

## **CURRICULUM VITAE**

Carll Ladd, Ph.D.  
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Connecticut Forensic Laboratory  
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### **Position Title:**

Supervising Criminalist, December 2003 to present.  
Lead Criminalist, March 1992-December 2003.

### **Education:**

BS, Biology, Bates College, Lewiston, Me, June 1983.  
Ph.D., Genetics, The University of Connecticut, Storrs, CT, May 1990.

### **Academic Honors:**

High Honors awarded for Senior Research Thesis, "An Assay and Developmental Profile of Arylsulfatase: A Possible Role in the Regulation of Development in *Drosophila melanogaster*," Bates College, Lewiston, Me, 1983.

University Research Fellowship, Graduate School, The University of Connecticut, 1986-1988.

Doctoral Dissertation Fellowship, Research Foundation. The University of Connecticut, 1989.

### **Professional Experience:**

Teaching Assistant, Department of Molecular and Cell Biology, The University of Connecticut, General Biology, Basic Genetics, Molecular Genetics (1983-1989).

Instructor, Recombinant DNA Techniques Laboratory, Department of Molecular and Cell Biology, The University of Connecticut, Summer session, 1988.

NIH Post-doctoral Research Fellow, St. Francis Hospital, Hartford, CT (1990-1991).

Visiting Faculty, The University of Connecticut, Fall 1998, Fall 1999.

Adjunct Assistant Professor, The University of Connecticut, September 2000-present.

Visiting Faculty, Wesleyan University Graduate Liberal Studies Program, Spring 1996, Fall 1997, Spring 1999.

Adjunct Professor, University of New Haven, School of Forensic Science, Fall 1997, Spring 2001.

Connecticut SWGDAM representative, 1995-2004.

### **Specialized Forensic Courses:**

- PCR Workshop, Northeastern Association of Forensic Scientists (NEAFS) Annual Meeting, October 1992.
- Crime Scene Investigation Seminars, U.S. Department of Justice, U.S. Attorney, District of Maine, December 1992.
- Testifying in Courtrooms and at Administrative Hearings, State of CT Municipal Police Training Council, June 1994.
- Statistical Methods in Forensic Science, Northeastern Association of Forensic Scientists (NEAFS) Annual Meeting, October 1994.
- Laboratory Accreditation Workshop, New York State Police Academy, November 1994.
- Statistics Workshop, Promega Conference on Human Identification, September 1996.
- Advanced DNA Technologies Workshop. American Academy of Forensic Sciences (AAFS) Annual Meeting, February 1997.
- Arnold Markle Symposium: Fatal Fire Investigation, March 1997.
- Arnold Markle Symposium: Advanced Bloodstain Pattern Analysis, March 1998.
- PE Biosystems: STR Analysis using the ABI 377 DNA Sequencer, March 1998, August 1999.
- Arnold Markle Symposium: New Technologies for Solving Crime in the 21<sup>st</sup> Century, March 2000.
- 6<sup>th</sup> CODIS User's Conference: Statistics Workshop, February 7, 2001.
- ASCLD/LAB Inspector Training Class, October 21-24, 2001.
- DAB Auditor Training Class, October 24-25, 2001.
- Population Statistics and Forensic DNA Analysis. Instructor: George Carmody, December 4-6, 2001.
- Arnold Markle Symposium: Arson and Other Terrorist Homicides, March 2002.
- Y-STR Analysis in Forensic Casework Workshop. American Academy of Forensic Sciences (AAFS) Annual Meeting, February 2004.

### **Professional Organizations:**

- American Association for the Advancement of Science.
- American Academy of Forensic Sciences.
- American Society of Human Genetics.

### **Publications:**

C. Ladd and H.C. Lee. 2005. The Use of Biological and Botanical Evidence in Criminal Investigations. In: H.M. Coyle, ed. *Forensic Botany: Principles and Applications to Criminal Casework*. 7:97-116. CRC Press. New York.

