



Alaska Scientific Crime Detection Laboratory Statement of Qualifications

Name	Michelle L. Collins (Gaines)	Date	June 24, 2019
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Job Title	Forensic Scientist IV - DNA, Forensic Biology Supervisor
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Indicate all disciplines in which you currently perform testing or calibration work according to the Scope of Accreditation:

<input type="checkbox"/>	Drug Chemistry	<input type="checkbox"/>	Toxicology - Testing
<input checked="" type="checkbox"/>	Biology	<input type="checkbox"/>	Firearms/Toolmarks
<input type="checkbox"/>	Latent Prints	<input type="checkbox"/>	Crime Scene
<input type="checkbox"/>	Breath Alcohol (non-accredited discipline)		

For each discipline checked in the table above, list all categories in which you perform work:

DNA-Nuclear, Individual Characteristic Database

Education: List all higher academic institutions attended (list high school only if no college degree has been attained).

Institution	Dates Attended	Major	Degree Completed
University of Alabama at Birmingham	1994-1996	Forensic Science	M.S.F.S.
Clarkson University	1990-1994	Chemistry	B.S.

Continuing Education: List formal coursework, conferences, workshops, in-service and other training received applicable to past and current forensic related positions.

Course Title	Source of Training	Date(s) of Training
SWGAM Recommendations on Communicating Likelihood Ratios	NIJ/RTI webinar	December 2018 - on demand
PowerPlex Y23 Discriminating Power in Stringent Endogamous and Consanguineous Situations	Promega webinar	May 2018 - on demand
Y Chromosome Haplotype Reference Database (YHRD)	Promega webinar	May 2018 - on demand
Optimized Approaches for Forensic Y-STR analysis	Promega webinar	April 2018 - on demand
Post Validation PowerPlex Y23 Training	Jonelle Thompson	March 2018
ANAB Delta to AR 3028	ANAB online training	January 2018
ANAB Forensic Auditing Principles	ANAB online training	January 2018
Y-STR Training	William Frank	October 2017
Science in the Courtroom	Val VanBrocklin	August 2017
Quality Assurance Standards and Auditor Training	FBI online training	June 2016
DNA Mixture Analysis with Armed Xpert	NicheVision	June 2016
ASCLD/LAB Measurement Traceability Training	ASCLD/LAB online training	January 2016

ASCLD/LAB Technical Assessor Refresher Training	ASCLD/LAB online training	January 2016
Quantifiler Trio and Globalfiler Final Teachback	Cheryl Duda, SCDL DNA Technical Leader	November 2015
Quantifiler Trio and Globalfiler Validation Teachback	Jennifer Elliot, ThermoFisher Scientific	March 2015
ASCLD/LAB-International Assessor Training Course	Emma Dutton, ASCLD/LAB	September 2014
Bloodstain Pattern Analysis I training course	Ross Gardner and Tom Griffin of Bevel, Gardner & Associates	August 2014
Probabilistic Genotyping & Software Programs (Part 1)	NIST sponsored webinar	May 2014
GlobalFiler Express PCR Amplification Kit Validation Teachback	Jennifer Elliot, ThermoFisher Scientific	February 2014
DNA Mixture Interpretation Workshop & Webcast	NIST sponsored webcast	June 2013
Paternity Statistics for Forensic Casework	Pamela Jarman, Bode Technology	May 2013
Calculating Likelihood Ratios Incorporating a Probability of Drop-Out: Introducing Lab Retriever - A Free and User-Friendly Software Program	Norah Rudin and Keith Inman, AAFS workshop	February 2013
DNA in Real Time: Amplifying Productivity in Today's Forensic Laboratory	AAFS workshop	February 2013
3500xl, 7500 & Quantifiler training	Kellie Fenesan and Melissa Kotkin, Life Technologies	September 2012
Qiagen QIASymphony and QIAgility training	Dorothy Mei, Qiagen	August 2012
Combined DNA Index System (CODIS 7.0) training	Aaron Colliver and Jacqueline Klinger, FBI	April 2012
DNA Interpretation and Statistics Workshop	Bruce Budowle, UNT Health Science Center	August 2011
Microscopy of Sperm	Kristin Denning, SCDL Biological Screener	March 2011
ASCLD/LAB International Preparation Course	Anja Einseln, ASCLD/LAB	November 2009
GeneMapper® ID-X v1.0 Software Training	April Orbison, Life Technologies	August 2008
Expert Witness Testimony Techniques	Ron Smith, Ron Smith and Associates	July 2008
Workshop for Laboratories Embarking on Validation of an Expert System	Various instructors	June 2008
Valuing Diversity	Erin Shepherd-Ham, State of Alaska	December 2007
Performance Appraisal: The Basics	Kimberly Gialopsos, State of Alaska	December 2007
Academy for Supervisors	Timothy Parker, State of Alaska	October 2007
Performance Coaching	Timothy Parker, State of Alaska	September 2007
Advanced Topics in STR DNA Analysis	John Butler and Bruce McCord, AAFS workshop	February 2006
CODIS v5.7.2 Training	Meghan Carlin and Inez Kendall, SAIC	October 2005
FBI QAS Auditor Training	Richard Guerrieri and Heather Seubert, FBI	September 2005
Statistical Analysis of Forensic DNA Evidence	George Carmody and Ray Wickenheiser	August 2005
Death Investigation Seminar	Sponsored by AK State Medical Examiner	August 2004

