Forensic Biology/DNA Expert Speckin Forensics, LLC 2601 Coolidge Rd., Ste. 202 East Lansing, MI 48823 (517)-827-0934 jhowenstine@4n6.com

EDUCATION:

Oakland University, MI	No Degree	1977-78	Pre-Med.
Michigan State University	B.S., M.S.	1978-81	Microbiology,
			Veterinary Science
Michigan State University	D.V.M.	1980-84	Veterinary Medicine

PROFESSIONAL EXPERIENCE:

- **1984-1985:** Doctor of Veterinary medicine in clinical practice at Miller Animal Clinic and Waverly Animal Clinic, Lansing, MI. Practiced veterinary medicine and surgery in mixed animal clinics including clinical lab analyses using microscopy, spectrophotometry, and radiology.
- **1985-1989:** Laboratory Scientist, Serology Unit, Michigan State Police, East Lansing Laboratory. Supervisors Curtis E. Fluker and Charles E. Barna. Trained and participated in crime scene investigation, documentation and evidence collection, serological evidence analysis, report writing, expert witness testimony, training of MSP personnel and community interest groups.
- **1989-1995:** Laboratory Scientist, DNA Unit, Michigan State Police, East Lansing Laboratory. Supervisor Charles E. Barna. Installed and calibrated equipment and instrumentation necessary for DNA RFLP typing. Designed and executed multiple validation studies on DNA typing methodology using Restriction Fragment Length Polymorphism (RFLP) analysis of VNTRs. Analyzed numerous known whole blood samples for purpose of creating population databases. Accepted and performed DNA RFLP typing analysis on forensic samples. Report writing and expert testimony.
- **1995-1997:** Laboratory Scientist, Serology Unit, Michigan State Police, East Lansing Laboratory. Supervisor Marie Bard-Curtis. Accept evidence and perform serological analyses on evidentiary samples. Crime scene investigation. Training of MSP and other personnel. Report writing and expert testimony.
- **1998-2010:** Forensic Scientist, Biology Unit, Michigan State Police, East Lansing Laboratory. Supervisors Charles Barna, Jeff Nye (since 2004) and Nibedita Mahanti (since 2008). Job description as above including both DNA (PCR STR) and Serology functions.
- 2011-present: Forensic Biology/DNA expert with Speckin Forensics, East Lansing, MI

PROFESSIONAL EXPERIENCE (CONT.):

2013-present: Quality Manager- Semen and Sperm Detection, Inc. & DNA Testing Centre, East Lansing, MI

COURTROOM EXPERIENCE: General Serology- approximately 66 opportunities.

Hair Comparison- approximately 5 opportunities.

DNA Analysis-109 opportunities.

PROFICIENCY TESTING (all completed successfully):

1986-present: CTS Biological Fluids test taken annually

1991-2010: CTS DNA analysis test taken annually

2014-present: CTS DNA Interpretation (autosomal & Y-STR) test taken annually

PROFESSIONAL AFFILIATIONS:

Member American Academy of Forensic Sciences (AAFS), 1990-2002, 2007-present. Member Midwestern Association of Forensic Scientists (MAFS), 1986-2006. Molecular Biology Diplomate of the American Board of Criminalistics (ABC), 1994-2009.

PRESENTATIONS AT SCIENTIFIC MEETINGS:

OCT 1992	"Effects of Anticoagulants on DNA ", MAFS, Grand Rapids, MI
OCT 1995	"Chemiluminescent Detection of RFLP Analysis", MAFS, Paducah, KY
SEPT 1999	"Sexual Assault Evidence Collection", Sexual Assault Systems Response Task Force Meeting, Lansing, MI
JUNE 2005	"Evidence Collection & Preservation for CSC Exams", SANE Annual Conference, Holland, MI

PUBLICATIONS (CONTRIBUTOR):

1993 <u>VNTR POPULATION DATA: A WORLDWIDE STUDY</u>, Published by the U.S. Department of Justice.

