



Sherry R. Black, BS

Sr. Research Chemist

Preclinical Pharmaceutical Sciences



Sherry Black has more than 20 years of experience in conducting investigations of the metabolism of drug candidates and chemicals of commerce for industrial and government clients. Ms. Black has hands-on experience in a wide range of in vivo and in vitro studies, in both regulated and non-regulated environments. As manager for the RTI Health Solutions (RTI-HS) in vivo drug metabolism and pharmacokinetics (DMPK) group, she interacts with clients to design projects and define scope, creates and manages project budgets and study timelines, writes study protocols and standard operating procedures, coordinates and directs groups of technical staff to complete tasks on schedule, and produces high-quality interim and final reports.

Areas of Expertise

- In vivo DMPK for drug discovery and development
- GLP and non-GLP studies
- Radiolabeled ADME studies using in vivo models
- In vitro assays of enzyme activity

Experience

Ms. Black received her BS in chemistry with honors from Pennsylvania State University and joined RTI in 1985. She has had primary responsibility for the in vivo study of compounds for government and commercial clients and conducts absorption, distribution, metabolism, and excretion (ADME) and pharmacokinetics studies in rodents through the use of various routes of administration (e.g., PO, IV, IP, SC, topical) with both radiolabeled and non-radiolabeled test articles. She is experienced in vascular and bile duct cannulation; preparation, analysis, and administration of dose formulations; blood sampling; and euthanasia and necropsy of laboratory animals. Ms. Black has worked extensively on the development of chromatographic methods for the analysis of drugs and their metabolites in biological media and dose formulations and is proficient in the use and analysis of radiolabeled materials. She also is experienced in the isolation of metabolites and subsequent structural identification by ¹³C- and ¹H-NMR and by mass spectrometry.

Ms. Black has over 10 years of experience in the preparation of hepatic microsomes and the development of assays for P450 enzymes in microsomes. She uses human, monkey, and rodent microsomal preparations for in vitro studies of drug metabolism and has studied drug metabolism using hepatocytes from these species. Those studies involve both measurement of the induction of specific P450

Contact

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enzymes by chemicals and metabolism of chemicals by specific P450 enzymes. She also conducts studies of the in vitro inhibition of various P450 enzymes using both standard inhibitors and drug candidates in development and determines kinetic parameters for the inhibitors, including K_m , V_{max} , K_i , and IC_{50} , to characterize the type of inhibition present.

In addition, Ms. Black has served as the technical lead on the prevalidation and validation activities for multiple in vitro assays as part of the U.S. Environmental Protection Agency's (EPA's) Endocrine Disruptor Screening Program. This effort included assay optimization, development of a standard protocol, assessment of acceptance criteria, determination of kinetic parameters, testing of numerous potential inhibitors, and consultation/troubleshooting with other testing laboratories.

Ms. Black has extensive experience managing preclinical in vivo and in vitro studies for the U.S. Food and

Sherry Black interacts directly with clients in all project stages, ranging from study design, budget, and timeline development through to the final report. She manages the in vivo DMPK group and provides direct oversight of laboratory activities. Through this single-point-of-contact model, RTI-HS gets studies into the lab and gets results back to our clients quickly, which contributes to the rapid progress of their drug development programs.

Drug Administration and EPA in regulated environments. The results of much of her work have been published in peer-reviewed articles in which she was author or coauthor. She has also served several terms on the RTI Institutional Animal Care and Use Committee and has been an active member of the Research Triangle Park Drug Metabolism Discussion Group since 1999.

**For information about
preclinical pharmaceutical
sciences, please contact**

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