

KEITH E. PETERSEN INMAN
Associate Professor
California State University, East Bay

EDUCATION

B.S., Criminalistics, University of California, Berkeley 1974
M.Crim (Criminalistics), University of California, Berkeley 1978

PROFESSIONAL AFFILIATIONS

California Association of Criminalists

**ADDITIONAL ACADEMIC AND SPECIALIZED TRAINING COURSES
(CREDITED)**

Forensic Application of DNA Technology to Forensics, FBI Training Academy, 1990
General Genetics, University of California, 1991

OTHER PROFESSIONAL EXPERIENCE

2008-Present Associate Professor, California State University, East Bay, Department of
Criminal Justice Administration, Hayward, CA
2003-2011 Senior Forensic Scientist, Forensic Analytical Specialties, Inc. Hayward, CA
1997-2008 Instructor, California State University East Bay, Dept of Criminal Justice
Administration, Hayward, CA
2001: Invited Lecturer, University of Lausanne, Institut de police scientifique et de
Criminologie, Switzerland
1995-2003 Senior Criminalist, California Department of Justice, DNA Laboratory,
Berkeley. CA
1994 Oakland Police Department, Oakland, CA
1990-1994 Senior Criminalist California Department of Justice DNA Laboratory,
Berkeley
1983-1990 Criminalist Forensic Science Services of California, Inc., Signal Hill, CA
1982-1983 Research Criminalist Los Angeles County Chief Medical Examiner-Coroner
Los Angeles, CA
1982 Criminalist III Los Angeles County Sheriff's Department Los Angeles, CA
1978-1982 Criminalist II Los Angeles County Sheriff's Department Los Angeles, CA
1978 Criminalist Orange County Sheriff-Coroner Santa Ana, CA

PEER-REVIEWED PUBLICATIONS

Marsden, C.D., Rudin, N., **Inman, K.**, Lohmueller, K. An assessment of the information
content of likelihood ratios derived from complex mixtures. *Forensic Science International:
Genetics*. Volume 22, May 2016, Pages 64-72

Haned, H., Gill, P., Lohmueller, K., **Inman, K.**, Rudin, N. Validation of probabilistic
genotyping software for use in forensic DNA casework: definitions and illustrations. *Science
and Justice*. Volume 56, Issue 2, March 2016, Pages 104–108

Inman, K., et al. Lab Retriever: a software tool for calculating likelihood ratios incorporating a probability of drop-out for forensic DNA profiles. 2015. *BMC Bioinformatics* **16**:298.

Inman K, Rudin N, Cheng K, Robinson C, Kirschner A, Inman-Semeran L, Lohmueller KE. Lab Retriever: a software tool for calculating likelihood ratios incorporating a probability of drop-out for forensic DNA profiles. *BMC Bioinformatics*. 2015 Sep 18;16(1):298.

Lohmueller, K.E., Rudin, N., **Inman, K.** Analysis of allelic drop-out using the Identifiler® and PowerPlex® 16 forensic STR typing systems. *Forensic Science International*. Vol 12. September 2014. pg 1-11

Mnookin, JL. Cole, SL. Dror, IE. Fisher, BAJ. Houck, MN. **Inman, K.** Kaye, DH. Koehler, JJ. Langenburg, G. Risinger, DM. Rudin, N. Siegel, J. & Stoney, DA. The Need for a Research Culture in the Forensic Sciences. 58 *UCLA L. REV.* 725

Jason R. Gilder, **Keith Inman**, William Shields, and Dan E. Krane, Magnitude-dependant variation in peak height balance at heterozygous STR loci. *International Journal of Legal Medicine*. 10.1007/s00414-009-0411-2. Published on-line Feb. 10, 2010

Jason R. Gilder; Travis E. Doom; **Keith Inman**; and Dan E. Krane. Run-Specific Limits of Detection and Quantitation for STR-based DNA Testing. *Journal of Forensic Sciences* **52** p.97-101 2007

Inman, K., and Rudin, N. The origin of evidence. *Forensic Science International* **126** p.11-16 2002

Rudin, N. and **Inman, K.** Exonerated by Science. Invited editorial. *Jurimetrics J.* **37**: 319-323 (1997)

LETTERS

Krane, et.al. Time for DNA Disclosure. *Science* **326** p. 1631 December 18, 2009

