## Steven B. Lee, Ph. D. **Professor and Director Forensic Science Program**

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## EDUCATION:

1991-1992	Post-Doc	University of Georgia, Athens- Botany	
Dec. 1990	Ph.D.	University of California, Berkeley- Molecular and Physiological Plant Biology	GPA=3.9
		Dissertation: Molecular Genetics and Evolution of Fungi	
1984 -1985	Fellow	Columbia University- Molecular Genetics, Biological Sciences	GPA=3.7
May 1984	M.S.	New York University- Molecular Biology	GPA=3.8
May 1981	B.S.	State University of New York, Binghamton -Biology	GPA=3.6

# PROFESSIONAL EXPERIENCE: Over 30 Years of Biological Research, Teaching and Advising

2018-Present	<ul> <li>Professor, International Forensic Research Institute, Florida International University, Miami Fl.</li> <li>Applying forensic DNA scientific and technical expertise to grant development and acquisition</li> <li>Engaging new collaborations and initiatives for advancing research and development</li> </ul>
DNA	<ul> <li>Strategic planning and development to evaluate emerging technologies for advancing forensic</li> </ul>
	<ul> <li>Research on accelerating rapid DNA and improving collection of challenging DNA samples</li> <li>Educational outreach program development and delivery</li> <li>Directing the development and delivery of CSI camps and Forensic Science Educator's Conferences</li> </ul>
2017-2018	<ul> <li>Scientific Director Consultant, Source Molecular Corporation, Miami, Florida</li> <li>Leading development, validation and testing of new services and products for fecal source tracking</li> <li>Providing scientific and technical expertise for ISO 17025 accreditation</li> <li>Developing relationships and a scientific advisory board with water safety thought leaders</li> <li>Engaging new collaborations and initiatives toward SMC services and product implementation</li> <li>Strategic planning and development of new technologies toward enhancing accuracy and efficiency</li> </ul>
2007-present	<ul> <li>Professor, Director of Forensic Science, San Jose State University, San Jose, CA 95192</li> <li>Tenured and Promoted to Full Professor August 2007</li> </ul>
2015	• Research mentor on a Keck Undergraduate Grant with Chemistry :\$250,000.00 from 2013-
	<ul> <li>Nominated for the CASA Dean's Outstanding Professor Award for AY 2008-09</li> <li>Sabbatical Spring 2008 at CA DOJ DNA Laboratory and AY 2014-2015 Florida Intl University</li> <li>Research mentor on an NSF REU Grant 2010-2012 and 2013-2017 NSF DBI 1262832</li> </ul>
\$448,654.00	<ul> <li>Co-PI on an NSF REU Grant awarded \$204,000.00 from 2007-2010</li> <li>PI on two CSUPERB Programmatic grants to develop new courses \$30,000.00 from 2010-2012</li> <li>Research mentor on an Howard Hughes Medical Institute Grant :\$1,300,000.00 from 2008-</li> </ul>
2012	<ul> <li>PI for CAC scholarships for 2007-2015 Forensic Science Student Scholarships \$31,000.00</li> <li>Mentored 21 student research projects leading to 30 presentations supported by grants-</li> </ul>
\$59,800.00	<ul> <li>Served as Co-PI for an MS student on the impact of DNA in the criminal justice system</li> <li>Three manuscripts published, three more in preparation.</li> <li>Served as Chair of the CASA Professional Leaves Committee (F2008)</li> </ul>
	<ul> <li>Served as Chair of the Student Opinions of Teaching Effectiveness Committee (F06-S07)</li> <li>Enhanced <i>10 fold growth from 23 to over 260 forensic science majors</i> (2003-2008)</li> </ul>

2003-2007 95192	Associate Professor, Director Forensic Science: San Jose State University, San Jose, CA ,
	<ul> <li>Leading the development of an interdisciplinary degree program in Forensic Science</li> </ul>
	<ul> <li>Establishing intra, inter-college and inter-campus research and teaching collaborations</li> </ul>
	<ul> <li>Submitted 22 grant proposals to support forensic science research and teaching.</li> </ul>
	<ul> <li>12 grants funded for a total of \$304,042.00.</li> </ul>
	<ul> <li>Facilitated donations in excess of \$300,000.00 in equipment, computers, supplies and support</li> </ul>
	Established a Forensic Science Seminar Series
	Advisor for the SJSU Forensic Science Student Group- Recipients of service and research awards
	• 80% of FS grads (20/25) are working in crime labs, biotech, investigations or grad schools
2012-2016	Forensic Consultant and Technical Marketing Manager - Illumina, San Diego CA
	<ul> <li>Initiated an international research consortium of 20 NGS forensic DNA leaders</li> <li>Constrained plans for inter laboratory testing and validation of NCS leading to poor reviewed</li> </ul>
	<ul> <li>Co created plans for inter-laboratory testing and validation of NGS leading to peer reviewed presentations and adoption</li> </ul>
	<ul> <li>Chaired NGS workshops for the 24th<sup>th</sup> and 25th<sup>th</sup> International Symposium on Human ID</li> </ul>
	<ul> <li>Supporting the adoption of Illumina FGx through education, research and training</li> </ul>
	<ul> <li>Providing technical review and support for publications, data interpretation and SOP development</li> </ul>
	<ul> <li>Co-developed and delivered advanced Illumina Forensic Genomics training for field app specialists</li> </ul>
2007-2009	Forensic DNA Project Consultant, Biomatrica, San Diego, CA
	<ul> <li>R&amp;D consultant on the implementation and use of new products</li> </ul>
	<ul> <li>Leading an international consortium on evaluation of a new matrix for storage and collection</li> </ul>
	Research led to 4 presentations at national and international forensic science meetings
2006-2008	Forensic DNA Training Consultant, CA Department of Justice
	Designed and delivered new Forensic DNA courses
	<ul> <li>Developed materials on SNPs, forensic phenotype profiling, and DNA databases</li> </ul>
2006-2007	Molecular Biology Exam Blue Ribbon Panelist : American Board of Criminalistics
	<ul> <li>Provide technical expertise in the development of an ABC Molecular Biology Certification exam</li> </ul>
	<ul> <li>Assist in developing lists of questions, study guides and job descriptions for the specialty</li> </ul>
2005-2006	Forensic Project Consultant, Trace Genetics
	Provided technical expertise and support for proprietary forensic product development
	Designed validation and testing outlines     Designed validation and testing outlines
	<ul> <li>Proposed market entry plans including alpha and beta phases of product development</li> </ul>
2004-2009	R&D Consultant: MiraiBio, Hitachi Software Engineering, South San Francisco
	Forensic Science application and technical support
	Multiplex liquid SNP array and fluorescent STR scanning support     Tacknised areas development, demonstrations for DNA Software
	<ul> <li>Technical specs development, demos and training for DNA Software</li> <li>SNP typing using Masterplex GT</li> </ul>
	Smartnote bioinformatics tools
	<ul> <li>Delivering seminars and posters on Bioinformatics and Forensic DNA</li> </ul>
2000-2004	Director of R&D: MiraiBio Inc., Hitachi Software Engineering, Alameda, CA 94502
	R&D accomplishments during my tenure:
	Microarrays and Bead based arrays:
	<ul> <li>Developed proprietary surface chemistry for cDNA and oligos</li> </ul>
	<ul> <li>Coordinated testing of microarray spotting optimization</li> </ul>
	<ul> <li>Immunoassay Bead Array Validation study completed</li> </ul>
	<ul> <li>Bead array studies led to publications and sales of the Luminex 100 and software.</li> </ul>

•	BioInformatics	and	Imaging
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- Initiated and led a team of 10 labs to test and develop SNP typing software
- o Computer software analysis on human DNA quantification published
- Publication of 12 application notes and 2 peer reviewed articles
- Spearheaded the implementation of web conferencing tools for software training and sales
- Grants
  - Completed NIJ subcontract grant 2001 on forensic sexual assault grant with UNTHS
  - \$1,000,000 federal and state funding submitted in 2002
  - o Interagency NIAID biodefense grant submitted with Los Alamos National Laboratory
  - Subcontract grant funded for \$150,000.00 to develop SNP typing with UNTHS
  - o Research on Alu microarrays for paternity testing supported a Phase II SBIR with Reliagene

#### 2001-2008 Adjunct Professor: Chemistry, Florida International University, Miami, Florida

- Developed and delivered an on line course on Forensic DNA- STR typing in 2001 and 2003
- Produced DNA course materials for posting on the web

**1997** Instructor: Genetics of Forensic DNA Typing, Environmental Biology, UC Davis, Davis, CA

- Organized and delivered an intensive 2 week laboratory genetics course
- Academically approved for college credit and certified by POST

#### 1996-present Visiting Scholar, Department of Plant and Microbial Biology, University of California, Berkeley

- Delivered seminars for advanced graduate students and post docs in careers seminars
- Collaborations with Mycologists on Image Explorer leading to photograph publication

#### 1996-present Adjunct Assistant Professor, Biology, San Francisco State University

- PI on National Science Foundation REU program (96-98)
- Delivered 2 week courses on DNA technology from extraction to sequencing
- Mentored 5 undergraduates and 1 graduate student

#### 1995-1999 Member Technical Working Group on DNA Analysis Methods (TWGDAM now SWGDAM) Federal Bureau of Investigation

- Invited participation in a federally funded national forensic scientist group
- Participation in inter-laboratory studies on forensic DNA typing methods
- Established collaborations with the FBI on STR implementation
- Participated in meetings of the DNA Advisory Board QA Standards for forensic DNA laboratories

1995-present	Member mtDNA Quality Assurance Oversight Committee
	Department of Defense, Armed Forced DNA Identification Laboratory (AFDIL)

- Conduct annual inspections of the DOD mtDNA typing facility
- Provide feedback on QA measures and audit procedures

# 1994-2000 Assistant Laboratory Director, Research and Development California Department of Justice Laboratory, Richmond, CA (CA DOJ -formerly at Berkeley, CA) Supervised a group of 5 scientists in forensic DNA research

- Mentored 15 student interns (see student section)
- Led a team that developed and validated a robotic assisted extraction and STR analysis
- American Society of Crime Laboratory Director Laboratory Accreditation Board Certified
- Assisted the leadership team in re-accreditation by ASCLD-LAB in 1998
- Served on the BFS QA Technical Advisory Group
- Developed and delivered RFLP and STR hands-on training on the ABI 310 and 377 platforms

#### 1992-1996 Assistant Professor Biology (92-94), Affiliate Assistant Professor Biology(94-96)

### Department of Biological Sciences, University of Northern Colorado, Greeley, CO (UNC)

- PI on NSF research grant for Molecular Evolution of Oomycetes
- Mentored 8 BA, 2 MS and 2 PhD students.

## 1990-1991 Postdoctoral Research Associate, Botany: University of Georgia, Athens

- PI on NSF research grant for Molecular Evolution of Oomycetes
- Established external funding from biotechnology sector to support workshops

# HONORS and AWARDS: 35 Scholarships, Teaching and/or Research Awards and Honors

2016-2017	Selected to serve on the American Academy of Forensic Sciences DNA Consensus Group Standards Board
2015-2017	Professional Leaves awarded for AY 2015-2017 at Florida International University and 50% SJSU
2014	Sabbatical awarded for AY 2014-2015 at Florida International University
2014	American Academy of Forensic Science Criminalistics Meritorious Service Award Recipient
2013	Selected as Peer Reviewer for the NIJ Research Grant Panels
2013	Selected as a neutral expert witness for the 7 <sup>th</sup> District Court of Appeals Case 13-cv-2333
2012-2014	Selected to chair the American Academy of Forensic Science Forensic Science Educators Conference
2012	Selected as Peer Reviewer for CSUPERB Joint Venture Research Grants
2011	Invited as Peer Reviewer for Forensic Science Research and Development Program (Declined due to conflict)
2011	Invited Lecturer at University of Leicester, England Summer 2011 CSI Leicester
2011	Chaired the American Academy of Forensic Science Forensic Science Educators Conference SJSU
2010	Selected as Peer Reviewer for two NIJ Research Grant Technical Reports
2010	Invited as Peer Reviewer Forensic DNA Research and Development Program (Declined due to conflict )
2010	Nominated "Most Influential Professor," College of Science, San Jose State University, San Jose, CA
2010	Nominated by the California Association of Criminalists to the US President's National Science
	and Technology Council Interagency Working Groups on Forensic Science
2010	Selected and Served as Peer Reviewer for CSUPERB Programmatic Grants
2008	Nominated by students for the CASA Outstanding Professor Award
2007	Tenured and Promoted to Full Professor, 08/24/07
2007	Sabbatical at the CA DOJ DNA Laboratory Approved for Spring 2008
2006	A. Biasotti Most Outstanding Research Presentation Award, CAC 08/24/06
2006	Promoted to Fellow of Criminalistics of the American Academy of Forensic Sciences 02/20/06
2006	Elected to the Molecular Biology Certification Blue Ribbon Panel of the American Board of Criminalistics
2005	Invited Speaker Stanford Genome Technology Club, Stanford University School of Medicine
2004	Invited Keynote Speaker Edward-Teller Education Center Teacher Scientist program, LLNL
2001	Invited Keynote Speaker for Bio-Link Summer Fellows Teachers Forum, City College of SF
1998	Unit Citation of CA DOJ DNA Laboratory Management team member
1997	ASCLD/LAB inspector training successfully completed
1995-present	Selected to serve on the AFDIL mtDNA QA committee
1993 & 1994	Selected to serve on NSF-DEB REU Site Grant Program Panel
1993	Academic Excellence Faculty Advisor Award - selected by biology honor student- UNC
1992	Academic Excellence Faculty Advisor Award - selected by biology honor student- UNC
1992	Burlington Northern Faculty Award Candidate - elected by students- UNC
1990	Best Research Poster, Mycological Society of America
1989-1990	Mycological Society of America (MSA), Research Fellowship
1989-1990	Graduate Research Fellowship, UC Berkeley
1989	UC Biotechnology Research and Education Award, UC Berkeley
1989	Outstanding Graduate Student Instructor, UC Berkeley
1987	Inter campus Travel Award, UC Berkeley
1986&1988	Educational Improvement Awards, UC Berkeley
1985-1988	USDA National Graduate Fellowship, UC Berkeley
1984-1985	Faculty Fellowship, Columbia University, NY, NY
1982-1984	Teaching Fellowship, New York University

