

## CURRICULUM VITAE:

**JULIE A. HEINIG**

### ADDRESS:

DNA Diagnostics Center  
One DDC Way, Fairfield, Ohio, 45014  
phone: (513) 881-7806 ext.# 2283  
jah@dnacenter.com

### EMPLOYMENT:

- 09/13-present                   **DNA Technical Leader- Forensics**  
DNA Diagnostics Center  
Fairfield, Ohio
- 01/03-present                   **Assistant Laboratory Director - Forensics**  
DNA Diagnostics Center  
Fairfield, Ohio
- 10/98-10/02                   **Senior Forensic Scientist/DNA Analyst**  
Cuyahoga County Coroner's Office  
Cleveland, Ohio
- 01/96                           **Instructor**, Department of Life Sciences, Scarborough Campus, University of  
Toronto - "Cell Junction" component of Cell Biology, upper level undergraduate  
course.
- 09/89-09/94                   **Teaching Assistant**, Department of Life Sciences, Scarborough Campus,  
University of Toronto. Prepared materials, presented lectures, and assisted  
students with undergraduate lab coursework in Introductory Biology, Plant  
Morphology and Histology.
- 04/91                           **Research Technician II**, Bedford Institute (SS Dawson Research Vessel),  
Dartmouth, Nova Scotia. Conducted experiments on the gills of scallops and  
prepared the gill tissue for electron microscopy.

### EDUCATION:

- 2003                           **Online Coursework** - University of Florida  
Structure and Function of Nucleotides PHA5436.  
May 12 - August 4, 2003  
Scientific Evidence and Statistics (Univ. of Edinburgh)  
August 25 - December 8, 2003
- 2001                           **Ph.D.** University of Toronto, Toronto, Ontario  
Department: Anatomy and Cell Biology  
Area of Study: Molecular Endocrinology and Development  
Title: "Molecular Studies of Pituitary Hormones During the Life Cycle of the  
Lamprey"
- 1993                           **M.S.** University of Toronto, Toronto, Ontario  
Department: Zoology.  
Area of Study: Physiology and Morphology  
Title: "The Morphology of the Anterior Intestine in Juvenile Anadromous Sea  
Lampreys, *Petromyzon marinus* L., Following Gradual Acclimation and Direct  
Transfer to Seawater"

**EXPERIENCE:**

**Case Review and Consultation** - provide case review for defense attorneys by reviewing all pertinent discovery material to ensure the results are reliable, and the interpretation of the results support the conclusions. Consult with attorneys about their case, explain serological and DNA analysis (if requested) and provide litigation questions for cross examination.

**Observe DNA Testing at Crime Laboratories** – observe the entire DNA analysis process of evidentiary samples at other laboratories to ensure the results and conclusions are reliable.

**Forensic Accreditation** – Prepare for and obtain accreditation from NFSTC ISO/IEC 17025 and DAB standards (September 23, 2003); obtain NYSDOH to perform forensic casework in N.Y. (July 28, 2004); obtain ASCLD/LAB-*International* (June 10, 2005).

**DNA Analysis** – examine evidence, perform serology, extract DNA, quantify DNA (slot blot and RT-PCR), perform DQ-A1 and Polymarkers, Restriction Fragment Length Polymorphism (RFLP), STR (Profiler Plus, Cofiler, PowerPlex 16, Identifiler) and Yfiler DNA typing for casework.

**Bring Short Tandem Repeat (STR) (ABI 3100 and 310) Online for forensic casework** - set up the STR analysis (Profiler Plus and Cofiler) at CCCO; validate the STR typing method; write the STR protocol and training manual; develop proper documentation; train DNA analysts on the 310 instrument. Validate the NT system with the 310 instrument.

Set up the forensic lab at DDC; perform forensic validations for serology, DNA analysis, RT-PCR, STRs (Profiler Plus, Cofiler, Identifiler, Globalfiler) and Yfiler (Yfiler Plus), using the 3130 (GeneMapper IdX v. 1.4) and 310 ABI instruments (GeneMapper v. 3.2); write the forensic standard operations manual and training manual and co-write the Quality Assurance manual; recruit and train forensic DNA analysts.

**Hand Examination and Analysis of Evidentiary Material for Trace Evidence** – while at CCCO examined hands of victims (homicide, suicide, or suspicious death) for blood, defects, hairs, fibers, gun shot residue and trace metal detection; analyzed clothing and evidentiary material visually and with an alternate light source; performed preliminary and confirmatory serological tests on blood/body fluid stains.

**Crime Scene Investigation** - documentation and collection of evidence.

**Prepare Written Case Report and Testify as Expert Witness** - interpret Short Tandem Repeat (STR) and Y-STR results; generate probability statistics; write case reports and perform technical review of other scientist's analysis and reports; inform attorneys, forensic analysts and law enforcement officials of our results; testify to my casework and that of other DNA scientists in the lab.

**Accreditation Preparation** - ensure compliance with ISO 17025 ANAB and NYSDOH standards which includes lab maintenance, proper documentation of

lab and equipment maintenance, critical reagents, STR validations, employee proficiencies; preparation of Protocol, Training, and Quality Assurance manuals.

**CODIS Manager and Quality Assurance Manager at CCCO** - upload DNA profiles to the Combined DNA Information System (CODIS) at CCCO; maintain the CODIS system and perform administration; assign and monitor proficiency testing; oversee equipment maintenance; manage and maintain quality assurance in the lab.