H. Miller Coyle, T.M Palmbach, C. Ladd, and H.C. Lee. 2005. Classic Forensic Botany Cases. In: H.M. Coyle, ed. *Forensic Botany: Principles and Applications to Criminal Casework*. 11:167-178. CRC Press. New York.

H. Miller Coyle, T.M Palmbach, C. Ladd, and H.C. Lee. 2005. Tracking Clonally Propagated Marijuana Using Amplified Fragment Length Polymorphism (AFLP) Analysis. In: H.M. Coyle, ed. *Forensic Botany: Principles and Applications to Criminal Casework*. 13:185-196. CRC Press. New York.

H. C. Lee, H. Miller Coyle, and C. Ladd. 2003. DNA Typing Using Bone Samples in Human Identification Casework. In: B. Frohlich, A. Harper, and R. Gilberg, eds. *To The Aleutians and Beyond*. 20:227-242. Department of Ethnography. National Museum of Denmark. Copenhagen, Denmark.

H. Miller Coyle, T. Palmbach, N. Juliano, C. Ladd, and H.C. Lee. 2003. An Overview of DNA Methods for the Identification and Individualization of Marijuana. *Croatian Medical Journal*. 44(3):315-321.

H. Miller Coyle, G. Shutler, S. Abrams, J. Hanniman, S. Neylon, C. Ladd, T. Palmbach, and H.C. Lee. 2003. A Simple DNA Extraction Method for Marijuana Samples used in Amplified Fragment Length Polymorphism (AFLP) Analysis. *Journal of Forensic Sciences*. 48(2):343-347.

H. Miller Coyle, B. Budowle, M. Bourke, E. Carita, J. Hintz, C. Ladd, C. Roy, N.C.S. Yang, T. Palmbach and H.C. Lee. 2003. Population Data for Seven Y-chromosome STR Loci from three Different Population Groups residing in Connecticut. *Journal of Forensic Sciences*. 48(2):435-437.

H. Miller Coyle, J. Germano-Presby, C. Ladd, T. Palmbach and H.C. Lee. 2002. Tracking Clonal Marijuana using Amplified Fragment Length Polymorphism (AFLP) Analysis: an overview. Conference proceedings: 13<sup>th</sup> International Symposium on Human Identification. Phoenix, AZ. Available on-line at [www.promega.com](http://www.promega.com).

M. Schanfield, M. Gabriel, S. Andelinovic, R. Reynolds, C. Ladd, H.C. Lee, and D. Primorac. 2002. Allele Frequencies for the 13 CODIS STR Loci in a Sample of Southern Croatians. *Journal of Forensic Sciences*. **47**:669-670.

C. Ladd, H.C. Lee, N. Yang, and F.R. Bieber. 2001. Interpretation of Complex Forensic DNA Mixtures. *Croatian Medical Journal*. **42**(3):244-246.

H.C. Lee and C. Ladd. 2001. Preservation and Collection of DNA Evidence. *Croatian Medical Journal*. **42**(3):225-228.

H. Miller Coyle, C. Ladd, T. Palmbach, and H.C. Lee. 2001. The Green Revolution: Botanical Contributions to Forensics and Drug Enforcement. *Croatian Medical Journal*. **42**(3):340-345.

H. Miller Coyle, C. Ladd, and H.C. Lee. Database Facilitates Investigation. The Connecticut Law Tribune. February 26, 2001.

H. Miller Coyle, C. Ladd, and H.C. Lee. The Science of DNA Testing: The New STR Technology. The Connecticut Law Tribune. February 26, 2001.

C.A. Scherczinger, J. L. Hintz, B.J. Peck, M.S. Adamowicz, M.T. Bourke, H. Miller Coyle, C. Ladd, N.CS.Yang, B. Budowle, and H.C. Lee. 2000. Allele Frequencies for the CODIS core STR loci in Connecticut Populations. *Journal of Forensic Sciences*. **45**:938-940.

