Biosketch
Aramandla Ramesh, Ph.D.

Dr. Aramandla Ramesh is an Associate Professor in the Department of Biochemistry & Cancer Biology at Meharry Medical College in Nashville, TN. Dr. Ramesh earned his first Ph.D. in Marine Microbiology from Annamalai University, India in 1986. He earned his second Ph.D. in Environmental Toxicology from Ehime University, Japan in 1992. His areas of expertise are bioavailability, toxicokinetics, and biotransformation, acute and subchronic toxicity of polycyclic aromatic hydrocarbons (PAHs). Current research in Dr. Ramesh's laboratory focuses on colon cancer caused by benzo(a)pyrene (BaP), a fat-soluble, widely distributed environmental chemical that belongs to the PAH family of compounds. Studies in his laboratory have shown that exposure of rats and mice to BaP and other PAHs through saturated fat cause induction of cytochrome P450 (CYP) family of enzymes resulting in the formation and distribution of reactive metabolites which stay in target tissues for a longer time and cause enhanced DNA damage. Ongoing research in his laboratory will eventually address the issue of how environmental factors (exposure to toxicants) and dietary practices (excessive intake of animal meat and fat products tainted with BaP) contribute to colorectal cancer in African Americans (third leading cause of cancer related mortalities) relative to other racial/ethnic groups.

Before joining the faculty at Meharry in 2001, Dr. Ramesh was a research specialist in the Departments of Family & Preventive Medicine, and Pharmacology at Meharry. His earlier research focused on acute and subchronic toxicity of benzo(a)pyrene and fluoranthene found in hazardous waste sites that were in close proximity to minority communities. Dr. Ramesh's association with the Meharry Medical College-Vanderbilt University Environmental Health consortium allows him to combine his long standing research experience in classical PAH toxicology and work collaboratively with Vanderbilt colleagues from the Basic Sciences and Community Medicine departments to investigate the interplay between diet and environmental toxicant exposure using state-of-the-art analytical and molecular approaches. As a Robert Wood Johnson Health Policy Associate, his current research is focused on exposure of minority communities to environmental chemicals and health disparities.

In the late 1980s, Dr. Ramesh worked on chemical behavior and fate of persistent organochlorine insecticide residues in air, water, soil, sediment, wildlife and human breast milk samples. He is well versed in environmental chemistry and the different analytical approaches employed for quantification of environmental toxicants in biotic and abiotic matrices.

Dr. Ramesh has extensively published in environmental chemistry & toxicology (more than 60 peer-reviewed publications, and 8 book chapters). He completed 6 National Institutes of Health (NIH)-

funded projects in toxicology & chemical carcinogenesis. Dr. Ramesh served as a consultant to the Common Wealth Foundation, UK, International Development Research Centre, Canada, and Natural Environment Research Council (NERC). He is also serving as a reviewer for research proposals submitted to the NIH, HRSA, NSF, EPA, Robert Wood Johnson Foundation, and NERC, UK, Cancer Research Fund, UK and INSERM, France. Dr. Ramesh also serves on the editorial boards of *Toxicology Mechanisms & Methods*, ISRN Toxicology, and *Polycyclic Aromatic Compounds*.

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