**Seminars, Tours, Workshops and Mock Crime Scenes** - Provide seminars, tours, workshops and mock crime scenes at DDC and offsite, as well as previously at CCCO, to various groups (ie. attorneys, schools, universities, law enforcement agencies).

**Computer Skills** - Microsoft Word; Word; Adobe Photoshop; PowerPoint; Excel; Oligo; Geneworks; DNA Strider; Netscape; statistics programs; DNA and protein databases (ie. GenBank); ABI 310, 3100, and 3130 Collection; Genotyper; Genescan; GeneMapper; CODIS; Popstats; Sequence Navigator; Sequencing Analysis; DNA View.

#### **SPECIALIZED TRAINING:**

- 2019                    **“The Y-HRD Database: How it Works and How To Use It In Casework”**  
Online Webinar – Promega  
Dr. Lutz Roewer  
May 8<sup>th</sup>, 2019
- 2019                    **“Statistical Genetics and the Mechanisms of Probabilistics Genotyping”**  
Online Webinar – NIJ (Forensic Technology Center of Excellence)  
Drs. David Balding, Michael Coble, John Buckleton, and Steven Myers  
May 8<sup>th</sup>, 2019
- 2019                    **“The Elements of DNA Profile Interpretation and Probabilistic Genotyping”**  
Online Webinar - NIJ (Forensic Technology Center of Excellence)  
Drs. Tamyra Moretti and Peter Gill  
May 5<sup>th</sup>, 2019
- 2018                    **Promega 29<sup>th</sup> International Symposium on HID**  
Phoenix, AZ – September 23-September 25, 2018
- 2018                    **Promega 29<sup>th</sup> International Symposium on HID**  
Phoenix, AZ – September 24, 2018  
Attended: Workshop: “Systems Thinking and DNA Mixtures: Dynamic Models, Optimization, Validation and Inference”
- 2017                    **Midwestern Association of Forensic Scientists 46<sup>nd</sup> Annual Meeting**  
Cincinnati, OH – September 18-22, 2017
- 2016                    **Promega 27<sup>th</sup> International Symposium on HID**  
Minneapolis, MN – September 26-September 29, 2016
- 2016                    **Promega 27<sup>nd</sup> International Symposium on HID**

Attended: Workshop: "Validation and Mixture Interpretation Standard Operating Procedures"  
Minneapolis, MN – September 26, 2016

- 2014 **Promega 25<sup>nd</sup> International Symposium on HID**  
Phoenix, AZ – September 29-October 2, 2014
- 2014 **Promega 25<sup>nd</sup> International Symposium on HID**  
Attended: Workshop: "NGS Advances in Human Forensic Genomics"  
Phoenix, AZ – September 29, 2014
- 2013 **DNA Mixture Interpretation & Statistics using Likelihood Ratios**  
MAFS 42<sup>nd</sup> Annual Meeting Dayton, OH  
Instructor: B. Heidelbrecht  
Sept. 30-Oct. 1, 2013
- 2013 **Midwestern Association of Forensic Scientists 42<sup>nd</sup> Annual Meeting**  
Dayton Convention Center, Dayton, OH  
October 3-4, 2013
- 2012 **Promega 23<sup>rd</sup> International Symposium on HID**  
Nashville, TN – October 15-19, 2012
- 2012 **Promega 23<sup>rd</sup> International Symposium on HID**  
Attended: Workshop: "Mixtures Interpretation"  
Nashville, TN – October 15, 2012
- 2012 **Life Technologies**  
"HID Future Trends in Forensic DNA Technology Workshop"  
Columbus, OH – September 6, 2012
- 2012 **Innocence Network Conference**  
Kansas City, MO – March 30-31, 2012
- 2011 **Innocence Network Conference**  
Cincinnati, OH – April 7- 10, 2011
- 2010 **Innocence Network Conference**  
Atlanta, GA – April 16- 18, 2010
- 2009 **Promega 20<sup>th</sup> International Symposium on HID**  
Overview given by Tom Reid, Ph.D.  
DDC – October 30, 2009
- 2009 **Mike Shiver, Ph.D.**  
Ancestry DNA/DNA Witness  
DDC – October 7, 2009
- 2009 **UC Law School/Rosenthal Institute for Justice/  
Ohio Innocent Project**  
Cincinnati Museum Center – August 17, 2009
- 2009 **Innocence Network Conference**  
Houston, TX – March 20 - 22, 2009