H. C. Lee, C. Ladd, H. Miller Coyle. 2000. Forensic Biology. In: 9<sup>th</sup> Edition of McGraw-Hill Encyclopedia of Science and Technology. McGraw-Hill Publishers (available on-line at [www.AccessScience.com](http://www.AccessScience.com)).

C. Ladd, M.S. Adamowicz, M.T. Bourke, C.A. Scherczinger, and H.C. Lee. 1999. A Systematic Analysis of Secondary DNA Transfer. *Journal of Forensic Sciences*. **44**:1270-1272.

M.T. Bourke, C.A. Scherczinger, C. Ladd, and H.C. Lee. 1999. NaOH Treatment to Neutralize Inhibitors of Taq Polymerase. *Journal of Forensic Sciences*. **44**:1046-1050.

C.A. Scherczinger, C. Ladd, M.T. Bourke, M.S. Adamowicz, P.M. Johannes, R. Scherczinger, T. Beasley, and H.C. Lee. 1999. A Systematic Analysis of PCR Contamination. *Journal of Forensic Sciences*. **44**:1042-1045.

H.C. Lee, C. Ladd, C.A. Scherczinger, and M.T. Bourke. 1998. Forensic Applications of DNA Typing, Collection and Preservation of DNA Evidence. *American Journal of Forensic Medicine and Pathology*. **19**:10-18.

H.C. Lee and C. Ladd. 1997. Criminal Justice: An Unraveling of Trust? *The Public Perspective*. **8**:6-7.

C.A. Scherzinger, M.T. Bourke, C. Ladd, and H.C. Lee. 1997. DNA Extraction From Liquid Blood Using QIAamp. *Journal of Forensic Sciences*. **42**:893-896.

C. Ladd, M.T. Bourke, C.A. Scherzinger, E.M. Pagliaro, R.E. Gaensslen, and H.C. Lee. 1996. A PCR-Based Strategy for ABO Genotype Determination. *Journal of Forensic Sciences*. **41**:134-137.

H.C. Lee, C. Ladd, *et al.* 1995. *Physical Evidence*, Magnani and McCormick, Inc., Enfield, CT.

H.C. Lee, C. Ladd, *et al.* 1994. *Crime Scene Investigation*, Central Police University Press, Taiwan, Republic of China.

H.C. Lee, C. Ladd, M.T. Bourke, E.M. Pagliaro, and F. Timnady. 1994. DNA Typing in Forensic Science. *American Journal of Forensic Medicine and Pathology*. **15**:269-282.

S. Rydzziel, C. Ladd, T. McCarthy, M. Centrella, and E. Canalis. 1992. Determination and Expression of PDGF-AA in Bone-Cell Cultures. *Endocrinology*. **132**:1916-1922.

C. Ladd. 1990. The Regulation of Histone Gene Expression in *Drosophila melanogaster*. Graduate Dissertation, The University of Connecticut.

J. Pelliccia, A. Freshler, C. Ladd, and S. Richards. 1987. There are Two Distinct Arylsulfatase Activities in *Drosophila* *Biochemical Genetics*. **25**:459-465.

### **Presentations and Abstracts:**

C. Ladd, 2004. Casework Experiences using the Reliagene Y-Plex 6 Kit. Paper presented at the Y-STR Workshop, American Academy of Forensic Sciences Annual Meeting, Dallas, TX.

E. J. Carita, H. Miller Coyle, C. Ladd, N.CS Yang, T. Palmbach, and H.C. Lee, 2004. Expansion of an AFLP DNA Marijuana (*Cannabis sativa*) State, National, and International Database. Presented at the American Academy of Forensic Sciences Annual Meeting, Dallas, TX.