1978-1981 N.Y.S. Regents Scholarship awarded for attendance at SUNY Binghamton

#### **PROFESSIONAL AFFILIATIONS:**

2004-2008	National Science Teachers Association- Member
1995-present	California Association of Criminalists - Full Member
1994-present	American Academy of Forensic Sciences: Member and Since 2007, Fellow of Criminalistics
1989-present	American Association for the Advancement of Science

#### PUBLICATIONS: 40 Publications, 5 in preparation

- White, TJ and SB Lee. 2019. Genetics, Ethics and Privacy. Chapter 15 in Erlich, H. Stover, E and White, T.eds. Silent Witness: Applying Forensic DNA Evidence in Criminal Investigations and Humanitarian Disasters. Oxford University Press (OUP). In Press.
- Erlich, H.A., C. Calloway, and SB Lee. 2019. Recent Developments in Forensic DNA Technology. Chapter 5 in Erlich, H. Stover, E and White, T.eds. Silent Witness: Applying Forensic DNA Evidence in Criminal Investigations and Humanitarian Disasters. Oxford University Press (OUP). In Press.
- Lee, SB, De Etta Mills, SA Morse, SE Schutzer, B Budowle and PS Keim. 2019. Training and Education in Microbial Forensics. Chapter 41 in Microbial Forensics. SA Morse, SE Schutzer, B Budowle eds. Elsevier Academic Press. Invited chapter submitted 12/14/2018. In Press.
- McCord, B.R., Quentin Gauthier, Sohee Cho, Meghan N. Roig, Georgiana C. Gibson-Daw, Brian Young, Fabiana Taglia, Sara C. Zapico, Roberta Fogliatto Mariot, Steven B. Lee, and George Duncan. 2019. Forensic DNA Analysis. Analytical Chemistry 2019 91 (1), 673-688. DOI: 10.1021/acs.analchem.8b05318.
- McCord BR and SB Lee. 2018. Novel Applications of Massively Parallel Sequencing (MPS) in forensic analysis. Editorial. Special Issue of Electrophoresis. McCord, BR and SB Lee. Eds. Nov;39(21):2639-2641. doi: 10.1002/elps.201870175.
- McCord BR and SB Lee. Editors. 2018. Novel Applications of Massively Parallel Sequencing (MPS) in forensic analysis. Special Issue of Electrophoresis. Electrophoresis. Volume 39, Issue 21 Pages: 2633-2833
- \*Tang, Kevin; \*Ramirez, Jesse; Bond, John; Weart, Jocelyn; \*DeLaTorre, Yvette; Fitch, Ian; and Lee, Steven. 2017. Optimizing Collection of Trace Biological Samples from Vehicle Headrests, Themis. Volume 5 Article 7. Available at: http://scholarworks.sjsu.edu/themis/vol5/iss1/7
- Lee, SB and J. G. Shewale 2017. DNA Extraction Methods in Forensic Analysis. Chapter in the Encyclopedia of Analytical Chemistry, eds R.A. Meyers, John Wiley: Chichester. DOI: 10.1002/9780470027318.a1104m.pub2. Published June 19 2017. Available at: http://onlinelibrary.wiley.com/doi/10.1002/9780470027318.a1104m.pub2/otherversions
- Lee, SB, J Varlaro, C Holt. 2016. Stepping into the Future of Forensic Genomics: Developmental Validation of a Next-Generation Sequencing Forensic DNA Sample-to-Answer System. Forensic Magazine. June 2016. Available at: <u>https://www.forensicmag.com/article/2016/07/future-forensic-genomics-developmental-validation-ngs</u>
- Lee, SB, B McCord and E Buel. 2014. Advances in Forensic DNA Quantification: A Review. Electrophoresis. 2014. Nov;35(21-22):3044-52. doi: 10.1002/elps.201400187. Epub 2014 Oct 9.
- Roda, N, SB Lee, B Barloeven and T. Mehmet. 2014. DNA Typing Compatibility With a Rapid, One Step Saliva Screening Test. Themis, Volume 2: 225-235. Available at: <u>http://scholarworks.sjsu.edu/cgi/viewcontent.cgi?article=1020&context=themis</u>
- Lee, SB, CA Crouse, MC Kline. 2013. In Assessment and preparation of biological specimens for DNA analysis. Optimizing storage and handling of DNA extracts. Chapter in Forensic DNA Analysis: Current Practices and Emerging Technologies. Eds. Jaiprakash G. Shewale; Ray H. Liu, CRC Press. ISBN 9781466571266. Publication 08/22/13
- Harris, C, A Cardenas, SB Lee and B Barloewen. 2013 Comparing Wearer DNA Sample Collection Methods for the Recovery of Single Source Profiles. Themis. Volume 1:81-99. Available at: <u>http://scholarworks.sjsu.edu/cgi/viewcontent.cgi?article=1007&context=themis</u>
- Lee, SB, Clabaugh, KC, Silva, B, Odigie, KO, Fourney, RM, Stevens, J, Carmody, GR, Coble, MD, Loreille, O, Scheible, M, Parsons, TJ, Pozder, A, Eisenberg, AJ, Budowle, B, Taha Ahmad, Russell W. Miller, Amy B. McGuckian, Julie Conover-

Sikorsky and Cecelia A. Crouse. 2012. Assessing a novel room temperature DNA storage medium for forensic biological samples. Forensic Science International: Genetics, Volume 6, Issue 1, January 2012, Pages 31-40.

Lee, SB, CA Crouse, MC Kline. 2010. Optimizing storage and handling of DNA extracts. Forensic Science Reviews 22:131-144.

- Lee, SB and KA Roberts. 2008. Room temperature storage and stabilization of forensic source DNA samples. Emerging Technologies in Forensic Science. 01/08 p 8-10.
- Lee, SB. 2006. Forensic DNA testing. In McGraw-Hill 2006 Yearbook of Science and Technology . ISBN 0071462058. McGraw-Hill. 448pp, DOI: 10.1036/0071462058
- Lee, SB. 2005. Teaching Strategies in Undergraduate Forensic Science and DNA: New Approaches to Content, Assessment and Practice. Canadian Journal of Police and Security Services. 3(2):27-36.
- Taylor, J. and S. Lee. 2004. Black bread mold figure 3.32c Published in Biology Patterns and Processes of Life. ISBN0-920008-05-4. JM LeBel Publishers, Dallas, TX. P.69
- Lee, SB. 2002. Biodefense: Science Steps Up to Protect the Public from Bioterror. Drug Discovery and Development. Dec. 2002. p 12. Invited Editorial.
- Budowle, B, W. Hudlow, S Lee, and L Klevan. 2001. Using a CCD Camera Imaging System as a recording device to Quantify Human DNA by Slot Blot Hybridization. Biotechniques. 30:680-685.
- Worley, J. W., S.B. Lee, M. Ma, A. Eisenberg, and E.S. Mansfield. 1997. Fluorescent Imaging in Human Identity Testing. <u>Biotechniques</u>. 23:148-153
- Butler, JM, Jia Li, Joseph Monforte, Christopher Becker, and Steven Lee. 1997. Rapid and Automated Analysis of Short Tandem Repeat Loci Using Time-of-Flight Mass Spectrometry. . <u>Proceedings of the Seventh International Symposium on</u> <u>Human Identification. ISBN1-882274058-X</u> <u>http://www.promega.com/geneticidproc/ussymp8proc/28.html</u>
- Post, S, S. Lee, T. Moretti, J. Robertson, and B. Budowle. 1997. Comparison of Fluorescence Detection of the Geneprint Powerplex STR System by Optical Scanners and DNA Sequencers. <u>Proceedings of the Seventh International</u> <u>Symposium on Human Identification. ISBN1-882274058-X. pp. 107-115.</u> <u>http://www.promega.com/geneticidproc/ussymp7proc/0716.html</u>
- Lee, SB, M. Buoncristiani, J. W. Schumm, and D. Wingeleth. 1996. Comparison of Short Tandem Repeat (STR) detection using silver, fluorescence and matrix assisted laser desorption/ionization time-of-flight mass spectrophotometry (MALDI-TOF-MS). <u>Proceedings of the Sixth International Symposium on Human</u> <u>Identification. ISBN 1-882274-55-5 p104-111. http://www.promega.com/geneticidproc/ussymp6proc/lee.htm</u>
- Micka, K.A., C.J. Sprecher, A.M. Lins, C.T. Comey, B.W. Koons, C Crouse, D. Endean, K. Zold, S.B. Lee, N. Duda, M Ma and J.W. Schumm. 1996. Validation of Multiplex Polymorphic STR Amplification Sets Developed for Personal Identification Applications. Journal of Forensic Sciences. 41: 582-590.
- Rusk, S. and S.B. Lee. 1995. Design of PCR primers for amplifying nuclear ribosomal DNA from slime molds. <u>Mycologia.</u> 87:140-143.
- Giberson, R.T., R.S. Demaree, S.B. Lee and M. Lee. 1995. Days can be converted to hours, minutes or even seconds when using microwave technology in the Lab. <u>Microscopy Today</u>. 95(5):14-15.
- Giberson, R.T., R.S. Demaree, S.B. Lee and M. Lee. 1995. Microwave Technology in the laboratory: Fixation of Tissue for the SEM and Extraction of DNA from blood, hair, semen and fingernails. <u>TieLine</u> 19:128-133.
- Spiegel, FW, S.B. Lee, and S.A. Rusk. 1995. Eumycetozoans and molecular systematics. <u>Canadian Journal of Botany</u>. 73:S738-S746.

- Lee, S.B., M. Ma, J.M. Worley, C. Sprecher, A.M. Lins, J.W. Schumm and E.S. Mansfield. 1995. Microwave extraction, rapid DNA quantitation and Fluorescent detection of amplified short tandem repeats. <u>Proceedings of the Fifth</u> <u>International Symposium on Human Identification</u>. ISBN 1-882274-54-7. pp 137-145.
- Boback S. and S.B. Lee. 1994. Improved Resolution of *Phytophthora Spp.* Multiplex PCR products utilizing high quality Agarose Gel Matrices. <u>Resolutions</u>. 10(2):4
- Lennon, P.A., C.A. Cooper, I.F. Salkin and S.B. Lee. 1994. Ribosomal DNA Internal Transcribed Spacer Polymorphisms as a tool for distinguishing human fungal pathogens in the taxa Lomentospora, Scedosporium and Pseudallescheria. J. Clin. Microbiol. 32:2413-2416.
- \*Worley, J.N., M. Ma. S.B. Lee, A.M. Lins, J.W. Schumm, and E.S. Mansfield. 1994. Rapid Genetic Typing on the FluorImager: Human DNA Quantitation, RFLP, D1S80, and Short Tandem Repeat (STR) Analysis. <u>Proceedings of</u> <u>the Fifth International Symposium on Human Identification</u>\_ISBN 1-882274-54-7. pp 109-117.
- Lee, S.B., T.J. White, and J. W. Taylor. 1993. Detection of Phytophthora species by oligonucleotide hybridization to amplified ribosomal DNA spacers. <u>Phytopathology</u>. 83:177-181.
- Lee, S.B., and J.W. Taylor. 1993. Uniparental Inheritance and Replacement of Mitochondrial DNA in <u>Neurospora</u> <u>tetrasperma. Genetics</u> 134:1063-1075.
- Goodwin D.C., and S.B. Lee. 1993. Rapid microwave mini-prep of total genomic DNA from fungi, plants and protists for PCR. <u>Biotechniques</u>. 15: 438-444.
- Min, L. and S.B. Lee. 1993. Detection of Phytophthora species by Multiplex PCR. <u>Phytophthora Newsletter.</u> Volume 19: 14-15.
- Lee, S.B., and J.W. Taylor. 1992. Phylogeny of five fungal-like protoctistan <u>Phytophthora</u> species inferred from the internal transcribed spacers of ribosomal DNA. <u>Molecular Biology and Evolution</u>. 9:636-653
- Lee, S.B. and J.W. Taylor. 1991. Molecular Phylogeny of Phytophthora species. Phytophthora Newsletter. 17:24-25.
- Lee, S.B., T.J. White, and J.W. Taylor. 1991. Detection of Phytophthora species by oligonucleotide hybridization to PCR amplified ribosomal DNA. <u>Phytophthora Newsletter</u>. 17:26-27.
- Lee, S.B., and J.W. Taylor. 1990. Isolation of DNA from Fungal Mycelia and Single spores. In <u>PCR Protocols-A Guide to</u> <u>Methods and Applications</u>. M. Innis, D. Gelfand, J. Sninsky, and T. White (Eds.) Academic Press, San Diego, Ca. Chapter 34. pp. 282-287.
- White, T. J., T. Bruns, S. Lee, and J. Taylor. 1990. Amplification and Direct Sequencing of Fungal Ribosomal RNA Genes for Phylogenetics. In <u>PCR Protocols-A Guide to Methods and Applications.</u> M. Innis D. Gelfand, J. Sninsky, and T. White (Eds.) Academic Press, San Diego, Ca. Chapter 38. pp. 315-322. <u>Note- Most cited scientific publication from UC Berkeley (see</u>
- Lee, S.B. 1990. Molecular Evolution of Fungi: Mitochondrial DNA Inheritance in <u>Neurospora tetrasperma</u>; Phylogeny and Identification of <u>Phytophthora spp.</u> using rDNA. Dissertation. University of California at Berkeley. 143 pp.
- Lee, S.B., M.G. Milgroom and J.W. Taylor. 1988. A rapid, high yield mini-prep method for isolation of total genomic DNA from fungi. <u>Fungal Genetics Newsletter</u>. 35:23-24.
- Koerner, T.J., A. M. Myers, S. Lee and A. Tzagoloff. 1987. Isolation and Characterization of the Yeast Gene Coding for the alpha Subunit of Mitochondrial Phenylalanyl-tRNA Synthetase. J. Biol.Chem. 262:3960-3696.

- Levine, W.G. and S.B. Lee. 1983. Effect of glutathione on the metabolism of N,N-dimethyl-4-aminoazobenzene. Drug Metab. Dispos. 11:239-243.
- Levine, W.G. and S. Lee. 1983. Cytosolic factors that alter the metabolism of N,N-dimethyl-4-aminoazobenzene by rat liver microsomes. <u>Biochem.Pharmac.</u> 32: 3137-3144.

#### **PUBLICATIONS in PREPARATION**

Sensabaugh, G and Steven B. Lee. Sperm Detection and Separation. A Review. Manuscript in Preparation.