- 2009                    **Mike Coble, Ph.D.**  
 “mtDNA Testing at AFDIL” (Armed Forces DNA Identification Laboratory)  
 DDC – March 10, 2009
- 2009                    **Cassie Johnson, M.S.**  
 “STR Analysis in Forensic Casework and Paternity Testing”  
 Workshop on Y-STR Mixtures  
 DDC – March 5, 2009
- 2009                    **AAFS 61<sup>th</sup> Annual Meeting**  
 Denver Convention Center  
 ABI Forum included  
 Denver, Colorado - February 18 - 20, 2009
- 2008                    **Promega 19<sup>th</sup> International Symposium on HID**  
 Attended: Workshop 10-16-08 “Troubleshooting Common Laboratory Problems”  
 Hollywood, California - October 13 - 16, 2008
- 2008                    **Dr. Odell Owens, M.D.**  
 Hamilton County Coroner – “Educate the Living”  
 DDC – March 12, 2008
- 2007                    **Dr. T. Reid, Ph.D.**  
 Associate Director, DDC  
 “Review of International Society for Forensic Genetics Meeting-Copenhagen”  
 DDC - September 6, 2007
- 2007                    **Dr. P. Lepont, Ph.D.**  
 “Applications of Directional Cell Migration”  
 DDC - June 29, 2007
- 2007                    **Dr. J. Sun, Ph.D.**  
 “Gene Polymorphisms of Natural Killer Cell Receptors”  
 DDC - June 1, 2007
- 2007                    **Dr. Conneally, Ph.D.**  
 “The Role of DNA in Forensics and Mass Tragedies”  
 DDC - May 18, 2007
- 2007                    **L. Farris**  
 “Internalization and Metabolic Activation of E. Coli O157:H7”  
 DDC - May 11, 2007
- 2007                    **Forensic e-Symposium, Human Identification**  
 “Profiling of Degraded and Low Amounts of DNA”  
 Live and Online - March 27, 2007
- 2006                    **DDC Workshop**  
 Review of Meetings and Workshops attended by staff  
 American Society of Human Genetics, AABB, Promega, MAFS  
 DDC - November 10, 2006
- 2006                    **Dr. L. Maddox**  
 “Validation and Application of a Duplex qPCR Assay”  
 DDC - October 16, 2006

- 2006                    **MAFS 36<sup>th</sup> Annual Meeting**  
Indianapolis, Indiana October 9, 2006 - October 13, 2006  
Workshops attended:  
Promega's Integrated Solutions in Forensic DNA Technology, October 9, 2006  
Review of DNA Testing Results, October 11, 2006
- 2006                    **ABI Real Time 7500 Training - Chemistry and Software**  
FAS Catherine Caberello  
DDC - August 17, 2006
- 2006                    **Dr. Charles Brenner**  
"DNA View and Kinship"  
DDC - August 14, 2006
- 2006                    **ABI Real Time 7500 - Installation and Training**  
Service Engineer Greg LaCrosse  
DDC - August 8, 2006
- 2006                    **Dr. R. Cotton**  
"Testing Fundamentals and Preparation for Trials"  
DDC - May 17, 2006
- 2006                    **ABI Trends Meeting**  
Westin Hotel  
Cincinnati, Ohio - April 5, 2006
- 2005                    **Promega 16<sup>th</sup> International Symposium on HID**  
Attended: Statistics workshop; Automated DNA testing workshop;  
Promega Trends seminar; SWGDAM meeting  
Dallas, Texas - September 25 - 29, 2005
- 2005                    **National Association of Criminal Defense Lawyers Conference**  
Barry Scheck  
New Orleans, Louisiana - February 10, 2005
- 2005                    **ABI 310 Training and GeneMapper v. 3.2**  
FAS Catherine Caberello  
DDC - January 18, 2005
- 2004                    **Paternity Testing**  
Dr. Chakraborty (University of Cincinnati)  
DDC - April 2, 2004
- 2004                    **SNPs**  
Applied Biosystems  
DDC - February 27, 2004
- 2004                    **Profitable Exhibiting & Better Booth Staffing**  
Skyline Exhibits  
Springdale, Ohio - February 5, 2004
- 2003                    **National CODIS Conference**  
National Conference Center  
Lansdowne, Virginia - November 3 - 6, 2003

- 2003                    **Association of Forensic Quality Assurance Managers (AFQAM) Conference**  
Embassy Suites  
Indianapolis, Indiana - October 6 - 9, 2003
- 2003                    **Trends in Forensic DNA Technology**  
Applied Biosystems  
Westin  
Cincinnati, Ohio - August 26, 2003
- 2003                    **NFSTC Accreditation for Forensic Testing**  
In compliance with requirements of ISO/IEC 17025 and DAB standards  
Assessors Dr. Lodge and Lucy Davis Houck  
DDC - June 9 -10, 2003
- 2003                    **Real Time PCR Seminar**  
Catherine Caberello, Applied Biosystems  
DDC - April 3, 2003
- 2003                    **AAFS 55<sup>th</sup> Annual Meeting**  
Hyatt Regency  
ABI Forum and HITA Meeting included; AAFS  
Chicago, Illinois - February 19 - 21, 2003
- 2003                    **3100 Training**  
Carol Schurzinger, Applied Biosystems  
DDC - January 14 - 15, 2003
- 2002                    **Performance Level Auditing for the Crime Laboratory Workshop**  
BCI&I  
National Forensic Science Technology Center  
Richfield, Ohio - April 17 - 18, 2002
- 2002                    **CODIS Meeting**  
BCI&I  
Cindy Shannon  
Richfield, Ohio - March 11, 2002
- 2001                    **CODIS Workshop**  
Cuyahoga County Coroner's Office  
Instructor: Cindy Shannon, BCI&I London, Ohio  
Cleveland, Ohio - April 4, 2001
- 2000                    **Bloodstain Pattern Analysis Workshop**  
Cuyahoga County Coroner's Office  
Instructor: Toby Wolson  
Cleveland, Ohio - November 13 - 17, 2000
- 2000                    **Microscopy Training Workshop**  
Cuyahoga County Coroner's Office  
Instructor: Jay Mansbach  
Cleveland, Ohio - September 14 - 15, 2000

