
Dr. Bina Rai

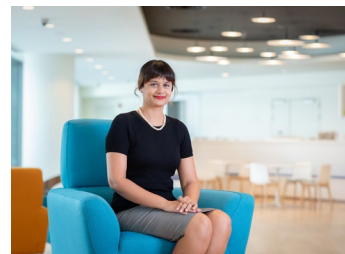
Senior Lecturer & Program Director for SUTD-CGH Healthcare
and SUTD (Bachelor) – DUKE-NUS (MD) Track
Senior Fellow (SUTD Academy)

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Education

- PhD: 2006, Graduate Program of Bioengineering, National University of Singapore (with Georgia Tech contributing to a part of the thesis)
- Postdoc:
 - 2006, Osteopore International Pte Ltd, Singapore.
 - 2007, Australian Institute for Bioengineering and Nanotechnology, Queensland, Australia.
 - 2008, Institute of Medical Biology, A*STAR, Singapore.

Year joined SUTD

- 2014

Research/Teaching Interests

I am a Lecturer of biology and chemistry at SUTD. I have done extensive translational research for regenerative medicine, specifically the design and development of innovative biomaterials, novel glycotherapeutics and robust stem cells in pre-clinical animal models intended for bone repair. My current intellectual focus is on undergraduate science education and curriculum development. I evaluate the effectiveness of various teaching strategies for biology, including peer instruction, blended learning, and gamified virtual laboratory simulations.

Research/Funding Projects

- Pedagogy Innovation Grant, SUTD. Title: Flipped classrooms for Term 3-Advanced Biology. (Jan 2016-Jan 2017).
- Pedagogy Innovation Grant, SUTD. Title: Developing and implementing Virtual Laboratories in a Freshmore Biology Class. (Jan 2017-Jan 2018).
- Pedagogy Innovation Grant, SUTD. Title: Investigating the effectiveness of gamified laboratory simulations at enhancing biology education. (Jan 2018-Apr 2019).