Krane, et.al. Sequential Unmasking: A Means of Minimizing Observer Effects in Forensic DNA Interpretation. *Journal of Forensic Sciences*. **53**(4) p.1006-1007 2008

Brenner, C. and **Inman, K.** Commentary on: How the Probability of a False Positive Affects the Value of DNA Evidence. *Journal of Forensic Sciences* **49**: p.192-193 2004

Inman, K., Hardin, G., Sensabaugh, GF, and Thornton, JI. Concerning the solubility of sugar in gasoline. *Journal of Forensic Sciences* **38**: p.757 1993

NON-PEER REVIEWED PUBLICATIONS

Inman, K. Some Observations on Gene Frequency Data. *Forensic Serology News* **6**: p.1 1980

BOOKS

Rudin, N. and Inman, K. 2002 An Introduction to Forensic DNA Typing, 2nd Edition CRC Press 292pp

Inman, K. and Rudin, N. 2000 Principles and Practice of Criminalistics CRC Press 392pp

Inman, K. and Rudin, N. 1997 An Introduction to Forensic DNA Typing CRC Press 285pp

Rudin, N and Inman, K. 1994 DNA Demystified: An Introduction to Forensic DNA Typing. 121pp

BOOK CHAPTERS

Inman, K. **The Collection and Preservation of Physical Evidence** in The Los Angeles County Protocol for the Treatment of Rape and Other Sexual Assaults. Los Angeles Commission on the Status of Women 1981

Inman, K. **Laboratory Examination of Physical Evidence** in The Los Angeles County Protocol for the Treatment of Rape and Other Sexual Assaults. Los Angeles Commission on the Status of Women 1981

Rudin, N., Inman, K., Stolovitsky, G, and Rigoutsos, I **DNA Based Identification in Biometrics: Personal Identification in Networked Society** Kluwer Academic Publishers 1999

Inman, K., and Rudin, N. **Scientific Basis of DNA Typing and Overview of Forensic DNA Typing in Forensic Evidence** California District Attorneys Association 1999 (ISBN: 1-889110-13-2)

Inman, K., and Beck, J., **DNA Evidence** in Courts, Law, and Justice, edited by Chambliss and Golson, Key Issues in Crime and Punishment series, SAGE Publications Inc., Thousand Oaks, CA Vol. 3, pp 13-27

Inman, K. and Rudin N. *Sequential Unmasking: Minimizing Observer Effects in Forensic Science.*, Encyclopedia of Forensic Sciences 2nd Ed. Eds. Siegel, J.A., Saukko, P.J., Waltham:Academic Press, 2013.

OPINION AND EDITORIAL ARTICLES

Rudin, N., and Inman K., Causes of wrongful conviction (Don't believe everything you think), *CACNews*, 1st Quarter, 2014

Rudin, N., and Inman K., What science could (and should) do for justice, *CACNews*, 4th Quarter, 2013

Rudin, N., and Inman K., Can we talk?, *CACNews*, 3rd Quarter, 2013

Rudin, N., and Inman K., We're probably thinking ... About probabilistic approaches to weighting evidence, *CACNews*, 2nd Quarter, 2013

Rudin, N., and Inman K., Journey to the Red Planet: Curiosity meets Forensic Science *CACNews*, 1st Quarter, 2013

Rudin, N., and Inman K., The Proceedings of Dinner: Bridging the Generations *CACNews*, 4th Quarter, 2012

Rudin, N., and Inman K., Lake Errbegon "... where the evidence is unambiguous, the analyses robust, and all the criminalists are above average. " *CACNews*, 3rd Quarter, 2012

Rudin, N., and Inman K., A Decade of the Proceedings of Lunch – Thinking Allowed, and thinking aloud *CACNews*, 2nd Quarter, 2012

Rudin, N., and Inman K., The discomfort of thought – a discussion with John Butler *CACNews*, 1st Quarter, 2012

Rudin, N., and Inman K., To err is human and inevitable, *CACNews*, 4 Quarter, 2011 Rudin, N., and Inman K., Why politics is worse for science than the law, *CACNews*, 2nd Quarter, 2011

Rudin, N., and Inman K., That's not what we meant: Sequential Unmasking revisited, *CACNews*, 1st Quarter, 2011

