

Cultural Organization

REGIONAL CENTRE FOR BIOTECHNOLOGY

an institution of education, training and research

Established by the Dept. of Biotechnology, Govt. of India Under the Auspices of UNESCO 180 Udyog Vihar Phase 1, Gurgaon - 122016, India

Making a three-way marriage work: A story of Maths, Biology, and Medicine

Anurag Agrawal, PhD

Institute of Genomics and Integrative Biology (IGIB) New Delhi.

Thursday, 9 January, 2014 3:00 PM Seminar Room



REGIONAL CENTRE FOR BIOTECHNOLOGY Seminar series

Abstract

The subjects of Mathematics and Biology usually attract opposite reactions, with declarations of love for one being commonly accompanied by dislike for the other. Yet, information about the complex wiring within living systems can only be brought about through a marriage of these two sciences. Medicine, being an applied discipline, further seeks to convert such information into actionable knowledge. In my lab, we study respiratory disease biology by classical methods as well as by using mathematical or computational tools to generate a better understanding that can hopefully be used for early diagnosis as well as potentially better therapeutics. In particular, we are excited by the use of subtle patterns in physiological signals and networks within medical data, which when passed though mathematical lenses, provide a new vision altogether.