- 2000                   **STR Workshop - FBI**  
Cuyahoga County Coroner's Office  
Instructors: Jill Smerick and Debbie Hobson, DNA Unit I, Washington, D.C.  
Cleveland, Ohio - June 19, 2000
- 2000                   **Mitochondrial DNA Analysis Course**  
Intensive 2 week course including theory, practical laboratory training, mock trials, sequence interpretation.  
Instructors: Alice Isenberg and Mitochondrial Examiners, Unit II, FBI Academy, Quantico, Virginia - June 5 - 16, 2000
- 2000                   **Mock Trial Training - Expert Testimony in DNA**  
Cuyahoga County Coroner's Office  
Cleveland, Ohio - April 5, 2000
- 2000                   **Short Tandem Repeat Workshop (ABI 310 capillary electrophoresis)**  
Cuyahoga County Coroner's Office  
Course Instructors: Catherine Caberello, Perkin Elmer  
Cleveland, Ohio - February 6 - 10, 2000
- 1999                   **Mock Trial Training - Expert Testimony in DNA**  
DQA1 and Polymarkers and RFLP. Cuyahoga County Coroner's Office,  
Cleveland, Ohio - July 10, 1999
- 1999                   **Short Tandem Repeat (ABI 310) Workshop - MAFS**  
Interpretation of STR data on the ABI 310 CE. Illinois State Police,  
Chicago, Illinois - March 9 - 12, 1999
- 1998                   **Population Statistics in DNA Analysis**  
Cuyahoga County Coroner's Office, Cleveland, Ohio  
Course Instructors: Dr. George Carmody, University of Carleton, Ottawa, Canada  
and Dr. Jennifer Smith, DNA Unit I, FBI  
Washington, D.C. - December 8 - 9, 1998
- 1998                   **Mock Trial Training - Expert Testimony in Serology and DNA**  
Cuyahoga County Coroner's Office  
Cleveland, Ohio - November 22, 1998
- 1998                   **Forensic Polymerase Chain Reaction Typing Method D1S80**  
Cuyahoga County Coroner's Office-Cleveland, Ohio  
Course Instructors: Dr. Mohammed Tahir and Dr. K. Ballamurugan, Marion  
County Forensic Laboratory  
Indianapolis, Indiana - October 17 - 20, 1998

**INVITED INSTRUCTOR/  
GUEST LECTURER**

- 2019                   **Lake County Criminal Defense Lawyers Association**  
CLE Presentation: "*DNA Today and Beyond*"  
Kirtland, OH – October 25, 2019
- 2017                   **IL Association of Criminal Defense Lawyers**  
CLE Presentation: "*Behind the DNA Report*"  
East St. Louis, IL – March 24, 2017



- 2015 **Ohio Association of Criminal Defense Lawyers**  
CLE Presentation: *"Behind the DNA Report"*  
Cleveland, OH – October 23, 2015
- 2015 **Ohio Innocence Project – Law Student Lab Tour and Workshop**  
DDC – September 18, 2015
- 2014 **Lake County Criminal Defense Lawyers Association**  
CLE Presentation: *"Behind the DNA Report"*  
Kirtland, OH – September 26, 2014
- 2014 **KY Innocence Project– Law Student Lab Tour and Workshop**  
DDC – March 28, 2014
- 2013 **Northern Kentucky University/KY Innocence Project**  
Highland Heights, KY – March 29, 2013
- 2012 **Ohio Association of Criminal Defense Lawyers**  
Death Penalty Seminar Presentation: *"DNA: Basics & Legal Applications"*  
Columbus, OH – November 15, 2012
- 2012 **Innocence Network Conference**  
Expert Panelist – Advanced Topics in DNA  
Kansas City, MO – March 30-31, 2012
- 2012 **Northern Kentucky University/KY Innocence Project**  
Highland Heights, KY – February 17, 2012
- 2011 **Innocence Network Conference**  
Expert Panelist – Advanced Topics in DNA  
Cincinnati, OH – April 7-10, 2011
- 2011 **Northern Kentucky University/KY Innocence Project**  
Highland Heights, KY – February 11, 2011
- 2011 **University of Kentucky/KY Innocence Project**  
Lexington, KY – February 18, 2011
- 2010 **Dayton Bar Association**  
Dayton, OH – November 10, 2010
- 2010 **Greater Cincinnati Criminal Defense Lawyers Association**  
Workshop/Tour - November 8, 2010
- 2010 **Ohio Innocence Project Director Mark Godsey**  
August 16, 2010
- 2010 **Ohio Innocence Project – Law Student Lab Tour and Workshop**  
DDC - August 12, 2010
- 2010 **Innocence Network Conference**  
Expert Panelist – Advanced Topics in DNA  
Atlanta, GA – April 16 - 18, 2010
- 2010 **University of Kentucky/KY Innocence Project**

