

Precision engineering of proteins enabling biology and medicine

Dr. Rai's research group is leading the development of chemical technologies for the *precision engineering of proteins*. They are also involved in synthesizing homogeneous antibody-conjugates, protein immobilization, and analytical tools for peptides and proteins. His research team wants to contribute to Society through homogeneous bioconjugates for directed cancer chemotherapeutics and surgical oncology. Besides, they are investing efforts to make small-molecule precision therapeutics possible in the future.

He is the Founder and Director of *Plabeltech Private Limited* (BIRAC-BIG 2018, BIRAC, DBT; National Startup Award 2021, Technology Development Board, DST). The state-of-the-art protein and antibody engineering technologies such as LDM[®], Gly-Tag[®], and Maspecter[®] empower the company. Also, he is the recipient of the *CDRI Award for excellence in drug research 2021* (overall contribution to the field of protein engineering) and *SERB Technology Translation Award 2021* (LDM technology), *Swarnajayanti fellowship*, *Ramanujan fellowship*, *CRSI Bronze Medal*, *RSC-WIS Young Scientist Award*, and *DAE Young Scientist Award*. Recently, he joined the *ACS Chemical Biology* team as an Early Career Board member. Also, he is an invited Fellow of the Royal Society of Chemistry (FRSC), UK.