

RAKHSHANDA RUBY JAVED, Ph.D.

INDEPENDENT FORENSIC TOXICOLOGIST | SENIOR FORENSIC SCIENTIST | EXPERT WITNESS | SCIENTIFIC CONSULTANT

Founder & Principal Consultant, Forensic ToxDoc LLC • Miami, Florida • ruby@drrubyjaved.com

EXPERT PROFILE

Dr. Ruby Javed is an independent forensic toxicologist, senior forensic scientist, and scientific consultant with more than 22 years of experience in forensic toxicology, death investigation, forensic laboratory operations, scientific leadership, and expert consultation. She holds a Ph.D. in Pharmacology/Toxicology from Virginia Commonwealth University School of Medicine and has served in senior scientific and laboratory leadership positions within public and private forensic organizations.

Dr. Javed is the Founder and Principal Consultant of Forensic ToxDoc LLC, an independent forensic toxicology consulting practice providing scientific case evaluation, toxicology interpretation, expert opinion reports, litigation consultation, and expert witness services. Her work includes review of complex forensic matters, postmortem toxicology, toxicological evidence, laboratory testing, and scientific conclusions.

Prior to establishing Forensic ToxDoc LLC, Dr. Javed served as Chief of the Forensic Sciences Laboratories Division for the Los Angeles County Department of Medical Examiner (2017–2025), overseeing seven laboratory sections and serving as an integral member of the Department's executive management team.

CORE AREAS OF FORENSIC EXPERTISE

- Postmortem and forensic toxicology
- Complex and unexplained death investigations
- Drug-related and poisoning deaths
- Prescription and illicit drug toxicity
- Fentanyl and synthetic opioid-related deaths
- Polypharmacy and drug-drug interactions
- Pharmacology, pharmacokinetics, and pharmacodynamics
- Drug tolerance, dependence, metabolism, and disposition
- Quantitative and qualitative toxicology interpretation
- Therapeutic, toxic, and potentially lethal drug concentrations
- Postmortem redistribution and specimen-specific interpretation
- Blood, urine, hair, vitreous, and other biological specimens
- Drug and alcohol impairment and impaired-driving toxicology
- Workplace and employment drug testing
- Laboratory methodology, validation, QA/QC, and analytical limitations
- Scientific review of disputed or complex toxicology conclusions



INDEPENDENT EXPERT CONSULTING PRACTICE

FORENSIC TOXDOC LLC

Founder / Principal Consultant / Independent Forensic Toxicologist & Expert Witness | 2025–Present | Miami, Florida

- Provide full-service expert consulting in forensic toxicology and scientific review of complex cases.
- Evaluate toxicology findings in the context of medical records, pathology/autopsy information, investigative materials, laboratory reports, analytical methodology, and relevant pharmacology.
- Prepare detailed expert opinion reports and scientific assessments concerning toxicological evidence and case-specific questions.
- Provide independent interpretation of postmortem toxicology, drug exposure, toxicity, impairment, and related forensic findings.

- Evaluate laboratory testing, specimen considerations, analytical methodology, quality practices, and limitations that may affect interpretation.
- Support attorneys with scientific case assessment, litigation consultation, expert opinion development, and expert witness preparation.
- Approach each matter independently and objectively, identifying what the available evidence supports and the limitations of the available data.

FORENSIC LABORATORY LEADERSHIP

COUNTY OF LOS ANGELES DEPARTMENT OF MEDICAL EXAMINER

Chief, Forensic Sciences Laboratories Division | 2017–2025 | Los Angeles, California

- Managed seven laboratory sections: Toxicology, DNA, Histology, Gun Shot Residue Analysis, Toolmark Analysis, Evidence Storage, and the Field Criminalistics Program.
- Served as an integral member of the Department's executive management team in laboratory staffing, equipment and instrumentation, annual budget, and grant proposal/implementation decisions.
- Represented the Department and County of Los Angeles as a Bureau Chief.
- Updated and refined laboratory methods and procedures to improve productivity and quality of forensic work.
- Provided expert opinion and testimony for forensic postmortem cases, including hospital-related deaths and toxicology review.
- Assisted with method development and validation to improve laboratory testing procedures and productivity.
- Planned and directed short- and long-term laboratory goals focused on efficiency, quality, and service delivery.

OFFICE OF THE CHIEF MEDICAL EXAMINER

Chief Forensic Toxicologist / Lab Manager II, Forensic Sciences Laboratory | 2005–2007 | Wilmington, Delaware

- Managed planning, implementation, and evaluation of work conducted by Toxicology, Arson, and Controlled Substance laboratory units.
- Ensured compliance with applicable state and federal laws.
- Interpreted qualitative and quantitative analytical results from biological and non-biological specimens and prepared reports.
- Developed laboratory objectives, policies, methods, techniques, and procedures.
- Directed programs to improve laboratory services and accommodate changing regulations.
- Worked with medical examiners and state and federal agencies regarding laboratory capacities and ongoing projects.