- Lexington, KY – February 5, 2010
- 2010 **Northern Kentucky University/KY Innocence Project**  
Highland Heights, KY – January 29, 2010
- 2009 **Kentucky Innocence Project**  
LaGrange, KY - November 3, 2009
- 2009 **Ohio Criminal Defense Lawyers Association Seminar**  
Columbus, OH – October 23, 2009
- 2009 **New Orleans Innocence Project**  
New Orleans, LA – September 23, 2009
- 2009 **Greater Cincinnati Defense Lawyers Association**  
Cincinnati, OH – August 12, 2009
- 2009 **Kentucky Innocence Project: RFP Presentation**  
Frankfort, KY – May 13, 2009
- 2009 **Florida Association of Criminal Defense Lawyers**  
Death Penalty Seminar - CLE Seminar:  
Orlando, Florida - March 26, 2009
- 2009 **Innocence Network Conference**  
Expert Panelist – Advanced Topics in DNA  
South Texas College of Law; Houston, Texas  
March 21, 2009
- 2009 **Kentucky Department of Public Advocacy**  
Eastern Kentucky University Law School  
*“Forensic DNA Basics & Legal Applications in Sexual Assault Cases”*  
February 6, 2008
- 2009 **Kentucky Department of Public Advocacy**  
Northern Kentucky University Law School  
*“Forensic DNA Basics & Legal Applications in Sexual Assault Cases”*  
January 30, 2008
- 2008 **Arkansas Association of Criminal Defense Lawyers**  
CLE Seminar: *“Forensic DNA Basics & Legal Applications”*  
Fayetteville, Arkansas - November 21, 2008
- 2008 **Ohio Innocence Project and University of Cincinnati Law School**  
*Laboratory Tour and DDC Overview*  
DDC - July 29, 2008
- 2008 **FBI - Cincinnati**  
*“Collection of Evidence for DNA Analysis and Mock Crime Scene Workshop”*  
DDC - June 25, 2008
- 2008 **Kentucky Department of Public Advocacy**  
University of Kentucky Law School  
*“Forensic DNA Basics & Legal Applications in Sexual Assault Cases”*  
February 6, 2008

- 2008                   **Kentucky Department of Public Advocacy**  
Eastern Kentucky University Law School  
*“Forensic DNA Basics & Legal Applications in Sexual Assault Cases”*  
February 1, 2008
- 2008                   **Kentucky Department of Public Advocacy**  
Northern Kentucky University Law School  
*“Forensic DNA Basics & Legal Applications in Sexual Assault Cases”*  
January 30, 2008
- 2007                   **Lake County Bar Association’s Criminal Law Committee Seminar**  
*“Forensic DNA Basics & Legal Applications in Sexual Assault Cases”*  
Milwaukee, Wisconsin - October 5, 2007
- 2007                   **Union Township/Amelia Police Departments**  
*“Collection of Evidence for DNA Analysis and Mock Crime Scene Workshop”*  
DDC - May 17, 2007
- 2007                   **University of Cincinnati Clinical and Lab Science Program**  
*“DNA Basics, Serology and Evidence Collection Workshop”*  
DDC - April 12, 2007
- 2007                   **Harris County Criminal Defense Lawyers Association**  
*“Forensic DNA Basics, DNA Evidence Collection/Serology Workshop”*  
Houston, Texas - March 29, 2007
- 2007                   **Lee County Sheriff Office and State Prosecutor Office**  
*“Collection of Evidence for DNA Analysis and Y-STR Roundtable Workshop”*  
Ft. Myers, Florida - February 5 - 6, 2007
- 2006                   **Ohio Association of Criminal Defense Lawyers**  
Death Penalty Seminar - CLE Seminar:  
*“Forensic DNA Basics & Legal Applications”*  
Columbus, Ohio - November 16, 2006
- 2006                   **Kentucky Department of Public Advocacy**  
CLE Seminar:  
*“Forensic DNA Basics & Legal Applications and Mock Crime Scene Workshop”*  
DDC - August 25, 2006
- 2006                   **Indian Hill Student Program (AP Biology Class – Seniors)**  
*“DNA Basics, Serology and Evidence Collection Workshop”*  
DDC - May 16, 2006
- 2006                   **Ohio Innocence Project and University of Cincinnati Law School**  
*Laboratory Tour and DDC Overview*  
DDC - May 1, 2006
- 2006                   **University of Cincinnati Clinical and Lab Science Program**  
*“DNA Basics, Serology and Evidence Collection Workshop”*  
DDC - April 20, 2006
- 2006                   **Kentucky Association of Criminal Defense Lawyers**  
CLE Seminar:

- “Forensic DNA Basics & Legal Applications and Mock Crime Scene Workshop”*  
DDC - March 16 - 17, 2006
- 2006                   **Indiana Public Defender’s Office**  
CLE Seminar: *“Forensic DNA Basics & Legal Applications”*  
Indianapolis, Indiana - February 24, 2006
- 2006                   **Law Enforcement (Cincinnati area) Workshop**  
*“Collection of Evidence for DNA Analysis and Mock Crime Scene Workshop”*  
DDC - January 27, 2006
- 2005                   **Central Ohio Association of Criminal Defense Lawyers**  
CLE Seminar: *“DNA Trends and Forensic Applications”*  
Columbus, Ohio - July 27, 2005
- 2005                   **International Association for Identification: 90<sup>th</sup> International Educational Conference**  
*“Forensic DNA Technology”*  
Dallas, Texas - August 9, 2005
- 2005                   **Greater Cincinnati Criminal Defense Lawyers Association**  
CLE Seminar: *“DNA Trends and Forensic Applications”*  
DDC - July 11, 2005
- 2005                   **Law Enforcement Agencies in Fredricksburg and Travis County, Texas**  
*“DNA Basics and Collection of Evidence for DNA Analysis”*  
June 1 - 2, 2005
- 2005                   **Law Enforcement Agencies in Southern Ohio**  
*“Collection of Evidence for DNA Analysis and Mock Crime Scene Workshop”*  
DDC - January 22, 2005; February 18, 2005; March 4, 2005; March 15, 2005; March 23, 2005; May 27, 2005; July 29, 2005
- 2004                   **DNA Diagnostics Center: Cincinnati Law Enforcement Agencies**  
*“Collection of Evidence for DNA Analysis and Mock Crime Scene Workshop”*  
DDC Open House- August 19, 2004
- 2004                   **University of Cincinnati: Clinical Laboratory Science Program**  
*“Molecular Applications in Forensics”*  
DDC - April 12, 2004
- 2004                   **Corporate Accounts**  
*“Forensics Overview”*  
DDC - March 17, 2004
- 2004                   **HIT Conference (Homicide Investigators of Texas)**  
*“DNA Diagnostics Center Presentation”*  
Ft. Worth, Texas - March 2, 2004
- 2003                   **DNA Diagnostics Center (upper management)**  
*“CODIS Presentation”*  
November 12, 2003
- 2003                   **DNA Diagnostics Center (upper management)**  
*“AFQAM Presentation”*  
October 10, 2003