C.L. Lee, H. Miller Coyle, E. J. Carita, C. Ladd, N.CS. Yang, T. Palmbach, I.C. Hsu, and H.C. Lee, 2004. DNA Analysis of Digested Seeds in Forensic Samples. Paper presented at the American Academy of Forensic Sciences Annual Meeting, Dallas, TX.

C. Ladd, H. Miller Coyle, E. J. Carita, M.T. Bourke, N.CS Yang, T. Palmbach, and H.C. Lee, 2003. Interpretation of DNA Mixtures in Forensic Casework using Y-STRs. Paper Presented at the Third Annual European-American School in Forensic Genetics, Zagreb, Croatia.

H. Miller Coyle, E. J. Carita, E. Baker McClure, J. Germano-Presby, C. Ladd, N. CS Yang, T. Palmbach, and H.C. Lee, 2003. The Development of DNA Typing Techniques and Marijuana Databases for Forensics. Paper Presented at the Third Annual European-American School in Forensic Genetics, Zagreb, Croatia.

C. Ladd, H. Miller Coyle, E. J. Carita, M.T. Bourke, et al., 2003. Validation and Implementation of Y-Plex<sup>TM</sup> 6 for Forensic Casework. Presented at the American Academy of Forensic Sciences Annual Meeting, Chicago, IL.

N. CS. Yang, H. Miller Coyle, J. Hintz, E. J. Carita, C. Ladd, et al., 2003. Validation of the AmpF/STR Identifiler, Profiler Plus, and COfiler STR Kits on the 3100 Capillary Electrophoresis Platform. Presented at the American Academy of Forensic Sciences Annual Meeting, Chicago, IL.

J. Germano-Presby, H. Miller Coyle, T.M. Palmbach, E.M. Pagliaro, C. Ladd, et al., 2003. Development of a Nationwide AFLP DNA Database for Marijuana (*Cannabis Sativa*). Paper presented at the American Academy of Forensic Sciences Annual Meeting, Chicago, IL.

H. Miller Coyle, S. Neylon, C. Ladd, T. Palmbach, and H.C. Lee, 2002. Validation of the AFLP Technique for the Individualization of Marijuana Samples. Paper presented at the American Academy of Forensic Sciences Annual Meeting, Atlanta, GA.

C. Roy, H. Miller Coyle, J. Hintz, S. Neylon, C. Ladd, and H.C. Lee, 2002. A Validation Study of Y-PLEX 6, a Multiplexed Y-Chromosome STR System. Presented at the American Academy of Forensic Sciences Annual Meeting, Atlanta, GA.

C. Ladd, N. CS. Yang, and H.C. Lee, 2001. STR Inter-Laboratory Mixture Study. Presented at the American Academy of Forensic Sciences Annual Meeting, Seattle, WA.

H. Miller Coyle, K. Divakaran, E. Jachimowicz, C. Ladd, and H.C. Lee, 2001. Individualization of Marijuana (*Cannabis Sativa*) Samples for Forensic Application and Narcotics Enforcement. Paper presented at the American Academy of Forensic Sciences Annual Meeting, Seattle, WA.

C. Ladd, H.C. Lee, and F.R. Bieber, 2000. Probability of Exclusion Estimates in Forensic Analysis of Complex DNA Mixtures. Presented at the American Academy of Forensic Sciences Annual Meeting, Reno, NV.

M.T. Bourke, C. Ladd, N. CS. Yang, M.K. McGivray, H.C. Lee, and F.R. Bieber, 2000. Sib Pair Identity at Multiple STR Loci: Implications for Interpretation of Forensic DNA Casework. Presented at the American Academy of Forensic Sciences Annual Meeting, Reno, NV.

H. Miller Coyle, C. Secore, C. Ladd, and H.C. Lee, 2000. Plant DNA Typing: Applications to Forensics. Paper presented at the American Academy of Forensic Sciences Annual Meeting, Reno, NV.