Rudin, N., and Inman K., How low can you go? The experience fallacy: Quothe the raven "In my experience," never more! *CACNews*, 4th Quarter, 2010

Rudin, N., and Inman K., How low can you go? Should you just say no? *CACNews*, 3rd Quarter, 2010

Rudin, N., and Inman K., 'tis the Season: The NAS "one year later" Commemorative edition, 2nd Quarter, 2010

Rudin, N., and Inman K., Dining with a Founder: A conversation with Jay Siegel, *CACNews*, 1st Quarter, 2010

Thompson., *et al.*, Commentary on: Thornton JI., Letter to the editor – a rejection of "working blind" as a cure for contextual bias. *J Forensic Sci*, 55(6), 2011

Krane, D., *et al.*, Commentary on: Budowle B., *et al.* A perspective on errors, bias, and interpretation in the forensic sciences and direction for continuing advancement. *J Forensic Sci*, 55(1), 2010.

Krane, D., *et al.*, Time for DNA Disclosure, *Science*, 326, 2009.

Rudin, N., and Inman K., Dining with a Founder, A conversation with Jay Siegel, *CACNews*, 1st Quarter, 2010.

Rudin, N., and Inman K., How much should the analyst know and when should she know it, *CACNews*, 4th Quarter, 2009.

Rudin, N., and Inman K., Challenging the canon, *CACNews*, 3rd Quarter, 2009

Rudin, N., and Inman K., Stakes, steaks and stakeholders, *CACNews*, 2nd Quarter, 2009

Krane, D., *et al.*, Authors' response to Ostrum B., Commentary on: sequential unmasking: a means of minimizing observer effects in forensic DNA interpretation. *J Forensic Sci* 54(6), 2009.

Krane, D., *et al.*, Authors' response to Wells, J.D., Commentary on: sequential unmasking: a means of minimizing observer effects in forensic DNA interpretation. *J Forensic Sci* 54(2), 2009.

Krane, D., *et al.*, Sequential Unmasking, A Means of Minimizing Observer Effects in Forensic DNA Interpretation, *J. Forensic Sci*, 53(4), 2008.

Rudin, N., and Inman K., Administer this!, *CACNews*, 1st Quarter, 2009.

Rudin, N., and Inman K., Who speaks for forensic science, *CACNews*, 4th Quarter, 2008.

Rudin, N., and Inman K., The forensic disadvantage suffered by forensic scientists, *CACNews*, 3rd Quarter, 2008.

Rudin N., and Inman K., Genetic Witness: Through the Lens of a Social Scientist, *CACNews*, 2nd Quarter, 2008.

Rudin N., and Inman K., Keith and Norah's Top 10: Areas in which forensic science could improve, *CACNews*, 1st Quarter, 2008.

Rudin N., and Inman K., The Flodbit Problem: What are we Doing?, *CACNews*, 4th Quarter, 2007.

Rudin N., and Inman K., The Urban Myths and Conventional Wisdom of Transfer: DNA as Trace Evidence, *CACNews*, 3rd Quarter, 2007.

Rudin N., and Inman K., Know the Code, *CACNews*, 2nd Quarter, 2007.

Rudin N., and Inman K., A frosty debate: The chilling effect of a cold hit in a DNA database, *CACNews*, 1st Quarter, 2007.

Rudin N., and Inman K., Seeing DeForest AND the Trees, *CACNews*, 4th Quarter 2006.

Rudin N., and Inman K., The Pen is Mightier than the Pipette, *CACNews*, 2nd Quarter, 2006.

Rudin N., and Inman, K., The Shifty Paradigm, Part II: Errors and Lies and Fraud, Oh My! *CACNews* 1st Quarter 2006.

Rudin N., and Inman, K., The Shifty Paradigm, Part I: Who Gets to Define the Practice of Forensic Science? *CACNews* 4th Quarter 2005.

Rudin N., and Inman, K., A Hitchhiker's Guide to Accreditation, *CACNews* 3rd Quarter 2005.

Rudin N., and Inman, K., Fingerprints in Print, The Sequel: The continuing saga of a latent print misidentification in the Madrid bombing case, *CACNews* 2nd Quarter 2005.

Rudin N., and Inman, K., Fingerprints in Print: The apparent misidentification of a latent print in the Madrid bombing case, *CACNews* 4th Quarter 2004.

