



Ambika BHAGI

Home Country: India

Degree: Postdoctoral in Chemical Biology

Expertise: Enzyme Design, Protein interactions, Drug discovery

Research Focus: Chemical Biology and Pharmaceutical Chemistry

Host University: University of California, San Francisco, United States

Fellowship Awarded: 2016

Ambika Bhagi was born in Moradabad, a small town in the densely populated state of Uttar Pradesh, India. Her high school education was completed in Lucknow, the largest city in the state. Ambika's parents encouraged her to pursue a career in science and supported her ambitions to work in academic research.

Ambika obtained a BSc in Chemistry from St. Stephen's College, Delhi, India, in 2009, followed by an MSc in Chemistry in 2011 from the Indian Institute of Technology, Delhi, (IITD), graduating with the highest grade point average in her class. She subsequently received several awards and fellowships from the University of Illinois, Urbana-Champaign, United States, that supported her work towards a PhD in Chemical Biology, which she completed in 2016.

A huge population in India are affected by tropical diseases, often disproportionately impacting the poor. Some of these diseases are not prioritized for research and development by pharmaceutical companies, which typically target their investment towards richer demographic groups. Ambika intends to focus on remedies for diseases that are commonest among poorer people. Her PhD studies trained her in spectroscopic and crystallographic techniques for structural and functional characterization of respiratory enzymes, and she is applying this knowledge to her research in California to help understand protein interactions, drug design and screening.

Ambika's ambition is to use the skills and knowledge gained from her PhD and postdoctoral work to lead a research group at IITD focusing on the development of drugs that selectively target and inhibit enzymes involved in neglected tropical diseases such as dengue fever, leprosy and malaria. In addition, Ambika expects that her graduate training as a teaching assistant - both in general chemistry and more specialized inorganic chemistry and chemical biology courses - will help her to be an effective teacher and mentor in her faculty. Finally, as a faculty, Ambika hopes to continue inspiring females and other minorities to pursue science and make an impact in society.