

ED BARLEY



FORENSIC TOXICOLOGY



CONSULTANT / EXPERT WITNESS

CURRICULUM VITAE

EDUCATION

California State University, Long Beach	1987 - 1990	B.S. Biochemistry
University of California, Riverside	1986 - 1987	Biomedical Studies

PROFESSIONAL WORK EXPERIENCE

Forensic Toxicologist (2013 to Present)

Forensics Toxicology - Drug & Alcohol Consultant and Expert Witness

Member: County of Los Angeles Superior Court's "*Panel of Expert Witnesses*"

Senior Criminalist (Retired 2012)

Los Angeles County Sheriff's Department – Scientific Services Bureau

Senior Criminalist (1991 to 2012)

Los Angeles County Sheriff's Department – Scientific Services Bureau

FORENSIC TOXICOLOGY CONSULTING & EXPERT WITNESS EXPERIENCE

Qualified as an expert witness within the Criminal Courts in the States of Alaska, Colorado, Idaho, Iowa, Wyoming, and Virginia in drugs and alcohol toxicology as it relates to driving, homicide, and other non-driving related cases.

Qualified as an expert witness within the Criminal Courts of California in drugs and alcohol toxicology as it relates to driving, homicide, and other non-driving related cases, in the following Counties: Alameda, Contra Costa, Fresno, Humboldt, Imperial, Kings, Los Angeles, Marin, Mariposa, Napa, Orange, Riverside, San Bernardino, San Diego, San Francisco, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, San Louis Obispo, Stanislaus & Ventura, in excess of 600 times.

Qualified as an expert witness in Department of Motor Vehicle's Administrative Per Se Hearings, in excess 500 times.

Consulted in forensic toxicology matters in both criminal and civil arena within the States of Alaska, California, Colorado, Florida, Indiana, Kentucky, New York, Nevada, Oregon, Idaho, New Hampshire, Pennsylvania, Washington and Wyoming; in the areas of but not limited to; sobriety testing, driving while intoxicated, NHTSA's Standardized Field Sobriety Testing, breath alcohol testing with infrared and fuel cell technologies, blood alcohol testing, both reverse extrapolation and forward extrapolation of alcohol levels.

Consult and discuss in both criminal and civil arena in the areas of but not limited to; the validity of the established alcohol level and or drug levels as compared to physical signs and symptoms of the defendant. Review of the provided video for possible violation of testing procedures and identifies possible errors relating to the identification of impairment. Review of the toxicology lab data for the validity of the tests and identify possible errors.

WORKSHOPS AND PROFESSIONAL TRAINING

- How to Challenge the THC Evidence in Every Case – Dr. Stefan Rose | Webinar (JAN 2023)
- Blood, Breath & THC: What you Need to Know | Webinar (OCT 2022)
- Cannabis-Impaired Driving – Dr. Marilyn Huestis, San Francisco (AUG 2022)
- Drugs & SFSTs – Robert LaPier, San Francisco (AUG 2022)
- A Critical Evaluation of the Scientific and Statistical Validity of the Drug Evaluation Program (DRE) – Dr. Fran M. Gengo, Amherst, NY | Webinar (FEB 2022)
- Why Science Does Not Support "per se" Drug Measurements to Prove Drug Impairment – Dr. Jimmie L. Valentine, Ocean Springs, MS | Webinar (FEB 2022)
- How Law Enforcement Use ARIDE and Drug Recognition Evaluator/Expert (DRE) Training to Detect Drug Impairment and How This Training Lacks Scientific Validity – Dr. Lance A. Platt, Bryan, TX | Webinar (FEB 2022)
- MilliporeSigma, 3050 Spruce St., St. Louis, MO 63103 | Webinar (2020)
- Waters Corporation, 34 Maple Street, Milford, MA 01757 | Webinar (2020)
- Thermo Fisher Scientific, 168 Third Avenue, Waltham, MA | Webinar (2020)
- Agilent Technologies, INC., 5301 Stevens Creek Blvd, Santa Clara, CA | Webinar (2020)
- Forensic Toxicology, Laboratory Drug Testing: Principles, Methods, and Limitations Dr. Dhakal (Webinar 2020)
- The Science of Defending Marijuana DUIs – Dr. Stefan Rose, San Francisco (2019)
- ARIDE Impaired Driver Education (16-hour training focusing on ARIDE curriculum) – Christian Martorana, Torrance (2019)
- Drug Combinations – Dr. Fran Gengo, Los Angeles (2019)
- The Drug Recognition Expert (DRE) Overview – Anthony Palacios & Ron Lloyd, Los Angeles (2019)

