

Experience: Asian Institute of Gastroenterology (Mar 2015-to date); Research Scientist

- Conducting *in vitro* studies with respect to human cytokines
- Plan and conduct *in vivo/ex vivo* studies with respect to RFA in a porcine model
- Developing diagnostic tools for differentiating abdominal TB from CD
- Developing animal disease models
- Induction of chronic pancreatitis in mice using caerulein.
- L-Arginine induction of chronic pancreatitis in mice.
- CRC development in mice by surgically implanting human CRC tissue.
- Development of a chronic liver disease model in rats using carbon tetrachloride.
- Nutraceutical and protective effect of EGCG in combination with NAC on pancreas morphology and functions.
- Esophageal tissue engineering using MSCs on extracellular matrix- Proof of concept study in Rabbits.
- Development of a macro-encapsulation device for Islet cell transplantation for diabetes treatment.
- Treatment of alcohol associated hepatitis in rodent models.
- Development of a pancreatic stones animal model.
- Safety study of UCMMSCs in rodent and non-rodent models.
- Efficacy study of UCMMSCs in rodent chronic pancreatitis model.
- Efficacy of HBMMSCs in rodent chronic pancreatitis model.
- Understanding the role of PIMT in induced pancreatitis in rodents.
- An induced chronic pancreatitis panoptosome study in rodents.
- Instrumental in getting CPCSEA approval for Basic Skill labs and Skill labs.
- Member Secretary Institutional Animal Ethics Committee (IAEC)- 7 meetings conducted to date- 11 small lab animal studies have been approved and 5 large animal training studies have been recommended to CPCSEA for further approval
- Successfully completed the HCL Tech animal trial of a portable endoscope in June 2021, progressed to clinical trials

- Successfully completed the Hemostasis animal trial in Mar 2022, clinical trials are being conducted.
- Got CPCSEA approval for three large animal training protocols.
- Safety study of HBMMSCs in rodent and non-rodent models.
- Co-PI in EUS guided fine needle biopsy from liver in Porcines training program.
- Co-PI in Rigid bronchoscopy intubation and tracheal stenting in Porcines training program.
- Co-PI in Bariatric surgery in Porcines training program.
- Co-PI in Training program in Laparoscopic Nephrectomy in Porcines
- Co-PI in Training program in Laparoscopic Prostatectomy in Porcines
- Managing two animal labs- a small laboratory holding facility and a large animal teaching facility.
- Mentoring junior colleagues and supervising them

Aquamarine Liqua Chem (Sep 2014-Mar 2015); Consultant

- Advising on new product development
- Increasing the usage and scope of existing products
- Addressing the customer and client concerns

Indian Immunologicals Ltd Hyderabad, India (Aug 2013-Aug 2014); Incharge HF (QC)

- Managing a team of 5 persons involved in large and small ruminant vaccine testing
- Managing a team of 5 persons involved in testing of canine vaccines.
- Managing a team of 8 persons involved in breeding and maintenance of small animals
- Managing a team of 12 persons involved in production of equine plasma for human biologicals
- Responsible for external liaison.

RMPL and SR Hatcheries Pvt Ltd Hyderabad, India (Sep 2012- Aug 2013; Lab Manager)

- Established a modern QA/QC lab in 3 months time, supervising analysis of proximate principles, toxins, minerals and Microbiological analysis.
- Disease surveillance
- Handling external liason with more than 15 clients
- Managing a group of 20 people involved in feed mill operations

Suraksha Diagnostics Pvt Ltd Kolkata, June 2011- May 2012; Consultant Microbiologist

- Head of the department of Microbiology and Serology
- Managed the process flow of 1000 plus samples daily
- Member of the QA/QC team to ensure high quality results
- Mentoring junior colleagues and supervising them
- Set up a sophisticated laboratory with state of the art instrumentation

TCG Life Sciences (Formerly Chembiotek), Kolkata, India, Aug 2009- June 2011; Senior Research Scientist (Biology)