C. Ladd, M.S. Adamowicz, M.T. Bourke, C.A. Scherczinger, and H.C. Lee, 1999. An Evaluation of Secondary DNA Transfer using STR Analysis. Presented at the American Academy of Forensic Sciences Annual Meeting, Orlando, FL.

M.T. Bourke, C. Ladd, C.A. Scherczinger, M.S. Adamowicz, and H.C. Lee, 1999. Strategies to Overcome Inhibitors of Taq Polymerase: Application to STR and PM + DQA1 Analysis. Presented at the American Academy of Forensic Sciences Annual Meeting, Orlando, FL.

C.A. Scherczinger, J.L. Hintz, B.J. Peck, M.T. Bourke, C. Ladd, M.S. Adamowicz, and H.C. Lee, 1999. Allelic Frequencies for the CODIS Core STR Loci in Connecticut Populations. Presented at the American Academy of Forensic Sciences Annual Meeting, Orlando, FL.

C. Ladd, M.S. Adamowicz, M.T. Bourke, C.A. Scherczinger, and H.C. Lee, 1998. A Systematic Analysis of Secondary DNA Transfer. Paper presented at the American Academy of Forensic Sciences Annual Meeting, San Francisco, CA.

M.T. Bourke, C. Ladd, C.A. Scherczinger, M.S. Adamowicz, and H.C. Lee, 1998. NaOH Treatment to Remove Inhibitors of Taq DNA Polymerase: A Summary of Casework. Presented at the American Academy of Forensic Sciences Annual Meeting, San Francisco, CA.

C.A. Scherczinger, J.C. Reho, C. Ladd, M.T. Bourke, M.S. Adamowicz, and H.C. Lee, 1998. Timely Collection of Suspect's Rape Kit Yields DNA Results from Female Victim. Presented at the American Academy of Forensic Sciences Annual Meeting, San Francisco, CA.

C. Ladd, M.T. Bourke, C.A. Scherczinger, and H.C. Lee, 1997. A Case Study: Detection of the Suspect's DNA under Victim's Fingernails. Presented at the American Academy of Forensic Sciences Annual Meeting, New York, NY.

M.T. Bourke, C.A. Scherczinger, C. Ladd, and H.C. Lee, 1997. A Novel Strategy to Overcome Taq Polymerase Inhibitors. Paper presented at the American Academy of Forensic Sciences Annual Meeting, New York, NY.

C.A. Scherczinger, C. Ladd, M.T. Bourke, P.M. Johannes, B.J. Sampson, and H.C. Lee, 1997. A Systematic Analysis of PCR Contamination. Presented at the American Academy of Forensic Sciences Annual Meeting, New York, NY.

M.T. Bourke, C.A. Scherczinger, C. Ladd, M.S. Adamowicz, and H.C. Lee, 1996. Connecticut Sex Offender DNA Databank. Paper presented at the Northeastern Association of Forensic Scientists Annual Meeting, Pocono Manor, PA.

C. Ladd, C.A. Scherzinger, M.T. Bourke, M.B. Raffin, J.C. Reho, P.M. Johannes, K.J. Lamy, E.M. Pagliaro, R.E. Gaensslen, and H.C. Lee, 1996. ABO Genotyping: A Concordance Study. Presented at the American Academy of Forensic Sciences Annual Meeting, Nashville, TN.

C.A. Scherzinger, M.T. Bourke, C. Ladd, and H.C. Lee, 1996. DNA Extraction from Liquid Blood using QIAamp. Presented at the American Academy of Forensic Sciences Annual Meeting, Nashville, TN.

C. Ladd, M.T. Bourke, E.M. Pagliaro, R.E. Gaensslen, and H.C. Lee, 1995. A PCR-Based Strategy for ABO Genotype Determination. Paper presented at the American Academy of Forensic Sciences Annual Meeting, Seattle, WA.

M.T. Bourke, C. Ladd, N. Chavalvachakul, E.M. Pagliaro, R.E. Gaensslen, and H.C. Lee, 1995. Frequency of Select Markers in the Thai Population. Presented at the American Academy of Forensic Sciences Annual Meeting, Seattle, WA.

