

BRIAN J. CUNNINGHAM  
Massachusetts State Police  
Crime Laboratory  
124 Acton Street  
Maynard, MA 01754  
(978) 451 - 3420

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## EMPLOYMENT

### *January 2003 - Present*

#### *Massachusetts State Police Crime Laboratory, Maynard, Massachusetts*

*Chemist I, DNA Unit (January, 2003 — January, 2004)*

*Chemist II, DNA Unit (January, 2004 — May, 2007)*

*DNA Unit Supervisor (May 2007 — Present)*

- Supervise and train DNA analysts
- Assign casework
- Perform technical and administrative review of DNA reports
- Manage review process for samples processed by external vendors
- Track and handle forensic evidence for DNA analysis
- Extract, quantitate, and amplify forensic evidence for DNA analysis
- Perform STR and Y-STR analysis and interpretation using ABI 3130xl, ABI3500, and 3500xl Genetic Analyzers with GeneMapper ID and GeneMapper ID-x software
- Use STRmix Probabilistic Genotyping software to perform data interpretation and statistical calculations
- Process crime scenes for the documentation, testing and collection of biological evidence
- Generate written reports, perform statistical analysis, and provide court testimony for all results obtained

### *January 1995 — January 2003*

#### *Brigham and Women's Hospital, Boston, Massachusetts New England Organ Bank*

#### *Tissue Typing Technologist / Board Certified Histocompatibility Specialist*

- Performed complex microtiter assays for both solid organ and stem cell transplantation
- Proficient in all areas of molecular testing: DNA extraction, PCR, RFLP and SSP
- Independently tested, interpreted and reported results for transplantation of life saving organs during 24 hour on-call shifts
- Educated and trained new employees on laboratory policies and procedures.
- Managed and maintained the national organ sharing database
- Designed and implemented research projects to test and improve laboratory procedures
- Organized regional conferences
- Implemented quality control procedures on all equipment and reagents

## EDUCATION

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| Bachelor of Science - Biology<br>Boston College, College of Arts and Sciences | 1993 |
| Molecular Biology course<br>Tufts University, Medford MA                      | 2003 |

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**TRAINING/PROFESSIONAL DEVELOPMENT**

**The Fourth Francine and Michael Saferstein Memorial Lectures, Northeastern University, Boston, MA, February 2003**

- "The Identification of the WTC Missing Using DNA" (1.5 hours)
- "DNA Profiles from Compromised WTC Tissue" (1.5 hours)

**B.F.D/F.I.U Seminar Series Inc., Dorchester, MA, March 2003**

- "DNA, Blood and Fire Debris Analysis" (8 hours)

**Summer Institute in Statistical Genetics, North Carolina State University, Raleigh, NC, June 2003**

- "Interpreting DNA Evidence" (24 hours)

**The Fifth Francine and Michael Saferstein Memorial Lectures, Northeastern University, Boston, MA, March 2004**

- "Forensic DNA Typing in the Courtroom: A Perspective" (1.5 hours)
- "DNA Testing: 21<sup>st</sup> Century Justice" (1.5 hours)

**Northeastern Association of Forensic Scientists, Mystic, CT, September 2004**

- "Capillary Electrophoresis in DNA Analysis" (12 hours)

**Northeastern Association of Forensic Scientists, Newport, RI, November 2005**

- Biology Session (12 hours)

**Applied Biosystems, Albany, NY, May 2006**

- "Future Trends in DNA Technology" (8 hours)

**Basic Bloodstain Pattern Analysis, Massachusetts State Police Crime Laboratory, April 2006**

- "Basic Bloodstain Pattern Analysis" course (40 hours)

**Northeastern Association of Forensic Scientists, Rye Brook, New York, November 2006**

- "Obtaining High Quality Nucleic Acids: Manual and Automated Extraction Methods for DNA Forensics" (8 hours)
- Biology Session (12 hours)

**Promega, Waltham, MA, December 2007**

- "Technology Tour" (8 hours)

**Massachusetts Human Resource Division, Boston, MA, December 2007**

- "Supervisory Leadership Skills" (24 hours)

**Northeastern Association of Forensic Scientists, West Chester, New York, October 2008**

- "DNA Statistics and Population Genetics" (8 hours)

**The International Association for Identification and the Massachusetts State Police, Maynard, Massachusetts, June 2009**

- Fundamentals of Crime Scene Investigation with an Introduction to Bloodstain Pattern Analysis (40 hours)

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**Applied Biosystems HTD University, Maynard Massachusetts, December 2009**

- “Working With Difficult Samples” (26 hours)