- Developed and validated a cell based assay in the therapeutic area of pain management.
- Led the development of cell based assays in drug metabolism studies.
- Experience in high throughput cell based assays in the therapeutic area of pain.
- Part of the ADME team, responsibility for screening client molecules through bio-analytical support.
- Managed data analysis as well as QA/QC for ADME

Matrix Labs India Ltd, Hyderabad, India. Oct 2007- Mar 2009: Manager NDD (New Drug Discovery) Biology

- Developed, optimized and validated HEK 293 cell based assays for screening compounds in Asthma and COPD therapeutic areas.
- Expressed target protein in Sf9 cells using baculovirus expression system.
- Led the study design of *in-vivo* experiments.
- Liaised with several Contract Research organizations with regard to several *in-vivo* techniques that were not available in-house.

Thyrocare Technologies Ltd, Navi Mumbai, India. Jun 2007- Oct 2007: Manager Lab-processing.

- Managed the supervision of maintenance, quality control, and day-to-day running of Centaur 4500 series, Cobas Integra, Dade Behring, Imola, Architect 1 2000 series machines.
- Managed the supervision of a staff of 20 people.
- Led the supervision of running 8000 samples, 40,000 tests per day.

**Washington State University, January 2004 –Dec 2006: Post Doctoral Research Associate
Pullman, WA.**

- Screened different bacterial genera, both aerobic as well as anaerobic for production of soluble organo-chromium complexes. Attempted to purify and characterize the complexes.
- Performed metal reduction studies under co-culture conditions.
- Conducted continuous soil flow column studies of organo-chromium complexes

University of Idaho, August 1999 – January 2004: Research Assistant, Moscow, ID.

- Discovered a novel plant microbe rhizosphere interaction involving *Streptomyces lydicus* WYEC 108 and the pea plant.
- Isolated, identified, and characterized novel antifungal agents from *Streptomyces* sp
- Purified and analysed biosurfactants from *Streptomyces* sp.
- Developed molecular tools to identify *Streptomyces* sp.

October 1996 – May 1999 Graduate Student, Hyderabad, India.

- Developed a vaccine for enterotoxaemia in sheep and goat
- Cultivated and maintained viruses.

Education:

January 2004 University of Idaho Moscow, ID.
Ph.D : Microbiology Molecular Biology and Biochemistry

May 1999 Acharya N. G. Ranga Agriculture University Hyderabad, India,
Master of Science: Veterinary Microbiology.

October 1996 Acharya N. G. Ranga Agriculture University Hyderabad,
India, Bachelor of Science: Veterinary Science and Animal Husbandry

Research Tools:

Molecular Biology: PCR, cloning, primer design, development of probes
Southern- blot hybridization.

Protein Biology: SDS PAGE, Western Blot, ICC

Cell Biology: Maintenance of cell lines and primary cell cultures (HEK 293, COS- 7, mouse neuroblastoma (NIE115), CHO-K1, SF9, BHK 21, U937, HEPG2 cell lines, chicken embryo liver kidney cell cultures, and chicken embryo fibroblasts).

Instrumentation skills: HPLC, GC-MS, ESI-MS, Ion exchange chromatography, Electron microscopy, DGGE, maintenance and use of anaerobic hood, FLIPR, Nova Star, Fluostar. NIR, Toxin analysis.

Immunology techniques: ELISA, IEP(Immuno-electrophoresis), Agarose gel diffusion test (AGDT), HA-HI test (Haemagglutination-haem-inhibition), partial haemagglutination assay(PHA), Serum neutralization test (SNT)

Microbiology: AFB smear examination as per RNTCP. Routine culture of various specimens. Identification of bacteria by various biochemical tests. AFB culture by LJ method and decontamination of the specimen. Familiarity with the automated culture instruments.