M.T. Bourke, C. Ladd, E.M. Pagliaro, A.I. Omori, B. Win, and H.C. Lee, 1995. A Case Study: Identification of Accident Victims by DNA Analysis. Paper presented at the American Academy of Forensic Sciences Annual Meeting, Seattle, WA.

C. Ladd, M.T. Bourke, E.M. Pagliaro, R.E. Gaensslen, and H.C. Lee, 1994. A PCR-Based Strategy for ABO Genotype Determination. Paper presented Eastern Analytical Symposium, Somerset, NJ.

M.T. Bourke, C. Ladd, E.M. Pagliaro, K.J. Lamy, D.A. Messina, R.E. Gaensslen, and H.C. Lee, 1994. Allelic Frequencies for Five VNTR Loci in Connecticut Populations. Presented at the Northeastern Association of Forensic Scientists Annual Meeting, New York, NY.

H. Metwalley, R.E. Gaensslen, H.C. Lee, L.A. Abdel Megid, E.M. Pagliaro, C. Ladd, M.T. Bourke, and M.I. El-Nagger, 1994. Frequency of Selected Genetic Markers in the Egyptian Population. Presented at the American Academy of Forensic Sciences Annual Meeting, San Antonio, TX.

C. Ladd, M.T. Bourke, E.M. Pagliaro, K.J. Lamy, D.A. Messina, R.E. Gaensslen, and H.C. Lee, 1994. Allelic Frequencies for Five VNTR Loci in Connecticut Populations. Presented at the American Academy of Forensic Sciences Annual Meeting, San Antonio, TX.

H. Metwalley, R.E. Gaensslen, H.C. Lee, L.A. Abdel Megid, E.M. Pagliaro, C. Ladd, and M.I. El Nagger, 1993. The Frequency of Selected Genetic Markers in the Egyptian Population. Presented at the American Academy of Forensic Sciences Annual Meeting, Boston, MA.

C. Ladd, E.M. Pagliaro, D.A. Messina, R.E. Gaensslen, and H.C. Lee, 1993. ABO



Genotyping by Polymerase Chain Reaction. Presented at the F.B.I. International DNA Symposium, April 1-4, 1993.

C. Ladd, E.M. Pagliaro, D.A. Messina, R.E. Gaensslen, and H.C. Lee, 1993. ABO Genotyping by Polymerase Chain Reaction. Paper presented at the American Academy of Forensic Sciences Annual Meeting, Boston, MA.

M. Centrella, T. McCarthy, C. Ladd, and E. Canalis, 1990. Expression of Platelet-Derived Growth Factor (PDGF) and Regulation of PDGF Binding are both Isoform Specific in Osteoblast-Enriched Cultures from Fetal Rat Bone. Paper presented at A.S.B.M.R. Meeting, Atlanta, GA.

G. Hampikian, C. Ladd, M. Summer, and L. Strausbaugh, 1990. Replication-Dependent Transcription of Histone Genes in *Drosophila melanogaster*. Presented at Genetics Society of America/Canada Joint Meeting, San Francisco, CA.

C. Ladd, G. Hampikian, and L. Strausbaugh, 1989. Expression of Histone Genes in Transfected Cells. Presented at National Drosophila Research Conference, New Orleans, LA.

C. Ladd, P. Gray, and L. Strausbaugh, 1987. Molecular and Developmental Consequences of Histone Gene Deficiencies. National Drosophila Research Conference.

C. Ladd, P. Gray, and L. Strausbaugh, 1987. Molecular and Developmental Consequences of Histone Gene Deficiencies. National Drosophila Research Conference.

L. Strausbaugh, D. Fitch, and C. Ladd, 1986. Molecular and Developmental Aspects of Histone Gene Reiteration in *Drosophila*. National Drosophila Research Conference.