

Rachana N. Pradhan, Ph.D

Postdoctoral research scholar, Diabetes Center, UCSF – San Francisco
CA-94158

☎ 415-539-5366 • ✉ rachana.pradhan@ucsf.edu

Education

- **Swiss Federal Institute of Technology (EPFL)** **Lausanne, Switzerland**
PhD, Biotechnology and Bioengineering 2012-2017
- **University of Pune** **Pune, India**
MSc-MTech, Biotechnology and Bioinformatics 2006-2012

Professional Experience

- **WHO** **Geneva, Switzerland**
Consultant July 2017–Aug 2018
Digital registeries for Antenatal Care management.
Consolidated and mapped WHO Antenatal Care (ANC) guidelines to OpenMRS concept identifiers to ensure semantic inter-operability across health-care databases. Developed an ontology for ANC knowledge management.

Research Experience

- **UCSF** **San Francisco, United States**
Postdoc Sept 2018–Present
Discovery and characterization of novel beige adipocyte precursors.
Using computational and experimental genomics to study type 2 diabetes through the lens of adipose biology. Working with human cohorts established at UCSF to dissect specific roles of white and beige fat precursors in mediating differences in the vulnerability of individuals of distinct ethnicities to developing insulin resistance in the context of obesity.
- **EPFL** **Lausanne, Switzerland**
Graduate Student Oct 2012–June 2017
Gene regulatory dynamics underlying brown fat cell differentiation.
Applied computational and experimental genomics approaches to identify novel transcriptional regulators of brown adipogenesis.
- **UCL and UoP** **UK and India**
MTech thesis 2011-2012
Development of a computational pipeline to identify gene expression signatures for diagnostic purposes..
Implemented machine learning methods to derive gene signatures to classify patients with TB and latent TB.
- **CCMB** **Hyderabad, India**
MSc thesis 2010-2011
Structural and logical analysis of signal transduction pathways in cancer..
Implemented a Boolean modeling approach to study signal transduction and identified important protein hubs as drug targets for colon, glioma and pancreatic cancer using pertubation analysis.

Technical skills

- **Experimental:** Genomics, CRISPR, cell culture (macrophage, adipocytes and osteoblasts), mouse phenotyping.
- **Health Informatics:** HL7, Protege for ontology construction, concept mapping.
- **Programming Languages:** R, Matlab, Python (NumPy, SciPy), Bash (Proficient), Octave, C, Java (Intermediate), L^AT_EX.

Selected Publications

- **Pradhan RN**, Bues Johannes, Gardeux V, Schwalie PC, Alpern D, Chen W, Russeil J, Raghav SK, Deplancke B. Dissecting the brown adipogenic regulatory network using integrative genomics. (Sci. Rep. 7: 42130, 2017)
- **Pradhan RN***, Zachara M*, Deplancke B. A systems perspective on brown adipogenesis and metabolic activation. (Obesity Reviews, 18(S1):65-81)
- Chowdhury S, **Pradhan RN**, Sarkar RR. Structural and Logical Analysis of a Comprehensive Hedgehog Signaling Pathway to Identify Alternative Drug Targets for Glioma, Colon and Pancreatic Cancer. PLoS ONE 8(7): e69132.