Laxminarayanan Krishnan, **MBBS, Ph.D.**
Manager, MicroCT and Biomechanics Core, IBB – Georgia Tech • Email: lkrishnan6@gatech.edu

SUMMARY

Bioengineer, experienced in regenerative tissue engineering, clean-room cell manufacturing, R&D, cGMP quality and safety management, regulatory document control in clinical trials, Core Lab services management, proficient in contract research and business strategy.

WORK EXPERIENCE

Manager (MicroCT and Biomechanics Core Labs)
Inst. for Bioengineering & Bioscience, Georgia Tech., Atlanta, GA 2019 - current.

- Oversee operations of two core labs and provide contract services. Adjunct oversight of high data content mass and imaging cytometry (Hyperion) of Cell Analysis Core Labs.
- Engaged project stakeholders in contract process beginning with feasibility and analysis demos, budget development, contracting, up to data collection and final analysis.
- End-user training and consultations on testing methods and analysis. Created trainings for 12+ instruments to improve user experience and administrative efficiency.
- Multiple projects implemented to optimize internal operational efficiency.

Principal Research Scientist
Aspire Health Science LLC, Orlando, FL 2017 – 2019

- Led a team of scientists and technicians in an FDA registered cell-manufacturing facility (21.CFR) for Phase II FDA and Health Canada clinical trials on critical limb ischemia.
- Directed research on peripheral blood derived cell therapy, process failure root-cause analysis, process improvements, optimizations, and platform diversification.
- Led the initial development of a minimally manipulated tissue product (homologous use).
- Supported the marketing team with technical and data presentations as required.

Research Engineer & Postdoctoral Fellow, Robert Guldberg Lab
Inst. for Bioengineering & Bioscience, Georgia Tech., Atlanta, GA 2012 – 2017

- Technical lead & co-author, including budget development on >**$4M** federal & other grants that identified biomaterials, immune cells, and cytokines as healing modulators.
- Developed biomaterial-based (natural and engineered) strategies to improve spatiotemporal control of growth factor availability to augment bone-muscle regeneration.

Postdoctoral Fellow, James Hoying and Stuart Williams Labs
Cardiovascular Innovation Institute, Louisville, KY 2008 – 2012

- Engineered a membrane for porosity-based immune-isolation of implants. Modulate blood vessel architecture via control of mechanical & cell niches (**patent** # 9,506,035).

Graduate Research Assistant, Jeffrey Weiss Lab
University of Utah, Salt Lake City, UT 2001 – 2008

- Designed and assisted in the development of 2 mechanical test platforms for hydrogels
- Developed novel image-based quantification of microvessel network morphology.

EDUCATION

MS Data Analytics 2021 – 2025
Georgia Institute of Technology, Atlanta, GA
Practicum: Cost Categorization within a custom salesforce platform, **SalesHub, GA**

Project Management Training Program Jun 5-16, 2023
Georgia Tech Professional Education
Scope: Strategic & Technical Project Management (PM), Leadership in PM, PMP Exam prep

TI:GER Entrepreneurship Certificate 2013 – 2015
Emory Law School & Georgia Tech. Business School
Project: Development and commercialization of a safe rhBMP-2 delivery device for children.
Term Project: Exploration and critical analysis of revenue models for a local mid-stage startup

Bioengineering, Ph.D., University of Utah 2001 – 2008
Dissertation: Interactions of matrix mechanical properties with microvascular angiogenesis.

M.B.B.S. Bachelors in Medicine & Surgery 1993 – 1998
N.D.M.V.P.S's Medical College, India 1999

SKILLS

Techniques, Procedures, and Software

- Analytics: Python, R, Power BI
- Image and Data Analysis: MATLAB, Amira (3D), MetaMorph, ImageJ, Mimics, Dragonfly
- Statistics: SPSS, SigmaPlot, GraphPad Prism
- Microscopy & mechanical tests, design and fabrication of mechanical testing fixtures, electrospinning, signal processing
- Animal tissue harvest, surgical & evaluation procedures, X-ray, µCT, Mammalian cell & tissue culture, flow/mass cytometry, ELISA
- Histology (paraffin & cryo), IHC, nucleic acid, protein isolation/ analysis, fluoroscopy, **PCR**
- Windows, Mac, and Unix platforms and basic networking skills (user/file access control)

ACHIEVEMENTS

Fellowships, Awards, Service

Ga.Tech, 2024 Spirit of Georgia Tech Award
Ga.Tech, 2021 IBB Above and Beyond Award
Faculty Excellence Honoree at Univ. of Louisville

PUBLICATIONS

Full List: Google Scholar
PubMed: https://www.ncbi.nlm.nih.gov/myncbi/laxminarayanan.krishnan.1/bibliography/public/