PRIOR FORENSIC & SCIENTIFIC EXPERIENCE

SELF-EMPLOYED

Expert Consultant — Consulting Toxicology, Product Safety, Medical & Case Review | 2007–2017

- Provided expert toxicological evaluation and reporting services to legal firms and government agencies.
- Evaluated potential or alleged toxic exposures and chemical causation issues using research, testing, and forensic analysis.
- Prepared detailed reports and assessments and provided conclusions and expert opinions based on impartial scientific review.
- Applied clinical laboratory quality assurance principles and FDA science and research guidelines to consulting work.

PSYCHEMEDICS CORPORATION

Senior Scientist | 2010–2013 | Culver City, California

- Provided scientific leadership implementing new techniques and methods within screening and confirmation departments.
- Performed research and development in immunochemical and drug extraction areas.
- Oversaw and helped implement field and clinical research studies involving drug-testing matrices.
- Administered and interpreted drug hair-test results for company litigation and expert witness matters.
- Collaborated with scientific and information-technology personnel to implement procedures and equipment in a forensically acceptable environment.

Ruby Javed, Ph.D. | Independent Forensic Toxicologist & Expert Consultant | Forensic ToxDoc LLC

NATIONAL MEDICAL SERVICES

GC Screening and GC/MS Analyst II | 2004–2005 | Willow Grove, Pennsylvania

- Reviewed expert-service cases and prepared summaries for the laboratory director.
- Developed analytical methods for drugs and potentially toxic compounds in specimens.
- Independently reviewed, released, and interpreted results.
- Reviewed analytical SOPs and QC data and assisted with employee training.
- Validated reagents, controls, and calibrators and participated in forensic science roundtable discussions.

GLAXOSMITHKLINE PHARMACEUTICALS

Senior Co-op Intern, Microbial, Musculoskeletal, and Proliferative Diseases | 2001 | Collegeville, Pennsylvania

- Conducted molecular research and assays involving bacterial systems and plasmid DNA.
- Participated in research projects supporting FDA reports and presented findings to senior management.

EDUCATION

VIRGINIA COMMONWEALTH UNIVERSITY SCHOOL OF MEDICINE

Ph.D., Pharmacology/Toxicology, 2004

Dissertation: “The Involvement of Phospholipid- and Cyclic AMP-Dependent Protein Kinase Activity in Mediating the Expression of Morphine Antinociceptive Tolerance”

GPA: 4.0/4.0

Basic Health Science Pre-Medical Certificate in Physiology, 2000

UNIVERSITY OF VIRGINIA

B.A., Sociology; Minor in Biology, 1999

UNIVERSITY OF SOUTHERN CALIFORNIA / COUNTY OF LOS ANGELES

Executive Leadership Development Program Certificate, 2017

PROFESSIONAL CREDENTIALS & AFFILIATIONS

- Certified Laboratory Director — New York State Department of Health, Clinical Toxicology & Forensic Toxicology
- Society of Forensic Toxicologists (SOFT), Member
- Practitioner Consultant Member — California Forensic Science Institute at Cal State LA
- Certified Terrorism Liaison Officer (TLO)
- Eagle Leadership Development Program Certification
- Certified Lean Six Sigma Yellow Belt

SELECTED SCIENTIFIC & PROFESSIONAL PRESENTATIONS

- **2023 — Updates in the Forensic Toxicology World.** County of Los Angeles Department of Medical Examiner, Los Angeles, CA
- **2023 — Mortality Trends in Los Angeles County.** Drug Enforcement Administration Intelligence Summit, Los Angeles, CA
- **2022 — Drug Overdose Deaths in Los Angeles County.** Drug Enforcement Administration Fentanyl Epidemic Family Summit
- **2021 — Anatomy of Toxicology in Overdose Drug Death Cases.** Drug Enforcement Administration, Los Angeles Division
- **2019 — Marijuana Legalization: Impact on Traffic Accidents.** County of Los Angeles Department of Medical Examiner Coroner, West Coast Training Conference
- **2018 — Detection of Uncommon Cardiac Glycosides by LC-MS in a Human Poisoning Case.** County of Los Angeles Department of Medical Examiner-Coroner, Integrated Analytical Symposium
- **2017 — The Basis of Forensic Toxicology.** County of Los Angeles Department of Medical Examiner-Coroner, Integrated Analytical Symposium

