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# Professional Vita (Selected) Marc Scott Taylor

#### Formal Education

Bachelor of Science, Zoology; California State Polytechnic University, Pomona, CA, 1972.

Graduate Research, Cellular Biology; California State Polytechnic University, Pomona, CA, 1971-1973.

## **Specialized Courses and Workshops**

## Serology – DNA Analysis:

- 1. California Association of Criminalists (CAC) Seminar Workshop; DNA; May 2011
- 2. CAC Advanced DNA Mixture Interpretation Workshop; December 2010
- 3. CAC Seminar Workshop; ASCLD/LAB Legacy-to-ISO Transition; May 2009
- 4. The Nineteenth International Symposium on Human Identification; sponsored by Promega Corporation; October 13-16, 2008
- 5. Technical Leader's Workshop; a workshop presented by Promega Corporation; October 16, 2008
- 6. California Association of Criminalists (CAC) Seminar Workshop; DNA; May 2007
- 7. CAC Seminar Workshop; DNA; October 2006
- 8. Applied Biosystems HID University: Future Trends in Forensic DNA Technology Seminar Series: Practical STR Statistics Workshop, & Genemapper ID Software Verification Workshop; March 2006
- 9. CAC Seminar Workshop; DNA Quantification: Using Quantifiler Kits and Real-Time PCR; October 2004
- 10. CAC Seminar Workshop; DNA; October 2004
- 11. Practical Y-STRs: Implementation, Analysis and Reporting; a workshop presented by Promega Corporation; September 30, 2003.
- 12. Statistics Workshop; a workshop presented by Promega Corporation; October 7, 2002.
- 13. Y-Chromosome Analysis, workshop at the American Academy of Forensic Sciences (AAFS) 54<sup>th</sup> Annual Meetina. February 14, 2002

- 14. Genetic Update Conference; sponsored by Ventura County Biotechnology Institute; October 24, 2000
- 15. The Eleventh International Symposium on Human Identification; sponsored by Promega Corporation; October 10-13, 2000; (PCR, RFLP, STRs...)
- Fluorescent STR Validation Workshop, sponsored by Promega Corp., October 10, 2000
- 17. Casework Guidelines & Complex Mixture Interpretation Workshop, sponsored by Promega Corp., October 9, 2000
- 18. DNA Workshop, Joint Meeting of California Association of Criminalists (CAC) and The Forensic Science Society (FSS), May 9, 2000
- 19. DNA in the Laboratory and in the Courtroom: Scientific, Technical, and Legal Aspects, workshop at the AAFS 52<sup>nd</sup> Annual Meeting, February 22, 2000
- 20. Forensic Applications of Capillary Electrophoresis; workshop at the AAFS 52<sup>nd</sup> Annual Meeting, February 21, 2000
- 21. The Tenth International Symposium on Human Identification; sponsored by Promega Corporation; September 1999; (PCR, RFLP, STRs...)
- 22. CAC Seminar; DNA Workshop; September 1999
- 23. Tools for the STR Typing Lab; workshop at the International Association of Forensic Sciences 15<sup>th</sup> Triennial Meeting, August 22, 1999
- 24. CAC Seminar; DNA Workshop; May 1998
- 25. CAC Seminar; DNA Users Group; March 19, 1998
- 26. The Eighth International Symposium on Human Identification; sponsored by Promega Corporation; September 1997; (PCR, RFLP, STRs...)
- 27. The Seventh International Symposium on Human Identification; sponsored by Promega Corporation; September 1996; (PCR, RFLP, STRs...)
- 28. Statistics Workshop; a workshop presented by Promega Corporation; September 16-18, 1996.
- 29. The Sixth International Symposium on Human Identification; sponsored by Promega Corporation; October 1995; (PCR, RFLP, STRs...)
- 30. CAC Seminar; DNA Users Group; June 22, 1995
- 31. DNA Typing With STRs (Short Tandem Repeats); a workshop presented by Promega Corporation; May 22-23, 1995; (STR, PCR)
- 32. CAC Seminar; DNA Users Group; April 4, 1995
- 33. The Fifth International Symposium on Human Identification; sponsored by Promega Corporation; October 1994; (PCR, RFLP...)
- 34. CAC Seminar; DNA Users Group; May 11, 1994.
- 35. The Fourth International Symposium On Human Identification; sponsored by Promega Corporation; September 1993; (PCR, RFLP...)
- 36. Practical Techniques In DNA Analysis of PCR Fragments; a workshop presented by Armed Forces DNA Identification Laboratory, Armed Forces Institute of Pathology; September 26, 1993; (PCR)
- 37. CAC Seminar; DNA Users Group; August 26, 1993
- California Public Defenders Association (CPDA); Scientific Evidence for Criminal Defense; July 10, 1993

