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**CURRICULUM VITAE**

12/30/10

**EDUCATION**

1981-1987. Ph.D., Molecular biology/Genetics, Department of Biology, Brandeis University, Waltham, Massachusetts.

1975-1979. B.A., Zoology, Pomona College, Claremont, California.

**CONTINUING EDUCATION AND TRAINING**

Future Trends in Forensic DNA Technology, AB HID University, Berkeley, CA, 2009.

Hair Microscopy for the DNA Analyst Workshop, Skip Palenik, San Jose, CA, 2009.

Population Statistics and Forensic DNA Analysis, George Carmody, San Diego, CA, 2001.

Statistics and Population Genetics for Forensic DNA Analysis, NCSU, NC, 1999.

STR Analysis and Typing, California Criminalistics Institute, Sacramento, CA, 1999.

Automated Sequencer Training course, Applied Biosystems, Foster City, CA, 1992.

Advanced Aspects of Forensic DNA Analysis School, FBI Academy, Quantico, VA, 1992.

PCR-DQ $\alpha$  Training Class, Cetus Corporation, Berkeley, CA, 1991.

**EMPLOYMENT**

1991-present. Forensic DNA Consultant.

1999-2002. Acting DNA Technical Leader (consultant), San Diego Sheriff's Office DNA Laboratory.

1999. Acting DNA Technical Leader (consultant), San Francisco Police Department Criminalistics Laboratory.

1997-1999. Acting DNA Technical Leader (consultant), Idaho State Department of Law Enforcement DNA Laboratory.

1997-2004. Developer, instructor of online courses with Knowledge Solutions; *Introduction to Forensic DNA, Fundamentals of Forensic Science, Arson and Explosives, Toolmarks and Firearms.*

1995-2001. Instructor, University of California at Berkeley Extension; *Survey of Forensic Sciences, Fundamentals of Forensic DNA, Careers in Forensic Science, Advanced Topics in Forensic Science.*

1991-1993. DNA Technical Leader, California State Department of Justice DNA Laboratory.

1987-1990. Post-doctoral fellow, Lawrence Berkeley Laboratory, Berkeley, California.

**PROFESSIONAL ORGANIZATIONS**

Member, California Association of Criminalists (CAC) since 1998

Member, American Academy of Forensic Science (AAFS) 1999 (prov.), since 2002 (full)

Diplomate of the American Board of Criminalistics (D-ABC) since 1999

Member, American Society for Testing and Materials (ASTM: international) E30 Forensic Science Committee since 2008

#### **AWARDS, HONORS**

- 2009. Service Award, California Association of Criminalists
- 2007. Reviewer, United Nations Office of Drug and Crime Manual
- 2007-present. Commonwealth of Virginia Scientific Advisory Committee
- 2003-present. Who's Who in America
- 1996-present. Who's Who in the West
- 1983-1985. National Institute of Health genetics training grant
- 1981-1985. Goldwyn Fellowship

#### **SELECTED SPEAKING ENGAGEMENTS**

- 2010. Invited Speaker, The Science and Fiction of Forensic Science, *Pomona College Alumni Association*, Palo Alto, CA.
- 2009. Invited Speaker, What's an Allele Between Friends and other Y-STR topics, *DePaul University Law School Conference on Science and the Law*, Chicago, IL.
- 2008. Invited Speaker, Sequential Unmasking, *DePaul University Law School Conference on Science and the Law*, Chicago, IL.
- 2007. Invited Speaker, Debunking CSI, *University of Santa Clara Law School*, Santa Clara, CA, 2007
- 2007. Invited Speaker, DNA Transfer, *DNA boot camp, organized by the Minnesota Public Defender Office*, Brainerd, MN.
- 2007. Invited Speaker, Forensic DNA: The Science and Fiction of Forensic Science, *American Chemical Society*, Berkeley, CA.
- 2007. Invited Speaker, Literature Review of Transfer, *DePaul University Law School Conference on Science and the Law*, Chicago, IL.
- 2006. Invited Speaker. Mitochondrial DNA in GA v. Vaughn: a Case Example. *The Science of DNA Profiling*, Dayton, OH.
- 2006. Invited Speaker, The Science of Individualization, or is it?, *European Academy of Forensic Sciences*, Helsinki, Finland.
- 2006. Invited Speaker, The Threshold Effect, *DePaul University Law School Conference on Science and the Law*, Chicago, IL.
- 2005. Invited Speaker, How to work with a DNA expert, *California Public Defender's Association*, Monterey, CA.
- 2005. Faculty, DNA Cross Examination College, national trial skills conference organized by the *Public Defender Service of the District of Columbia*, Washington, D.C.
- 2004. Invited Speaker, European Circuit Conference, USAF, Garmish, Germany.
- 2002. Invited Speaker, Death Penalty Defense Seminar, *California Association for Criminal Justice/California Public Defender's Association*, Monterey, CA.
- 2001. Invited Speaker, Forensic DNA and the Law conference, *The Cyril H. Wecht Institute for Forensic Science and Law*, Duquesne University, Pittsburgh, PA.
- 2001. Invited Lecturer, *Institut de police scientifique et de criminologie*, University of Lausanne, Switzerland.