- 2003 **DNA Diagnostics Center (DDC departments)**  
*"2004 Forensic Overview"*  
 March 6, 2003
- 2003 **DNA Diagnostics Center (laboratory)**  
*"AAFS Presentation"*  
 February 27, 2003
- 2002 **DNA Diagnostics Center (upper management)**  
*"Collection of Evidence for DNA Analysis"*  
 December 8, 2002
- 2002 **Police Academy - Cuyahoga County Coroner's Office**  
*"Collection of Evidence for DNA Analysis"*  
 Cleveland, Ohio - January 22, 2002
- 2002 **CCCO Forensic Pathologists Meeting**  
*"STR Analysis and Probability Statistics"*  
 Cleveland, Ohio - January 4, 2002
- 2001 **Independence School System (High school)**  
*"Forensic Science Techniques and DNA Analysis"*  
 Cleveland, Ohio - May 5, 2001
- 2001 **Women In Science: Career Workshop**  
*"Hands-On Workshop in Forensics"*  
 Cuyahoga Community College  
 Cleveland, Ohio - January 13, 2001
- 2000 **Ohio State Coroner's Association Education Conference**  
*"DNA Collection: A How-To Guide and its Application in Forensics"*  
 Cleveland, Ohio - May 5, 2000
- 2000 **Moreland Hills Police Department**  
 Tour of Cuyahoga County Coroner's Office *"DNA Analysis in Forensics"*  
 Cleveland, Ohio - November 1, 2000 and November 7, 2000
- 2000 **Solomon Schecter Day School of Cleveland (Middle school)**  
*"Forensic Science Techniques and DNA Analysis"*  
 Cleveland, Ohio - January 10, 2000
- 1999 **Society of Applied Spectroscopy Conference**  
*"Forensic Science Techniques and DNA Analysis"*  
 October 28, 1999
- 1999 **Broadview Heights Detectives and Patrolmen**  
*"Crime Scene Seminar and Forensic Science Workshop"*  
 Broadview Heights, Ohio - September 30, 1999
- 1999 **Twinsburg High School**  
*"Forensic Science Techniques and DNA Analysis"*  
 Cleveland, Ohio - April 13, 1999

**PROFESSIONAL  
ASSOCIATIONS:**

International Society for Forensic Genetics

American Academy of Forensic Sciences  
Association of Forensic Quality Assurance Managers  
Midwestern Association of Forensic Scientists

**TESTIFIED AS  
EXPERT WITNESS:**

Battle Creek, MI 2019 – Defense  
Circleville, OH 2019 – Defense  
Painesville, OH 2018 – Defense  
Cleveland, OH 2018 – Defense  
Clearwater, FL 2018 – Defense; hearing  
Columbus, OH 2018 – Defense  
Cleveland, OH 2018 – Defense  
Athens, OH 2018 – Defense  
Columbus, OH 2018 – Defense  
Colorado Springs, CO 2017 – Defense  
Fairfield, OH 2017 – Prosecution; deposition  
Dayton, OH 2017 – Prosecution  
Fairfield, OH 2017 – Civil; deposition  
Fairfield, OH 2017 – Defense; deposition  
Delaware, OH 2017 – Defense  
Cherry Hill, NJ 2017 – Civil/Defense  
Covington, KY 2017 – Defense  
Delaware, OH 2017 – Defense  
Gainesville, FL 2017 – Defense  
Lebanon, OH 2017 – Defense; hearing  
New York, NY 2017 – Civil/Defense; deposition  
Canton, OH 2016 – Defense  
Cleveland, OH 2016 – Defense  
Cleveland, OH 2016 – Defense  
Cleveland, OH 2016 – Defense  
Lebanon, PA 2016 – Defense  
Warsaw, NY 2015 – Defense  
Columbus, OH 2015 – Defense  
Akron, OH 2015 – Defense  
Tampa, FL 2015 – Defense  
Ft. Lauderdale, FL 2015 – Defense  
Frankfort, KY 2015 – Defense  
West Palm Beach, FL 2015 – Defense  
West Palm Beach, FL 2015 – Defense  
Jacksonville, FL 2015 – Defense  
West Palm Beach, FL 2014 – Defense  
Fairfield, OH 2014 – Defense; deposition  
Tampa, FL 2014 – Defense  
Fairfield, OH 2014 – Defense; deposition  
Xenia, OH 2014 – Defense  
Orlando, FL 2014 – Defense  
Fairfield, OH 2014 – Defense; deposition  
Washington, DC 2014 – Defense  
Ft. Myers, FL 2014 – Prosecution  
Fairfield, OH 2014 – Defense; phone testimony  
Pampa, TX 2014 – Defense  
Columbus, OH 2014 – Defense  
Medina, OH 2014 – Defense  
Gainesville, FL 2013 – Defense

