific Area Committees. Jeremy is a member of the American Academy of Forensic Sciences, the International Association of Chiefs of Police forensic committee, the strategic advisory board for the Center for Statistics and Applications in Forensic Science, and serves as technical assessor in seized drugs for ANAB, where he has participated in assessments of forensic science laboratories inside and outside of the United States. Jeremy received a B.S. in chemistry from the University of Kentucky and an M.S. in pharmacy from the University of Florida.

Krystal Tsosie (Diné/Navajo Nation) is an assistant professor at Arizona State University in the School of Life Sciences. She co-founded the first US Indigenous-led biobank, a 501c3 nonprofit research institution called the Native BioData Consortium. Her research centers on ethical engagement with Indigenous communities in precision health and genomic medicine. Her areas include genetic epidemiology, bioethics, public health, and community research approaches. She previously patented a combined targeted ultrasound imaging and chemotherapeutic drug delivery device for treating early metastases in cancer. She is currently on the Board of Directors for the American Society of Human Genetics, and on the ethics committee of the American Society for Cell and Gene Therapies. Her background includes a Master of Arts in bioethics for studying genetic controversies in Indigenous communities, a Master of Public Health in genetic epidemiology for studying gene variation related to hypertension and uterine fibroids, and a PhD in genomics and health disparities. She recently served on the NASEM consensus study committee, Creating a Framework for Emerging Science, Technology, and Innovation in Health and Medicine and on the NASEM planning committee, Engaging Scientists in Central Asia on Data Governance Principles for Life Science Data.

Raymond Valerio has been an Assistant District Attorney in New York City since 2004. Currently, he is the Director of Forensic Sciences at the Queens County District Attorney's Office, overseeing all forensic science-based prosecutions. Mr. Valerio is a member of the Organization of Scientific Area Committees Firearm and Toolmark Subcommittee, the Firearm Toolmark and Friction Ridge American Standards Consensus Bodies of the American Academy of Forensic Sciences, the National District Attorneys Association

Forensic Science Working Group, and serves on the Strategic Advisory Board for the Center for Statistics and Applications in Forensic Evidence. Mr. Valerio received the Thomas E. Dewey Medal from the New York City Bar Association for his accomplishments in forensic science as a prosecutor. Scientific American published his opinion editorial "Firearm Forensics Has Proven Reliable in the Courtroom. And in the Lab" and WIRE Interdisciplinary Journal, a peer-reviewed journal, published Mr. Valerio's article titled "Likelihood Ratios For Lawyers…I Didn't Go to Law School for This."

Susan Walsh is an associate professor of biology at Indiana University Indianapolis (IUI), IN, where her laboratory focuses on understanding the genetics of human physical appearance, from pigment to facial structure, and its prediction from DNA. She was a research assistant at the University of Sydney, Australia, and a postdoctoral research associate in anthropology at Yale University, CT, USA. She has published over 40 peer-reviewed articles in the last 10 years spanning the fields of genetics, forensics and bioinformatics. Her research has been funded by NIJ, DOD and NIH. She received her BS in biochemistry from University College Cork, Ireland, an MS in DNA profiling from the University of Central Lancashire, UK, and a PhD in forensic genetics from Erasmus University in the Netherlands.

Rebecca Wexler is an assistant professor of Law at UC Berkeley School of Law, and Faculty Co-Director of the Berkeley Center for Law and Technology. Her teaching and research focus on data, technology, and secrecy in the criminal legal system. Her scholarship has appeared or is forthcoming in the Harvard Law Review, Stanford Law Review, Yale Law Journal Forum, NYU Law Review, UCLA Law Review, Texas Law Review, Vanderbilt Law Review, and Berkeley Technology Law Journal, as well as in peer-reviewed computer science publications.

Ray Wickenhauser is the director for the New York State Police Crime Laboratory System, headquartered in Albany, New York. He is a past president (2017) of the American Society of Crime Laboratory Directors (ASCLD) and a Briggs J. White Award (2022) recipient. He is a member of the National Technology Validation and Implementation (NTVIC) Steering Committee, the Chair of the Forensic Investigative Genetic Genealogy (FIGG) Policy and Procedures Committee, and Co-Chair of the Rapid DNA Committee. He was formerly the Chair of the Forensic Science Standards Board (FSSB) (2021-23) for the Organization of Scientific Area Committees (OSAC) for Forensic Science and an invited guest to the Scientific Working Group on DNA Analysis (2013-2023). He is formerly an ISO and Lead DNA auditor for forensic laboratories. He has over 40 years of experience working in the field of forensic science. His areas of expertise include crime lab administration, quality management, conflict resolution, forensic DNA and mixture interpretation, serology, hair and fiber trace evidence, physical matching and comparison, glass fracture analysis, forensic grain

comparison and forensic investigative genetic genealogy. He holds a PhD in bioethics and health care policy, an MBS, a BS Honours, and a certificate in genealogical research.

Matthias Wienroth is assistant professor at the Northumbria University Centre for Crime and Policing. His work attends to the overall question of how bioscientific knowledge and biotechnologies can contribute to a 'good society'. More specifically, he studies social, ethical, operational, and oversight aspects of biometrics data and technologies in justice, security, and health contexts, analysing how these data and technologies contribute to identity and identification – i.e. the (un-)knowing of human beings (e.g., for forensic, surveillance, and health purposes) – and the (re-)production of social orders. Most recently, his work has focused on the ethics of forensic genetics and of biometric data categorisation, developing the RULE framework (reliability, utility, legitimacy) and co-developing a professional integrity framework for good ethical self-governance and external oversight of these fields.

Lucas Zarwell is the Office Director for the Office of Investigative and Forensic Sciences at the National Institute of Justice (NIJ). He leads a team of dedicated forensic scientists who work to facilitate research and implement new technologies nationwide. Prior to this position, Mr. Zarwell served as Chief Toxicologist for the District of Columbia Chief Medical Examiner, DC Pre-Trial Services Forensic Drug Testing Laboratory, and the Armed Forces Institute of Pathology. He currently co-chairs the Office of Justice Programs/Department of Health and Human Services Federal Interagency Medicolegal Death Investigation Working Group, which is hosted by NIJ. Mr. Zarwell maintains his certification from the American Board of Forensic Toxicology and has a Masters in Forensic Science from George Washington University.

Martin Ziegler is a research group leader and forensic expert at the Institute of Forensic Medicine, University of Bern, Switzerland. His research activities cover a diverse range of topics, including population genetics, DNA sampling strategies, and DNA transfer and persistence. His particular interest lies in the legal regulation of Forensic Genetics. He was involved as an expert at various stages in the recent revision of the Swiss DNA Profiles Act. He is a member of the Forensic Databases Advisory Board of the International Society for Forensic Genetics and a member of the Swiss Federal Commission for Human Genetic Testing. He holds a Ph.D. in biochemistry, a MLaw, and the specialist title of "Forensic Geneticist" from the Swiss Society of Forensic Medicine.