

APPLIED GENETICS

DNA Workshop

NIST - Applied Genetics Group  
Forensics at NIST 2020  
November 9, 2020

A small inset video shows a man speaking.

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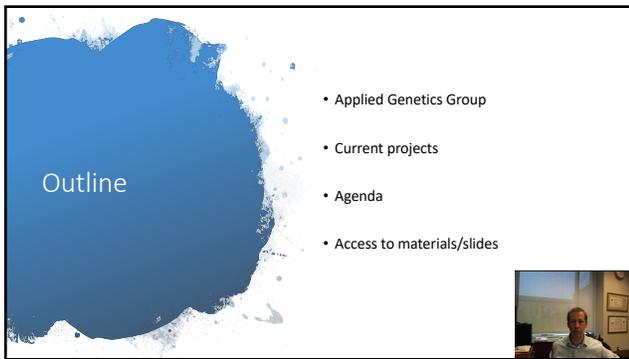
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Outline

- Applied Genetics Group
- Current projects
- Agenda
- Access to materials/slides

A small inset video shows a man speaking.

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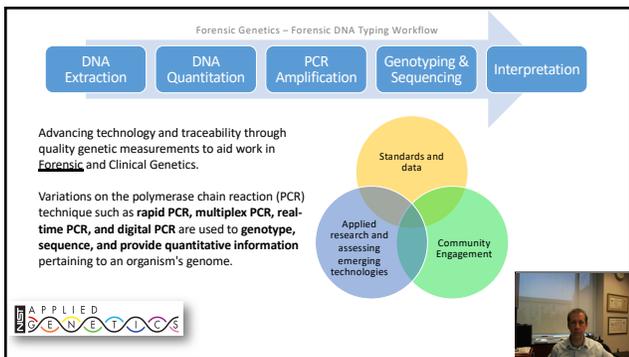
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Forensic Genetics – Forensic DNA Typing Workflow

DNA Extraction → DNA Quantitation → PCR Amplification → Genotyping & Sequencing → Interpretation

Advancing technology and traceability through quality genetic measurements to aid work in Forensic and Clinical Genetics.

Variations on the polymerase chain reaction (PCR) technique such as **rapid PCR**, **multiplex PCR**, **real-time PCR**, and **digital PCR** are used to **genotype**, **sequence**, and **provide quantitative information** pertaining to an organism's genome.

Standards and data

Applied research and assessing emerging technologies

Community Engagement

APPLIED GENETICS

A small inset video shows a man speaking.

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### Forensic Genetics Team



Peter Vallone, Becky Steffen, Erica Romsos, Katherine Gettings, Kevin Kiesler, Margaret Kline, Lisa Borsuk, Sarah Riman, David Dunner, Hali Iyer, Tunde Huszar

Margaret Kline will be retiring on November 20, 2020  
 Congratulations Margaret on a 35 year career at NIST  
 We'll miss you!



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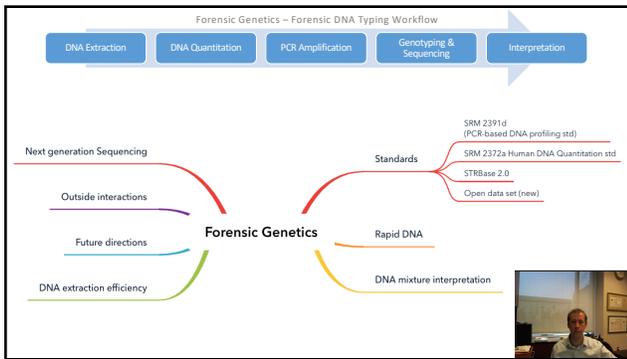
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Time Slot	Title	Speaker	Time (mins)
10:00-10:15 AM	Welcome & Introduction to the Applied Genetics Group	Peter Vallone	15
10:20-10:50 AM	Not your standard Standard: Using SRM 2391d: PCR-Based DNA Profiling Standard in Your Lab	Becky Steffen	30
10:55-11:25 AM	Making the best use of all of your curves: SRM 2372a Human DNA Quantitation Standard	Erica Romsos	30
11:30-12:00 PM	A Tour of STRBase 2.0	Lisa Borsuk	30
12:00-1:00 PM	Lunch Break		60
1:00-1:30 PM	Exploring DNA Interpretation Software Using the PROVEDIT Dataset	Sarah Riman	30
1:35-2:05 PM	Sequencing Workflows for Forensics	Peter Vallone	30
2:10-2:40 PM	SNPchat: the forensic marker that could be your BFF	Katherine Gettings	30
2:45-3:15 PM	Mitochondrial DNA Sequencing: the Next Generation	Kevin Kiesler	30
3:20-4:00 PM	AGG Panel: Q & A	All	40

Today's Agenda



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### Slides and Presentations

- The material from this workshop will be hosted through the Forensics at NIST website as well as on STRBase
  - <https://www.nist.gov/news-events/events/2020/11/forensicsnist-2020>
  - <https://strbase.nist.gov/>
- If you are using these for continuing education please reach out to Pete or Becky for more information ([peter.vallone@nist.gov](mailto:peter.vallone@nist.gov), [becky.steffen@nist.gov](mailto:becky.steffen@nist.gov))
- Thanks and we look forward to Q&A later this afternoon!



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