McCord, B, and Steven B. Lee. Overcoming PCR Inhibition in Rapid DNA analysis Manuscript in Preparation.

- Clarissa Trogdon, Linda Le, Kimberly Clabaugh, Marissa Meininger, Michael D. Coble, Odile Loreille, Melissa Scheible, Michael Davis, Rachel Demara, Sohela de Rozieres, Martin Latterich, Rolf Muller, Greg Hampikian and Steven B. Lee. 2012 The STR reaction additives PCRboost(tm) and STRboost(tm) enable high fidelity allele calling in the presence of STR and microsequencing reaction inhibitors. Journal of Forensic Science. Manuscript in preparation.
- Kelly Conroy and Steven B. Lee. Optimizing Human Semen Stain Detection Using Fluorescence. Journal of Forensic Science Manuscript in preparation.
- Buban, Lauren, John Jermaine, Clarissa Trogdon and Steven. B. Lee. The Recovery of DNA on Improvised Incendiary Devices (Molotov Cocktails) Utilizing Various Fire Suppression Techniques. Manuscript in preparation Journal of Forensic Science Manuscript in preparation.

#### CONTRIBUTED PAPERS, ABSTRACTS AND WORKSHOPS Over 150 papers, abstracts and workshops

- Dee Mills, Joseph Rahm, Meghan Roig, Steven Lee, Bruce McCord 2018. Non-Destructive, enhanced collection, recovery and storage of difficult forensic samples, improving the 'front end' processes of DNA typing. Accepted poster presentation California Association of Criminalists Meeting (October 2018), San Diego CA.
- Eric Yan-Hung Yu, Kenya Thomas, Keith Garrison, Georgiana Gibson-Daw, Meghan Roig, Bruce R. McCord and Steven B. Lee. 2018. Microwave DNA isolation for ultra-high speed direct rapid PCR. Poster presentation accepted to the California Association of Criminalists Meeting (October 2018), San Diego CA.
- Kenya Thomas, Eric Yan-Hung Yu, Maosheng Ma, Keith Garrison, Steven B. Lee. 2018. Rapid microwave-accelerated DNA extraction from blood, saliva, semen, hair and fingernails. Poster presentation accepted to the California Association of Criminalists Meeting (October 2018), San Diego CA.
- Dee Mills, Joseph Rahm, Meghan Roig, Steven Lee, Bruce McCord 2018. Non-Destructive, enhanced collection, recovery and storage of difficult forensic samples, improving the 'front end' processes of DNA typing. Accepted poster presentation International Symposium on Human Identification (Sept 2018) Phoenix AZ.
- Kenya Thomas, Eric Yan-Hung Yu, Keith Garrison, Georgiana Gibson-Daw, Meghan Roig, Bruce McCord, Maosheng Ma and Steven B. Lee.. 2018. Microwave-accelerated DNA extraction of forensic biological samples for direct rapid PCR-STR typing. Poster and Oral Highlight presented at the Gordon Research Conference on Forensic Analysis of DNA (June 2018) Sunday River ME.
- Dee Mills, Joseph Rahm, Meghan Roig, Steven Lee, Bruce McCord 2018. Non-Destructive, enhanced collection, recovery and storage of difficult forensic samples, improving the 'front end' processes of DNA typing. Poster Gordon Research Conference on Forensic Analysis of DNA (June 2018) Sunday River ME
- Lee SB. 2018. Vice-chaired the Gordon Research Conference on Forensic Analysis of DNA (June 2018) Sunday River ME

- Ted Hunt, Steven B. Lee, Julie Sikorsky, Brian Young. 2018. Using Massively Parallel Sequencing (MPS) Results in Court: The Path to Admissibility. Oral Presentation and Panel Discussion. 7th Annual IFRI Symposium (May 2<sup>nd</sup>, 2018). Miami Fl.
- Kenya Thomas, \*Eric Yu, \*Georgiana Gibson-Daw, \*Meghan Roig, Bruce McCord and Steven B. Lee. 2017. Rapid, microwave-accelerated DNA extraction from saliva, semen and hair for downstream PCR typing. Poster presented at the 28th International Symposium on Human Identification. Seattle, WA October 2-5, 2017
- Lee SB and Just, R. 2017. Introduction to Massively Parallel DNA Sequencing Technology: Chemistry and Applications in Forensic Investigations.Cambridge Healthtech Institute's Next Generation Dx Summit NGS for DNA Forensics. August 18, 2017 in DC <u>http://www.nextgenerationdx.com/dna-forensics/</u>
- Lee SB. 2017. Introduction to Massively Parallel Sequencing. 6th Annual IFRI Symposium May 9-10<sup>th</sup>. Miami Fl.
- Lee, SB/ 2016. Invited speaker at the 2016 Zhejiang Police College Forensic Science Symposium, Hangzhou, China. Declined due to travel conflict.
- Lee, SB. 2016.- Invited presentation on Intro to NGS. Fall 2016 California Association of Criminalistics October 2016. Declined due to travel conflict.
- Lee, SB. 2016. Vice-chairing a Gordon Research Conference on Forensic Analysis of DNA (June 2016) Waterville, NH.
- Lee, SB. 2016. Invited presentation on Introduction to Next Generation Sequencing. May 18<sup>th</sup>, 2016. Mid Atlantic Association of Forensic Sciences, Richmond VA.
- Lee, SB. Intro to NGS. March 16, 2016. International Forensic Research Institute: Forensic Science Symposium. Florida International University.
- Tang, K., Ramirez, J, Bond, J., Weart, J., DeLaTorre, Y., Fitch, I and Lee, SB. Optimizing Collection of Trace Biological Samples From Vehicle Headrests. Poster Presentation at the 68<sup>th</sup> Annual Meeting of the American Academy of Forensic Sciences. Young Forensic Scientists Bring Your Own Poster Forum. February, 2016. Las Vegas, Nevada.
- Lee, SB. 2015. Introduction to the Universal Analysis Software for Next Generation Sequencing data. Oral presentation accepted for the BODE Mid Atlantic Advanced DNA Technologies Illumina Workshop November 11-14th, 2015. Arlington, VA
- Tang, K., Ramirez, J, Bond, J., Weart, J., DeLaTorre, Y., Fitch, I and Lee, SB. Optimizing Collection of Trace Biological Samples From Vehicle Headrests. October 13, 2016. Poster Presentation at the 26<sup>th</sup> ISHI.
- Heath, B., and Lee, SB. Methods for increasing success on degraded mixtures. October 11, 2016. Platform Presentation at the Forensic Mixtures Workshop: (2015) 26<sup>th</sup> ISHI. Grapevine TX.
- Lee, SB. Introduction to Next Generation Sequencing. October 11, 2016. Platform Presentation at the Forensic Mixtures Workshop (2015) 26<sup>th</sup> ISHI. Grapevine TX.
- McCord, B., McElfresh, K, Tracey, M. and Lee, S.B. Forensic Mixtures Workshop. October 11, 2016. Co-chair. 26<sup>th</sup> International Symposium on Human Identification (ISHI), Grapevine TX
- Lee, SB. Invited Speaker. September 22-25,2015. Zhejiang Police College Forensic Science Symposium, Hangzhou, China.

- Lee, SB. 2015. Introduction to the Universal Analysis Software for Next Generation Sequencing data. Oral presentation at the BODE East Advanced DNA Technologies Workshop held during the Illumina workshop. May 25-29th 2015. Wyndham Grand Orlando Resort Bonnet Creek, Florida.
- McCord, B and SB Lee. 2015. The Development of New Enzymes for Rapid Direct Amplification of Crime Scene Samples and Its Application in Presumptive DNA Screening. Oral presentation for the FIU Fourth Annual International Forensic Science Research Symposium. May 5-6, 2015. FIU, Miami, FL
- Lee, SB. 2015. Advances in Screening of Biological Samples: Part 1. Utility of a Triplex qPCR on degraded samples and Part 2. Road to the Final 4 minute PCR in a flow based cycler. Oral presentation at the BODE West Advanced DNA Technologies Workshop held during the Promega Tech Tour. March 30, 2015. Coronado Resort. San Diego, CA
- Lee, SB, GT Duncan and BR McCord. 2015. The Development of New Enzymes for 20-Minute Rapid Direct Amplification of Crime Scene Samples and Its Application in Presumptive DNA Screening. Accepted Poster presentation. 2015 American Academy of Forensic Sciences Meeting. Orlando Florida, February 16-20<sup>th</sup>, 2015.
- Lee, SB. 2014. Evaluation of New Screening and Quantification Methods for Forensic Samples. Invited platform presentation. Advanced DNA Technologies Workshop West- Westin, San Diego, CA-15 April, 2014. Invited to deliver the same presentation at the Advanced DNA Technologies Workshop East- Disney's Yacht & Beach Club Resort in Lake Buena Vista, FI-21 May 2014, and at the Mid-Atlantic- Hyatt Crystal City, VA 3-6 November 2014
- Lee, SB. 2014 New Strategies for Overcoming PCR Inhibition. Invited platform presentations at the 2014 Technology Tour Seminar Series. Los Angeles, CA 08/12/14, Madison WI 08/26/14 (Delivered via skype), Crystal City VA 11/03/14.
- Jesse Ramirez, Gina Pineda, Anne Montgomery, Robyn Thompson, Sudhir Sinha, Ryan Yee, Zach Goecker, S. Lee Assessing DNA Quality, Quantity, and Inhibition using a highly sensitive multiplex quantification system for Forensic Samples. Special Session AAFS at IAFS: Future Directions in Forensic Science. Seuol Korea. 10/16/14.
- Steven B. Lee. Chair of the NGS Advances in Human Forensic Genomics. Workshop held at the 2014 International Symposium on Human Identification. Held in Phoenix, AZ September 29<sup>th</sup>, 2014
- Jesse Ramirez, Nikki Roda, Gina M. Pineda, Anne H. Montgomery, Sudhir K. Sinha Assessing DNA Quality, Quantity, and Inhibition using a highly sensitive multiplex quantification system for Forensic Samples. Poster presented at the 2014 International Symposium on Human Identification. Held in Phoenix, AZ September 29<sup>th</sup>, - October 2<sup>nd</sup>, 2014
- Steven B. Lee. Fostering the Next Generation of Forensic Scientists: Mentoring in the 21st-Century Interdisciplinary Symposium -Criminalistics Section. Oral presentation at the American Academy of Forensic Sciences Annual Meeting, Held in Seattle WA February 17-22<sup>nd</sup> 2014
- Steven B. Lee, Brooke A. Barloewen, Tahnee Nelson Mehmet, Nicole A. Roda. DNA Typing Compatibility With a Rapid, One-Step Saliva Screening Test: Phadebas Forensic Press Test. Poster presented at the February 2014 American Academy of Forensic Sciences Annual Meeting, Held in Seattle WA February 17-22<sup>nd</sup> 2014
- Steven B. Lee Sudhir K. Sinha, Gina M. Pineda, Anne H. Montgomery, Jesse M. Ramirez, Ryan Yee, Zachary C. Goecker, Niki Konstantinides. Inter-Laboratory Testing of a Highly Sensitive Quantification System for Assessing DNA Quality in Forensic Samples. Poster presented at the February 2014 American Academy of Forensic Sciences Annual Meeting, Held in Seattle WA February 17-22<sup>nd</sup> 2014

- Steven B. Lee. Chair of the Next Generation Sequencing User Forum. Workshop held at the February 2014 American Academy of Forensic Sciences Annual Meeting, Held in Seattle WA February 17-22<sup>nd</sup> 2014
- Steven. B. Lee. Chair of Advances in Forensic Genomics using Next Generation Sequencing. October 2013 Workhops held at the 24<sup>th</sup> annual International Symposium on Human Identification, Held in Atlanta, GA, October 7-10, 2013
- Dominique N. Cooper, Zachary Goecker, Jesse Ramirez, Ryan Yee and Steven B. Lee. 2013. Overcoming PCR Inhibition using Mutant Taq Polymerases. Poster presented at the 24<sup>th</sup> annual International Symposium on Human Identification, Held in Atlanta, GA, October 7-10, 2013
- Steven B. Lee. 2013. New Strategies for Overcoming PCR Inhibition. Invited Seminar at the BODE East Advanced DNA Workshop Omni Amelia Island Plantation, Amelia Island Florida 05/23/13 and BODE West Advanced DNA Workshop, San Diego, CA, 03/27/13 and the BODE Mid Atlantic Advanced DNA Workshop, Charlottesville, VA, Sept 23-26<sup>th</sup>. 2013
- Steven B. Lee. 2013. New Strategies for Overcoming PCR Inhibition. Invited Seminar at the Promega Technology Tour. Doubletree Berkeley, CA 08/13/13.
- Bennett, HJ, HB Nguyen, SB Lee. 2013. New Strategies to Overcoming PCR Inhibition Using Mutant Taq Polymerases and PCR Enhancers. Poster presented at the 2013 Annual AAFS Meeting held in Washington, DC
- Steven. B. Lee 2012. Chaired the Fall 2012 California Association of Criminalists Meeting Held November 5-9<sup>th</sup>, 2012.
- Steven B. Lee 2012. Chaired the DNA Workshop held at the Fall 2012 CAC meeting. November 6<sup>th</sup> 2012.

Steven B. Lee 2012. Chaired the Student Academy held at the Fall 2012 CAC meeting. November 5<sup>th</sup>, 2012.