CONTINUING EDUCATION:

NOV 1985	Advanced Hair and Fiber Comparison, Michigan State Police, Lansing, MI
MAR 1986	Crime Scene Search and Collection of Evidence, Michigan State Police, Houghton, MI
MAY 1986	Expert Witness Testimony Course, Michigan State Police Training Academy, Lansing, MI
JULY 1986	Forensic Microscopy, McCrone Institute, Chicago, Ill
AUG 1986	Law Enforcement Photography, Cadillac, MI
OCT 1986	Independent Computing, Automation Resource Corporation, Lansing, MI
MAR 1987	Human Immunoglobulin Allotyping, Allotype Genetic Testing, Inc., St. Louis, MO
MAR 1987	Advanced Electrophoresis, The Serological Research Institute, Grand Rapids, MI
OCT 1987	Mathematics in Serology, MAFS Workshop, Mackinaw, MI
NOV 1987	Isoelectric Focusing Workshop, FBI, Grand Rapids, MI
MAR 1988	Instructor Development, Michigan State Police, Lansing, MI
MAY 1988	Introduction to Hairs and Fibers, Federal Bureau of Investigation, Quantico, VA
JULY 1988	IEF/DNA Workshop, Memorial Blood Center of Minneapolis, in Grand Rapids, MI
NOV 1988	Basic Techniques in Recombinant Nucleic Acid, Michigan State University, East Lansing, MI
JAN 1989	Forensic Application of DNA Typing Methods, FBI, Quantico, VA
JAN 1989	Laboratory Application of DNA Typing Methods, FBI, Quantico, VA

CONTINUING EDUCATION (CONT.):

MAR 1989	Polymerase Chain Reaction Lectures, Michigan Dept. of Public Health, Lansing, MI
MAY 1989	Forensic RFLP Analysis, Michigan State University, East Lansing, MI
MAR 1991	Application of DNA Technology to Forensics, Univ of CA Extension, Riverside, CA
MAY 1992	Advanced Aspects of Forensic DNA Analysis, FBI, Quantico, VA
AUG 1992	AMPLITYPE HLA DQalpha Forensic DNA Amplification and Typing The Perkin-Elmer Corp., Alameda, CA
OCT 1994	DNA Testimony Workshop, MAFS Mtg, Cleveland, OH
OCT 1995	Introduction to Mitochondrial DNA Workshop, MAFS Mtg. Paducah, KY
MAY 1998	Florida DNA Training-STRs-The Next Generation
JUNE 1999	DNA Statistics Workshop, MSP FSD, Lansing, MI
OCT 1999	Bloodstain Pattern Analysis Workshop, MSP FSD, Lansing, MI
APR 2000	Advanced Bloodstain Pattern Analysis Workshop, KBI, Lansing, MI
OCT 2000	Casework Guidelines & Complex Mixture Interpretation Workshop, Symposium on Human Identification, Biloxi MS
SEPT 2003	Basic Principles in Statistics, Symposium on Human Identification, Phoenix, AZ
APR 2004	ABI Quantifiler [™] , Prism ^R 7000 & 7900HT, 3100 & 3100-Avant, Identifiler [™] & GeneMapper [™] Workshop, MSP Lab, Lansing, MI
SEPT 2004	Supervisor Development, MSP Training Academy, Lansing, MI
JUNE 2005	ABI Quantifiler [™] Workshop, MSP Lab, Lansing, MI
SEPT 2005	Understanding DNA Statistics Workshop, Symposium on Human Identification, Grapevine, TX
FEB 2006	Advanced Topics in STR DNA Analysis Workshop, AAFS Seattle, WA
JAN 2007	Statistics Training, MSP FSD, Lansing, MI

CONTINUING EDUCATION (CONT.):

