RESEARCH SCIENTIST/CONSULTANT

Professional Overview

Expert in drug metabolizing enzymes assessment, drug pharmacology, ADME and cell biology. Develop compound extraction methods from biometrics and quantitation. Deep understanding of molecular biology principles and methods. Excellent troubleshooting skills. Expert in target identification approaches using phenotypic screening in vitro and in vivo. Proven leader in developing hypotheses and design studies to assess therapeutic drug, drug-protein interaction, toxicity and efficacy. Expert in cancer biology, drug bioavailability, analytical techniques including HPLC. Thorough knowledge of chemistry, biochemistry, cell culture & animal models. Experience in xenobiotic metabolism assessment through phase I and phase II metabolizing enzymes. Good understanding of human anatomy and physiology. Proven resource planning and cost reduction skills to ensure adherence to standard medical research practices while meeting target objectives.

Core Qualifications

- Academic planning
- Research in Oncology
- Critical Thinking
- Team Building
- DMPK, ADME
- Grant Writing
- Critical Thinking
- Problem Solving
- Program Development
- Time Management

Accomplishments

- http://www.ncbi.nlm.nih.gov/pubmed/?term=vadhanam[Author] U.S.
- Patents #8142806, #8858995
- International Patent Application No. PCT/US09/63336 - Methods and compositions for controlled delivery of phytochemical agents
- Developed BIOL-390 course (15 credit hours) to teach Cancer Biology to undergraduate students.
- Demonstrated presence of estradiol and its hydroxy metabolites in human lung tissue by GC/MS.
- I developed hypotheses and design studies to assess therapeutic drug, drug-protein interaction, toxicity and efficacy.

Experience

01/2012 to Current

RESEARCH SCIENTIST/CONSULTANT Santa Clara University - Santa Clara , CA

- Combo device-drug delivery startup company.
- Tested patented Cervical Insert for local delivery of therapeutic drug for cervical pathologies, including cervical cancer, directly to uterine cervix.
- Devised and modified the Cervical Insert device for feasibility, biocompatibility, toxicity and drug pharmacokinetics/pharmacodynamics studies in a caprine model.
- Collaborated with veterinarian, engineers, gynecologic oncologist and statistician for successful completion of the study.

04/2005 to Current

ASSISTANT PROFESSOR Axalta Coating Systems - Fort Madison , IA

- Achieved efficient extraction of estrogens and its metabolites from plasma and breast/lung tissues by designing novel methodology
- Developed complex efficient methodologies for studying distribution of multiple phytochemicals in biological matrices, accounting for individual compounds structure and properties
- Conducted toxicological studies of newly developed slow-release device in both mice and goat models
- Conducted studies to test the efficacy of plant based compounds, in vitro and in vivo
- Overcame morbidity and mortality in estrogen-induced mammary tumorigenesis model for use of screening therapeutic drug against breast cancer
- Established effectiveness of pomegranate ellagitannins in prostate and pancreatic tumors in mice
- Evaluated chemo-preventive potential of chemicals using inhibition of polyromantic hydrocarbon-DNA adduct formation and assessment of cytochrome P450 expression and activity
- Conducted breast and lung cancer clinical trials
- Peer Reviewer - Cancer Letters, Mutation Research, European Journal of Pharmacology, Nano biomedicine Journal
- Mentored and trained 10 associates in Research methodologies as well as developing clinical trial-related documents including HIPPA & CITI
- Managed lab operations and research responsibilities of students and postdocs as required by the university, tracked research progress, and interpret data for future research initiatives
- Principal investigator in a NIH grant and co-investigator in separate NIH grant and instrumental in achieving essential NIH and DOD grants.

06/2003 to 03/2005

Senior Research Associate University Of Louisville - City , STATE

- Lead studies on collective oxidative damage to DNA and covalent binding of aromatic compounds to DNA using 32P-postlabeling assay for use as biomarker for disease progression and screening for antioxidant potential of phytochemicals.

01/1999 to 01/2003

Postdoctoral Scholar & Scientist II University Of Kentucky - City , STATE

- Initiate multiple clinical samples to assess collective oxidative damage in normal vs diseased tissue.

- Demonstrate elevated DNA adduct levels in subjects with inflammatory cervix condition.
- Formulated biomarker potential hypothesis of collective oxidative damage analysis, achieving multiple grants submission and clinical lab trials.

Fellowships and Awards

FELLOWSHIPS

Visiting Scientist Fellowship - Dept. of Radiation Genetics and Chemical Mutagenesis, Leiden University Medical Center, Leiden, the Netherlands,1999

AWARDS

Faculty Excellence Award â€“ University of Louisville, 2012, 2013 & 2015

Roger Herzig Junior Faculty Research Prizeâ€“ J.G. Brown Cancer Center, University of Louisville, 2014

Education

Medical Biochemistry

Master of Science : Medical Biochemistry Medical Biochemistry

Bachelor of Science : Chemistry MANICKA V. VADHANAM Chemistry

Publications

http://www.ncbi.nlm.nih.gov/pubmed/?term=vadhanam[Author]

Presentations

Presented research findings since 2000 in the annual meeting of AACR.

Memberships/Scholarly Societies

Member, American Association for Cancer Research 2000 - Present

Skills

Proven leader in developing hypotheses and design studies to assess therapeutic drug, drug-protein interaction, toxicity and efficacy. Expert in cancer biology, drug bioavailability, analytical techniques including HPLC. Thorough knowledge of chemistry, biochemistry, molecular biology, cell culture & animal models. Good understanding of human anatomy and physiology. Proven resource planning and cost reduction skills to ensure adherence to standard medical research practices while meeting target objectives.