Quantitative PCR Seminar	Stratagene Corporation	March 2004
Quantitative Methods Using RT-PCR	Stratagene webinar	December 2003
CODIS Talk: NDIS DNA Data Acceptance Standards	Chris Beheim, SCDL Lab Manager and CODIS Administrator	December 2003
Forensic Photography	Robert Carruthers, AAFS Workshop	February 2002
Effective Courtroom Communication Skills	Raymond Davis and Louis Maucieri	January 2001
Forensic Biological Microscopy	Edwin Jones	September 2000
Statistics and Population Genetics for Forensic Scientists	Bruce Weir, NC State graduate course	Aug-Dec 1999
DNA Proficiency Testing as a Quality Assurance Tool	AAFS Workshop	February 1999
Internet for Forensic Scientists	AAFS Workshop	February 1999
Developments in Trace Evidence Examinations: Interpretation of Material Transfers	AAFS Workshop	February 1998
Forensic Microscopy	John Delly, McCrone Research Institute	October 1997
Presenting DNA Statistics in Court	George Carmody and Bruce Weir, Workshop at the International Symposium for Human Identification	September 1997
Advanced DNA Technologies: Automation and Application	AAFS Workshop	February 1997
STR Technology	SAFS Workshop	October 1996
Chemiluminescence Workshop	SAFS Workshop	October 1996
Bloodstain Pattern Interpretation	Paulette Sutton, Steven A. Symes and Lisa Elrod	August 1996

Testimony: Complete the information below for testimony provided.

Discipline or Category of Testimony	Period of Time in Which Testimony Occurred	Approximate Number of Times Testified
Biology, Nuclear DNA	1997-2018	120

Professional Affiliations: List professional organizations of which you are or have been a member. Indicate any offices or other positions held and the date(s) of these activities.

Organization	Period of Membership	Offices or Positions Held/Dates
American Academy of Forensic Sciences	1995-current	None
Southern Association of Forensic Scientists	>10 years ago, while employed in Louisiana	None
Louisiana Association of Forensic Scientists	>10 years ago, while employed in Louisiana	None

Employment History: List all scientific or technical positions held, particularly those related to forensic science. List current position first. Add additional sections as necessary.

Job Title	Forensic Scientist IV-DNA	Tenure	11/07 - present
Employer	Alaska Department of Public Safety - Scientific Crime Detection Laboratory		
Provide a brief description of principal duties:			
Supervise the Forensic Biology discipline of the laboratory. Serve as the AK State CODIS Administrator. Grant writing and purchasing of supplies. Perform scientific techniques in the identification of body fluids (i.e., blood and semen) and analyze evidence to generate DNA profiles, interpret DNA profiles, prepare written reports and perform			

technical and administrative reviews. Provide expert witness testimony. Assist with validations and writing discipline manuals. Assist with internal audits and ensure compliance with ASCLD/LAB and FBI QAS requirements.