1998. Invited Speaker, Introduction to Forensic DNA Analysis; Technical issues in forensic DNA casework. *VIII Simposio Internacional de Criminalistica*, Cartagena, Colombia.

#### **BOOKS AND CHAPTERS**

Rudin N. and Inman, K. *An Introduction to Forensic DNA Analysis*, CRC Press Inc., Boca Raton, FL. 1997, 2001.

Inman, K. and Rudin, N. *Principles and Practice of Criminalistics: The Profession of Forensic Science*, CRC Press Inc., Boca Raton, FL, 2000.

Rudin N. and Inman, K. Editors, *Protocols in Forensic Science* series, CRC Press, incl. *Scientific Protocols for Forensic Examination of Clothing*, Jane Taupin and Chesterene Cwliklik; *Scientific Protocols for Fire Investigation*, John Lentini; *Ethics in Forensic Science: Professional Standards for the Practice of Criminalistics*, Peter Barnett.

Rudin, N. *Dictionary of Modern Biology*. Barron's Educational, Hauppauge, NY. 1997.

Inman, K., and Rudin, N. Scientific Basis of DNA Typing and Overview of Forensic DNA Typing in *Forensic Evidence*, California District Attorneys Association 1999.

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

Inman, K. and Rudin N., *DNA Demystified, Solving Crimes in the 90's; An Introduction to Forensic DNA Typing*, Self-published, 1994.

#### **OPINION AND EDITORIAL ARTICLES**

Rudin, N., and Inman K., That's not what we meant: Sequential Unmasking revisited, *CACNews*, 1<sup>st</sup> 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*, 3<sup>rd</sup> Quarter, 2010

Rudin, N., and Inman K., 'tis the Season: The NAS "one year later" Commemorative edition, 2<sup>nd</sup> Quarter, 2011

Rudin, N., and Inman K., Dining with a Founder: A conversation with Jay Siegel, *CACNews*, 1<sup>st</sup> 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.
- Murphy, E., and Thompson, W.C., *et al.*, Brief of 20 Scholars of Forensic Evidence as *Amici Curiae* Supporting Respondents, *On Writ of Certiorari to the United States Court of Appeals for the Ninth Circuit, McDaniel v. Brown*, in the Supreme Court of the United States, July 24, 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*, 3<sup>rd</sup> Quarter, 2007.
- Rudin N., and Inman K., Know the Code, *CACNews*, 2<sup>nd</sup> Quarter, 2007.
- Rudin N., and Inman K., A frosty debate: The chilling effect of a cold hit in a DNA database, *CACNews*, 1<sup>st</sup> Quarter, 2007.
- Rudin N., and Inman K., Seeing DeForest AND the Trees, *CACNews*, 4<sup>th</sup> Quarter 2006.
- Rudin N., and Inman K., The Pen is Mightier than the Pipette, *CACNews*, 2<sup>nd</sup> 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
- Rudin, N., DNA Untwisted, *San Francisco Daily Journal*, April, 1995.

