

Contact

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www.linkedin.com/in/rishabhkala
(LinkedIn)

Top Skills

Real-Time Polymerase Chain
Reaction (qPCR)

Data Management

Genomics

Languages

English (Full Professional)

Hindi (Native or Bilingual)

Honors-Awards

Teaching Scholarship

Graduate Research Fellowship

UAB Travel Grant Award \$400

The Daniel Jones Excellence in
Graduate Studies Award- \$2000

The John Milner Nutrition and
Cancer Prevention Research
Practicum Awardee

Publications

MicroRNAs: an emerging science in
cancer epigenetics

Pilot Randomized Controlled Trial
of a Home Vegetable Gardening
Intervention among Older Cancer
Survivors Shows Feasibility,
Satisfaction, and Promise in
Improving Vegetable & Fruit
Consumption, Reassurance of
Worth, & the Trajectory of Central
Adiposity

Biofilm Characterization and
Quorum Quenching in Pathogenic
strains Staphylococcus Aureus and
Pseudomonas Aeruginosa

A novel combinatorial epigenetic
therapy using resveratrol and
pterostilbene for restoring estrogen
receptor- α (ER α) expression in ER α -
negative breast cancer cells.

Rishabh Kala M.S, Ph.D.

Director of Research Service at Genemarkers | Biologist | Aging
Research | Epigenetics | Product and Service Development |
Oncology | Personal Care and Nutrition | Genomic Research
Ann Arbor, Michigan, United States

Summary

I am a biologist with 10+ years of experience in pre-clinical small
molecule-testing, scientific writing, project management, product
development & commercialization.

My work has impacted research society in bringing meaningful
epigenetic therapies for anti-cancer and anti-aging interventions. I
have contributed to both academics and industry to provide impactful
solutions to global problems and for this, I have collaborated cross-
functionally and utilized my strengths in problem-solving, critical
thinking and leadership in achieving these objectives. My desire to
solve the problem and purpose-driven attitude makes me a valuable
contributor to multiple disciplines within the organization.

Research Skills:

- Cancer Research: Mechanism of action study, breast and colorectal cancer models (in vitro/in vivo)
- Molecular Genetics: DNA cloning, gene expression, qPCR primer, probe designing, and CRISPR
- Cell Culture: Bacterial, mammalian (cancer and primary fibroblast) cell cultures
- Epigenetics: Chromatin immunoprecipitation (ChIP-qPCR), bisulfite sequencing
- Mouse Models: Generation of xenograft and transgenic mice, mouse handling/management, Inducible CRE mice gene deletion.
- Small molecule drug-discovery: Cell viability/cytotoxicity assays and drug-delivery using IV/IP/SC modes
- Molecular Biology: DNA, RNA, Protein extraction-purification, Western/Southern blot
- RNA Interference (RNAi): Stable (lentivirus shRNA) and transient (siRNA) cell line generation, CRISPR KO cell lines.
- RNA biology: Cap-independent translation (CIT), RNA modification, m6A dot blots.

Cap-independent mRNA translation is upregulated in long-lived endocrine mutant mice

• Cell Biology: Immunohistochemistry (IHC) & IF, confocal microscopy, ELISA, flow cytometry

I am currently seeking a position where I can learn and make a global impact. I am open to relocating, considering the position comes with a problem to solve and requires teamwork.

Feel free to get in touch @ r.kala2501@gmail.com / 213-610-3377

Experience

Genemarkers

3 years 1 month

Director of Research Services

December 2021 - Present (1 year 11 months)

Kalamazoo, Michigan, United States

Senior Scientist

October 2020 - January 2022 (1 year 4 months)

Greater Kalamazoo Area

Life Magnetix

5 years 8 months

Co-founder and Board Member

September 2018 - Present (5 years 2 months)

Senior Scientist

March 2018 - October 2020 (2 years 8 months)

Greater Detroit Area

- 1) Business Development, Marketing, and Product Development.
- 2) National Science Foundation SBIR/STTR grant and report submission and commercialization plan.
- 3) Nucleic acid extraction and stabilization for (potential) direct-to-consumer RNA testing platform.

University of Michigan Medical School

mRNA modification |Aging Intervention |Insulin & Growth hormone| Metabolism|Mouse model|Team player

July 2016 - February 2018 (1 year 8 months)

Ann arbor, Michigan.

The Gerontology laboratory at the University of Michigan Medical School I was a part of a team who worked on a number of problems related to the genetics of aging in mammals, with projects focused on:

- Development of methods to slow aging in mice, by diets, drugs, or mutations
 - Cellular mechanisms of stress resistance and aging, in mice and in tissue culture
 - Comparative biogerontology using cells from cross-species cell line model
 - Gene mapping, biomarkers of aging, and correction of defects in the immune system
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As a postdoctoral research fellow in the lab:

- a) Demonstrated skills and expertise in establishing two inducible gene knockout models, resulted in developing protocols for growth hormone and Insulin signaling gene deletions in mouse models.
- b) Designing and optimizing tamoxifen-dose strategies in-vivo using i.p and i.v injection, to reduce the overall cost and time to develop inducible in-vivo gene knockouts.
- c) Collaborated cross-functionally and lead projects with group of scientists and Industrial professional (such as Covance CRO) to develop 3 mouse-PAPPA antibody and tested them using siRNA, CRISPR techniques in cell-based assays.
- d) Excellent interpersonal and public speaking skills resulted in collaboration with the Undergraduate Research Opportunity Program (UROP) at UM to recruit young talents in science.