- Nhan, P, J Liang and SB Lee. 2012. Evaluation of Biomatrica's Forensic DNA Stable Laboratory Validation Kit. Poster presented at the 23<sup>rd</sup> International Symposium on Human Identification October 2012 in Nashville TN
- Nguyen, H, H Bennett and SB Lee. 2012. New Strategies to Overcoming PCR Inhibition Using Mutant Taq Polymerases and PCR Enhancers. Poster presented at the 23<sup>rd</sup> International Symposium on Human Identification October 2012 in Nashville TN
- Steven B. Lee. 2012. Optimizing Detection, Collection and Storage of Forensic Biological Samples. Invited Oral presentation at the upcoming Advanced DNA Technologies West and East held in San Diego, CA and Orlando Florida, April 10-14<sup>th</sup> and May 20-24<sup>th</sup> respectively.
- Kelly Conroy and Steven B. Lee Optimizing Human Semen Stain Detection Using Fluorescence. 2012. Poster presented at the 2012 AAFS meeting in Atlanta GA. AAFS Proceedings Volume 18 p 77-78 and at the 2012 Society for the Advancement of Chicano and Native American Scientists meeting held in October 2012 in San Jose, CA.
- Corissa Harris, Amanda Cardenas, Brooke Barloewen and Steven B. Lee. 2012 Comparing Wearer DNA Sample Collection Methods for Determining the Best Method for the Recovery of Single Source Profiles. Poster presented at the 2012 AAFS meeting in Atlanta GA. AAFS Proceedings Volume 18 p 85-86 and at the 2012 Society for the Advancement of Chicano and Native American Scientists meeting held in October 2012 in San Jose, CA.
- Mariela Rivera, Corissa Harris, Phil Nhan, Zeba Khan, Amanda Cardenas, Brooke Barloewen and Steven B. Lee, 2011. Comparison of Collection Methods from Touch Samples on Metals and Wearer Samples from Simulated Mixtures on Clothing. Poster presented at the 22nd International Symposium on Human Identification

October 2011 in National Harbor MD and at the 2012 Society for the Advancement of Chicano and Native American Scientists meeting held in October 2012 in San Jose, CA.

- Lee, SB. 2011. Bio Sample Storage in the 21st Century and beyond The Cold War is OverGet S.M.A.R.T. (Sample Management At Room Temperature). Workshop Chair (industry) held at the 2011 AAFS Meeting February 2011 in Chicago.
- Erica Dinaro, Clarissa Trogdon and Steven. B. Lee 2011. Optimizing DNA Storage at Room Temperature: Teflon Tubes Vs. Polypropylene Tubes. Poster presented at the 2011 AAFS Meeting February 2011 in Chicago, IL.
- Baker, Breeana, Clarissa Trogdon and Steven B. Lee. 2011 Analysis of N-4 STR Repeat Slippage with Amplification Enhancer on Low-quantity DNA Samples. Poster presented at the 2011 AAFS Meeting February 2011 in Chicago, IL.
- Lee, SB, Bill Armaline, Ed Huffine and Mary Juno. 2010. Role of Forensic DNA in Human Rights, Mass Disaster and War Crime Investigations. Poster Presented at the 2010 American Society of Criminology meeting in SF, CA
- Clarissa Trogdon, Phil Nhan, Clara Wang and SB Lee. 2010. Enhancement Strategies for Overcoming PCR Inhibitors. Poster presented at the 21st International Symposium on Human Identification held October 2010 in San Antonio Texas.
- Buban, Lauren, John Jermaine, Clarissa Trogdon and Steven. B. Lee. 2010 The Recovery of DNA on Improvised Incendiary Devices (Molotov Cocktails) Utilizing Various Fire Suppression Techniques. Oral paper delivered at the Spring CAC meeting May 2010 in Oakland, CA.
- Lee, SB and J. Shewale. 2010. Advances in Forensic DNA Analysis. Workshop held February 2010 at the American Academy of Forensic Sciences meeting in Seattle WA.
- Clara Wang, Clarissa Trogdon, Linda Le, Marissa Meinenger, Steven B. Lee. 2010. Comparison of different amplification reagents for Alleviating Inhibitory Effects of Indigo Dye in PCR Poster presented at the American Academy of Forensic Sciences meeting held February 2010 in Seattle, WA.
- Bethea, A, Trogdon, C, Le, L, and Lee, SB. 2009. Utility of Amplification Enhancers in the Analysis of Mixed DNA Samples. Poster presented at the 20th International Symposium on Human Identification held October 2009 in Las Vegas, NV. Poster presented at the 2009 Society for the Advancement of Chicano and Native American Scientists meeting.
- Clarissa Trogdon, Linda Le, Steven Lee. 2009. Overcoming PCR Inhibition of Low Quantity and Low Quality Samples with Amplification Enhancers. Poster presented at the 20th International Symposium on Human Identification held October 2009 in Las Vegas, NV.
- Allie Paul, Clarissa Trogdon, Linda Le and Steven Lee. 2009. Comparison of DNA storage in Sample Matrix and Teflon Tubes. Poster presented at the 20th International Symposium on Human Identification held October 2009 in Las Vegas, NV.
- Clarissa Trogdon 2009. Overcoming PCR Inhibition of Low Quantity and Low Quality Samples with Amplification Enhancers. Oral seminar delivered at the California Association of Criminalists Meeting held October 2009 in San Jose, CA.
- Pijanowski, L, Lee, SB and Barloewen. 2009. Evaluation and Validation of PrepFiler Forensic DNA Extraction Kit. Poster presentation at the 2009 Society for the Advancement of Chicano and Native American Scientists meeting.

- K. Sekiguchi, N. Mizuno, H. Nakahara, K. Fujii, T. Kitayama, S. Miyasaka, Y. Ogawa, K. Kasai, H. Fukushima, H. Asamura,
   Y. Fukuma, K. Nagasaki, H. Yoshida, Steven B. Lee. 2009. Evaluation of a New DNA Extraction Kit for Degraded
   Skeletal Remains. Poster presented at the AAFS meeting held in Denver, CO.
- Le, L, Clabaugh, KC, Chang, A, Meinenger, M, Coble, MD, Loreille, O, Scheible, M, Demara, R, Muller, R, deRozieres, S, Kline, M, and Lee, SB. 2008. Recovering DNA profiles from low quantity and low quality forensic samples.
   Poster presented at the 19<sup>th</sup> International Symposium on Human Identification held October 2008 in Hollywood, LA. and a Poster presented at the 2008 Society for the Advancement of Chicano and Native American Scientists meeting and 2009. Poster presented at the AAFS meeting in Denver CO.
- Meinenger, MRD, Barloewen, B, Jones, J, and Lee, SB. 2008. Evaluation of purification columns for forensic DNA extraction. Poster presented at the 19<sup>th</sup> International Symposium on Human Identification held October 2008 in Hollywood, LA. and a Poster presented at the 2008 Society for the Advancement of Chicano and Native American Scientists meeting and 2009. Poster presented at the AAFS meeting in Denver CO.
- Sekiguchi, K, Mizuno, N, Nakahara, H, Fujii, K, Kitayama, T. Miyasaka, S, Ogawa, Y, Kasai, K, Fukushima, H, Fukuma, Y, Nagasaki, K, Yoshida, H, Lee, SB. 2008. Evaluation of a DNA extraction kit on degraded skeletal remains. Poster presented at the 19<sup>th</sup> International Symposium on Human Identification held October 2008 in Hollywood, LA.
- Muller, R, Muller-Cohn, J, Fourney, RM, Coble, MD, Kline, MC, Parsons, T, Eisenberg, AJ, Budowle, B, Roberts, KA, and Lee, SB. Optimizing Collection, Shipping, and Storage of Forensic Biological Samples. Lee delivered an oral presentation at the 2008 American Academy of Forensic Sciences meeting held in Washington DC. Published in the Proceedings of the American Academy of Forensic Sciences. Volume 14. pp. 89-90. http://www.aafs.org/pdf/2008ProceedingsWashingtonDC.pdf

 Kimberly Clabaugh, Brie Silva, Kingsley Odigie, Ron Fourney, Jesse Stevens, George Carmody, Mike Coble, Odile Loreille, Melissa Scheible, Margaret Kline, Thomas Parsons, Arijana Pozder, Arthur Eisenberg, Bruce Budowle and Steven B. Lee. 2007 and 2008 Storage of DNA samples at ambient temperature using DNA-SampleMatrix. Poster presented at the 18<sup>th</sup> Annual International Symposium on Human Identification. held October, 2007. Hollywood, CA.

http://www.promega.com/geneticidproc/ussymp18proc/abstracts/Abstract48Clabaugh.pdf

Also presented as an oral presentation at the Fall 2007 California Association of Criminalists Meeting held in Berkeley, CA October 2007, the American Academy of Forensic Sciences February 2008 meeting held in Washington DC. Published in the Proceedings of the American Academy of Forensic Sciences. Volume 14. page 51 - <u>http://www.aafs.org/pdf/2008ProceedingsWashingtonDC.pdf</u> and the Spring 2008 California Association of Criminalists meeting held May 2008 in San Diego, CA.

Arturo Aguilar, Kimberly Clabaugh, Anthony Carter, Sudhir Sinha and Steven B. Lee. 2007 and 2008. Development of a male DNA Screening Assay using Y Alu Derived sequences for detection on the FMBIO III plus. Poster presented at the 18<sup>th</sup> Annual International Symposium on Human Identification. held October, 2007. Hollywood, CA.

http://www.promega.com/geneticidproc/ussymp18proc/abstracts/Abstract84Aguilar.pdf

Poster presentation at the 2007 Society for the Advancement of Chicano and Native American Scientists meeting held Kansas City, MO, October 11-14, 2007. Also presented as an oral presentation at the Fall 2007 California Association of Criminalists Meeting held in Berkeley, CA October 2007 and the American Academy of Forensic Sciences February 2008 meeting held in Washington DC. Published in the Proceedings of the American Academy of Forensic Sciences. Volume 14. page 44http://www.aafs.org/pdf/2008ProceedingsWashingtonDC.pdf

Kingsley Odigie, Lynne Burley, Ian Fitch and Steven Lee. 2007 and 2008. Repair of damaged DNA using commercially available enzymes. Poster presented at the 18<sup>th</sup> Annual International Symposium on Human Identification. held October, 2007. Hollywood, CA.

#### http://www.promega.com/geneticidproc/ussymp18proc/abstracts/Abstract38Odigie.pdf

Poster presentation at the 2007 Society for the Advancement of Chicano and Native American Scientists meeting held Kansas City, MO, October 11-14, 2007. Also presented as an oral presentation at the Fall 2007 California Association of Criminalists Meeting held in Berkeley, CA October 2007 and the American Academy of Forensic Sciences February 2008 meeting held in Washington DC. Published in the Proceedings of the American Academy of Forensic Sciences. Volume 14. page 53-54. http://www.aafs.org/pdf/2008ProceedingsWashingtonDC.pdf

- R. Muller, J. Muller-Cohn and SB Lee. 2007 Optimizing DNA Stabilization and Storage of Forensic DNA Samples using polymers. Poster presented at the 18<sup>th</sup> Annual International Symposium on Human Identification. Held October, 2007. Hollywood, CA. <u>http://www.promega.com/geneticidproc/ussymp18proc/abstracts/Abstract16Lee.pdf</u>
- Hirofumi Fukushima, Steven B. Lee, Yoshiya Fukuma, Masamitsu Nakamura, Hiroaki Yoshida and Takahiko Kasuga. 2007. Overview of a lab support system for managing data from DNA. Poster presented at the 18<sup>th</sup> Annual International Symposium on Human Identification. Held October, 2007. Hollywood, CA <u>http://www.promega.com/geneticidproc/ussymp18proc/abstracts/Abstract10Fukuma.pdf</u>
- Silva, B, C. Cook, S. Murillo and **S.B. Lee**. 2007. Evaluation of Zeolite as a substrate for Collection and Storage of DNA. Abstract accepted and poster at the 2007 American Academy of Forensic Sciences meeting held February 2007 San Antonio, TX, and a poster at the 2006: 17<sup>th</sup> Annual International Symposium on Human Identification. Held on October 9-12, 2006. Nashville TN
- Villa, E, K. Ballinger, A. Carter and S.B. Lee. 2006. Development of a Y chromosome specific screening method for sexual assault evidence. Abstract and poster presentation at the Society for Advancement of Chicanos and Native Americans in Science National Conference. Held on October 26-29, 2006. Tampa Fl.and presented as a poster at 17<sup>th</sup> Annual International Symposium on Human Identification. Held on October 9-12, 2006. Nashville TN
- Matsumoto, T, R. Nakashige1, and **S. B. Lee**. 2006. Expert System for Evaluating Automated Allele Called Data. Abstract and poster at the 17<sup>th</sup> Annual International Symposium on Human Identification. Held on October 9-12, 2006. Nashville TN.
- Murrillo, S and **S. Lee 2006.** Recovery of DNA from unique substrates. Poster presented at the 2006 American Academy of Forensic Sciences meeting. Seattle, WA, Feb. 20-25, 2006. Forensic Science Foundation Ribbon Award.
- Lee, S and S. Murillo. 2006. Evaluation of Zeolite and Chitosan as Substrates for Collection and Storage of DNA. Spring CAC Conference oral presentation. Abstract. CACNEWS. Third Quarter 2006 p. 28. <u>http://www.cacnews.org/pdfs/3rdq06.pdf</u>– Awarded the 2006 A.Biasotti Most Outstanding Research Presentation.
- Lee, SB. 2006. Forensic DNA Research and Teaching at San Jose State University: Establishing Partnerships in Academia, Biotechnology, and Government. Oral presentation at the 2006 American Academy of Forensic Sciences meeting. Seattle, WA, Feb. 24, 2006.
- Lee SB. 2005. : Forensic DNA: Molecular Biology Applications and Technology for Solving Crime. SJSU Department of Biological Sciences Graduate Seminar Series (11/02/05)
- Lee, SB. 2005. Technology Developments in Forensic DNA: Rapid Molecular Screening Assays in Biodefense, Diagnostics and Forensics. Invited Seminar. Stanford Genome Technology Center Club Seminar. Stanford University School of Medicine. <u>http://www-med.stanford.edu/sgtc/meetings\_2005.html</u>October 27th, 2005

