

Green Mountain DNA Conference

July 30-August 1, 2018
Burlington, Vermont

Monday, July 30

7:30 – 8:15 am	Registration & Continental Breakfast	Promenade
8:15 – 8:30 am	Welcome and Opening Remarks Thomas Anderson, Commissioner, Vermont Department of Public Safety Trisha Conti, Director, Vermont Forensic Laboratory	Emerald III Ballroom
Moderator: Jack Ballantyne		Emerald III Ballroom
8:30 – 9:15 am	<i>An on-chip method for differential extraction of sperm in forensic cases</i> Utkan Demirci, Stanford University	
9:15 – 10:00 am	<i>Next-Generation Mitochondrial Genome Sequencing for DNA-Assisted Identification of Missing U.S. Service Members</i> Charla Marshall, Armed Forces DNA Identification Laboratory	
10:00 – 10:30 am	Break	Promenade
10:30 – 11:00 am	<i>The Next Generation of mtDNA at the FBI Laboratory: Validation of a mtDNA Control Region MPS System for use in FBI Casework</i> Michael Brandhagen, FBI Laboratory	
11:00 – 11:30 am	<i>Deep-Coverage MPS Analysis of Heteroplasmic Variants in the mtGenome Allows for Frequent Differentiation of Maternal Relatives</i> Mitchell Holland, Penn State University	
11:30 – 12:00 pm	Discussion	
12:00 – 1:00 pm	Lunch	G's Restaurant
Moderator: Lilliana Moreno		Emerald III Ballroom
1:00 – 1:30 pm	<i>DNA Radar: Revelation of Surnames from DNA Samples with Next Generation Sequencing</i> Troy Moore, Kailosgenetics	
1:30 – 2:00 pm	<i>Microbial Signatures as Trace Evidence in Residential Burglaries</i> Jarrad Hampton-Marcell, Argonne National Laboratory	
2:00 – 2:30 pm	<i>Microhaplotypes: a comprehensive and versatile tool for forensic DNA analysis</i> Fabio Oldoni, George Washington University	

2:30 – 3:00 pm	Break	Promenade
3:00 – 3:30 pm	<i>Trust Me, I'm a Doctor...</i> Martha Bashford, Manhattan District Attorney's Office Melissa Mourges, Manhattan District Attorney's Office	
3:30 – 4:00 pm	<i>Implementing an MPS mtGenome Panel into Casework in a Missing Persons DNA Program</i> Daniela Cuenca, California Department of Justice	
4:00 – 4:30 pm	<i>Tribute to Eric Buel</i> Bruce McCord, Florida International University	
5:00 – 7:00 pm	Evening Reception/Poster Session	Promenade

Posters:

Optimal screening and sampling methods for semen stains washed multiple times
Danielle Dansereau, Laboratoire de sciences judiciaires et de médecine légale

Internal Validation of the "Dogfiler" STR Amplification Assay for the analysis of Canine DNA Evidence
Sam Kwiatkowski, Harris County Institute of Forensic Science

Contributor number estimation by manual analysis combined with a simple automated tool
Melanie Russell, Connecticut Division of Scientific Services

Use of Relationship Likelihood Ratios as a Diagnostic for Probabilistic Genotyping
Samantha Wandzek, DNA Labs International

Evaluating Variability of Likelihood Ratios of Major Component DNA Profiles in Complex Mixtures with an Unknown Number of Contributors
Steven Weitz, Bureau of Alcohol, Tobacco, Firearms and Explosives

Tiled Amplicon Mitochondrial DNA Sequencing Using Massively Parallel Sequencing: a Robust and Sensitive Assay
Irene Wong, Thermo Fisher Scientific