Zanesville, OH 2013 – Defense  
Fairfield, OH 2013 – Defense; deposition  
Cincinnati, OH 2013 – Defense  
Akron, OH 2013 – Defense  
Cincinnati, OH 2013 – Defense  
Washington, DC 2013 – Defense  
Lima, OH 2013 – Defense  
Paducah, KY 2013 – Defense  
Merrillville, IN 2013 – Defense  
Fairfield, OH 2013 – Defense  
Merrillville, IN 2013 – Defense  
Washington, DC 2013 – Defense  
Fayetteville, WV 2013 – Defense  
Clearwater, FL 2013 – Defense  
Portland, OR 2012 – Defense  
Fairfield, OH 2012 – Defense  
Fairfield, OH 2012 – Defense  
Welland, ON 2012 – Defense  
Akron, OH 2012 – Defense  
Elyria, OH 2012 – Defense  
Fairfield, OH 2012 – Defense  
Fairfield, OH 2012 – Defense  
Fairfield, OH 2012 – Prosecution  
Taylorsville, KY 2012 – Defense  
Wauseon, OH 2012 – Defense  
Covington, KY 2012 – Defense  
Accomac, VA 2012 – Civil  
Fairfield, OH 2012 – Civil; deposition  
Ottawa, IL 2012 – Prosecution/Defense  
Fairfield, OH 2012 – Civil; deposition  
Fairfield, OH 2012 – Defense; phone testimony  
Columbus, OH 2012 – Defense  
Fairfield, OH 2011 – Defense; phone testimony  
Fairfield, OH 2011 – Defense; deposition  
Aurora, IL 2011 – Defense  
Eureka, CA 2011 – Defense  
Toledo, OH 2011 – Defense  
Toledo, OH 2011 – Defense  
Fairfield, OH 2011 – Civil; deposition  
Toledo, OH 2011 – Defense  
Huntington, WV 2011 – Defense  
Bradenton, FL 2011 – Defense  
Crestview, FL 2011 – Defense  
Jackson, TN 2011 – Prosecution  
Fort Wayne, IN 2011 – Prosecution  
Fairfield, OH 2010 – Defense; deposition  
Covington, KY 2010 – Defense  
Chagrin Falls, OH 2010 – Defense  
Toledo, OH 2010 – Prosecutor  
Lafayette, LA 2010 – Defense  
Fairfield, OH 2010 – Defense; phone testimony  
Akron, OH 2010 – Defense  
Ft. Myers, FL 2009 – Prosecution  
Cuyahoga County, Cleveland, OH 2009 – Prosecution  
Wilmington, OH 2009 – Defense

Lake City, FL 2009 – Defense  
 Cincinnati, OH 2009 – Defense  
 Lake City, FL 2009 – Defense  
 Cincinnati, OH 2009 – Prosecution  
 Ft. Myers, FL 2009 – Prosecution; deposition  
 Fairfield, OH 2009 – Defense  
 New York, N.Y. 2009 – Defense  
 St. Petersburg, FL 2009 – Prosecution  
 Cuyahoga County, Cleveland, OH 2009 – Prosecution  
 Ft. Myers, FL 2008 – Prosecution  
 Iron Mountain, MI 2008 – Defense  
 Washington, D.C. 2008 – Defense  
 Fairfield, OH 2008 – Prosecution; deposition  
 Davenport, IA 2008 – Defense  
 Cuyahoga County, Cleveland, OH 2008 – Prosecution  
 Toledo, OH 2008 – Defense  
 Cuyahoga County, Cleveland, OH 2007 – Prosecution  
 Prestonburg, KY 2007 – Defense  
 Whitman County, WA 2007 – jury trial; testify by phone; listen to 3 experts – Defense  
 Livingston County, Pontiac, IL 2007 – Prosecution  
 Cuyahoga County, Cleveland, OH 2007 – Voir Dire -Prosecution  
 Washington, D.C. 2007 – Defense  
 Cuyahoga County, Cleveland, OH 2006 – Prosecution  
 Lima, OH 2006 – Defense  
 Cincinnati, OH 2006 – Civil Matter; deposition  
 Hamilton County, Cincinnati, OH 2006 Juvenile Court – Defense  
 Lucas County, Toledo, OH 2005 – Defense  
 Naval Station, Bremerton, WA, 2005 – Prosecution  
 Hamilton County, Cincinnati, OH, 2005 – Defense  
 State Attorneys Office Lee County, Ft. Myers, FL 2005 – Prosecution  
 Ashland County and Richland County, OH 2002  
 Cuyahoga County, Cleveland, OH 1999, 2000, 2001 and 2002

**RECOGNITION/AWARDS:**

1998                                **Open Scholarship**, University of Toronto  
 1994                                **Seminar Series Award** for Best Speaker, Department of Anatomy and Cell Biology, University of Toronto.  
 1992                                **Open Scholarship**, University of Toronto  
 1991                                **Scarborough College Graduate Student Award**, University of Toronto.

