CHESKA L. RICHARDS, PH.D.

Tierra Verde, Florida 33715 | (512) 731-9344 | cheska.burleson@gmail.com | www.linkedin.com/in/cheska-richards

SUMMARY

Hands-on senior scientist, toxicologist, and laboratory director with 12+ years of experience specializing in drug metabolism, pharmacokinetics, LC-MS/MS, and interpretation of human real-world drug exposure data and safety outcomes. Excels at interpreting complex analytical and clinical data and communicating defensible scientific conclusions to diverse professional audiences. Experience supporting federal court systems and multidisciplinary stakeholders. Extensive background in analytical/preparative chemistry, laboratory operations, literature evaluation, reporting and documentation, and CLIA/CAP regulatory compliance. Strong foundation in FDA-aligned regulatory compliance and risk-benefit evaluation.

Pharmacology | R&D Management | Data Analysis & Interpretation| Project Management | Quality Assurance | Stakeholder Engagement Cross-Functional Leadership | Scientific & Medical Writing | Regulatory Strategy

EXPERIENCE

ABBOTT LABORATORIES-ALERE TOXICOLOGY SERVICES, Richmond, Virginia
Toxicologist for U.S. Court Account / Senior Chemist / CAP, CLIA, NY Laboratory Director, 2020-2025

- Interpreted complex human drug exposure data to assess pharmacokinetic patterns, metabolism, and clinical/toxicological significance. Analyses were for drugs of abuse, medications, alcohol, and alcohol metabolites primarily in urine, occasionally saliva or blood.
- Authored formal scientific reports for use in legal proceedings and provided expert witness testimony as key representative of laboratory. Synthesized scientific literature and real-world data to provide evidence-based risk and causality assessments.
- Cultivated specialty in toxicology, pharmacology, drug metabolism, and pharmacokinetics, with advanced understanding safety profiles and of mechanisms of action.
- Interpreted analytical, forensic, and clinical laboratory data and reviewed research literature and translated findings into actionable insights for both companies and clients. Translated technical data into clear, concise, and impactful messages.
- Maintained keen knowledge of compliance, confidentiality, and data integrity standards and ensured adherence to CLIA, CAP, and state regulatory standards.
- Collaborated with federal stakeholders to address drug safety, compliance, and emerging substance trends and provided tailored scientific solutions. Presented at conferences to inform regional labs associated with the U.S. court system.
- Facilitated laboratory operations, including planning and performing validations, writing and overseeing quality management plan, and identifying and troubleshooting instrument issues.
- Performed internal and external audits, root-cause analyses, and CAPAs.

ABBOTT LABORATORIES-ALERE TOXICOLOGY SERVICES, Austin, Texas; Gretna, Louisiana; Richmond, Virginia
R&D Director, 2018-2022

- Maintained laboratory accreditation and regulation.
- Led development and validation of LC-MS/MS, HS-GC, and GC-MS methods supporting drug identification.
- Validated extraction methods (including SPE, SLE, and LLE) for analysis of drugs, metabolites, and hormones in biological matrices. Improved accuracy, sensitivity, and throughput.
- Performed maintenance and troubleshooting for laboratory instrumentation, including AU screening analyzers and Agilent, AB SCIEX, and Shimadzu LCMS systems.
- Created and edited instrument scripts to program, analyze, and export data.

ABBOTT LABORATORIES-ALERE TOXICOLOGY SERVICES, Austin, Texas
R&D Manager, CAP Laboratory Director, 2018-2019

- Coordinated resources, oversaw laboratory projects and operations, and fostered strategic plans for R&D initiatives.
- Worked cohesively within laboratory management to provide laboratory complete validations and statistical summaries, literature review and proofreading, writing and review of SOPs, and troubleshooting.
- Led cross-functional teams to achieve successful project outcomes in fast-paced laboratory environment.

- Wrote lab SOPs, performed monthly QA and QM, and ensured adherence to competency and proficiency testing standards.
- Directed laboratory operations to ensure compliance with federal and state regulations and maintain accreditations.