Rudin N., and Inman, K., Myth or Aphorism: Sayings by which we live (The Dogma of forensic science), *CACNews* 3rd Quarter 2004.

Rudin N., and Inman, K., The Culture of Bias - Part II, *CACNews* 2nd Quarter 2004.

Rudin N., and Inman, K., The Culture of Bias - Part 1, *CACNews* 1st Quarter 2004.

Rudin N. and Inman, K. Which Came First, the Blood or the Print? The Rest of the Story. *CACNews* 4th Quarter 2003.

Rudin N. and Inman, K. Which Came First, the Blood or the Print? The Role of Experimentation in Forensic Casework *CACNews* 3rd Quarter, 2003.

Rudin N. and Inman, K. Experts on experts. What is the role of the scientist in assisting an attorney with an opposing expert? *CACNews* 2nd Quarter, 2003.

Rudin N. and Inman, K. Articulating Hypotheses – the null hypothesis and beyond. *CACNews* 1st Quarter, 2003.

Rudin N. and Inman, K. Biological Evidence as Trace Evidence: The Forensic Science of DNA Typing, *CACNews*, 4th Quarter, 2002.

Rudin N. and Inman, K. The Transfer of Evidence and Back Again. *CACNews*, 3rd Quarter, 2002.

Rudin N. and Inman, K. How Far Should an Analyst Go? *CACNews*, 2nd Quarter, 2002.

Rudin N. and Inman, K. Specialist vs. Generalist. *CACNews*, 1st Quarter, 2002.

Rudin N. and Inman, K. Divisible Matter. *CACNews*, 4th Quarter, 2001.

Inman, K. and Rudin N. How much should the analyst know? *CAC News*, Fall, 1997

RECENT PRESENTATIONS

Inman K., Konzak K., Brewer L., Buoncristiani M., Gima L., Horne M., Pierson M., Rudin N., Sims G., and Bashinski J. 1992. Establishing a Matching Guideline within the California Department of Justice DNA Laboratory. AAFS Meeting Abstracts. 85.

Rudin N, Konzak K, Gima L, Brewer L, Buoncristiani M, Horne M, Inman K, Ma M, Pierson M, Sims G, and Bashinski J. 1992. A Systematic Study of the Effect of Various Environmental Abuses on RFLP and PCR Analysis of Forensic Samples. AAFS Meeting Abstracts. 85.

- Rudin N, Buoncristiani M, Horne M, Inman K, Myers, S, Sims G, and Bashinski J. 1992. A Systematic Study of the Effect of Various Environmental Abuses on RFLP and PCR Analysis of Forensic Samples. Proc. Third Int'l Symposium on Human ID. 421-422.
- Rudin N, Konzak K, Gima L, Brewer L, Buoncristiani M, Horne M, Inman K, Ma M, Pierson M, Sims G, and Bashinski J. 1992. A Systematic Study of the Effect of Various Environmental Abuses on RFLP and PCR Analysis of Forensic Samples. J. For. Sci. Soc. **32**:274-275.
- Horne ME, Inman KP , Brewer LM , and Pierson ML. 1992. DNA Extraction by Organic and Non-organic Procedures from Blood Standards Dried on Cloth and Filter Paper. J. For. Sci. Soc. **32**:263
- Inman, K. Konzak, K. Gima L., Buoncristiani M., Dowden D., Bashinski J., Thompson L., Gregonis D., and Jones D. 1993. Demonstration of Concordance of RFLP Results Between Laboratories Contributing to the CAL-DNA Profiling Data Bank. Proc. of the Second International Symposium of the Forensic Aspects of DNA Analysis. 22.
- Rudin, N. and K. Inman. 1993. Development of Minisatellite Variant Repeat (MVR) analysis for Forensic Samples. Proc. Fourth International Symposium on Human ID. 235.
- Rudin, N. and K. Inman. 1993. Evaluation of Minisatellite Variant Repeat (MVR) analysis for Forensic science. J. For. Sci. Soc. **33**:192.
- Inman, K. 1993. Quantitative Variation in Molecular Weight of Environmentally Abused Samples Subjected to RFLP Analysis. J. For. Sci. Soc. **33**:125-126
- Lee, S.B., M. Ma, B. McNamee, G. Sims and K. Inman. 1995. Rapid Microwave Extraction and Quantitation of DNA from blood for RFLP and PCR. AAFS meeting Abstracts. 36.
- Inman, K. and Kung, Y. 1996 Case Report: The Identification of Brothers in a Single Rape Evidence Semen Sample California Association of Criminalists 1996 Spring Semi-Annual Seminar
- Rudin, N. and K. Inman. 1999 The Evolution of Forensic Science California Association of Criminalists 1999 Spring Semi-Annual Seminar
- Inman, K., and Rudin, N. 1999 The Origins of Evidence California Association of Criminalists 1999 Spring Semi-Annual Seminar
- Inman, K. 1999 Hit Confirmation Protocols for state of California 1999 CODIS Conference Washington DC November 1999
- Inman, K. 2001 Education of the Forensic DNA Analyst. Conference on DNA and the Law Duquesne University