- Lee, SB Xavier Aranda, Dennis Yip, Arthur Eisenberg, Cecelia A. Crouse, Amy McGuckian, Tateo Nagai, Marco Calavetta, Meihua Chu, Takeshi Shimizu and Stephen Rodgers. 2005. Inter-Laboratory Studies on the Powerplex Y using the FMBIO III plus. Poster presented at the 16th Annual International Symposium on Human Identification. 26-29 September 2005. Grapevine, TX. http://www.promega.com/geneticidproc/ussymp16proc/abstracts.htm
- Larsen, K and **S. Lee**. **2005.** Optimization Strategies for DNA storage. Poster presented at the 16th Annual International Symposium on Human Identification. 26-29 September 2005. Grapevine, TX. http://www.promega.com/geneticidproc/ussymp16proc/abstracts.htm
- Lee, SB, A.T. Minn, T. Nagai, T Shimizu, F. Ogura and M. Kuji. 2005. Integrated acquisition and analysis of multiplexed immuno- and SNP assays using the Masterplex software suite. Poster presented at the Luminex X Map symposium. Held April 25-27, 2005. Austin, TX. <u>http://www.luminexcorp.com/planetxmap/Minn.pdf</u>
- Smith, K and **S Lee. 2004**. Comparison of DNA storage methods. Poster presentation at the 15<sup>th</sup> International Symposium on Human Identification. October 4-7, 2004. Scottsdale, AZ.
- Lee, SB. 2004. DNA Games, Metaphors and Songs: Motivating Students with Forensic Science. Invited speaker for the Edward Teller Science and Technology Education Symposium. Garre Vineyard, Livermore, CA- 24 Sept 2004.
- Lee, SB. 2004. GeneIndex: Multidatabase integration and query solution with knowledge mining. Exhibitor presentation. Beyond Genome. Fairmont Hotel, SF, CA.
- Lee, SB 2004. Update on Status of Instrumentation for Hitachi Miraibio. STR Megaplex and Research Technology Workshop. March 28-April 2004. Virginia Beach VA.
- Lee, SB 2003. GeneIndex. Multidatabase searching with Knowledge Mining. Exhibitor workshop at the American Society for Cell Biology. December 17<sup>th</sup>, 2003- Moscone Convention Center, SF, CA
- Minn, A, T Nagai, **SB Lee**, L Klevan, and M. Kuji **2003.** Bioinformatics Software for Identification and Analysis of Infectious Disease Agents. Poster presented at the ASM Biodefense meeting held March 9-12, 2003. Baltimore, MD
- Lee, SB. 2003. Bead Based Flow Cytometric Assays Using Luminex technology: A High Throughput system for diagnostic applications. Pathology Grand Rounds. Harbor-UCLA Medical Center. Torrence CA
- White, S, R. Vierling, T Brettin, M Wolinsky, **S Lee** and J Nolan. **2002.** DNA/RNA Signature Design: From Whole Genome Sequence to Robust Signatures. 2002. Poster presented at Biodefense: Research, Technologies and Applications. November 4-5, 2002. McClean VA.
- Lee Steven B. 2002. Microarraying: Data Quality Is the Key. Chips to Hits 2002. Workshop to be held at the 2002 Chips to Hits Workshop. Philadelphia Convention Center and Marriott in Philadelphia, PA. Oct 30, 2002.
- Lee, SB, M. Calavetta, and M Hendson. 2002. Genetic Analysis of SNPs using the Luminex 100 and Masterplex GT. Poster presented at the 13<sup>th</sup> International Symposium on Human Identification. Held in Scottsdale, AZ. October 2002.
- **Lee, SB. 2002.** Multiplexed SNP and Cytokine Assays Using the Luminex<sup>TM</sup> 100 and Masterplex<sup>TM</sup> software. Workship held at the IBC Drug Discovery Meeting. Boston, MA August 8<sup>th</sup>, 2002.

- Lee, SB 2002. Multiplexed SNP applications and genetic data analysis. Workshops held July 16, 2002- Long Beach, July 17, 2002- Emeryville, CA, and July 29<sup>th</sup>, 2002- New York City
- Lee, SB, Mavis Hendson, PhD, Sunny Pak, MS, David Carlson, PhD., Eric Ubil, MS, Jing-Li Yo, PhD, Delphine Alley, Cecelia Crouse, PhD, Felipe Konotop, MS, George Duncan, Ph. D., Donna Marchese, MS, Martin Tracey, PhD Maria Ballester, BS, Julie Wan Young, BS, Ines Ortuzar, BS, Jim Schumm, PhD, Ashima Amin, MS, John Fox, MS, John M. Butler, PhD, Peter M. Vallone, PhD, Barbara C. Levin, Ph.D, Diane K. Hancock, Ph.D., Tom Parsons, PhD, Mike Coble, M.F. S, Christine Harvie, M.F.S., Artie Eisenberg PhD, Ann M. Gross, MS, Sudhir K. Sinha, PhD, Jaiprakash Shewale, Ph.D., Martin Buoncristiani, MPH, Larry Riggs, Laura Kienker PhD, and Bruce Budowle PhD. 2002. Interlaboratory studies on multiplexed mt DNA HV and Y chromosome SNP kits using an automated liquid bead array system: Luminex 100. 2001 and 2002. Oral Presentations at the International Symposium on Human Identification meeting October 2001, Biloxi, MS, the STR Megaplex Meeting, Hilton Head SC. March 12, 2002 and American Academy of Forensic Sciences Meeting. February 14, 2002. Atlanta, GA.
- Lee, SB, Mavis Hendson, William Chapman, Manish Shah, David Carlson, Eric Ubil, Jing-Li Yo, and Delphine Alley. 2001. Advances in Forensic DNA Microarray Technology: Next Generation Spotter and scanner Multiplexed MtDNA HV and Y chromosome SNPs using an automated flow cytometric platform from Miraibio Inc. Oral Presentation at the 12<sup>th</sup> International Symposium on Human Identification. Held in Biloxi, Mississippi. October 9-12, 2001.
- Lee, SB, Marco Calavetta and Bill Hudlow. 2001. Advances in DNA Typing from Hitachi Genetic Systems: Human DNA Quantification, Spectral Genotyping and Microarrays. Oral Presentation at the American Academy of Forensic Sciences Meeting. February 19-24, 2001 Seattle, WA.
- Mavis Hendson, Martin Buoncristiani, Cristian Orrego and **Steven B. Lee. 2001**. Magentic Bead Extraction of DNA from Semen, Blood, Vaginal, and Buccal Cells- Evaluations for a Streamlined Differential Extraction Method. 2001. Poster Presentation at the American Academy of Forensic Sciences Meeting. February 19-24, 2001 Seattle, WA.
- Lee, Steven B. and M. Calavetta 2000. Imaging, Microarrays and Bioinformatics. Workshop presented at the 2000 American Society of Biochemistry and Molecular Biology June 4-8, 2000 at the Hynes Convention Center in Boston, MA.
- Lee, Steven B., P. Liang, B. Marchmont and M. Calavetta 2000. Imaging, Microarrays and Bioinformatics: A total Solution from Hitachi Genetics Systems. Workshop presented at the 2000 Drug Discovery Meeting August 14-17, 2000 at the World Trade Center and Seaport Hotel in Boston, MA.
- Hudlow, WR, B. Budowle, SB Lee and L Klevan. 2000. Rapid, accurate, digital, DNA quantification using the CCDBI16HC<sup>™</sup>. Poster presented at the 11<sup>th</sup> International Symposium on Human Identification. Biloxi. MS. October 10-13, 2000.
- Lee, Steven B. 2000. Advances in DNA typing from Hitachi Genetic Systems and STR admissibility topics: CE vs. FMBIO. Workshop seminar presented at the 11<sup>th</sup> International Symposium on Human Identification. Biloxi, MS. October 10, 2000.
- Lee, Steven B. 2000. Imaging, Microarrays and Bioinformatics and New FMBIO II e applications. Technology workshop presented at the 2000 Chips to Hits Meeting November 8, 2000 at the Philadelphia Convention Center and Marriot in Philadelphia, PA.
- Buoncristiani, M., Steve Myers, Ellen Clark, Mavis Hendson, John Tonkyn, and Steven B. Lee, 1999. Optimizing STR capillary electrophoresis results. Oral presentation abstract in the Proceedings of the1999 American Academy of Forensic Science Meeting. Orlando, Fla. Feb 1999.
- Hendson, Mavis., Martin Buoncristiani and Steve Lee. 1999. DNA Isolation Using Magnetic Beads from Blood, Semen, and Mixtures of Epithelial Cells and Semen. DNA Users Group Spring CAC Meeting presentation. 12 May 1999. Oakland, CA.
- Hendson, Mavis, Jumana Latif, Barbara Burritt, Suzanne Lain and Steve Lee. 1999. Evaluation by STR analysis of FTA cards for the collection of blood and buccal cells. Abstract Submitted for presentation at the International Society for Forensic Haemogenetics 18-21 August 1999 in SF, CA.

- Morikawa, Toshio, and Steven B. Lee. 1999. Distribution Study of Y Chromosomal Microsatellite DYS390, DYS391, DYS395 and DYS19 Loci in Caucasian, Hispanic and African American Populations. Abstract Submitted for presentation at the 1999 International Association of Forensic Sciences Meeting held 25-28 August 1999 at UCLA.
- Fourney, R, G. Duncan and SB Lee. 1998. The Science of Forensic STR Analysis and Data Interpretation Co chair of the Workshop # 20. 1998 American Academy of Forensic Sciences San Francisco, California Abstract in the Proceedings of the 1998 American Academy of Forensic Science Meeting. San Francisco, CA. p.12
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- Lee, S.B. 1993. NSF DNA Technology Workshop Stipends. Table Presentation at the CO Biotechnology Symposium. 21 Sept 1993. UC Boulder.
- <sup>\*</sup>Lee, S.B. 1993. Phylogenetic relationships of zoosporic organisms inferred from sequences of the nuclear small subunit DNA. Invited paper at the Department of Cellular and Molecular Biology, CSU 22 April 1993.
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- Lee, S.B. 1992. Molecular Evolution of Oomycetes. Sigma Xi Meeting. 23 April 1992. University of Northern Colorado.
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- Lee, S.B. and M.S. Fuller. 1992. Small-subunit ribosomal DNA sequences of <u>Leptomitus lacteus</u>, <u>Apodachlya</u> <u>brachynema</u>, <u>Sapromyces elongatus</u>, <u>Aqualinderella fermentans</u> and <u>Rhipidium sp</u>. and their evolutionary implications for the Oomycete order Leptomitales. Mycological Society of America Meeting, Portland Oregon. August 8-12, 1992. Published MSA Newsletter.
- Lee, S.B. and M.S. Fuller. 1992. Molecular evolution of Oomycota. Poster presented at the ASM Rocky Mountain Branch meeting. 19 September 1992.

- \*Lee, S.B. 1992. Water mold evolution inferred from PCR amplified ribosomal DNA. Invited paper at the Botany seminar series. University of Wyoming. October 9, 1992.
- \*Lee, S.B. 1992. Phylogenetic relationships of zoosporic organisms inferred from sequences of the nuclear small subunit DNA. Invited paper at the Department of Plant Pathology and Weed Sciences. Colorado State University. 12 October 1992.
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- Lee, S.B. March 1991. Molecular Evolution of Oomycota. Paper presented at the Botany Seminar. UGA, Athens. March 12, 1991.
- \*Lee, S.B. March 1991. Molecular Evolution in Oomycetes. **Invited paper** at the Plant Systematics Seminar Series. Department of Botany, **Duke University**, N.C. March 21, 1991.
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- Lee, S.B. 1991. Phylogenetic relationships of zoosporic fungi inferred from ribosomal DNA. Botany Seminar, UGA, Athens, GA. October 21, 1991.
- Lee, S.B., T.J. White and J.W. Taylor. June 1990. Molecular Evolution and Identification of <u>Phytophthora spp</u>. Poster presented at the 1990 Mycological Society of America Meeting, Madison, WI. <u>Mycol. Soc. Amer. Newsletter</u> 41:24.
- Lee, S.B., T.J. White and J.W. Taylor. June 1990. Detection of species-specific sequences using ribosomal DNA in <u>Phytophthora spp.</u> Paper presented at the 1990 Mycological Society of America Meeting, Madison, WI. <u>Mycol.</u> <u>Soc. Amer. Newsletter.</u> 41:23-24.
- Lee, S.B., T.J. White and J.W. Taylor. August 1990. Detection of <u>Phytophthora</u> species by oligonucleotide hybridization. Paper presented at the International Mycological Congress IV. Regensberg, FRG.
- Lee, S.B., and J.W. Taylor. August 1990. Molecular Evolution and Identification of <u>Phytophthora spp</u>. Poster presented at the International Mycological Congress IV. Regensberg, FRG.
- Lee, S.B. and J.W. Taylor. March 1989. Molecular evolution of <u>Phytophthora</u> using polymerase chain reaction amplified internal transcribed spacer sequences of ribosomal DNA. Paper presented at the Fifth Semiannual Bioscience Symposium of San Francisco Bay Area Chinese Students and Scholars. March 19, 1989. UCB.
- Lee, S.B. April 1989. Mitochondrial inheritance in <u>Neurospora tetrasperma</u>. Paper presented at the seminar in mycology, Botany 295. University of California, Davis.
- Lee, S.B. and J.W. Taylor. April 1989. Mitochondrial Inheritance in <u>Neurospora tetrasperma</u>. Poster presented at the Fungal Genetics Conference, Asilomar, CA. <u>Fungal Genetics Newsletter</u> 36:17.
- Lee, S.B. and J.W. Taylor. August 1989. Molecular evolution of <u>Phytophthora</u> using Polymerase Chain Reaction amplified internal transcribed spacer sequences of ribosomal DNA. Paper presented at the AIBS-Mycological Society of America Meeting, Toronto, Canada. <u>Mycol. Soc. Amer. Newsletter</u> 40:35-36.

- Lee, S.B. August 1988. Mitochondrial Inheritance of <u>Neurospora tetrasperma</u>. 1988 California <u>Neurospora</u> Conference. UC Santa Cruz.
- \*Lee, S.B. November 1988. Molecular Systematics of <u>Phytophthora cinnamomi.</u> Molecular Approaches to Genetics and Systematics of the Oomycetes: <u>Phytophthora</u> and <u>Pythium</u>. The American Phytopathological Society 1988 Annual Meeting. San Diego, California.
- Levine, W.G. and Lee, S.B. 1982. Cytosolic factors in the microsomal metabolism of dimethylaminoazobenzene (DAB), <u>Fed. Proc.</u>, 41:1730.
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#### **<u>GRANT EXPERIENCE</u>** and **DONATION FACILITATED:** <u>GRANTS:</u>

- Co-applicant. 2018. Campus Enhancement for NFSTC@FIU. PI: Kevin Lothridge. Technology Fee Grant. Funded for \$159,000.00.
- PI March 2018 CAC Scholarships for Forensic Science Students at SJSU. Funded for \$6000.00 for AY 2018-2019.
- Research Consultant. 2017. Non-destructive, enhanced collection and recovery from difficult forensic samples, improving the "front end" processes of DNA typing. PI: Dr. De Etta Mills and Dr. Bruce McCord, FIU. NIJ grant 2017-DN-BX-0137. <u>Funded \$286,931.00</u>
- PI March 2017 CAC Scholarships for Forensic Science Students at SJSU. Funded for \$6000.00 for AY 2017-2018.
- PI March 2016 CAC Scholarships for Forensic Science Students at SJSU. Funded for \$1000.00 for AY 2016-2017.
- Research Consultant. 2015. Ultrahigh speed, direct PCR: A method for obtaining STR genotypes in under 6 minutes. PI: Dr. Bruce McCord, FIU. NIJ grant 2015-R2-CX-K038, <u>Funded \$400,265.00</u>
- PI March 2015CAC Scholarships for Forensic Science Students at SJSU. Funded for \$5000.00 for AY 2015-2016.
- PI March 2014 CAC Scholarships for Forensic Science Students at SJSU. Funded for \$5000.00 for AY 2014-2015.
- Research Mentor. June 2013. Keck Foundation Undergraduate Education and Research Grant. Funded \$250,000.00

PI June 2013. AAFS grant for CSI Camp and AAFS FSEC. Funded \$10,000.00 for 2013.