Awards:

- Gold medallist in Veterinary Anatomy
- Junior Research Fellowship awarded by Indian Council of Agricultural Research (ICAR)

Professional Memberships:

- American Society of Microbiology member
- Society of Industrial Microbiology member
- Gamma Sigma Delta member

Patents Awarded

1. Gopalan. B, Manojit Pal, S.H. Havale, A. Kodimuthali, S. K.Singh, R. V. Gupta, R. K. Tokala, A. Mungara, B. Chandra Chary, S. L. J. Sobhana George. **(WO/2009/115874) NOVEL HETEROCYCLIC COMPOUNDS, PHARMACEUTICAL COMPOSITIONS CONTAINING THEM AND PROCESSES FOR THEIR PREPARATION**

Publications and Conference proceedings

1. Ranjeet K. Tokala, Janice L. Strap, Carina M. Jung, Don L. Crawford, Michelle Hamby Salove, Lee A. Deobald, J. Franklin Bailey, and M. J. Morra. **Novel Plant-Microbe Rhizosphere Interaction Involving *Streptomyces lydicus* WYEC108 and the Pea Plant (*Pisum sativum*).** Appl. Envir. Microbiol. 2002 68: 2161-2171.
2. Don L. Crawford, Janice L. Strap, Ranjeet K Tokala, Christopher MM. Franco, Justin T. Coombs. **Isolation and Identification of Actinobacteria from plant roots.** Appl. Environ. Microbiol. 2004. 70: 3794
3. Ranjeet K. Tokala, David R Yonge, Geoffrey J Puzon, Vaideeswaran Sivaswamy, Luying Xun and Brent M Peyton. **Subsurface Mobility of Organo-Cr(III) Complexes Formed During Biological Reduction of Cr(VI).** J.Environ.Engg. 2008 Vol 134 (2);87-93.
4. Geoffrey J Puzon, Ranjeet K Tokala, Hua Zhang, David Yonge, Brent M Peyton, and Luying Xun. **Mobility and Recalcitrance of Organo-Chromium(III) complexes.** Chemosphere 2008 Feb;70(10); 2054-9
5. Puzon, G.J., Xun, L, Tokala, R, Zhang, Z, Clark, S, Peyton, B, and Yonge, D. 2008, **Investigation into the production and fate of organo-Cr(III) complexes from microbial reduction of chromate. In Groundwater Quality: Securing Groundwater Quality in Urban and Industrial Environments.** Proceedings of the GQ'07 Conference held in Freemantle, Western Australia, December 2007, Trefry, MG (Editor). IAHS Publ. no. 324, pp. 420-427.
6. Gupta R, Walunj SS, Tokala RK, Parsa KV, Singh SK, Pal M. **Emerging Drug Candidates of Dipeptidyl Peptidase IV (DPP IV) Inhibitor Class for the Treatment of Type 2 Diabetes.** Curr

Drug Targets. 2009 Jan;10(1):71-87.

7. Sheethal G, Ravi Kanth V V , Ranjeet T, Krishna V V ,Mitnala Sasikala, Nageshwar R. Duvvur. **Transcriptome Analysis During Progression of Chronic Pancreatitis Identifies Sequential Receptor Alterations.** Gastroenterology 156 (6): S-8: May 2019
8. Mrs. G Sheethal, Dr. T Ranjeet, Mr. V Krishna V, Dr. P Pavan Kumar, Dr. V Rao G, Dr. Duvvuru Nageshwar Reddy, Dr. M Sasikala. **Green tea extract reverses islet dysfunctions in experimental chronic pancreatitis - Potential therapeutic implications for pancreatogenic diabetes.** Journal of Gastroenterology and Hepatology 34 (53): PP0972.
9. Mrs. G Sheethal, Ms. Goudshelwar Renuka, Dr. T Ranjeet, Dr. V Rao G, Dr. Duvvuru Nageshwar Reddy, Dr. M Sasikala. **Therapeutic potential of targeting SSR4 in Pancreatitis.** Journal of Gastroenterology and Hepatology 34 (53): PP0975
10. Sheethal Galande, Murali M. Kuruva,,Ranjeet K. T,, Krishna V V,,Mitnala Sasikala,,Nageshwar R. Duvvur. **Targeting nuclear receptor nr5a2 improves exocrine, endocrine architecture and functions in chronic pancreatitis.** Gastroenterology 158 (6): S-871 May 2020