**PUBLICATIONS:**

Sheets, K.M., M. L. Baird, **J. A. Heinig**, D. Davis, M. Sabatini, D. B. Starr. 2017. A Case of Chimerism-Induced Paternity Confusion: What ART Practitioners can do to Prevent Future Calamity for Families. *Journal of Assisted Reproduction and Genetics*. <https://doi.org/10.1007/s10815-017-1064-6>

**Heinig, J.A.** (2007) *The Use and Significance of Y-STR Testing*, The DDC Link: Forensic Newsletter, Fall, 2007.



**Heinig, J.A.** (2007) *DNA from Fingerprints*. Columbus Bar Association; Lawyer's Quarterly, Fall 2007.

**Heinig, J.A.** (2007) *One DNA Test... Many Interpretations... Reasonable Doubt?* The DDC Link: Forensic Newsletter, July, 2007.

**Heinig, J.A.** (2007) *DNA from Fingerprints*. The DDC Link: Forensic Newsletter, April, 2007.

Youson, J.H., **Heinig, J.A.**, Khanam, S.F., Sower, S.A., Kawauchi, H., and Keeley, F.W. (2006) Patterns of proopiomelanocortin and proopiocortin gene expression and immunohistochemistry for gonadotropin-releasing hormones (1GnRH-I and III) during the life cycle of a nonparasitic lamprey: Relationship to this adult life history type. *Gen Comp Endo.*, 148:54-71.

**Heinig, J.A.** (2005) *DNA from Fingerprints*. Northern Kentucky Bar Association; August/September 2005.

**Heinig, J.A.**, Keeley, F.W., Kawauchi, H., and Youson, J.H. (1999) Expression of proopiocortin and proopiomelanotropin during the life cycle of the sea lamprey (*Petromyzon marinus*). *J. Exp. Zool.* 283:95-101.

Filosa, M.F., Adam, I., Robson, P., **Heinig, J.A.**, Smith, K., Keeley, F.W., and Youson, J.H. (1999) A partial clone of the gene for AS protein of the lamprey *Petromyzon marinus*: A member of the albumin supergene family whose expression is restricted to the larval and metamorphic phases of the life cycle. *J. Exp. Zool.* In Press

Ficele, G., **Heinig, J.A.**, Kawauchi, H., Youson, J.H., Keeley, F.W., and Wright, G.M. (1998) Spatial and temporal distribution of proopiomelanotropin (POM) and proopiocortin (POC) mRNA during development of the sea lamprey: a qualitative and quantitative *in situ* hybridization study. *Gen. Comp. Endocrinol.*, 110:212-225.

**Heinig, J. A.**, Keeley, F. W., Robson, P., Sower, S. A., and Youson, J. H. (1995). The appearance of proopiomelanocortin early in vertebrate evolution: Cloning and sequencing of POMC from a lamprey pituitary cDNA library. *Gen. Comp. Endocrinol.* , 99:137-144.

## **PRESENTATIONS:**

Baird, M.L., **Heinig, J.A.**, Davis, D.L., Sheets, K., Kirkpatrick, B. and Starr, D.B. (2015) Alleged Father with Chimeric Germline Tissue. Presented at Promega 16<sup>th</sup> International Symposium on HID. Grapevine, TX October 12 - 15, 2015.

Sheets, K.M., Kirkpatrick, B., Baird, M.L., **Heinig, J.A.**, Davis, D.L, and Starr, D.B. (2015) Paternity Reclaimed: Ancestry Testing Reveals a Unique Case of Congenital Chimerism. Presented at The American Society of Human Genetics, Baltimore, MD; October 6-10, 2015.

Peterson, J.W., Baird, M.L., Reid, T.M., Kraemer, C.M., Hodge, D.M., Schuh, C.M., Deickhoner, C.L., Ahmed, M.B., **Heinig, J.A.**, Kahsar, M.D., Lee, S.C. and Lee, R.F. (2005) DDCPlex<sup>TM</sup>: The Use of Additional STR Loci for Solving Difficult Parentage and Sibship Tests. Promega 16<sup>th</sup> International Symposium on HID. Dallas, Texas September 25 - 29, 2005

Gamble, R.L., Suzuki, K., **Heinig, J.A.**, Youson, J.H., Keeley, F.W., and Sower, S.A. (1997) Isolation of cDNA encoding the precursor to lamprey gonadotropin-releasing hormone-I from the brain of the sea lamprey, *Petromyzon marinus*.. Proceedings of the XIIIth International Congress of Comparative Endocrinology, Nov. 16-21, 1997. Yokohama, Japan. *Advances in Comparative Endocrinology*, S. Kawashima and S. Kituyama, eds. Monduzzi Editore, Bologna, pp. 735-738

- Heinig, J. A.**, Youson, J. H., and Keeley, F. W. (1996). Expression of two forms of POMC (proopiomelanocortin) during metamorphosis and sexual maturation of the lamprey. *The FASEB Journal*, Vol. 10 (No. 3). Presented at Experimental Biology '96, Washington, D.C., April 16 - 20, 1996.
- Heinig, J. A.**, Keeley, F. W., and Youson, J. H. (1994). Sequence of a POMC cDNA clone from lamprey pituitary. *American Zoologist*, Vol. 34 (No. 5). Presented at American Society of Zoologists, St. Louis, Missouri, January 4 - 8, 1995.
- Heinig, J. A.** and Youson, J. H. (1991). Freeze fracture and morphometric analyses of zonulae occludentes in the anterior intestinal epithelium of adult lampreys during osmoregulation. *Developmental Biology*, Vol. 45 (No. 2). Presented at American Association of Anatomists, New York, New York, March 11-15, 1992.