PI March 2013 CAC Scholarships for Forensic Science Students at SJSU. Funded for \$4000.00 for AY 2013-2014.

Research Mentor. 2013-2017 NSF REU Grant Renewed 2/14 with Dr. Julio Soto- Research mentor- NSF DBI 1262832 Funded for \$448,654.00

- PI April 2012 NIJ Applied Research Grant. Submitted. Improved Collection and Recovery from "Low Copy Number" (LCN) and Compromised DNA Samples:Collection Agent Tools Advancing LCN Improvements in Storage and Typing Success- CATALISTS. Requested \$672,778.00 Submitted 04/05/12. Not funded.
- PI March 2012 CAC Scholarships for Forensic Science Students at SJSU. Funded for \$6000.00 for AY 2012-2013.
- PI January 2012. Texas Instruments and Silicon Valley Community Foundation Grant. CSI and Forensic Science Professional Development: Inspiring Students into Science. \$225,000.00. Not Funded.
- Research Mentor and Ethics Course coordinator. Submitted September 2011. Howard Hughes Medical Institute Science Education Grant Renewal with Biology, Dr. Julio Soto.Not funded.

- PI. October 2011 The Wayne and Gladys Valley Foundation Grant: Building a World Class Forensic Science Research and Teaching Facility at San José State University. Requested. \$4.274,590.00. Not funded.
- PI NIJ Applied Research Grant. Submitted April 2011. Improved Collection and Recovery from "Low Copy Number" (LCN) and Compromised DNA Samples: Collection Agent Tools Advancing LCN Improvements in Storage and Typing Success- CATALISTS. Requested 637,263.00. Not Funded.
- PI NIJ Training Grant. Submitted April 2011. Delivery of a Unique Training course in Fingerprint Development: Identifying, Preserving and Visualizing fingerprint corrosion on Metals. Requested \$158,946.00. Not Funded.
- Co-PI UK Arts and Humanities Research Council: The Forensic Science Futures Network: The Socio-cultural context of contemporary forensic science w UoL. \$127,704.00. Not funded
- PI March 2011. CAC Scholarships for Forensic Science Students at SJSU. Funded \$5000.00 for AY 2011-2012.
- PI March 2011 Travel Grant CSUPERB \$1000.00 not funded.
- Research Mentor March 2010.-2013 NSF REU Grant RUMBA with Dr. Julio Soto, Dr. Cleber Ouverney, Dr. Miri Van Hoven of Biology at SJSU. Funded \$320,250.00 NSF DBI 1004350
- Co-PI 2010 NIJ Forensic Science Research Grant with UCSC 2.6 million (CO PI submitted 04/10). Not funded.
- PI: June 05, 2010. CSUPERB Programmatic Development Proposal "Forensic Biometrics" Funded \$15,000.00 for 01/03/11-01/31/12.
- Res. Mentor April 2010 NSF URM grant with Biology 1.6 million -Res.Mentor Participation (submitted 04/10) Not funded. PI March 2010 BAA Federal Agency Application Rapid Biothreat agent detection (not funded)
- PI March 2010. CAC Scholarships for Forensic Science Students at SJSU. Funded \$5000.00 for AY 2010-2011.
- PI March 2010 Travel Grant CSUPERB 1000.00 not funded
- PI: February 2010-2012 CSUPERB Programmatic Course Development Grant on Forensic Biometrics with Mary Juno and Dr. LPierce (Anthropology) – Funded \$15,000.00
- PI: June 05, 2009. CSUPERB Programmatic Development Proposal "Fluorescence Applications in Molecular **Biology and Forensic Science Course Development**" Funded \$15.000.00 for 06/30/09-01/31/11.
- PI March 2009. CAC Scholarships for Forensic Science Students at SJSU. Funded \$5000.00 for AY 2009-2010.
- PI: 04/05/2008: CSUPERB Entrepreneurial Joint Venture Matching Grant Program: Optimizing DNA stabilization and storage of forensic DNA samples using polymers: **\$25,000.00** (Matching funds facilitated (\$34,800.00) : Total award= \$59,800.00. Funded July 2008 – July 2009.
- Research Mentor Participant: 04/22/08: Four-year program called Support for Curriculum and Research, Inquiry-Based Enhancement (SCRIBE)- Howard Hughes Medical Institute Science Education Grant to SJSU Biology: Dr. Julio Soto. \$1,300,000.00. Funded 2008-2012.

PI April 2008. NIJ Social Science Research in Forensic Science on DNA and Confirmation Bias wPARC (not funded) PI March 2008. CAC Scholarships for Forensic Science Students at SJSU. Funded \$5000.00 for AY 2008-2009.

- PI March 2008. Development of Forensic Science Interdepartmental, intercampus, and interagency student resources University Planning Council Grant SJSU. Funded for 0.2 FTE release time AY 2008-2009.
- PI March 2008. Recovering DNA profiles from low quantity and low quality forensic samples. CASA Small Research Grant. Funded \$500.00 for AY 2008-2009.
- PI: March 2008. CSUPERB Travel Grant. Support to attend and present at the 2008 CAC meeting Funded \$500.00.
- PI March 2007.\_CAC Scholarships for Forensic Science Students at SJSU. Funded \$4200.00 for AY 2007-2008.
- Co-PI February 2007 NSF REU Grant RUMBA with Dr. Julio Soto and Dr. Cleber Ouverney of Biology at SJSU. Funded \$215.260.00. NSF DBI 0647160
- PI: October 18, 2006. CSUPERB Travel Grant. Support to attend and present at the 2007 American Association of Forensic Science Meeting in San Antonio, TX. Funded \$1000.00.
- Co-PI August 17, 2006. with Dr. Julio Soto and Dr. Cleber Ouverney of Biology at SJSU. National Science Foundation REU RUMBA Renewal Grant. Funded \$204,600.00 for 03/01/07-02/28/2010.

- PI: July 01, 2006. NIJ/NFSTC Forensic Biology Research and Training Consortium (FBRTC). Funded \$50,000.00 for 07/01/06-06/30/07. The main goal of the consortium grant is to create a research and educational network in forensic biology.
- PI: June 30, 2006. CSUPERB Curriculum and Development Proposal: Advanced Forensic Biotechnology Course Development. Funded \$15,000.00 for 06/30/06-06/30/07.
- PI: May 10, 2006. CAC Scholarships for Forensic Science Students at SJSU. Funded \$4200.00 for AY 2006-2007.
- PI: December 8, 2005. Participant. Included as a Participant on an NSF REU Grant RUMBA Biology at San Jose State University. Funded student stipend for summer research and \$1800.00 in supplies in 2006.
- PI: November 10, 2005. SJSU CASA Lottery Grant. Forensic Science Seminar Series support. Amount awarded: \$1,800.00 for 1/2005-08/2006.
- PI: April 3, 2005. CSUPERB Advanced Forensic Biotechnology course development. \$15,000.00. Not funded.
- PI: March 25th, 2005 California Association of Criminalists Endowment Application for Student Scholarships 5 undergraduate fellowships in forensic science to support tuition, fees and graduate school applications. Submitted 03/25/05 Total Requested \$5500.00. Not funded.
- PI: March 20, 2005. Proposal for Equipment support and Student Stipends, Submitted to MiraiBio Inc. Total requested = \$6700.00. Funded for Delivery, installation and maintenance of a laser-scanning instrument for forensic DNA research.
- PI: March 6, 2005: CSUPERB Travel Grant Support for student volunteer coordination for reduced registration fees for the California Association of Criminalists meeting to be held in Oakland, CA. Submitted 03/06/05 Total Requested = \$482.50 Not funded
- PI: 01/05: Junior Faculty Career Development Grant. SJSU (0.2FTE) Funded \$4000.00 release time to develop an interdepartmental, intercampus, interagency forensic science-training program and to write a proposal. 01/01/05-06/30/05. A grant was submitted to NIJ/NFSTC on Dec 03, 2005 and was funded.
- PI: October 2004. CSUPERB Travel Grant. Support for a student to attend and present at the 15th International Human ID Symposium. Funded at \$700.00
- PI: 04/2004: Facilitated commitment by Lawrence Livermore National Laboratory for \$10,000.00 match to a CSUPERB grant. 4/04. Grant will be resubmitted (see below).
- PI: 05/2004: CSU Awards for Research, Scholarship or Creative Activity. Validation and population genetics of Y chromosome multiplexes for criminal profiling. 05/04 Funded for \$5000.00.
- PI: 04/05/2004: CSUPERB Curriculum and Development Proposal: Forensic Biotechnology Program Development for students and teachers. **\$15,000.00.** Submitted 04/05/04 (Matching funds facilitated \$24,884.00). Not Funded.
- PI: 04/05/2004: CSUPERB Entrepreneurial Joint Venture Matching Grant Program: Facilitating Biotechnology contributions for Forensic DNA research and training: \$25,000.00 Submitted 04/05/04 (Matching funds facilitated (\$110,500.00) Not Funded.
- PI: 04/2004: CAC Training Proposal. Forensic Science Student Scholarships Amount requested \$20,000.00. Submitted 31 March 2004. Not funded.
- PI: 04/2004: CAC Training Proposal. On-line Forensic Science Seminar Series. Submitted 02-25-04. Amount requested \$ 10,000.00. Not funded.
- PI: 11/2004: SJSU CASA Lottery Grant. Forensic Science Seminar Series support. Amount awarded: \$1,600.00 for 1/2004-08/2005.
- Co PI: 2003. Proposal to the National Institutes of Allergies and Infectious Diseases RFA PAR 03-025: Software Development for Real-time analysis of Multiplexed Assays In High Throughput Diagnostics for Public Health and Biothreat Pathogens. Consortium with Los Alamos National Laboratories, NYS Public Health Dept, U. N. Arizona and Purdue University. Amount Requested: S1,002,925.00. Not funded
- PI: 2002: Principal Investigator: Proposal to the Federal Bureau of Investigation Construction and Laboratory Contracts Unit, Broad Agency Announcement # BAA-914497 Interest Area: 5.3 DNA 301:Development of SNP Assays for

Human Identification- Title: Development of an automated Y chromosome single nucleotide polymorphisms (Y-SNPS) screening test to enhance speed and efficacy of forensic genetic testing. Amount requested: **\$616,500 Submitted April 2002.** <u>Funded as a Subcontract resulting in\$115,000.00 fy 2003 in equipment and supplies for</u> <u>UNTHS.</u>

- PI: 1996. Principal Investigator NSF Research Experiences for Undergraduates Program. Training Undergraduates in Science and Technology. **\$153,000.00** for three years from 5/96-9/98. San Francisco State University. This was a DNA training grant. Topics covered were DNA extraction, PCR amplification, gel electrophoresis (agarose and acrylamide), DNA sequencing and computer data analysis. **Funded.**
- PI: 1996-1998: Principal Investigator for donations from Perkin Elmer, AT Biochem and Applied Biosystems for materials and supplies for the NSF REU program. **\$10,000/year** from 1996-1998. Funded.
- PI: 1995: Participant on NIJ Crim Bill Funding Grant Proposal. Bring all California crime laboratories up to capability of DNA typing... **\$6,489,168.00** 1996-2001. First and second year funding 1.3 million.
- PI: 1993: Principal Investigator NSF Division of Environmental Biology Program. REU Supplement to RUI: Molecular Systematics of the Oomycota. Awarded **\$20,000.00** for 5/93-8/93. Undergrad projects: Stipends, supplies. Funded.
- PI: 1993: Principal Investigator NSF Division of Environmental Biology Program. Encouraging Under-represented Student Participation in DNA Workshops. **\$60,000.00** Funded for 5/93-9/95. Undergraduate summer workshops:
- PI: 1992. Principal Investigator NSF Division of Environmental Biology Program. Molecular Systematics of the Oomycota. Awarded **\$168,000.00** for three years from 9/92-9/95. Funded
- PI: 1992: Principal Investigator for UNC Research Corporation Grant. Awarded **\$28,467.00** for matching funds to NSF grant for faculty release time, refurbishing the laboratory and travel to meetings from 9/92-9/95
- PI: 1992: Principal Investigator for UNC Arts and Sciences Graduate Student Grant. Awarded **\$95,704.00** in matching funds to NSF grant for 3 student stipends and tuition waivers 12/92-9/95.

#### **DONATIONS**

- PI: Summer 2018. Promega cash award \$750.00 for CSI Camps, Promega, and Qiagen, Streck Biosciences in kind gifts \$400.00.
- PI: Summer 2016. Promega cash award \$750.00 for CSI Camps, Promega, Qiagen, Streck Biosciences in kind gifts \$400.00.
- PI: Summer 2015. Promega cash award \$750.00 for CSI Camps, Illumina in kind donation gifts \$200.00
- PI: January 2014 CA DOJ Riverside donation of reagents valued at <u>\$10,000.00</u>.
- PI: September 2013 Santa Clara County Crime Laboratory donation of disposable tubes and tips valued at \$2000.00
- PI: July 2013 Bruce Wiley Donation of books and blood stain pattern equipment valued at \$500.00
- PI: July 2013 Promega Corporation donation of \$500 for support of the 2013 CSI Camp and AAFS FSEC.
- PI: July 2013 Life Technologies donation of \$1500 for support of the 2013 CSI Camp and AAFS FSEC.