Job Title	Criminalist III	Tenure	09/03 – 11/07
Employer	Alaska Department of Public Safety - Scientific Crime Detection Laboratory		
Provide a brief description of principal duties:			
Perform DNA analysis on forensic casework. Perform scientific techniques in the identification of body fluids, i.e., blood and semen. Perform validations, technical and administrative review of validations and casework, prepare written reports and provide expert witness testimony.			

Job Title	Forensic Scientist I/II	Tenure	07/01/1996 – 06/30/2003
Employer	North Louisiana Criminalistics Laboratory		
Provide a brief description of principal duties:			
Evidence storage, tracking and examination – DNA analysis by PCR method, STR typing using a 377 DNA Sequencer and GeneScan and GenoTyper software, report preparation and court testimony, validation of methods and reagents, technical review of DNA case files, purchasing of reagents and supplies for the DNA section, Administrative review and organization of proficiency testing for the DNA section, conducting internal laboratory audits to ensure compliance with ASCLD/LAB requirements, method and protocol development.			

Job Title	Student Intern	Tenure	09/95 – 05/96
Employer	Alabama Department of Forensic Sciences		
Provide a brief description of principal duties:			
Processed blood samples for the Combined DNA Index System (CODIS) and assisted in validation of Restriction Fragment Length Polymorphism (RFLP) typing.			

Job Title	Graduate Assistant	Tenure	08/94 – 08/95
Employer	University of Alabama at Birmingham		
Provide a brief description of principal duties:			
Conducted research on the external vs. internal cocaine contamination of hair.			

Other Qualifications: List below all personal certifications identifying the issuing organization and the dates; all scientific publications and/or presentations you have authored or co-authored, research in which you are or have been involved, academic or other teaching positions you have held, and any other information which you consider relevant to your qualifications.

Workshops and Classes Taught:

June 2, 2017 DNA 101, Class for local prosecutors, held at the Alaska Scientific Crime Detection Laboratory in Anchorage, AK

October 19, 2016 ABC's of Forensic Biology, Class for local law enforcement held at the Alaska Scientific Crime Detection Laboratory in Anchorage, AK

Sept.8-11, 2014 Trial Advocacy in Domestic Violence and Sexual Assault Cases, Workshop held at the Alaska Scientific Crime Detection Laboratory in Anchorage, AK

Sept.27, 1999 Interpreting STR Results of Mixed Samples, Workshop at the SAFS Fall 1999 Meeting in Myrtle Beach, SC

Jan.11-15, 1999 DNA Evidence: Evaluating, Interpreting, Reporting & Presenting, Class at the North Louisiana Criminalistics Laboratory in Shreveport, Louisiana.

May 25, 1998 Implementation of DNA in the Forensic Laboratory, Workshop at the SAFS Spring 1998 meeting in New Orleans, LA

Aug.11-15, 1997 Forensic DNA Analysis, Class at the North Louisiana Criminalistics Laboratory in Shreveport, Louisiana.

Presentations:

February 2015 "Integration of the QIACube into the Laboratory Workflow for Efficient Processing of Sexual Assault Casework", AAFS Meeting, Orlando, FL.

February 2006 "Blood Brothers": A Case of "Identical Non-Twins", AAFS Meeting, Seattle, WA.

July 2002 Reduced Volume PCR Amplification Reactions Using the AmpFISTR Profiler Plus Kit, Association of Forensic DNA Analysts and Administrators, Austin, TX.

February 2002 Reduced Volume PCR Amplification Reactions Using the AmpFISTR Profiler Plus Kit, AAFS Annual Meeting, Atlanta, GA.

April 2001 Validation of Reduced Volume PCR Amplification Reactions Using the AmpFISTR Kits, SAFS Meeting, Williamsburg, VA.