For a detailed list of accomplishments, please request my resume.

The University of Alabama at Birmingham
Preclinical | Mammalian cell culture | Drug-discovery | Project
Management | Epigenetics | Cancer
August 2011 - June 2016 (4 years 11 months)
Birmingham, Alabama Area

My role as a graduate research assistant:

a) Formulated, designed and spearhead mechanistic studies on the role of small molecules in targeting epigenetic abnormalities using mammalian cell culture and animal tissues cultures as the model systems.

b) Utilized flow-cytometry and molecular biology techniques resulted in discovering the effects of bioactive compounds on cancer cells.

b) Explore new technologies and identified creative solutions to overcome the current limitations with western blot techniques, resulted in 10% cost reduction in antibody purchase and significantly improved research productivity.

c) Due to my excellent interpersonal skills and budgeting expertise, I was able to serve as a senator and treasure for graduate student body where I managed a yearly fund of \$ 80,000 among different organization within the graduate school for 3 years.

Achievements in the record of <5 years of my tenure at UAB:

- Excellent communication skills resulted in 8 scientific publication and 3 oral presentations to lay audience. This work helped lab in seizing two R01 and an R21 grant for project development.
- Utilized leadership and management skills to mentor a team of 4 junior scientists and 2 undergraduates, resulted in early-cancer drug-discovery of 5 small molecules.
- Identified problem pertaining to current treatment strategies for triple-negative breast cancers (TNBC) hence, collaborated-cross functionally to solve the problem and develop a unique treatment regimen to help 20% of total TNBC market through modified hormone chemotherapy.
- Due to my enthusiasm, innovation and self-motivation attitude in the field of biology, it rewarded me with The John Milner Nutrition and Cancer Prevention Research Practicum spot in 2016 as one of the 30 participant around the world by NIH/NCI.

For a detailed list of accomplishments and skills, please request my resume.

Symbiotec Pharmed Pvt. Ltd., Indore, Central India

Research and Development |cGMP| Bioreactor|Fermentation| Steroid bioproduction | Product development
January 2011 - July 2011 (7 months)
Pithampur, Indore

Symbiotec's R&D uses State Of The Art Technologies to develop new Generic APIs as well as Innovative and optimized processes for existing products. They develop processes to convert Natural Soy Sterol optimally through Fermentation and further downstream synthetic chemistry to a range of Steroids and Hormones.

My role as an Assistant Scientist:

- Involved with biotech research and development for steroid biotransformation by optimizing product yields.
- Standardized and conducted in-progress quality control checks for CMC manufacturing in accordance with cGMP guidelines (21CFR part 11 compliant).
- Developed and optimized seed cultures for manufacturing in bio-safety level 2 lab.
- Supported Quality Management System (QMS) for biotech departments and coordinated between various teams.
- Assessed risk-benefit analysis for expansion of manufacturing plant.
- Provided compliance and regulatory input to product lifecycle planning for 2 commercial products.
- Supervised cross-functional teams and coordinated activities over multiple departments.
- Standardized various steroid biotransformation processes from laboratory level to commercial scale.
- Optimized media preparation and utilized HPLC analysis method for characterizing steroids.

Syncom Healthcare Ltd.
Research and Development Trainee | Microbiology| Drug-Testing|
Media Preparation |Sterile Practice
July 2010 - November 2010 (5 months)

Dehra Dun Area, India

Syncom Healthcare Limited is in the business of Healthcare for 45 years with the prime objective to mitigate human ailments.

My role as a trainee was to get involved with:

- 1) Improving microbial handling techniques,
- 2) Perform and record drug sensitivity,
- 3) Optimize media preparation and sterilization.

Institute Of Animal Health & Veterinary Biologicals

Research Internship|Animal Handling| Vaccine production| Biologicals

December 2009 - January 2010 (2 months)

India

During this internship, I learned the process involved in vaccine production. Managing livestock, culturing and breeding the livestock for biological's. The produced vaccine undergoes standardization process through different methods such as Sterility test, viral titration, vacuum test, safety test and potency test.

Ranbaxy

Research and Development Intern| Parenteral Drug Processing| Lab-Automation|Sterile Gowning Practice

December 2008 - January 2009 (2 months)

Indore Area, India

Ranbaxy laboratories which is now operated in combination of Sun Pharma: is the world fifth-largest specialty generics company and the largest pharmaceutical company in India.

As an intern in Ranbaxy I learned: sterile gowning techniques, parenteral drug-product processing and formulation, lab automation, SOP writing and maintaining.

Education

University of Alabama at Birmingham

Doctor of Philosophy (Ph.D.), Cancer Biology · (2011 - 2016)

Pravara Institute of Medical Sciences

Master of Science - MS, Medical Biotechnology · (2008 - 2010)

DAVV