- PI: February 2013. Oakland Police Department Crime Laboratory Donation of a FTIR system valued at <u>\$20,000.00</u> to support the research and teaching.
- PI: July 2012 Promega Corporation donation of \$500 for support of the 2013 CSI Camp and AAFS FSEC.
- PI: July 2012 Life Technologies donation of \$1500 for support of the 2013 CSI Camp and AAFS FSEC.
- PI: May 2012 Alex Calder donation of Fujifilm Imaging system and equipment valued at \$24, 375.00
- PI: February 2012. Oakland Police Department Crime Laboratory Donation of two ABI 310 Genetic Analyzers valued at \$20,000.00 each to support the research and teaching.
- PI: October 2011. Oakland Police Department Crime Laboratory Donation of <u>\$10,000.00</u> in molecular biology reagents to support the research and teaching.
- PI: July 2011. Santa Clara County Crime Laboratory Donation of two Alternate Light Sources Valued at \$15,000.00 each to support forensic biology research and teaching.
- PI: January 2011. Oakland Police Department Crime Laboratory Donation of <u>\$10,000.00</u> in molecular biology reagents to support the research and teaching.
- PI: 2010. Facilitated donation from FireEx Forensics, Dr. John DeHaan of Forensic Science Journals (Approximate value of \$1000.00)
- PI: 2008. Facilitating donation from San Francisco Police Department Crime Laboratory of Analytical Balances (Pending-value undetermined)
- **PI: 2007. Facilitating donation from Lowell Bradford Estate** of a Comparison Microscope and photography equipment (approximate value \$10,000).
- PI: October 2006. Facilitating donation from San Francisco Police Department Crime Laboratory of a UV Spectrophotometer and Gas Chromatograph. Funded (value not known).
- PI: August 2006.Facilitated Donation of a PCR Thermal Cycler TC 480 by Santa Clara County Crime Laboratory Funded value \$5000.00.
- PI: June, 2006 CASA IES fund <u>\$10,000.00</u> to support the forensic science program.
- PI: April 2006 Facilitated donation of Y STR and screening kits from Reliagene. Funded value=\$5000.00
- PI: December, 2005. CA DOJ Donation of <u>\$10,000.00</u> in molecular biology reagents to support the CSUPERB grant.
- PI: September, 2005. Technical Support for instrument maintenance <u>\$10,000.00</u> annually for 3 years commenced S'06from Provost Carmen Sigler.
- PI: September 2005. Operational expenses of **<u>\$8000.00</u>** funded for a single year by CASA
- PI: July, 25 2005. Facilitated donation of field service and equipment support from Applied Biosystems. Funded value \$10,000.00.
- PI. 09/2004: <u>Facilitated Donations of \$145,000.00</u> molecular biology equipment to the SJSU Forensic Science research and training laboratory at SJSU- ABI 310 Genetic Analyzer Capillary Electrophoresis unit and an ABI 7700 real time detection system. Delivered and installed 09/04 from Celera Diagnostics
- PI: 09/2004: <u>Faciliated donations of \$10,000.00</u> in computers, reagents and consumables to the SJSU Forensic Science research and training laboratory- G3, Dell and consumables from MiraiBio Inc.
- PI: 09/2004: <u>Faciliated donations of \$10,000.00</u> in reagents and kits from Reliagene, Promega and Applied Biosystems to support forensic science student research and training.

#### STUDENTS: Mentored 75 undergrad and grad students and postdocs

<u>Dates</u>	<u>Title</u>	<u>Student</u>	<u>Program</u>	<u>Project</u>
2018	Advisor-	Madison McGowan	Student assistant	Fluor optimization for stamp authen.
2017	Advisor-	Kenya Thomas	Student assistant	Rapid microwave extraction saliva
				Lee cv version 013019 page 26

2017	Advisor-	Eric Yu	Student assistant	Differential extraction using microwave
2016	Advisor-	Arlette Lopez	Student assistant	Optimizing semen detection
2015	Advisor-	Kevin Tang	Student assistant	Collection of touch DNA
2014	Advisor-	Carly Balk	Student assistant	Fluorescence detection of teeth
2014	Advisor-	Molly Skeverjen	Student assistant	Fluorescence detection of bone
2013	Advisor-	Jesse Ramirez	Student assistant	Innogenomics Quant kit test
2013	Advisor-	Niki Konstantinides	Student assistant	Degraded DNA quant kit test
2013	Advisor-	Dominique Cooper	Student assistant	Mutant taq polymerases inhibition
2013	Advisor-	Nikki Roda	Student assistant	Phaedebas Press test
2012	Advisor-	Luis Sandoval	Student assistant	Automation of DNA extraction
2012	Advisor-	Hanna Bennett	Student assistant	Overcoming PCR Inhibition
2011	Advisor-	Corissa Harris	Student assistant	Comparison of Wearer DNA collection
2011	Advisor-	Mariela Rivera	Student assistant	Recovery of DNA from handguns
2011	Advisor-BTE	Jaihao Liang	HS Student assistant	Storage of DNA standards
2011	Advisor	Kelly Conroy	Student Research Asst	Optimizing fluor detection of semen
2010	Advisor	Lauren Buban	Student Research Asst	Recovery of DNA from Molotovs
2010	Advisor	Erica Dinaro	Student Researh Asst	Teflon vs. Polypropylene storage
2010	Advisor	Breeana Baker	Student Researh Asst	Stutter calculations w/enhancers
2009	Advisor	Alex Bethea	Student Researh Asst	Enhanced mixture amplification
2010	Advisor	Phil Nahn	Student Research Asst	Evaluation of BSA fractions
2009	Advisor	Lauren Pijanowski	Student Researh Asst	Comparison of DNA extraction tech
2008-2011	Advisor	Clarissa Trogdon	Student Research Asst	Overcoming PCR inhibition
2008-2010	Advisor	Linda Le	Student Research asst	Recovering DNA profiles
2008-2010	Advisor	Marissa Meinenger	Student Research asst	DNA Column evaluation
2007-2009	Advisor	Kimberly Clabaugh	Student Research asst	Samplematrix DNA storage
2007-2009	Advisor	Arturo Aguilar	Student Research asst	Y alu detection
2007-2009	Advisor	Kingsley Odigie	Student Research asst	DNA repair
2007	Co-Advisor	Milani Fisher	MS Grad Student	Effect of DNA stats
2006-2007	Advisor	Kristy Ballinger	Student Research asst	Y molecular beacon detection
		Courtney Cook	Student Research asst	Zeolite for blood collection
		Brie Silva	Student Research asst	Storage of blood and saliva on zeolite
		Erica Villa	Student Research asst.	Development of Y screening assay
2006	Advisor	Jamie Lunkley	Student Research asst	Chemistry of Latent print aging
2006	Advisor	Wendy Farell	Student Research asst	QD Check Ink validation
2003-2005	Advisor	Keri Smith	Investigator DOI	Comparison of DNA storage methods
		Sal Murillo	Student asst DOI	Forensic DNA from aquatic samples
		Danielle Seele	Student asst. SJSU	Polynesian Y STR population studies
2002-2003	Advisor-BBEI prog	Kenisha Bell Student as	ssistant Temperature and	humidity monitoring
2001	Advisor-BBEI prog	Miacah Pugh	Student assistant	Marketing and reference research
1998-2000	Co -Advisor	Bill Hudlow MS Chem	CSU HaywardMechanisms	s of Repeat Slippage
			Sr. Crim CA DOJ DNA	
1999- 2000	) Advisor-BBEI prog.	LaSandra Ivy	Student Research	Camera imaging of DNA
	1 5	,	Assistant	5 5
Sum 1998	Co- Advisor	Colette Betters	NSF REU Student Intern	STR primer testing
	with G Sensabaugh			on Yeast DNA samples
Spr98	Advisor	Bonnie Rhee	Student Research	DNA Technology in Forensics
			Assistant	57
Fall 97	Advisor	Mavis Hendson	Post Doc volunteer	Magnetic bead DNA isolation for
			Criminalist-Research	databank blood samples and
			CA DOJ DNA Lab	automation of differentials
Sum 1997	Co- Advisor	Shamsah Ebrahim	NSF REU Student Intern	STR & D1S80 primer testing
22 1997		with G Sensabaugh	PhD candidate Harvard	on microbial DNA samples
		e e e e e e e e e e e e e e e e e e e		

Sum1996	Advisor	Carmela Thompson Byron Gainers Joy Kong	NSF REU Student Interns	STRs from cortical vs trabec bone Repeat slippage Species testing of FFFL
Sum1996	Advisor	Sonja Brinkop	DOJ DNA Intern MS Forensic Science Strathclyde University Technical Support Hitachi CA DOJ DNA criminalist	Amplification of STRs from heat treated and fire abused human bone
1995-1996	Advisor	Keith Garrison	DOJ DNA Intern BS Cell and Mol Biol UC Berkeley Technical Support Hitachi PhD UC Davis- Faculty S	
1995-1996	Advisor	Sherrie Post	DOJ DNA Intern MPH UC Berkeley Crim at Seri	Comparisons of fluorescent scanners for detection of STRs
1995	Advisor	Karen Brown	DOJ DNA Intern MPH UC Berkeley	STR analysis on UV abused bloodstains
1995	Advisor	Jake Brayboy David Owens	NASA SHARP Interns via SFSU J <b>B-UNC Chapel Hill</b>	STR analysis on fingernail samples
1994	Advisor	Beth McNamee	DOJ DNA Intern BA UC Davis Harvard Genetics Ph.D.	DNA Technology in Forensics
1994	Advisor	Lori Baringer	DOJ DNA Intern BA UWy MA Forensic Anthro UW	Extraction of DNA
1993-1996	Major advisor	Antonio Izzo	M.A. at UNC PhD UCBerkeley	Molecular Evolution of Oomycota
	Major Advisor	Scott Boback	M.A. at UNC PhD Auburn Univ.	Phosphofructokinase gene analysis
	Major Advisor	Rick Bortnick, Ph.D.	Post-Doc	Morph and Mol. Pop. of Protostelids
Fall 1993	Major advisor	Kristin Young	Undergraduate research PhD program Kansas SU	•
Sum. 1993	Major advisor	Dave Droegmueller Nikki Kramer <b>Eric Oleyjar</b> Carlos Rodriguez	REU Undergrad researche MD Medical School	rs-REU Molecular Evolution of Oomycota
1992-1995	Co-Major Advisor	Sharyn Rusk	Ph. D. Faculty Casper CollegeW	DNA Evolution of <b>(Y</b> Slime Molds
1992- 1995	5 Co-Major Advisor	Patrick Alan Lennon	Ph. D. Faculty SE Okla State	Human fungal pathogen DNA ID
1992-1993	Major Advisor	Kristin O'Connor	B.A. Honors study	DNA Evolution of Monotremes
1992-1993	Committee member	Carol Jacobs-Carre	M.A. PhD CSU	Mycorrhizal population studies
Fall 1992	Co-Major advisor	Min Liu	M.A. independent study Scientist in Denver CO	Multiplex PCR of phytopathogens
Sum. 1992	Major Advisor	Dave Droegmueller	Under grad Research	Evolution of marine

Sum. 1992	Major Advisor	-	Under grad Research Rec. <b>PhD from Utah SU</b>	Microwave DNA mini-prep	
Spr. 1992	Major Advisor	Tim May	UNC On-Site Research	HS Senior Bio Proj ascomycetes	ect
	PERIENICE (* with la	boratory- #= on line):			
Fall 2018	Survey of Forensic	-	Professor	SJSU	
	Internships		Professor	SJSU	
Spring 2018	DNA and Crime#		Professor	SJSU	
Fall 2017	Survey of Forensic	Science#	Professor	SJSU	
	Internships		Professor	SJSU	
Spring 2017	Forensic Science S	enior Seminar	Professor	SJSU	
opg =0	Survey of Forensic		Professor	SJSU	
	DNA and Crime#		Professor	SJSU	
Fall 2016	Forensic Biometric	·s#	Professor	SJSU	
20.0	DNA and Crime#		Professor	SJSU	
	Internships		Professor	SJSU	
Spring 2016	Survey of Forensic	Science#	Professor	SJSU	
opinig zoro	DNA and Crime#		Professor	SJSU	
	Internships		Professor	SJSU	
Fall 2015	DNA and Crime#		Professor	SJSU	
1 411 2013	Internships		Professor	SJSU	
Fall 2014-S15	•	ofessional leaves at 50%	110105501	5050	
Summer 2014	Internships		Professor	SJSU	
Spring 2014	Forensic Science S	enior Seminar	Professor	SJSU	
Spring 2014	Internships		Professor	SJSU	
Fall 2013	Internships		Professor	SJSU	
Fall 2013	Special Topics in F	orensic Science	Professor	SJSU	
Spring 2013	Forensic Senior Se		Professor	SJSU	
Spring 2013	Internships		Professor	SJSU	
Fall 2012	•	lvances in Forensic DNA	Professor	SJSU	
Fall 2012	Forensic Senior Se		Professor	SJSU	
Fall 2012	Internships		Professor	SJSU	
Spring 2012	Forensic Molecula	r Bioloav	Professor	SJSU	
-p	Forensic Science Ser		Professor	SJSU	
Fall 2011	Forensic Biometric	S	Professor	SJSU	
	Internships		Professor	SJSU	
Spring 2011	DNA and Crime		Professor	SJSU	
	Internships		Professor	SJSU	
Fall 2010		n Mol Biol and Forensic Scie		SJSU	
	Independent Studies Internships		Professor Professor	SJSU SJSU	
Summer 2010	Senior Seminar		Professor	SJSU	
Spring 2010	DNA and Crime		Professor	SJSU	
Spring 2010	*Criminalistics		Professor	SJSU	
	Internships		Professor	SJSU	
Fall 2009	The Real CSI		Professor	SJSU	
	*Forensic Molecular		Professor	SJSU	
	Independent Studies		Professor	SJSU	
Spring 2009			Professor	0101	SJSU
	*Criminalistics Internships		Professor Professor	SJSU SJSU	
Fall 2008	The Real CSI		Professor	SJSU	
1 un 2000			10105001	0300	