- The Drug Recognition Expert (DRE) Live Examinations – Anthony Palacios, Ron Lloyd & Dr. Lance Platt, Ph.D., Los Angeles (2019)
- The Expert Witness as Educator – Jan Semenoff, San Francisco (2018)
- Establishing Reliability Standardized Acts, Practices & Conditions in Forensic Testing – Jan Semenoff, San Francisco (2018)
- Are All People Too Impaired to Drive Safely at 0.05%? – Ronald Moore, San Francisco (2018)
- Pharmacology of DUID – Dr. Alan Donelson, Fresno (2017)
- Beyond the GC Peak – Suzanne Perry, San Diego (2016)
- Marijuana DUID – Manny Daskal, San Diego (2016)
- Laryngopharyngeal Reflux “LPR” – Dr. Bret Sherman, Fresno (2015)
- Understanding Blood Gas Chromatography– Dr. Stefan Rose, Newport Beach (2014)
- Proper Forensic Blood Draw Evidence – Ron Lopez R.N., Newport Beach (2014)
- Forensic Breath Testing – James Wigmore, Newport Beach (2014)
- Marijuana and DUI Issues – Paul Armentano, Fresno (2014)
- DRE Evaluation – Middlebrook, Fresno (2014)
- DataMaster DMT: Theory of Operation and Instructor (NPAS) – Los Angeles County Sheriff’s Department, Downey (2011)
- Uncertainty of Blood Measurements for Blood Alcohol Levels –Los Angeles County Sheriff’s Department, Downey (2011)
- Toxicology Sleep and Driving Under the Influence Workshop – California Association of Toxicologist, Sacramento (2010)
- American Academy of Forensic Sciences (62nd Annual Scientific Meeting) – Seattle, WA (2010)
- Forensic Alcohol Supervisor – California Department of Health Services (2010)
- Alcohol Correlation Study (Coordinator) – Los Angeles County Sheriff’s Department, Downey (2009)
- 22nd Annual Conference & NPAS’s Program Manager’s Meeting – IACT, Anchorage, AK (2009)
- Drinking and Driving Simulator – California Association of Criminalist, Devore (2009)
- Pharmacokinetic Processes, Pharmacology and Pharmacokinetics of Amphetamines and Cocaine, Unlocking the Significance of Forensic Toxicology & Neurobiology & Pharmacokinetics of Cannabinoids – California Criminalistics Institute (2008)
- DataMaster cdm: Theory of Operation, Supervisory Functions, Maintenance, Calibration and Repair – NPAS, Mansfield, OH (2008)
- Draeger Alcotest 6510 – Instructor: Draeger Safety Diagnostic, Downey (2006)
- Standardized Field Sobriety Testing (16 hours) - NHTSA’s SFST, Santa Anna (2006)
- Alco-Sensor IV – Operator, Maintenance and Calibration (PAS Coordinator), El Segundo (2006)
- Forensic Alcohol Analyst – California Department of Health Services (2006)
- Robert F. Borkenstein – Course on Alcohol and Highway Safety, Indiana University, IN (2005)
- DataMaster cdm, Officer Instructor Training – Los Angeles County Sheriff’s Department, Downey (2005)
- Lifeloc FC, Operator, Maintenance and Calibration Course for the FC Series, Lifeloc Technologies – Downey (2005)