#### ACADEMIC PUBLICATIONS

- Inman, K. and Rudin, N. The Origin of Evidence. *Forensic Science International*. 2002. **126** p. 11-16.
- Brettell, T.A., Rudin, N., Saferstein, R. 2003. Forensic Science. *Anal. Chem.* **75**, p. 2877-2890.
- Brettell, T.A., Inman, K., Rudin, N., Saferstein, R. 2001. Forensic Science. *Anal. Chem.* **73**, p. 2735-2744.
- Brettell, T.A., Inman, K., Rudin, N., Saferstein, R. 1999. Forensic Science. *Anal. Chem.* **71** p. 235R-255R.
- Rudin, N. And Inman, K. 1997. Exonerated by Science. *Jurimetrics J.* **37**, p. 319-323.
- Rudin, N. 1993. Beyond RFLP. *TIE-LINE*. Vol. 17, No. 1 p. 53-54.
- Myers, S.P., and N. Rudin. 1993. Evaluation of Centricon 100 Filtration Units on the *HaeIII* Digestion Efficiency of DNA Extracted from Bloodstains. *TIE-LINE*. Vol. 17, No. 1 p. 55.
- Dora, E.G., Rudin, N. Martell, J.R., Esposito, M.S., Ramirez, R.M. 1999. RPD3 (REC3) mutations affect mitotic recombination in *Saccharomyces cerevisiae*. *Current Genetics* **35**: 68-76.
- Fishman-Lobell, J., Rudin, N. and J. E. Haber. 1992. Two alternative pathways of double-strand break repair that are kinetically separable and independently modulated. *Mol. Cell Biol.* **12**:3 1292-1303.
- Rudin, N, E. Sugarman and J. E. Haber. 1989. Genetic and physical analysis of double-strand break repair and recombination in *Saccharomyces cerevisiae*. *Genetics* **122**: 519-534.
- Rudin, N., and J.E. Haber. 1988. Efficient repair of *HO*-induced chromosomal breaks in *Saccharomyces cerevisiae* by recombination between flanking homologous sequences. *Mol. Cell Biol.* **8**:9 3918-3928.

Haber, J.E., R. Borts, B. Connolly, M. Lichten, N. Rudin and C. I. White. 1988. Physical monitoring of meiotic and mitotic recombination in yeast. In *Nucleic Acid Research and Molecular Biology*. Vol. 35 p. 212-262.

Rudin, N., Cis-acting regions involved in mating type interconversion in the yeast *Saccharomyces cerevisiae*. *Ph.D. Thesis*, Brandeis University, 1988.

#### **ABSTRACTS AND PRESENTATIONS**

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

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

Rudin, N., and Inman, K., 2008. The Role of Forensic Science in the Innocence Movement, CAC meeting, Sacramento, CA.

Rudin, N., 2008. The Consequence of Keg Stands. CAC meeting, Sacramento, CA.

Rudin, N., 2005. Y-STRs Come of Age: A disputed interpretation. CAC meeting, Oakland, CA.

Rudin, N., 2003. It Takes a Criminalist to see the Forest for the Trees. CAC meeting, San Diego, CA.

Rudin, N. 2002. Houston, We Have a Problem. CAC meeting, Huntington Beach, CA.

Rudin, N. 2002. The Database Hit that Missed the Mark. CAC meeting, San Francisco, CA.

Rudin, N. 2002. Biological Evidence as Transfer Evidence. CAC meeting, San Francisco, CA.

Rudin, N. and Inman, K. 1999. The Origin of Evidence. CAC meeting, Oakland, CA.

Rudin, N. 1999. Case Review. CAC meeting, Oakland, CA.

Rudin, N. 1998. DNA Case Review. CAC meeting, Monterey, CA.

Rudin, N. and Inman K. 1993. Development of Minisatellite Variant Repeat (MVR) Analysis for Forensic Samples. Promega Human Identity Symposium, Scottsdale, AZ.

Barcellos, L., and Rudin, N. 1993. The Case of the Laundered Results. CAC meeting, Berkeley, CA.

Rudin, N., and Inman, K. 1993. Development of Minisatellite Variant Repeat for Forensic Analysis. CAC meeting, Berkeley, CA.

Rudin, N., 1993. Evaluation of Methods involving PCR Amplification of Additional DNA Sequence and Length Polymorphisms for Forensic Typing. AAFS meeting, Boston, MA

Rudin, N.R., Konzak, K., Gima, L., Brewer, L., Buoncristiani, M., Horne, M., Inman, K., Ma, M., Pierson, M., Sims, G., Bashinski, J. 1992. A Systematic Study of the Effect of Various Environmental Abuses on RFLP and PCR Analysis of Forensic Samples. Promega Human Identity Symposium, Scottsdale, AZ.

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

Rudin, N.R., Konzak, K., Gima, L., Brewer, L., Buoncristiani, M., Horne, M., Inman, K., Ma, M., Pierson, M., Sims, G., Bashinski, J. 1991. A Systematic Study of the Effect of Various Environmental Abuses on RFLP and PCR Analysis of Forensic Samples. CAC meeting, Ontario, CA.