**Applied Biosystems HID University, Maynard Massachusetts, November 2010**

- “Advanced DNA Analysis” (12 hours)

**Qiagen Inc. DNA Forensics Training Course, Maynard Massachusetts, January 2011**

- “BioRobot EZ1 Advanced XL Training” (8 hours)

**Sorenson Forensics Training, Maynard Massachusetts, December 2011**

- “Interpretation Workshop — Y-STR Interpretation and SWGDAM Guideline Overview” (8 hours)

**Sorenson Forensics Training, Maynard Massachusetts, March 2012**

- “Mixture Interpretation, Statistics, and Population Genetics” (16 hours)

**Sorenson Forensics Training, Maynard Massachusetts, June 2012**

- “Advanced Y-STR Interpretation Workshop” (16 hours)

**Sorenson Forensics Training, Maynard Massachusetts, August 2012**

- “Courtroom Testimony Training” (8 hours)

**Sorenson Forensics Training, Maynard Massachusetts, September 2012**

- “Relatedness and Familial Statistics Workshop” (8 hours)

**Sorenson Forensics Training, Maynard Massachusetts, March 2013**

- “Forensic Statistics Training” (16 hours)

**Sorenson Forensics Training, Maynard Massachusetts, May 2013**

- “ISO Accreditation Training” (16 hours)

**Sorenson Forensic Training, Maynard Massachusetts, October 2013**

- “Lean Six Sigma Introductory Workshop” (16 hours)

**Sorenson Forensics Training, Maynard Massachusetts, December 2013**

- “New Technologies in the Forensic Community” (16 hours)

**Sorenson Forensics Training, Maynard Massachusetts, May 2014**

- “Supervisor Leadership Training” (8 hours)

**Sorenson Forensics Training, Maynard Massachusetts, December 2014**

- “New Technologies in the Forensic Community” (8 hours)

**Cybergenetics Training, Maynard Massachusetts, March 2015**

- “True Allele” Casework Course (24 hours)

**Sorenson Forensics Training, Maynard Massachusetts, May 2015**

- “Plexor HY system and Software” (8 hours)

**Institute of Environmental Science and Research, Maynard Massachusetts, December 2016**

- “STRmix Training Workshop” (32 hours)

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**Promega, August 2016**

- “Promega Technology Tour Seminar” (8 hours)

**Sorenson Forensics Training, September, 2016**

- “Probabilistic Genotyping Training” (16 hours)

**Grayson Singley Associates, LLC and Noslow Forensic Consultation, March 2017**

- Advanced Bloodstain Pattern Analysis Workshop (40 hours)

**Institute of Environmental Science and Research, May, 2017**

- STRmix Training Workshop (probabilistic genotyping) (32 hours)

**Nichevision, Inc., December, 2017**

- Probabilistic Genotyping Training (16 hours)

**Thermo Fisher Scientific, April, 2018**

- HID Future Trends in Forensic DNA Technology (8 hours)

**Cognitive Bias Training, Dr. Itiel Dror, June 2018**

- Cognitive Factors in Forensic Decision Making (8 hours)

**Connecticut Department of Emergency Services and Public Protection, September 2018**

- 1<sup>st</sup> Annual Northeast Forensic Laboratory Probabilistic Genotyping Users group Meeting – Casework Application and Experience

**Sorenson Forensics, September 2018**

- Likelihood Ratio/ STRmix Training (8 hours)

**Sorenson Forensics, October 2019**

- Snapshot Genetic Genealogy, DNA Phenotyping, and Kinship Inference (2 hours)

**Sorenson Forensics, November 2019**

- Forensic Genealogy Training (4.5 hours)

**Verogen, December 2019**

- MiSeq FGx Genomic System Webinar (2 hours)

**Bode Technology, April 2020**

- Forensic Genealogy: Intro and Review of More than a Year of Cases (1 hour)

**Bode Technology, April 2020**

- Forensic Genealogy: Unlocking the Science of Genealogy (1 hour)

**California Department of Justice and San Diego Police Department, June 2020**

- 6<sup>th</sup> Annual Workshop on STRmix™ Implementation and Casework Approach (8 hours)

**California Department of Justice and San Diego Police Department, June 2021**

- 7<sup>th</sup> Annual Workshop on STRmix™ Implementation and Casework Approach (9 hours)

**California Department of Justice and San Diego Police Department, June 2022**

- 8<sup>th</sup> Annual Workshop on STRmix™ Implementation and Casework Approach (9 hours)

**DNA Labs International, September 2022**

- Probabilistic Genotyping Testimony Training Workshop (16 hours)

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**Promega, August 2022**

- Promega 2022 Technology Tour (8 hours)

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