

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
Moderators:		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> Mike 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
1:00 – 1:30 pm	<i>Title to be determined</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 Sponsored by	Promenade
<u>Posters:</u>		
	<i>Tiled Amplicon Mitochondrial DNA Sequencing Using Massively Parallel Sequencing: a Robust and Sensitive Assay</i> Irene Wong, Thermo Fisher Scientific	
	<i>Optimal screening and sampling methods for semen stains washed multiple times</i> Danielle Dansereau, Laboratoire de sciences judiciaires et de médecine légale	
	<i>Internal Validation of the "Dogfiler" STR amplification kit for the analysis of canine DNA evidence</i> Sam Kwiatkowski, Harris County Institute of Forensic Science	
	<i>Contributor number estimation by manual analysis combined with a simple automated tool</i> Melanie Russell, Connecticut Division of Scientific Services	
	<i>Use of Relationship Likelihood Ratios as a Diagnostic for Probabilistic Genotyping</i> Samantha Wandzek, DNA Labs International	
	<i>Evaluating Variability of Likelihood Ratios of Major Component DNA Profiles in Complex Mixtures with an Unknown Number of Contributors</i> Steven Weitz, Bureau of Alcohol, Tobacco, Firearms and Explosives	
7:00 – 11:00 pm	Vans to Explore Downtown Burlington	Hotel Registration Lobby

Tuesday, July 31

7:30 – 8:30 am	Continental Breakfast	Promenade
Moderators:		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
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
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 *Enhancing DNA Mixture Deconvolution and Improving Sample Quality
Using the DEPAarray™ System*
Michael Marciano, Syracuse University

4:30 – 5:00 pm *FBI Plan for Booking Station Rapid DNA Analysis and Searching of
CODIS*
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

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Wednesday, Aug. 1

7:30 – 8:30 am	Continental Breakfast	Promenade
Moderators:		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>STRmix™ put to the test: 300 000 non-contributors profiles compared to 4 people mixtures</i> Josee Noel, 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 Forensics Laboratory Green Mountain DNA Conference Steering Committee	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	Emerald III Ballroom