Inman, K. 2004 The historical development of the practice of forensic science: By what standards do we practice our discipline? Forensic Bioinformatics 3rd Annual Conference

Inman, K. 2006 Objective characterization of degradation/inhibition Forensic Bioinformatics 5th Annual Conference

Inman, K. 2006 Run-specific limits of quantitation and detection (an alternative to minimum peak height thresholds) California Association of Criminalists 2006 Fall Semi-Annual Seminar

Inman, K. 2008 Crime lab fundamentals: What to expect from a crime lab from design to record keeping. Forensic Bioinformatics 7th Annual Conference

Krane, et.al. 2008 Implementing sequential masking procedures International Association of Forensic Sciences

Inman, K 2008 Facilitating Communication and Collaboration Between the Forensic Science Community and the Innocence Movement (Panel Moderator) California Association of Criminalists 2008 Fall Semi-Annual Seminar

Krane, et.al. 2009 Sequential Unmasking: Determining What Information is Crucial and What is Extraneous in a Forensic Analysis American Academy of Forensic Sciences 2009 Annual Meeting

Lohmueller K., Rudin N., Inman, K. 2010, Tools for estimating the weight of evidence for difficult profiles. CAC meeting, Oakland, CA.

Rudin, N. and Inman, K., Workshop: Introduction to perception, observer effects, bias, and expectation in forensic science, AAFS, Seattle, WA.

Lohmueller K., Rudin N., Inman, K. Analysis of allelic drop-out using the Identifiler STR multiplex. Promega Human Identity Symposium, San Antonio, TX.

Inman, K., Rudin N., Lohmueller K. 2011. A review of detection thresholds and their application to low-template DNA samples. CAC meeting, Sacramento, CA.

Lohmueller K., Rudin N., Inman, K. 2011. Performance of statistical approaches to measure the strength of DNA evidence exhibiting possible stochastic effects. ICFIS meeting, Seattle, WA.

Lohmueller K., Rudin N., Inman, K. 2011. Performance of Statistical Approaches to Measure the Strength of DNA Evidence Exhibiting Possible Stochastic Effects, AAFS meeting, Chicago, IL.

Inman, K., Rudin N., Lohmueller K., 2012. Calculating Likelihood Ratios Incorporating a Probability of Drop-out: A New Web-based Tool, CAC meeting, Bakersfield, CA.

Inman, K. 2012 Where does Forensic Science 2.0 Lead Us? To the Crime Scene! European Academy of Forensic Sciences meeting, The Hague, The Netherlands

Inman, K. 2012 Forensic Science Practice and Research Doctoral Summer School in Forensic Science and Criminology, University of Lausanne, Arolla, Switzerland

Rudin, N., Inman, K., Circumstantial Evidence that Supports an Inference for the Defense: Getting the most out of your DNA profile, 2013. NACDL conference, Washington D.C.

Inman, K., Lohmueller K., Rudin N., 2013. Analysis of allelic drop-out using the Identifiler® and PowerPlex® 16 forensic STR typing systems I. Estimation of drop-out probabilities AAFS Annual Meeting, Washington DC

Lohmueller K., Rudin N., Inman, K., 2013. Analysis Of Allelic Drop-Out Using The Identifiler® And PowerPlex® Forensic STR Typing Systems II. Evaluation Of Estimated Drop-Out Probabilities AAFS Annual Meeting, Washington DC

Inman, K., Rudin N., Lohmueller K., 2013. Calculating Likelihood Ratios Incorporating a Probability of Drop-out: Introducing *Lab Retriever*, a free and user-friendly software program. Workshop, AAFS, Washington D.C.