Tuesday, July 31

7:30 – 8:30 am	Continental Breakfast	Promenade
Moderator: Ron Fourney		Emerald III Ballroom
8:30 – 9:15 am	<i>2018 DNA Database Hit of the Year</i> Tim Schellberg, Gordon Thomas Honeywell	
9:15 – 10:00 am	<i>Genetics, Law, and Policy Choices: the balance between security and privacy</i> Frederick Bieber, Harvard University	
10:00 – 10:30 am	<i>Selecting microhaplotypes optimized for different purposes</i> Kenneth Kidd, Yale University	
10:30– 11:00 am	Break	Promenade
11:00 – 11:30 am	<i>The use of environmental DNA (eDNA) as an additional trace evidence type to facilitate geo-sourcing of household dust</i> Jack Ballantyne, University of Central Florida	
11:30 – 12:00 am	<i>Increasing the Discrimination Power of the ForenSeq™ DNA Signature Prep Kit with Flanking Region Variation</i> Jonathan King, University of North Texas Health Science Center	
12:00 – 1:00 pm	Lunch	G's Restaurant
Moderator: Charla Marshall		Emerald III Ballroom
1:00 – 1:30 pm	<i>Validation of ANDE 6C FlexPlex “A” Cassette and Rapid ID Systems: Technical Uses and Limitations</i> Lilliana Moreno, FBI Laboratory	
1:30 – 2:00 pm	<i>Using Methylation Patterns to Determine Origin of Biological Material</i> Peter St. Andre, San Francisco Police Department Crime Laboratory	
2:00 – 2:30 pm	<i>MPS MixtureAce™: a Data Formatting Tool for Mixed MPS Data</i> Brian Young, NicheVision, Inc.	
2:30 – 3:00 pm	Break	Promenade
Moderator: Joanne Sgueglia		Emerald III Ballroom
3:00 – 3:30 pm	<i>The Development of DNA Methylation Markers to Infer Tobacco Smoking</i> Hussain Alghanim, Florida International University	

3:30 – 4:00 pm	<i>Breaking the “1 in a Billion” Barrier: Optimizing Genetically-Variant Peptide Extraction from the Human Hair Shaft</i> Glendon Parker, University of California, Davis	
4:00 - 4:30 pm	<i>Enhancing DNA Mixture Deconvolution and Improving Sample Quality Using the DEPAarray™ System</i> Michael Marciano, Syracuse University	
4:30 – 5:00 pm	<i>FBI Plan for Booking Station Rapid DNA Analysis and Searching of CODIS</i> Lilliana Moreno, FBI Laboratory	
5:45 pm	Depart for Dinner Cruise	Hotel Registration Lobby
6:15 pm	Boarding for Dinner Cruise	Downtown Burlington
6:30 – 9:30 pm	Dinner Cruise on Lake Champlain Sponsored by Thermo Fisher Scientific	

Wednesday, Aug. 1

7:30 – 8:30 am	Continental Breakfast	Promenade
Moderators: Joanne Sgueglia & George Duncan		Emerald III Ballroom
8:30 – 8:50 am	<i>Assessing Massively Parallel Sequencing (MPS) platforms for forensic casework</i> Timothy Kupferschmid, NYC Office of Chief Medical Examiner	
8:50 – 9:10 am	<i>Reliability of public sequence databases for accurate identification of non-human biological material encountered in casework</i> Natalie Damaso, FBI Laboratory	
9:10 – 9:30 am	<i>Implementation of a Massively Parallel Sequencing Workflow for Forensic Applications</i> Adam Garver, Ohio Bureau of Criminal Investigation	
9:30 – 9:50 am	<i>If you replace all the boards in a forensic software program, does it remain the same program?</i> Richard Torres, The Legal Aid Society	
9:50 – 10:20 am	Break	Promenade
10:20 – 10:40 am	<i>Making the MPS Vision a Reality</i> Melissa Kotkin, Verogen, Inc.	
10:40 – 11:00 am	<i>Canines at the Scene: A Challenge to the DOGma of DNA Contamination</i> Emily Head, Bureau of Alcohol, Tobacco, Firearms, and Explosives	
11:00 – 11:20 am	<i>STRmixTM put to the test: 300 000 non-contributors profiles compared to 4 people mixtures and the impact of replicates on specificity</i> Josée Noël, Laboratoire de sciences judiciaires et de médecine légale	
11:20 – 11:40 am	<i>STR typing workflows on the Ion Torrent S5XL sequencing platform</i> Kevin Kiesler, National Institute of Standards and Technology	
11:40 – 12:00 pm	Final Discussion and Closing Remarks Trisha Conti, Director, Vermont Forensic Laboratory	Emerald III Ballroom
12:00 – 1:00 pm	Lunch* Sponsored by Thermo Fisher Scientific *only for Workshop attendees	G's Restaurant
1:00 – 4:30 pm	Workshop Sponsored by Thermo Fisher Scientific	University Amphitheater