- Technical Seminar (Methamphetamine) – Clandestine Laboratory Investigating Chemist, San Diego (1997)
- FTIR Workshop, Nicolet, Woodland Hills (1997)
- Technical Seminar (Fentanyl) – Clandestine Laboratory Investigating Chemist, Alexandria, VA (1996)
- Drivers Training, Los Angeles County Sheriff's Department – Emergency Vehicle Operations Center – Pomona (1995)
- Clandestine Laboratory Safety Certification (DOJ) – Chico (1995)
- Technical Seminar (MDA) – Clandestine Laboratory Investigating Chemist, Vancouver B.C (1994)
- Clandestine Laboratory Analysis and Synthesis – California Criminalistics Institute, Sacramento (1994)
- Forensic Chemist Seminar (DEA) – McLean, VA (1994)
- Mass Spectra Theory and Interpretation – California Criminalistics Institute, Sacramento (1994)
- Alcohol Correlation Study (Drinker) Los Angeles (1993)
- Identification of Steroids – Los Angeles County Sheriff's Department, Los Angeles (1992)
- Identification of Controlled Substances – Los Angeles County Sheriff's Department, Los Angeles (1992)
- Emergency Medical Technician 1 Ambulance, County of Los Angeles, Certification: #18182A & Certification Date: 6/2/1992
- Toxicology Training Colloquium, California Association of Toxicologist, Irvine (1992)
- Toxicology PCP Blood Confirmation – Los Angeles County Sheriff's Department, Los Angeles (1992)
- Alcohol Correlation Study (Monitor) – Los Angeles County Sheriff's Department, Los Angeles (1991)
- Toxicology General Meeting, California Association of Toxicologist, San Diego (1991)
- Toxicology EMIT & RIA Screening, Controlled Substances – Los Angeles County Sheriff's Department, Los Angeles (1991)
- Toxicology Workshop, California Association of Criminalist, Huntington Beach (1991)

DETAILED EMPLOYMENT HISTORY

Forensic Toxicologist (2013 to Present)

Professional experience is furthered by the courtroom observations of Police Officers, Standardized Field Sobriety Test Instructors, Drug Recognition Experts, and other Forensic Witnesses. Additionally, my experience is furthered with my reading of scientific literature on forensic topics and participation in available workshops, seminars and online training.

Senior Criminalist (Retired 2012)

Los Angeles County Sheriff's Department – Scientific Services Bureau
Medical Retirement

Senior Criminalist - Forensic Alcohol Unit (2012 – 2005)

Professional experience with the Los Angeles County Sheriff's Department; included testing around a thousand blood and urine samples for alcohol content, with headspace gas chromatography.

Reviewing and co-signing of the alcohol analysis of the section's laboratory technicians.

Provided training of section personnel, clerical, administrative, and technical reviews of case reports and documentation.

Responsible for the maintenance, programming and software installation, configuration, customization, and testing of the Perkin Elmer Clarus 500 gas chromatograph.

Developed and designed crystal web reports and integration of the Perkin Elmer Clarus 500 gas chromatograph with the Laboratory Information Network. Assisted in the development and design of a web database for files and records associated with the Blood Alcohol Section's records website.

Provided training for Deputy District Attorneys, and Public and Private Defense Attorneys in forensic alcohol topics.

Trained and assisted law enforcement officers in breath analysis with the DataMaster and calibration of the Alco Sensor IV.

Worked with manufactures software engineer on the testing of the software configuration, customization, and communication of the DataMaster DMT. Development and design of crystal web reports for the maintenance, accuracy, usage, and subject data logs.

Ride along with Law Enforcement to observe individuals under the influence of alcohol and drugs.

Trained and certified in NHTSA Standardized Field Sobriety Testing

Senior Criminalist –

Authorized Work-Related Medical Absence (1999 – 2005)

Senior Criminalist/Criminalist - Toxicology, Narcotics and Clandestine Labs Unit (1999 – 1991)

Professional experience with the Los Angeles County Sheriff's Department; included assignments in the analyses of evidentiary substances (narcotics, steroids, and other drugs) utilizing microscopic techniques, chromatography, and spectrograph.

Testimony in the areas of toxicology, narcotics, and clandestine labs.

Clandestine laboratories analysis and field response.

Repaired and maintained: gas chromatograph, mass spectra and IR instrumentations.