FEB 2008	Review of DNA Data Accepted at NDIS, On-line with DOJ
MAR 2008	A Comparison of STR Kits, Promega Corp., Madison, WI
MAY 2008	Advanced DNA Technical Workshop, Bode Tech., Captiva, FL
JUN 2008	Applied Biosystems 3130 0r 3130-xl Genetic Analyzer Training, MSP Lab, Lansing
DEC 2008	Population Statistics and Forensic DNA Analysis, MSP Lab, Lansing
JAN 2009	Use of Plexor HY & AB 7500 Real-Time PCR System, MSP Lab, Lansing
JAN 2009	Review of DNA Data Accepted at NDIS, On-line with DOJ
JUNE 2009	3130 Genetic Analyzer Training, MSP Lab, Lansing
JULY 2009	Forensic Y-STR Analysis, Sorenson Forensics, MSP Lab, Lansing
AUG 2009	DNA Audits, Maxwell 16, Powerplex 16, Y-STRs & Hamilton Robotics, FBI at MSP Lab, Lansing
JAN 2010	Review of DNA Data Accepted at NDIS, On-line with DOJ
FEB 2010	Y-STR Analysis, NFSTC, Schoolcraft College, Livonia, MI
AUG 2010	Plexor HY, DNA Interpretational Guidelines, Effect of DNA on Prosecution of CSC Cases, AB 3500 Genetic Analyzer/Minifiler, PP16HS, MSP Lab, Lansing
OCT 2013	DNA Mixture Interpretation Theories Workshop, MAFS Dayton, OH
OCT 2014	DNA Mixture Interpretation: A Casework Perspective, MAFS St Paul, MN
OCT 2014	How TrueAllele ^R Works, Cybergenetics Webinar
OCT 2016	Y-STR Analysis and Interpreting Y-STR Evidence, MAFS, Branson, MO
DEC 2016	ASCLD DNA Mixtures Webinar Series: Technical Overview, FTCOE
JAN 2018	From Training to Trial: A Reflection on Nearly Three Years of Probabilistic Genotyping, Promega Webinar

INTERNATIONAL SYMPOSIUMS:

JUNE 1989	Forensic Aspects of DNA Analysis, FBI Academy, Quantico, VA
NOV 1989	First International Symposium on Human Identification, Promega Corporation, Madison, WI
MAR 1991	The Application of DNA Technology to Forensics, University of California, Riverside, CA
MAY 1992	Third International Symposium on Human Identification, Promega Corporation, Phoenix, AZ
SEPT 1993	Fourth International Symposium on Human Identification, Promega Corporation, Phoenix, AZ
OCT 2000	Eleventh International Symposium on Human Identification, Promega Corporation, Biloxi, MS
OCT 2003	Thirteenth International Symposium on Human Identification, Promega Corporation, Phoenix, AZ
SEPT 2005	Fifteenth International Symposium on Human Identification, Promega Corporation, Grapevine, TX
MAY 2008	Bode Advanced DNA Technical Workshop-East, Captiva, FL
JULY 2010	Green Mountain DNA Conference, VT

PROFESSIONAL ASSOCIATION MEETINGS:

- **1987 FALL** MAFS, Mackinaw, MI
- **1989 FEB** American Academy of Forensic Science, Las Vegas, NV
- **1990 FEB** American Academy of Forensic Science, Cincinnati, OH
- **1992 FEB** American Academy of Forensic Science, New Orleans, LA
- **1994 OCT** MAFS, Cleveland, OH DNA Court Testimony workshop
- **1995 OCT** MAFS, Paducah, KY
- **1996 OCT** MAFS, Dayton, OH
- **1998 OCT** MAFS, Ann Arbor, MI

PROFESSIONAL ASSOCIATION MEETINGS:

2006 FEB	American Academy of Forensic Science, Seattle, WA
2009 FEB	American Academy of Forensic Science, Denver, CO
2011 FEB	American Academy of Forensic Science, Chicago, IL
2012 FEB	American Academy of Forensic Science, Atlanta, GA
2013 OCT	MAFS, Dayton, OH
2014 OCT	MAFS, Saint Paul, MN
2015 FEB	American Academy of Forensic Science, Orlando, FL
2016 OCT	MAFS, Branson, MO
2017 FEB	American Academy of Forensic Science, New Orleans, LA