- Rudin, N., H.W. Moise, J.T. Brown and M.S. Esposito. 1990. The *REC3* gene of *S. cerevisiae*: molecular cloning, disruption and DNA sequencing. *Yeast*: (Spec Iss.)
- Moise, H.W., Rudin, N. J.T. Brown and M.S. Esposito. 1990. The *REC1* DNA strand-transfer protein of *Saccharomyces cerevisiae* is required for recombination, X-ray damage repair, mating-type switching and meiosis. In abstracts of papers presented at the 1990 meeting on yeast genetics and molecular biology, The Hague, The Netherlands.
- Fishman-Lobell, J., N. Rudin and J. Haber. 1990. Increasing the distance between direct repeats slows the kinetics of double-strand break induced recombination. In abstracts of papers presented at the 1990 meeting on yeast genetics and molecular biology, The Hague, The Netherlands.
- Rudin, N., H. Moise, J.T., Brown and M.S. Esposito. 1989. The *REC1*, *REC3* AND *REC4* genes of *Saccharomyces cerevisiae*; *in vivo* and *in vitro* phenotypes of conditional hyporecombination mutants. Abstracts of FASEB conference on genetic recombination and genome rearrangements, July 9-14, 1989, p.48.
- Brown, J. T., N. Rudin and M.S. Esposito. 1989. The *REC1*, *REC3* AND *REC4* genes of *Saccharomyces cerevisiae*. AAAS annual meeting, San Francisco, CA. Abs. 428.
- Esposito, M.S., N. Rudin and G.T. Thomson. 1989. Novel YAC vectors and *Saccharomyces cerevisiae* recipients for study of human DNA recombination and ordering of YAC human genomic libraries. Abstracts of papers presented at the 1989 Cold Spring Harbor meeting on genome mapping and sequencing, April 26-30, 1989, p.74.
- Esposito, M.S., J.T. Brown, and N. Rudin. 1988. The *REC1* gene of *Saccharomyces cerevisiae* is required for spontaneous mitotic gene conversion, intragenic recombination, intergenic recombination, genomic stability, and sporulation *In vivo* and *in vitro* properties of the temperature sensitive mutation *REC1-1*. *Yeast* **4**: s308 (Spec. Iss.).
- Rudin, N, E. Sugarman and J.E. Haber. 1988. *HO*-endonuclease-induced recombination in yeast. *Yeast* **4**: s309 (Spec. Iss.).
- Esposito, M.S., J.T. Brown, and N. Rudin. 1988. The *REC1* gene of *S. cerevisiae* is required for spontaneous mitotic gene conversion, intra- and intergenic recombination, genomic stability, repair of X-ray damage and sporulation. In abstracts of papers presented at the 1988 meeting on Intermediates in Genetic Recombination. Cold Spring Harbor Laboratory, Cold Spring Harbor, New York. p.194.
- Rudin, N, E. Sugarman and J.E. Haber. 1988. *HO*-endonuclease-induced recombination in yeast. In abstracts of papers presented at the 1988 meeting on Intermediates in Genetic Recombination. Cold Spring Harbor Laboratory, Cold Spring Harbor, New York. p.193.
- Rudin, N., E. Sugarman, and J.E. Haber. *HO*-induced recombination events in a *LACZ* duplication system. In Abstracts of papers presented at the 1987 meeting on yeast genetics and molecular biology, San Francisco California. p. 398.
- Rudin, N., S. Stewart, and J.E. Haber. Cis-acting sequences in mating-type switching. In abstracts of papers presented at the 1987 meeting on Yeast genetics and molecular biology, San Francisco, California. p. 176.
- Rudin, N., S. Stewart and J. E. Haber. 1986. Homologous and non-homologous sequences involved in mating type switching. *Yeast* **2**: s330 (suppl).
- Rudin, N. and J. E. Haber. 1985. Effect of Interchromosomal Mating-type Switching in *S. cerevisiae*. *Genetics* **110**: s60 (suppl).

Rudin, N., B. Connolly, M. Kluznik and J. E. Haber. 1985. Effects of interchromosomal mating type switching in *S. cerevisiae*. In abstracts of papers presented at the 1985 meeting on Molecular Biology of Yeast. Cold Spring Harbor Laboratory, Cold Spring Harbor, New York. p. 122.