Provided training in analytical methods, instrumentation, and procedures.

Trained law enforcement officers in the manufacturing methods of clandestine laboratories.

Assisted in the development of new analytical methods. Worked with the Toxicology section to co-author a paper on drug detection in urine.

Responsible for the analysis of blood to determine the presence and quantity of PCP.

Responsible for the analysis of blood and urine for controlled substances by enzyme multiplied immunoassay technique and radioimmunoassay.

Ride along with CHP to observe individuals under the influence of drugs.

PROFESSIONAL ASSOCIATIONS (*Past Law Enforcement Memberships*)

American Academy of Forensic Sciences
International Association for Chemical Testing
California Association of Toxicologist
Clandestine Laboratory Investigating Chemist

PRESENTATIONS

California DUI Lawyers Association

Webinar Title: *Cross Examination of the State's Expert (MCLE credit)*

Date of Program: FEB 2023

SoCal Cannabis Affinity Group (ProVisors – Los Angeles Valley)

Webinar Title: *Cannabis impairment facts vs fiction, how law enforcement establishes driving impairment from marijuana, utilizing the Drug recognition process and toxicological examination of a biological sample. (Group of attorneys, CPAs, Valuation Experts, supply chain experts, human resources, insurance brokers, IT, business coach, business sales, etc.)*

Date of Program: AUG 2022

Godoy Medical Forensic

Webinar Title: *THC/Cannabis Toxicology: Recognizing Impairment (MCLE credit)*

Date of Program: APR 2021 to JAN 2023

Alameda County Bar Association

Webinar Title: *Untangling the Web Part 2 - How to prepare for Administrative Per Se DMV hearings (MCLE credit)*

Date of Program: AUG 2021

Los Angeles County Deputy Public Defender's Office, Metropolitan Courthouse

Training Topic: *DRE 12 Step Process*

Date of Program: DEC 2019

San Luis Obispo County Criminal Defense Bar

Training Topic: *D.U.I. & Voodoo Science*

Date of Program: AUG 2019

The Kavinsky Law Firm

Training Topic: *Breath Alcohol Issues*

Date of Program: JUN 2019

Los Angeles County Deputy District Attorney's Office

Beverly Hills, CA

Training Topic: *Forensic Alcohol Basics*

Date of Program: 2011

South Bay Bar Association Substance Abuse Meeting

Redondo Beach, CA

Training Topic: *Forensic Alcohol Basics*

Date of Program: 2008

Judges DUI Conference

Los Angeles, CA

Training Topic: *Forensic Alcohol Basics*

Date of Program: 2007

South Bay Bar Association Substance Abuse Meeting

Torrance, CA

Training Topic: *Forensic Alcohol Basics*

Date of Program: 2006

Cal State Northridge Microbiology Students

Northridge, CA

Training Topic: *Crime Lab Introduction*

Date of Program: 2005

Redondo Beach Police Department

Redondo Beach, CA

Training Topic: *Methamphetamine Manufacturing*

Date of Program: 1996

Monterey Park Police Department

Monterey Park, CA

Training Topic: *Methamphetamine Manufacturing*

Date of Program: 1996

Cal State Long Beach Criminal Justice Program
Long Beach, CA
Training Topic: *Crime scene Investigation*
Date of Program: 1994

Cal State Long Beach Criminal Justice Program
Long Beach, CA
Training Topic: *Crime scene Investigation*
Date of Program: 1994

Cal State Long Beach Criminal Justice Program
Long Beach, CA
Training Topic: *Crime scene Investigation*
Date of Program: 1992

AWARD

**Los Angeles County Sheriff's Department's
– 2012 Distinguished Service Award**

“Recognition of outstanding efforts in contributing to the Department's goals, which reflect a high degree of personal initiative, regarding the DataMaster DMT project”

PUBLICATIONS

“Identification of Phencyclidine Analogs Using Thin Layer Chromatography.”
Toxilab News : Winter 1994, Vol. 13.

“LSD blotter case of special interest, Technical Note”, DEA Microgram :
January 9, 1993.