Pranoy Kumar Sahu, PhD.

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Professional experience:

Post-doctoral Researcher (Nov'20-Present)
Istituto per l'endocrinologia e l'oncologia "Gaetano Salvatore" (IEOS), CNR, Napoli – Italy

- I apply the fundamentals of Golgi biology to understand the regulatory mechanisms of proper glycosylation in human health and disease. Utilizing a combination of cell and molecular biology techniques along with high resolution imaging and mass spectrometry, I study the underlying mechanism of intra-Golgi dynamics of Golgi enzymes in regulation of glycosylation processes usually found altered in human diseases such as cancer.

Research Assistant (Aug'16-May'17)
School of Life Sciences, Manipal University- India

- Mainly involved in clinical cancer genomic studies conducting gene sequencing and expression analysis using Sanger sequencing and qPCR respectively. Contributed extensively to the completion of whole exome sequencing of ulcerative colitis associated colorectal neoplasia clinical samples using NGS technology to identify novel diagnostic and prognostic markers. Involved in samples preparation and executing *in vitro* serum metabolomics using QTOF/LC-MS to identify metabolic signatures of neuritogenesis.

Research and Development Assistant (Sept'15-Jul'16)
Jawaharlal Nehru Centre for Advanced Scientific Research-India

- Gained scientific knowledge and hands on experience in neurobiology of ASD. Performed mouse brain immunohistochemistry and imaging to study molecular dynamics of NKCC/KCC channels using ASD model. Using wide range of microscopy techniques, characterised the interplay between astrocytes and transgenic neuronal cells.

Publications:

- Rizzo, R., Russo, D., Kurokawa, K., **Sahu, P.,** Lombardi, B., Supino, D., Zhukovsky, M.A., Vocat, A., Pothukuchi, P., Kunnathully, V. and Capolupo, L., 2021. Golgi maturation-dependent glycoenzyme recycling controls glycosphingolipid biosynthesis and cell growth via GOLPH3. The *EMBO Journal, p.e107238.*
- **Sahu, P.** and Mazumder, N., 2021. Improving the Way, We See: Adaptive Optics Based Optical Microscopy for Deep-Tissue Imaging. *Frontiers in Physics, 9, p.138*
- **Sahu, P.** and Mazumder, N., 2019. Advances in adaptive optics-based two-photon fluorescence microscopy for brain imaging. *Lasers in medical science, pp.1-12.*

- Chakrabarty, S., Varghese, V.K., **Sahu, P.,** Jayaram, P., Shivakumar, B.M., Pai, C.G. and Satyamoorthy, K., 2017. Targeted sequencing-based analyses of candidate gene variants in ulcerative colitis-associated colorectal neoplasia. *British journal of cancer, 117(1), pp.136-143.*

Education:

Master of Science (Medical Biotechnology) – School of Life Sciences
01/09/2013 – 22/08/2015 – Manipal, India
Gradation: First class EQF level 6

Bachelor of Science (Biotechnology) – School of Life Sciences, Manipal University
15/07/2010 – 16/07/2013 – Manipal, India
Gradation: First class EQF level 5

Technical skills:

- Extensive knowledge and hands-on experience in cell and molecular biology techniques such as mammalian cell culture, dosimetry, qPCR, molecular cloning, and recombinant protein purification.
- Scientific and technical expertise in genetic as well as pharmacological manipulation of cancer models (in vitro); cell proliferation & apoptosis assay's; stable cell line generation and ligand-receptor interaction studies.
- Hands-on experience in analytical and immunoassays such as, mass spectrometry (LCQTOF-MS/MS), HPTLC, Flowcytometry (FC), Immunoblotting (WB) and Immunoprecipitation (IP/co-IP), Immunofluorescence (IC) and immunohistochemistry (IHC).
- Capacity to independently design, execute and interpret transcriptomics, phospho-proteomics and metabolomics analysis.
- Technical competency in gene delivery systems such as, viral transduction and transgene transfection; RNAi using siRNA.
- Adequate knowledge and experience using radioisotopes, scintillation counter and radioactive metabolic tracing.
- Hands-on experience in mice handling, dosing and genotyping; cryo-sectioning and brain tissue IHC.
- Proficient in usage, analyzing and troubleshooting confocal and wide-field microscopes.
- Experience in using and analyzing cancer databases (e.g., cbioportal.org, genome browser, DepMap explorer etc.)
- Basic knowledge in computer programming such as R programming.
- Professional software usage such as Word, Excel and PowerPoint; and other technical software's such as Prism, Adobe Photoshop and Illustrator, Cellprofiler, FlowJo, ImageJ and SnapGene.

Organizational & Interpersonal skills:

- Working experience in two different countries with cultural and language diversity.
- Ability to identify problems, manage resources based on the situation to organise a best workflow and execute the task within deadlines.

- Experience in reviewing, writing, discussing, and providing feedbacks over scientific and non-scientific materials.
- Proven track record in collaborating over multi-disciplinary projects leading to scientific publications.
- Always look forward to hearing a colleague's problem and assisted him/her to resolve it eventually.
- Never say no attitude, hence I like to take charge of any given task or situation.
- Ability to manage conflict between colleagues on certain points to arrive at a compromise which does not harm either individual.

Fellowships and Honors:

- Doctoral program scholarship (PhD) by University of Luigi Vanvitelli (SUN), Naples, Italy.
- Summer Research Fellowship (SRF) '14 by Indian Academy of Science, Bangalore, India.

Others:

Scientific presentations:

- Selected for oral presentation at the ABCD National PhD Meeting, in Salerno, Italy (19-21 Mar'20) [*Meeting was cancelled due to COVID-19 pandemic circumstances]
- Presented poster at the ABCD Meeting on "Signal transduction in Cancer" in Turin, Italy (22-24 Nov'18) Poster Title: "Identification and characterization of a Golgi glycosyltransferase as a new potential oncogene".
- Poster presentation at Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR) on 9th Feb 2016 on "Identification of SYNGAP1 variations in Indian Juvenile Myoclonic Epilepsy Patients".