Inman, K., Rudin N., Lohmueller K., 2013. Calculating Likelihood Ratios Incorporating a Probability of Drop-out using the free program *Lab Retriever*. 1/2 day Workshop, Promega International Symposium for Human Identity, Atlanta, GA.

Inman, K., Rudin N., A Practical Solution to Training U.S. Forensic DNA Practitioners on Implementing Probabilistic Approaches to Weighting Forensic DNA Evidence, August 2014 International Conference on Forensic Inference and Statistics, Leiden, The Netherlands.

Inman, K., Lohmueller, K., Rudin, How Can We Assign a Quantitative Evidential Value to a Profile of a DNA Mixture? August 2014 International Conference on Forensic Inference and Statistics, Leiden, The Netherlands.

Inman, K., Rudin N., , Lohmueller K., 2014, Probabilistic Genotyping and *Lab Retriever*, CAC study group, Richmond CA.

Inman, K., Rudin N., Lohmueller K., 2014. *Lab Retriever*, Probabilistic Software Workshop, Promega International Symposium for Human Identity, Phoenix, AZ.

Marsden, C., Rudin, N., Inman, K., Lohmueller, K. Defining the limits of forensic DNA profile interpretation: An assessment of the information content inherent in complex mixtures. CAC meeting Rohnert Part, 2014.

Inman, K. Crime scene science - what will the future look like? The Paradigm Shift for UK Forensic Science. Royal Society, London, UK. 2015

Marsden, C., Rudin, N., Inman, K., Lohmueller, K. Defining the limits of forensic DNA profile interpretation: An assessment of the information content inherent in complex mixtures. AAFS Meeting, Orlando FL. 2015.

PROFESSIONAL ACTIVITIES

Chair, DNA Committee, California Association of Criminalists (1994 - 1995)

Speaker, NRC Committee on DNA in Forensic Science, November 1994

Author, Amicus Curiae Brief to the California Supreme Court from the California Association of Criminalists

TRAINING PROVIDED

1-day training on forensic statistics, likelihood ratios incorporating a probability of drop-out, Lab Retriever statistical software, San Francisco forensic DNA laboratory, Nov. 6, 2014

1-day training on forensic statistics, likelihood ratios incorporating a probability of drop-out, Lab Retriever statistical software, SWAFS, Sept. 25, 2014

3-day training on forensic statistics, likelihood ratios incorporating a probability of drop-out, Lab Retriever statistical software, Jefferson Co. Regional Crime laboratory, Sept. 9-11, 2014

3-day training on forensic statistics, likelihood ratios incorporating a probability of drop-out, Lab Retriever statistical software, Oregon State Police forensic DNA laboratory, July 22-24, 2014

2-day training on Advanced Topics in Forensic DNA Profiling, Cook County Public Defender Office, June 26-27, 2014

1-day training on forensic statistics, likelihood ratios incorporating a probability of drop-out, Lab Retriever statistical software, MAFS, June 9, 2014

1.5-day training on forensic statistics, likelihood ratios incorporating a probability of drop-out, Lab Retriever statistical software, NEAFS, May 21-22, 2014

1/2 day training on forensic statistics, likelihood ratios incorporating a probability of drop-out, Lab Retriever statistical software, MAAFS, May 20, 2014

3-day training on forensic statistics, likelihood ratios incorporating a probability of drop-out, Lab Retriever statistical software, Denver PD forensic DNA laboratory, July 15-17, 2013.

SOFTWARE

Principal in SCIEG, non-profit developer of the free, open-source software tool, *Lab Retriever*, for calculating Likelihood Ratios with a probability of drop-out.

AWARDS

2014-2015. National Institute of Justice Grant 2013-DN-BX-K029 2013-DN-BX-K029. Advancing probabilistic approaches to interpreting low-template DNA profiles and mixtures: Developing theory, implementing practice. (Co-PIs Kirk Lohmueller)

Distinguished Service Award, California Association of Criminalists, May 2009

Distinguished Member Award, California Association of Criminalists, October 2009

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