- **2017 — Death Chemistry—A Review of Postmortem Redistribution.** County of Los Angeles Department of Medical Examiner-Coroner, Integrated Analytical Symposium
- **2017 — Importance of Proper Specimen Collection and Handling.** County of Los Angeles Department of Medical Examiner-Coroner, Forensic Sciences Seminar
- **2007 — Help—I Never Took Chemistry in Law School: Issues in Forensic Toxicology.** Delaware Office of the Public Defender, Lawrence M. Sullivan Continuing Legal Education Program
- **2007 — An Overview of Drug-Related Deaths from the Delaware Office of the Chief Medical Examiner.** Delaware Pharmaceutical Drug Diversion Training Conference
- **2006 — An Overview of the Office of the Chief Medical Examiner Toxicology, Controlled Substances and Arson Laboratories.** Widener University Forensic CSI freshman course
- **2006 — Bridging the Communication Gap.** Annual Attorney General’s Retreat, Dewey Beach, DE

SELECTED POSTER PRESENTATIONS

- “Evidence for Co-Activation of PKC and PKA during the Expression of a High Level of Morphine Tolerance in Mice”; “Reversal of Morphine Antinociceptive Tolerance in Mice with mGlu1 and mGlu5 Receptor Antagonists”; and “Differences in Reversal of Morphine Tolerance to Pain Induced by Thermal versus Mechanical Stimuli.” 34th Annual International Narcotics Research Conference (INRC), Perpignan, France, 2003.
- “Microarray Identification of Genes Responsive to Cell Wall Inhibitors in *Staphylococcus aureus*.” 103rd American Society of Microbiology General Meeting, Washington, D.C., 2003.
- “The Role of PKC and PKA in the Expression of Morphine Tolerance in Mice.” 19th Annual Daniel T. Watts Day Poster Symposium, Richmond, VA, 2002.
- “The Role of PKC and PKA in the Expression of Morphine Tolerance in Mice.” 33rd Annual International Narcotics Research Conference (INRC), Pacific Grove, CA, 2002.
- “Inhibition of PKC and PKA Reverses the Expression of Morphine Tolerance in Mice.” Everette L. May Symposium, Richmond, VA, 2002.
- “Microarray Gene Expression Profiling to Study the Mode of Action of DNA Replication Inhibitors in *Staphylococcus aureus*.” 102nd American Society of Microbiology General Meeting, Salt Lake City, UT, 2002.

SELECTED PEER-REVIEWED PUBLICATIONS

- Javed-Ghaffar R.R., Filgenzi M., and Poppenga R. (pending 2018). “An Uncommon Case of Pong Pong Nut Poisoning Determined through the Use of High Resolution Mass Spectrometry.” *Journal of Medical Toxicology*.
- Javed R.R. and Kristofic J. (2006). “*Salvia divinorum*, ‘The Magic Mint.’” *ToxTalk: Drugs in the News*. Volume 30, No. 3: 11.
- Javed R.R., Smith F.L., Smith P.A., and Dewey W.L. (2004). “Effects of mGlu1 and mGlu5 metabotropic glutamate antagonists to reverse morphine tolerance in mice.” *European Journal of Pharmacology* 492:137–142.
- Javed R.R., Smith F.L., Smith P.A., and Dewey W.L. (2004). “PKC and PKA inhibitors reverse tolerance to morphine-induced hypothermia and supraspinal analgesia in mice.” *European Journal of Pharmacology* 492:149–157.
- Javed R.R., Smith F.L., Elzey M.J., and Dewey W.L. (2003). “The expression of a high level of morphine antinociceptive tolerance in mice involves both PKC and PKA.” *Brain Research* 985:78–88.
- Javed R.R., Smith F.L., Welch S.P., Selley D., Sim-Selley L., and Dewey W.L. (2002). “Prolonged reversal of morphine tolerance with no reversal of dependence by PKC inhibitors.” *Brain Research* 958:28–35.

HONORS & RECOGNITION

- Recognition of efforts to establish and collaborate with the Opioid Response Team from the Los Angeles County Sheriff’s Department, 2019.
- Certificate of Appreciation for presentation and participation at the West Coast Conference, 2019.
- Young Investigator Travel Award, International Narcotics Research Conference (INRC), Perpignan, France, 2003.
- Third Place, Oral Presentation on “The Role of PKC and PKA in the Expression of Antinociceptive Morphine Tolerance in Mice,” Virginia Academy of Science, 2002.

SCIENTIFIC & TECHNICAL COMPETENCIES

- Forensic toxicology and pharmacology
- Pharmacokinetics and pharmacodynamics
- Drug testing and toxicological interpretation
- Research and development; method development and validation
- Forensic laboratory quality assurance and quality control
- Statistical support and data management
- Clinical and scientific writing
- Laboratory information management systems (LIMS)
- Chemstation/Chemware, SigmaStat, SigmaPlot, Statview, NIH Image Macros
- Microsoft Office: Word, Excel, PowerPoint, Access, Outlook

LANGUAGES

- English — proficient, written and spoken
- Urdu — proficient, written and spoken