HCL, Houston, Texas
Laboratory Set-Up, CAP Laboratory Director, 2016-2017

- Established, operationalized, and directed a high-complexity laboratory including LC-MS/MS and immunoassay.
- Designed and executed validation protocols for analytical methods.
- Wrote and implemented quality management systems and ensured regulatory compliance.
- Wrote lab SOPs, performed monthly QA, and ensured adherence to competency and proficiency testing standards.

ADDITIONAL EXPERIENCE

SELF-EMPLOYED, St. Petersburg, Florida, **Scientific and Management Consultant,** 2016-2017
ZOESCRIPTS TOXICOLOGY, Lutz, Florida, **R&D Scientist, Co-Manager,** 2014-2016
ALERE TOXICOLOGY, Largo, Florida, **Research and Development Scientist,** 2013-2014
FLORIDA FISH AND WILDLIFE RESEARCH INSTITUTE, St. Petersburg, Florida, **Marine Research Assistant,** 2006-2013

EDUCATION

JOHNS HOPKINS UNIVERSITY, Baltimore, Maryland || **Master of Biotechnology. 2022**
Focus on clinical study design, FDA Regulatory Compliance, and Bioinformatics.
UNIVERSITY OF SOUTH FLORIDA, Tampa, Florida || **Ph.D., Marine Science / Biology. 2012**
Focus on drug discovery, spectroscopy, microbiology; dissertation titled "Bioactive compounds from Marine Dinoflagellates ."
UNIVERSITY OF TEXAS, Austin, Texas || **B.S., Biology. 2006**

CERTIFICATION AND LICENSURE

- *National Registry of Certified Chemists (NRCC): Toxicological Chemist #4105,* 2015 *to present*
- *Florida Laboratory Director License*, 2016 to present
- *New York State Certificate of Qualification Clinical and Forensic Toxicology and Clinical Chemistry for Validity,* 2020 to present
- Professional Organizations: Society of Forensic Toxicologists, American Medical Writers Association

TECHNICAL SKILLS

Document Control: Agile, Veeva, LIMS
Data Analysis: Proficient in Excel; basic training in Python, SQL, R, QSAR, Oracle, and Phoenix WinNonlin
Instrumentation: Tecan and Hamilton Pipetting Systems, AU screening, Agilent, Shimadzu, and SCIEX UPLC/MS

SEMINARS AND PUBLICATIONS

- Burleson, C. and Eng, W. (2016). "Incomplete Metabolism of Cocaine and Biased Drug Test Results." Presented at *The College of American Pathology Annual Conference*, Las Vegas, Nevada.
- Burleson. C., EC, P., Kiryu, Y., Perry, N., Lansberg, J., Tichenor, E. (2015). "Pathological effects of cyanobacteria on sea fans in
- southeast Florida." *Journal of Invertebrate Pathology*. 129: 13-27.
- Burleson, C., Corcoran, A., Flewelling, L.J., Hardison, D.R., Morey, J., Sunda, W., Zhihong Wang, Z., Wolny, J. Van Dolah, F.M. (2013). "Osmotic Stress Does Not Trigger Brevetoxin Production in the Dinoflagellate Karenia brevis." *Proceedings of the National Academy of Sciences*. 110 (25): 10223-10228
- Burleson, C. (2012). *Bioactive Secondary Metabolites from Florida Harmful Algal Bloom dinoflagellates.* Honorary Presenter at the Dissertations in Chemical Oceanography Conference, Lihue, HI.
- Burleson, C. (2010). "Bioactive Compounds in Marine Dinoflagellates," presented at the *Annual Meeting of The American Society of Pharmacognosy and the Phytochemical Society of North America*, St. Petersburg, Florida.
- Burleson, C., Barton, G., Fries, D., Gregson, B., Ivanov, S. (2009). "Adaptive Sampling in the Field Using a Field Portable Automated Purification Robot with Subsequent MS Identification in the Laboratory," presented at *The 49th American Society for Mass Spectrometry Annual Meeting* , Philadelphia, Pennsylvania.