- 39. CAC Seminar; DNA Users Group; May 27, 1993
- 40. Perkin-Elmer—Roche Molecular Systems Seminar; Forensic DNA Amplification and Typing Workshop (Polymerase Chain Reaction), three day supplement; August 3-5, 1992; (D1S80, D17S5 & Polymarker typing)
- 41. The Third International Symposium On Human Identification; sponsored by Promega Corporation; April-May, 1992 (PCR, RFLP...)
- 42. Perkin-Elmer—Roche Molecular Systems Seminar; Polymerase Chain Reaction (PCR) Symposium; April 7, 1992; (PCR)
- 43. California State University, Fullerton; Forensic Applications of Molecular Biology; September, 1991-January, 1992; (RFLP, PCR & general molecular biology)
- 44. Cetus Corp. CAC Seminar; Polymerase Chain Reaction (PCR) Amplification Workshop; May, 1991; (PCR)
- 45. AGTC Inc. CAC Seminar; Isoelectric Focusing Methods Workshop; May, 1991
- 46. UC Statewide Biotechnology Research and Education Program; The Application of DNA Technology to Forensics; March, 1991; (RFLP, PCR)
- 47. National Association of Criminal Defense Lawyers; DNA, National Defense Symposium; November, 1990; (RFLP, PCR)
- Cellmark Diagnostics CAC Seminar; DNA Profiling Workshop, Autoradiograph Interpretation; October, 1990; (RFLP)
- Cetus Corp., Forensic PCR Division; HLA-DQα Forensic DNA Amplification and Typing: Training Workshop; August 13-17, 1990; (PCR)
- 50. Lifecodes Corp. CAC Seminar; DNA Profiling Workshop, Lifeprint Hae III system; May, 1990; (RFLP)
- 51. National Association of Criminal Defense Lawyers; DNA, National Defense Symposium; March, 1990; (RFLP, PCR)
- 52. California District Attorney's Association; Seminar on FBI DNA Identification Techniques; August, 1989
- 53. University of California, Berkeley; Forensic DNA Analysis, lab & lecture; July, 1989; (RFLP, PCR)
- 54. Cetus Corp. CAC Seminar; Polymerase Chain Reaction (PCR) Amplification Workshop; May, 1989; (PCR)
- 55. Serological Research Institute; private instruction in biological stain analysis and multi-system electrophoresis; August, 1984.

## Blood Spatter Analysis:

1. CAC Seminar; Blood Spatter Workshop; 1989

## Trace Analysis:

1. CAC Seminar; Hair Workshop; 1989

#### General Criminalistics:

- 1. FBI Academy; Crime Lab Photography; 1976
- 2. FBI Academy; Criminalistics; 1975

#### Forensic Medicine:

1. California State University, Los Angeles; Forensic Medicine, 5 units, evaluation of cause and mode of death: 1974.

## Occupational History

President, Lab Director, DNA Technical Lead/Technical May 1980 – Present:

Manager & Principal Consultant, Forensic Science &

Criminalistics, Technical Associates, Inc.

Aug 1973 – Jan 1978: Forensic Laboratory Analyst, Criminalistics Research; Los

Angeles County Department of Chief Medical Examiner-

Coroner.

## Teaching Projects

"Courtroom Presentation of DNA Analysis Evidence"; small group instruction for the Ventura County Crime Laboratory, DNA Section; October 1999.

"Advanced Criminalistics: Forensic DNA Analysis, RFLP and PCR Technologies"; Instructor (Lecture and Lab); California State University at Los Angeles; Spring Quarter, 1995. Course lecture covered the full range of DNA analysis as performed in forensic science at this time. The lab covered collection of evidence, DNA extraction, quantitation, PCR amplification and typing, interpretation and report writing.

"Scanning Electron Microscopy/Energy Dispersive X-ray (SEM-EDX) Analysis"; Clinical Instructor; American Society of Clinical Pathologists; October 1975

#### Certifications

July 2002 DNA Technical Leader/Technical Manager Certification, American Society of Crime Laboratory Directors (ASCLD), Credentials Review Committee

## **Professional Organizations**

Feb 1999 - Oct 2001 Member, Ventura County Biotechnology Institute (VC Bio) Apr 1993 – Present Member, California Association of Criminalists (CAC); DNA

Study Group

Feb 1993 – 1995 Charter member, Human Identity Trade Association (HITA)

1984 – 1985	Executive Vice President, American Institute of Forensic
	Science (AIFS)
Aug 1974 – Aug 1975	Founding member, AIFS
Mar 1974 – Present	Member, American Academy of Forensic Sciences (AAFS)
May 1976 – Present	Member, CAC; Member, Serology Study Group
Δpr 1971 – Mar 1979	Member California Society for Flectron Microscopy

#### **Publications and Presentations**

2011	Taylor, M.S.; 4 June 11, DC Public Defender Service 9th Annual Forensic
	Science Conference, Decoding DNA: The Fundamentals of DNA Defense;
	Washington, DC; "Defense Testing: Reasons for Testing, Retesting, and
	Monitoring".