February 1999 Internal Validation of the AmpFISTR Profiler Plus and COfiler PCR Amplification Kits, AAFS Meeting, Orlando, FL.

February 1999 A Validation Regimen in the DNA Laboratory, LAFS Meeting, Alexandria, LA.

September 1997 Validation of AmpFISTR Blue, Green I, and Profiler, 8th International Symposium on Human Identification, Scottsdale, AZ.

October 1996 The Effect of Hae III Digestion on PCR Based Typing Systems, SAFS Meeting, Raleigh, NC.

Publications:

Reduced Volume PCR Amplification Reactions Using the AmpFISTR Profiler Plus Kit, Journal of Forensic Sciences (2002) 47(6): 1224-37; Gaines ML, Wojtkiewicz PW, Valentine JA, Brown CL.

Preparation and Evaluation of Arylazide-Substituted Pyridine Adenine Dinucleotides for Photoaffinity Labeling Experiments, Photochemistry and Photobiology (1996); 63(6): 793-799; Liu W, Gaines M, Bao R, Clifford J, Li Y.

High Performance Liquid Chromatographic Analysis of Enantiomeric Composition of Abused Drugs, Forensic Sci Rev (1996); 8(2): 91-109; Sellers JK, Duffit GL, Gaines ML, Liu RH.

Meetings Attended:

American Academy of Forensic Sciences

February 2015 - Orlando, Florida
February 2013 - Washington, DC
February 2006 - Seattle, Washington
February 2002 - Atlanta, Georgia
February 1999 - Orlando, Florida
February 1998 - San Francisco, California
February 1997 - New York City, New York
February 1996 - Nashville, Tennessee

CODIS Meetings

December 2018 Conference and State Administrator Meeting - Norman, OK
May 2018 State Administrator Meeting - Norman, OK
November 2017 Conference and State Administrator Meeting- Norman, OK
May 2017 State Administrator Meeting - Leesburg, VA
May 2016 State Administrator Meeting - Norman, OK
November 2015 Conference and State Administrator Meeting- Norman, OK
May 2015 State Administrator Meeting - Norman, OK
November 2014 Conference and State Administrator Meeting - Norman, OK
May 2014 State Administrator Meeting - Norman, OK
November 2013 Conference and State Administrator Meeting - Norman, OK
May 2013 State Administrator Meeting - via webinar
November 2012 Conference and State Administrator Meeting - Norman, OK
May 2012 State Administrator Meeting - Quantico, VA
November 2011 Conference and State Administrator Meeting - Jacksonville, FL
May 2011 State Administrator Meeting - Quantico, VA
May 2010 State Administrator Meeting - St. Louis, MO
November 2009 Conference and State Administrator Meeting - Reston, VA
October 2007 Conference and State Administrator Meeting - Burlingame, CA
May 2007 State Administrator Meeting - Las Vegas, NV
October 2006 Conference and State Administrator Meeting - Arlington, VA
November 2005 Conference - Arlington, VA
November 2004 Conference - Arlington, VA

38th Annual Crime Laboratory Development Symposium

September 2010 - Cincinnati, OH

Familial Searching and Genetic Privacy Symposium

March 2008 - Arlington, VA

Association of Forensic DNA Analysts and Administrators

July 2002 - Austin, TX

Southern Association of Forensic Scientists

Spring 2001 - Williamsburg, Virginia
Fall 2000 - Asheville, North Carolina
Fall 1999 - Myrtle Beach, South Carolina
Spring 1998 - New Orleans, Louisiana
Fall 1996 - Raleigh, North Carolina

Louisiana Association of Forensic Scientists
Winter 2001–Shreveport, Louisiana
Winter 2000 –New Orleans, Louisiana
Winter 1999 –Alexandria, Louisiana
Spring 1998 –New Orleans, Louisiana
Fall 1997 –Alexandria, Louisiana
Winter 1997 –W. Monroe, Louisiana

8th International Symposium on Human Identification
Fall 1997–Scottsdale, Arizona