	Senior Seminar	Professor	SJSU
Fall 2007	*Introduction to Forensic Science	Professor	SJSU
	Senior Seminar	Professor	SJSU
Spring 2007	*Forensic Molecular Biology	Associate Professor	SJSU
1 0	Internships	Associate Professor	SJSU
Fall 2006	DNA and Crime	Associate Professor	SJSU
	The Real CSI	Associate Professor	SJSU
Spring 2006	Genetics, Law and Society (graduate)	Associate Professor	SJSU
	Criminalistics	Associate Professor	SJSU
Fall 2005	Internships Criminalistics	Associate Professor Associate Professor	SJSU SJSU
1°an 2003	The Real CSI	Associate Professor	SJSU
Spring 2005	*Introduction to Forensic Science	Associate Professor	SJSU
Spring 2000	Criminalistics	Associate Professor	SJSU
	Internship	Associate Professor	SJSU
Fall 2004	*Introduction to Forensic Science	Associate Professor	SJSU
	Criminalistics	Associate Professor	SJSU
	DNA and Crime	Associate Professor	SJSU
	Internships	Associate Professor	SJSU
Spring 2004	*Introduction to Forensic Science	Associate Professor	SJSU
	Criminalistics	Associate Professor	SJSU
Fall 2003	*Introduction to Forensic Science	Associate Professor	SJSU
Spring 2002	Criminalistics *Chamietry of Forensie DNA	Associate Professor	SJSU FIU
Spring 2003	*Chemistry of Forensic DNA	Adjunct Professor	
Fall 2001	*Chemistry of Short Tandem Repeats	Adjunct Professor	FIU
1998-1999	STR II- Advanced STR typing	Assistant Lab Director	
Sum. 1998	*DNA Technology Workshop	Adjunct Asst Prof	SFSU
Fall 1997	Genetics of Forensic DNA Typing	Adjunct Asst Prof	UC Davis extension
Sum. 1997	*DNA Technology Workshop	Adjunct Asst Prof	SFSU
Sum. 1996	*DNA Technology Workshop	Adjunct Asst Prof	SFSU
Sum. 1995	*DNA Technology IV: Sequencing	Adjunct Assistant Professor	UNC
Sum. 1994	*DNA Technology III: Sequencing	Adjunct Assistant Professor	UNC
1996-1997	Intro to D1S80	Assistant Lab Director	CADOJ DNA
1997-2000	Intro to STR typing	Assistant Lab Director	CADOJ DNA
1994-2000	DNA academy-Intro to Forensic DNA-RFLP	Assistant Lab Director	CADOJ DNA
Fall 1993	Principles of Biology	Assistant Professor	UNC
Fall 1993	Biology as a Profession	Assistant Professor	UNC
Sum. 1993	*DNA Technology II: PCR	Assistant Professor	UNC
Spr. 1993	Introduction to Biology	Assistant Professor	UNC
Spr. 1993	*Molecular Genetics	Assistant Professor	UNC
Fall 1992	Principles of Biology	Assistant Professor	UNC
Fall 1992	Foundations of Biological Research	Assistant Professor	UNC
Fall 1992	Biology as a Profession	Assistant Professor	UNC
Sum. 1992	Guest Lecturer for AP Institute section on DNA	Assistant Professor	UNC
Sum. 1992	*DNA Tech. : Sequencing	Assistant Professor	UNC
Spr. 1992	*Principles of Biology	Assistant Professor	UNC
Spr. 1992	*Molecular Genetics	Assistant Professor	UNC
Sum. 1991	*DNA Sequencing Workshop	Instructor	UGA
Spr. 1991	*Polymerase Chain Reaction Laboratory	Instructor	UGA
Fall 1988	Motivating and Advising Students	TA Trainer	UCB
Fall 1989	Diversity and Retention	TA Trainer	UCB
1980-1981	*Botany	Teaching Assistant	SUNYB
Spr. 1988	*Mycology	Teaching Assistant	UCB
Fall 1984	*Biology	Teaching Assistant	Columbia
1983-1984	*Ecological Bot., *Genetics, *Plant Systematics	Teaching Assistant	NYU
	-		

## SERVICE:

Department, College and University		
F17	Member CASA RTP Committee	
F16	Member Chair Review Committee	
F13-S14	Member JS UGCC	
F13	Member JS Dept RTP Committee	
F13	Member JS Dept Recruitment Committee	
S12	Member Post Tenure Review Hospitality Dept	
F12	Member CASA RTP committee	
S 09& F10	Member CASA RTP committee	
F07	Member College Professional Leaves Committee	
F'06-S'07	Chair University SERB committee	
F'05-	Co-chaired the JS Forensic Chemistry Recruitment committee	
F'05	Served on the JS Department Recruitment committee	
F'04-F'05	Served on the JS Department Reunion Committee	
F'05-pres	Serve on the Advisory Board of the Administration of Justice Bureau	
F′04	Serve on the JS Department Recruitment committee	
F'04-pres	Chair Forensic Science Advisory Board	
F'04-S'14	Chair Forensic Science Undergraduate Curriculum Committee	
F'04-pres	Advisor Forensic Science Student Group	
F'03-pres	Serve on the JS Scholarship committee	
F'03-S'06	Serve on the College Research and Faculty Development Committee	
F'03-F'06	Serve on the University SERB committee	

# Scientific Community

2017-pres	Member OSAC Digital Evidence Facial ID Subcommittee
2016-pres	Member AAFS Academy Standards Board DNA Consensus Body
2016	Reviewer of 1 manuscript for Electrophoresis
2016	Co-Chair the 2016 Gordon Research Conference on Forensic DNA Analysis
2015	Reviewer of 1 manuscript Electrophoresis
2014	Reviewer of 2 manuscripts Forensic Science International: Genetics
2013	Selected as a Neutral Expert Witness for the 7th District Court of Appeals Promega v. Life Technologies
2013	Reviewer of 2 manuscripts Forensic Science International: Genetics
2013	Selected for the Editorial board of Life: The Excitement of Biology (www.blaypublishers.com)
2013	Hosted the 2013 AAFS FSEC conference, SJSU, San Jose, CA
2012-pres	Forensic Consultant Natasha's Justice Project
2012	Hosted the 2012 Fall California Association of Criminalists Meeting - San Jose, CA
2012	Hosted the 2012 AAFS FSEC conference, SJSU, San Jose, CA
2011	Hosted the 2011 AAFS FSEC conference
2010	Served as FEPAC Lead Inspector to BS and MS Programs in Forensic Science at Chaminade University.
2009	Invited to submit to FS Review special issue on Assessment and preparation of biological specimens for
	DNA analysis: Optimizing storage and handling of DNA extracts
2009	Served as FEPAC Lead Inspector to the MS Programs in Forensic Science at Marshall University.
2007-2009	Forensic DNA consultant to Biomatrica, San Diego, CA
2006-2009	Forensic DNA consultant to CA Department of Justice, Jan Bashinski DNA Laboratory, Richmond, CA
2006	Forensic DNA consultant to Trace Genetics, Richmond, CA.
2005	Reviewer of 1 manuscript Clinical Chemistry
2005	Invited to scientific advisory board of Biosphere Genetics
2004	Invited to Advisory Board of the Administration of Justice Bureau, San Jose State
2004	Reviewer of 2 Book Chapters: 1- Handbook of Information Security, 2- Forensics in the Criminal Justice Profession
2003	Editorial Advisor, Drug Discovery & Development
2002	Selected participant for Science Magazine Proteomics Supplement (Published August 2002)
2002	Selected participant for Science Magazine DNA Biochips Supplement (Publication expected Spring 2003)

- 2001 Reviewer for Journal of Forensic Science- 1 manuscript reviewed
- 2001 Selected participant for Science Magazine Microarray Supplement
- 2000 Reviewer for Mycological Research- 1 Manuscript Reviewed.
- 1999Reviewer for Biotechniques- 1 manuscript
- 1999 Reviewer for Journal of Forensic Science- 1 manuscript
- 1999 Invited to serve on NIJ grant panel (declined due to conflicts)
- 1998 Reviewer for Journal of Forensic Science
- 1998 Reviewer for International Journal of Legal Medicine
- 1998 TWGDAM Inspection Oakland PD DNA Program
- 1997Reviewer for Biotechniques 2manuscripts
- 1996Reviewer for Biotechniques- 2 manuscripts reviewed
- 1995 Reviewer for Biotechniques- 1 manuscript reviewed
- 1994 NSF Panel Member Division of Environmental Biology REU Site Grant Program
- 1994 Reviewer for Mycologia 1 manuscript reviewed
- 1993 Reviewer for 1 National Science Foundation Systematic Biology Proposal
- 1993Reviewer for Mycologia 1 manuscript reviewed
- 1993 Reviewer for Phytopathology 1 manuscript reviewed
- 1993 Reviewer for Mycological Research 1 manuscript reviewed
- 1993 Reviewer for Smithsonian 1 manuscript reviewed
- 1993 NSF Panel Member Division of Environmental Biology REU Site Grant Program
- 1993 Program Chair and President (Elect) Sigma Xi
- 1992-1994 Mycological Society of America Sustaining Membership Committee
- 1992 Reviewer for 1 National Science Foundation Systematic Biology Proposal
- 1992 Reviewer for Systematic Botany 1 manuscript reviewed
- 1992-1993 Reviewer for Journal of Clinical Microbiology 7 manuscripts reviewed
- 1992 Reviewer for Plant Pathology 1 manuscript reviewed
- 1992Reviewer for Molecular Ecology 1 manuscript reviewed
- 1992 Co-Chair Molecular Evolution and Taxonomy Oral Session at the MSA Annual Meeting

# Community at Large

- 2018 Hosted a CSI Camp Held at FIU Summer 2018
- 2018 FIU Daughters and Sons to Work Day Forensic Scientists against Crime 02/02/18
- 2017 Volunteer at the Fairchild Botanical Gardens Mango Festival
- 2016 Hosted a CSI Camp Held at SJSU Summer 2016 (participants from Mainland China)
- 2016 Volunteer at the Fairchild Botanical Gardens
- 2015 Hosted a CSI Camp Held at SJSU Summer 2015
- 2014 Hosted a CSI Camp Held at SJSU Summer 2014 (participants from South Korea)
- 2014 Senior Detective Day, Tour for Sunnyvale Senior Center Held at SJSU
- 2013 Hosted a CSI Camp Held at SJSU Summer 2013
- 2012 Hosted a CSI Camp Held at SJSU Summer 2012
- 2012 Forensic Science at SJSU, Tour for Sunnyvale Senior Center Held at SJSU
- 2012 Scientists against Crime Tour for 5<sup>th</sup> grade class, Washington Elementary –Held at SJSU
- 2011 Forensic Science DNA Analysis. El Cerrito High School El Cerrito, CA
- 2011 Scientists against Crime Tour for 5<sup>th</sup> grade class, Washington Elementary –Held at SJSU
- 2011 Facilitated participation of SJSU FS students in Urban Shield, LBNL and Emeryville CA site
- 2010 Forensic DNA Technology. El Cerrito High School El Cerrito, CA
- 2010 Scientists against Crime Tour for 5<sup>th</sup> grade class, Washington Elementary –Held at SJSU
- 2010 Saving lives with Forensic Science. Middle School Portola El Cerrito, CA
- 2010 Facilitated participation of SJSU FS students in Urban Shield, LBNL, CA site
- 2009 Forensic DNA Technology, El Cerrito High School, El Cerrito, CA
- 2009 Scientists against Crime Tour for 5<sup>th</sup> grade class, Washington Elementary –Held at SJSU
- 2008- Scientists against Crime Tour for 5<sup>th</sup> grade class, Washington Elementary –Held at SJSU

2008 2007- 2007 2006 2006 2006- 2006 2006-2014 2005 2005	Saving lives with Forensic Science. Middle School Portola El Cerrito, CA Scientists against Crime Tour for 5 <sup>th</sup> grade class, Washington Elementary –Held at SJSU Scientists against Crime day Middle school: Portola, El Cerito CA 12/13/07 Scientists against Crime day Elementary school: Kensington CA 12/06/07 NSF Teachers Conference- Introduction to SJSU forensic science 08/09/06 Seminar on SJSU Forensic Science for Qingdao University Scholars 05/18/06 Scientists against Crime Tour for 5 <sup>th</sup> grade class, Washington Elementary –Held at SJSU CASA winter reception piano playing 12/12/06 Leading monthly family dad support groups/movie nights. Family Specialist- YMCA Berkeley, CA Volunteer Berkeley YMCA Special Events Invited Speaker Stanford Genome Technology Center Club Seminar 10-27-05
2005	Scientists against Crime day camp YMCA Berkeley CA
2005	Silver Creek High School forensic science laboratory tour
2004	Scientists against Crime seminar for 3rd grade class, Kensington CA
2004	Instructor of Fingerprints and Presumptive tests as a part of a MonteVista High School Forensics Day
	Co-sponsored by Chemistry at SJSU
2004	Silver Creek High School forensic science laboratory tour
2004	Berkeley YMCA Special Events Volunteer
2004	Keynote Speaker Edward Teller Education Center Teacher/Scientist Dinner, LLNL (09/24/04)
2002-03	Berkeley YMCA Campaign Captain Volunteer
2001	Keynote Speaker at Summer Fellows Forum of Bio-Link held at UC Berkeley
2001	Laney College Biotech Curriculum Advisory Board member
2000	Speaker on Microarray DNA Technology, Cal State Hayward Seminar
2000	Speaker on Microarray, Bioinformatics technology, San Francisco State University
1999	Appearance before CA State Senate on Forensic DNA databank law
1998	Speaker on Forensic DNA Technology, St. Mary's High School
1998	Panel Participant for Northern California Biotechnology Consortium Curriculum Development
1997	Speaker on DNA Technology in Forensics at Contra Costa College
1997	Speaker on DNA Technology in Forensics at University of San Francisco
1996	Speaker on DNA in Forensics at CSU Stanislaus Undergraduate Faculty Enhancement Dinner
1995	Monte Vista High School BioTech night speaker
1995	Volunteer Cardiovascular training (Alternate Saturdays) and Childwatch- YMCA Berkeley
1993	Faculty Advisor for the UNC Ultimate Frisbee Club
1993	Advisor for NSF Alliance for Minority Participation (AMP) Grant
1993	Science Fair Judge- Ft. Lupton CO
1992-1993 1992	Sound Mind Sound Body Program Conditioning Spa UNC Students with improved GPA get discounts Interviewed for NPR Radio Program - Army DNA Dog tags

#### **REFERENCES:** References available on request

# Memorial Sloan-Kettering Cancer Center Summer Volunteer, % Albert Einstein College of Med., Hosp. for Joint Diseases, + Held concurrently, \* Transfer to UCB based on USDA fellowship, \*\*= Armed Forces Institute of Pathology, \*\*\*= Federal Bureau of Investigation