- 2011 Barlow, B. & Taylor, M.S.; 25 Mar 11, NACDL & CACJ's 4th Annual Forensic Science Seminar: Forensic Science & the Law; Las Vegas, NV; "Principles of DNA Evidence".
- Taylor, M.S.; 12-13 Aug 10, U.S. Courts: Multi-Track Federal Criminal Defense Seminar; Miami, FL; "Issues with DNA Analysis in Forensic Casework".
- Taylor, M.S.; 4 Apr 09, NACDL & CACJ's 2<sup>nd</sup> Annual Forensic Science Seminar: Making Sense of Science II; Las Vegas, NV; "Transfer of DNA".
- D. Krane, S. Ford, J. Gilder, K. Inman, A. Jamieson, R. Koppl, I. Kornfeld, D. Risinger, N. Rudin, M.S. Taylor, W.C. Thompson. "Sequential unmasking: A means of minimizing observer effect in forensic DNA interpretation." Journal of Forensic Sciences. 2008;53(4):1006-7.
- Taylor, M.S.; 4 Apr 08, NACDL & CACJ's 1st Annual Forensic Science Seminar: Making Sense of Science; Las Vegas, NV; "Timeline for DNA Analysis".
- 2007 -----:; 17 Aug 07, Forensic Bioinformatics 6<sup>th</sup> Annual Conference, The Science of DNA Profiling: A National Expert Forum, Dayton, OH; Keynote Speaker: "Perspectives on DNA from the Last 30 Years".
- Holland, M.; Taylor, M.S.; 17 Aug 07, Forensic Bioinformatics 6<sup>th</sup> Annual Conference, The Science of DNA Profiling: A National Expert Forum, Dayton, OH; "Crime Lab Fundamentals: What to expect from a crime lab from design to record keeping to the tools a forensic scientist uses".
- Taylor, M.S.; 17 Aug 07, Forensic Bioinformatics 6<sup>th</sup> Annual Conference, The Science of DNA Profiling: A National Expert Forum, Dayton, OH; "The Beginning: DNA basics from crime scene to crime lab the good, the bad, and the ugly".
- 2007 -----:; 17 Aug 07, Forensic Bioinformatics 6<sup>th</sup> Annual Conference, The Science of DNA Profiling: A National Expert Forum, Dayton, OH; "Studying the transfer of DNA in a forensic context".
- Taylor, M.S.; 21 Mar 07, Ventura Community College, Ventura, CA; "DNA in Forensic Science".

- 2007 -----:; 17-18 Mar 07, West Coast Forensic Trial College DNA Seminar, San Francisco Public Defender Office, University of San Francisco Law School, San Francisco, CA; "Mixture Interpretation Scientific and Legal Issues".
- 2006 -----.; 12 Dec 06, Missouri State Public Defender Winter Workshop, St. Louis, MO; "Y-STR & Mitochondrial DNA Testing" & "Challenging Presumptive Forensic Tests".
- Rowland, C.D., Van Trees, R.V., Taylor, M.S., Raymer, M.L. & Krane, D.E.; "Was the Shawnee War Chief Blue Jacket a Caucasian?"; Ohio Journal of Science, September 2006.
- Taylor, M.S.; 20 Apr 06, Los Angeles Public Defender DNA Unit, Los Angeles, CA; "Understanding Decisions in DNA Analysis".
- 2005 ----:: 17 Sep 05, DNA Cross-Examination College Conference, Georgetown University Law Center, Washington, D.C.; Faculty Member.
- Barlow, B., Taylor, M.S.; 12 Sep 05, Habeas Corpus Resource Center, San Francisco, CA; Panel Co-Presenter "Assessing DNA & Serology Evidence".
- Taylor, M.S.; 12 Aug 05, Forensic Bioinformatics 4th Annual Conference, Dayton, OH; DNA Typing Methodologies, Chair: "Timeline for DNA Analysis", "Extraction Techniques", and "Y-STR Typing".
- 2005 -----: 29 April 05, California Public Defenders Association workshop "DNA/Scientific Evidence".
- Thompson, W.C., J.D., Ph.D.; Inman, K., Sr. Forensic Scientist; Cotton, R., Ph.D.; Wraxall, B.; Taylor, M.S.; 15 Oct 04, Los Angeles County Criminal Bench Seminar, Los Angeles, CA; Forensic DNA Analysis Panel.
- Taylor, M.S.; 20 Aug 04, Forensic Bioinformatics 3<sup>rd</sup> Annual Conference, Dayton, OH; "Studies of DNA Transfer" and "Strengths and Weaknesses of Commonly Used Serological Tests".
- 2004 -----:: 14 May 04, DePauw University Center for Law & Science and the Office of the Cook County Public Defender; Science in the Courtroom for the 21st Century: Issues in Forensic DNA, Chicago, IL; "Validation of Y-STR Multiplex".
- 2004 -----:: 19 Apr 2004, Puget Sound Chapter of the Inns of Court; "DNA & Problems".
- 2002 ----:: 19 Aug 2002, Monterey County Bar Association and the Monterey County Public Defender's Office; "The ABC's of DNA: An Introduction to Genetic Profiling".
- 2001 -----:; 1 Oct 2001, Colorado State Public Defender Annual Training Conference; "General Session, New DNA".
- Barlow, B.; Windham, M.; Taylor, M.S.; 19 Feb 2001, California Attorneys for Criminal Justice (CACJ) and California Public Defenders Association (CPDA) Death Penalty Defense Seminar; "Bring Your DNA Case Brainstorming with the Experts".
- Windham, M.; Taylor, M.S.; 17 Feb 2001, California Attorneys for Criminal Justice (CACJ) and California Public Defenders Association (CPDA) Death Penalty Defense Seminar; "Basic DNA".

- Thoma, J., Taylor, M.S.; 14 Sept 2000, State Bar of California 2000 Annual Meeting; "DNA Evidence: In Search of the Truth".
- Neufeld, P., Taylor, M.S., Friedman, J.; 3 June 2000, Los Angeles County Public Defenders Association; "Using DNA to Exonerate Testing and Tactics".
- Taylor, M.S., Burt, M.; 19 Feb 2000, California Attorneys for Criminal Justice (CACJ) and California Public Defenders Association (CPDA) 2000 Capital Case Seminar; "Addressing DNA That Implicates Your Client (including STR)".
- 1999 -----: 20 Nov 1999, California Public Defenders Association lecture "Exploring Scientific Evidence" and "DNA and the Crime Lab: A DNA Primer".
- 1999 -----; 13 Oct 1999, CAC Fall 1999 Seminar, "Developmental Validation Issues".
- 1998 -----; 12 Sept 1998; California Public Defenders Association lectures "Forged Fingerprints" and "STR is Not DQA1, PCR is Not PCR".
- 1998 -----; 21 Aug 1998; Riverside County Public Defenders Office, "DNA Analysis in Forensic Science".
- 1998 -----; May 1998; CAC Spring 1998 Seminar; "STR Troubles".
- Taylor, M.S., A. Challed-Spong, E.A. Johnson, Ph.D.; "Co-Amplification of the Amelogenin and HLA DQ-Alpha Genes: Optimization and Validation"; J. of Forensic Sciences, January 1997.
- Ballard, K.D., R.S. Orkiszewski, M.S. Taylor, E.A. Johnson and L. Ragle; Seventh International Symposium On Human Identification, Scottsdale, AZ; "DNA Typing and the Determination of EDTA in Forensic Samples by GC-MS/MS.
- 1996 Ballard, K.D., R.S. Orkiszewski, M.S. Taylor, E.A. Johnson and L. Ragle; 44<sup>th</sup> ASMS Conference on Mass Spectrometry and Allied Topics, Portland, OR; "Determination of EDTA in Forensic Samples by Capillary GC-MS and GC-MS/MS.
- 1996 Taylor, M.S.; 10 Apr 1996; 1996 Moorpark College Science Exposition; "Forensic DNA on Trial".
- 1995 -----; 27 Feb 1995; Scientific Seminar sponsored by the Association of Women In Science, Orange Coast College; "Forensic DNA Analysis".
- Taylor, M.S., A. Challed, E.A. Johnson, Ph.D.; 9 Oct 1994, Promega Meeting 1994 poster; "Co-Amplification of the Amelogenin Gene with DQ-Alpha Utilizing the AmpliType Reaction Mix and Amplification Process".
- 1994 Taylor, M.S.; 25 Aug 1994, Orange County Bar Association Criminal Law Section; "An Understandable Approach to DNA Testing".
- 1994 Taylor, M.S., A. Challed, E.A. Johnson, Ph.D.; 12 May 1994; CAC Spring 1994 Seminar; "Co-Amplification of the Amelogenin Gene with DQ-Alpha Utilizing the AmpliType Reaction Mix and Amplification Protocol".
- 1994 Taylor, M.S., A. Challed; 12 May 1994; CAC Spring 1994 Seminar; "Tracking Down DNA Contamination in Reagents".
- 1994 Taylor, M.S.; 14 Jan 1994, Orange County Bar Association "LAST DASH: MCLE"; "DNA Typing and the Law".

1993	; 23 Oct 1993, CAC – Fall 1993 Seminar; "Increasing the Yield of Spermatozoa from Stains and Swabs".
1993	; 23 Oct 1993, CAC – Fall 1993 Seminar; "Utilization of Metaphor Agarose for AMP-FLP D1S80 Gels".
1993	; 19 Jul 1993, Orange County Paralegal Association; "DNA Use In Forensic Science".
1993	; 19 Jul 1993, Orange County Public Defenders Office; "DNA Use In Forensic Science".
1993	; 21 May 1993, CAC – Spring 1993 Seminar; "Increasing the Yield of Spermatozoa from Stains and Swabs".
1993	; 21 May 1993, CAC – Spring 1993 Seminar; "Utilization of Metaphor Agarose for AMP-FLP D1S80 Gels".
1993	; 13 Apr 1993, San Fernando Valley Criminal Bar Association; "Forensic Use of DNA Testing".
1992	Vale, G.L., L. Kahn, J.M. Suchey, M.S. Taylor; 12 Feb 1992; AAFS – New Orleans; "The Role of the Expert: To Inform or To Confuse?"
1990	Taylor, M.S.; 18 Jan 1990, California Attorneys for Criminal Justice (CACJ) and California Public Defenders Association (CPDA) – Death Penalty Defense Seminar; "DNA: The New Witness".
1989	; 20 Feb 1989, CACJ and CPDA, Death Penalty Defense Seminar; "Case Organization: A Computerized System".
1989	"The Forensic Science Expert – Mandatory in a Death Penalty Case".
1987	; 28 Mar 1987, CPDA – Seminar; "How Fingerprints Can Be Faked".
1986	; 9 Aug 1986, CPDA, Workshop; "Handling Complex Criminal Cases
	with the Computer".
1985	; 9 Nov 1985, AIFS, Seminar; "Challenges to Eyewitness Testimony".
1985	; Chapter 5 "Challenges to Eyewitness Testimony", Forensic
	Science, Legal and Investigative Techniques, by The American Institute of Forensic Science, 1985.
1985	; 13 Jul 1985, CPDA, Workshop; "Organizing the Complex Criminal Case with the Computer".
1984	; R.H. Fox, February 1984, Pasadena, Glendale and Burbank Bar Associations Joint Meeting; "Forensic Science in Defense Work and Demonstrative Evidence".
1983	; AIFS, Seminar; "Forensic Science In Court Presentations:  Demonstrative Evidence".
1983	; September 1983, National Society for Histotechnology; "Technical Overview of Forensic Science".
1982	; November 1982, Springfield Dental Association, Springfield, MO; "An Overview of Forensic Odontology".
1981	; February 1981, AAFS; Moderator and Speaker, Criminalistics Section for the Jr. Academy of AAFS.
1978	; January 1978, Arcadia Chapter – American Association of

University Women; "Rape: Justice through Science".

- 1977 -----, R.L. Taylor; February 1977, AAFS; "Toolmark Examination via SEM/EDX".
- Taylor, R.L., M.S. Taylor, V.P. Guinn, T.T. Noguchi; "Firearm Identification by Examination of Bullet Fragments: A SEM/EDX/NAA Study"; IITRI, Scanning Electron Microscopy Symposium, 1976.
- 1975 Taylor, R.L., M.S. Taylor, T.T. Noguchi; "Applications of Scanning Electron Microscopy in Forensic Science"; IITRI, Scanning Electron Microscopy Symposium, 1975.
- Taylor, M.S., J. Wu, R.S. Daniel; "Fine Structure of Virus Lesion Periderm Formation in Nicotiana Glutinosa"; J. of Ultrastructure Research 48:143 –and-6<sup>th</sup> Bi-annual meetings, California E.M. Society, Proc., L. Anderson (ed), Monterey.
- 1973 -----; 1973; "Fine Structure of Wound Periderm Formation in Nicotiana Glutinosa"; Southern California Academy of Sciences Meeting, Patten (ed), Long Beach.