

## Curriculum vitae with early achievements track record (for early career scientists)

### ROLE IN PROJECT

Project manager  Collaborator

### PERSONAL INFORMATION

Family name, First name: Pandey, Deo Prakash

Date of birth: 01.03.1980

Sex: Male

Nationality: Indian

ORCID: 0000-0001-5493-3197

### EDUCATION

2010 PhD: **Disputation date:** 15.10.2010. Supervisor: Didier Picard  
Dept. of Cell Biology, University of Geneva, Switzerland

2005 Master in Biotechnology  
Dept. of Molecular Biology and Biochemistry, University of Southern Denmark, Denmark

2003 Bachelor in Technology, Chemical Engineering  
Indian Institute of Technology, Kanpur, India

### CURRENT AND PREVIOUS POSITIONS

2018- Project Group Leader with Prof. Arne Klungland  
Dept. of Molecular Microbiology, Oslo University Hospital, Rikshospitalet, Norway

2017-2017 Researcher, Laboratory of Prof. Arne Klungland  
Dept. of Molecular Microbiology, Oslo University Hospital, Rikshospitalet, Norway

2011-2017 Postdoctoral fellow, Laboratory of Prof. Kristian Helin  
Biotech Research and Innovation Centre (BRIC), University of Copenhagen, Denmark

### FELLOWSHIPS AND AWARDS

2018 Awarded *seal of excellence* from EU-H2020 for the MSCA application

2018 On the waiting list for the prestigious H2020 EU-MSCA experienced researcher

2018-2021 Helse Sør-Øst researcher award for 4 years (NOK 4 million)

2017 Project Establishment Support from the Norwegian Research Council for the H2020 MSCA

2012-2014 The Elite Young Researcher award (Sapere Aude – DFF Research Talent)  
3-year postdoctoral fellowship from The Danish Council for Independent Research (€ 500K)

2012-2013 Awarded the EMBO long-term postdoctoral fellowship

2010 Travel grant from the Swiss society of SSMCB to attend the EMBO meeting, Barcelona

2009 Travel grant from Swiss society of SSMCB to attend the EMBO meeting, Amsterdam

### MOBILITY

2011-2017 Postdoctoral fellow at BRIC, University of Copenhagen, Denmark

2005-2010 PhD student at the Dept. of Cell Biology, University of Geneva, Switzerland

2003-2005 Master student and research assistant in the lab of Prof. Kenn Gerdes, at the Dept. of Molecular Biology and Biochemistry, University of Southern Denmark, Denmark

### SUPERVISION OF STUDENTS

2018 Expecting two summer students

2017-2018 Co-supervision of a PhD student with Prof. Arne Klungland

2014-2015 1 Master student at BRIC, University of Copenhagen, Denmark

2008-2010 3 Master students at Dept. of Cell Biology, University of Geneva, Switzerland

### INSTITUTIONAL RESPONSIBILITIES

2017- Started the journal club at the dept. of Microbiology, Rikshospitalet

2011-2017 Member of Association of Student and Postdocs (ASAP) at BRIC, University of Copenhagen, Denmark. I had various roles at ASAP including treasurer. I organized and hosted invited speaker seminars by ASAP.

2010-2010 Initiated the tradition to organize and host invited speakers by students and postdocs at the Dept. of Cell Biology, University of Geneva, Switzerland

### MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2018-present Member, Society for Neuroscience (SfN)

2017-present Member, Norwegian Biochemical Society

2006-present Member, Swiss Society of Molecular and Cellular Biosciences (SSMCB, formerly USGEB)

## MAJOR COLLABORATIONS

Arne Klungland	Gene regulation, epigenetics Dept. of Molecular Microbiology, Oslo University Hospital, Rikshospitalet
Jiyang Yu	Bioinformatics, Sequencing St. Jude Children's Hospital, Memphis, USA
Kristian Helin	Epigenetics, Cancer BRIC, University of Copenhagen, Denmark
Rolf Bjerkvig	Glioblastoma, glioma patient material, glioma mouse models University of Bergen
Steve Pollard	Glioblastoma, Neural stem cells MRC Centre for regenerate medicine, University of Edinburg, UK

## EARLY ACHIEVEMENTS TRACK RECORD

**PUBLICATIONS (Total: 11, without PhD supervisor: 5, within last 5 years: 3, submitted/under preparation: 4)**

**PATENTS: 2**

## SELECTED CONFERENCES/COURSES

- EMBL conference, "The Epitranscriptome" (2018), Heidelberg (Poster)
- Norwegian Biochemical Society (NBS) winter meeting (2018), Hafjell, Norway (Talk)
- Genome dynamics workshop, Trondheim (2017) (*Invited talk*)
- Chromosomal conformation capture course at CRG. Barcelona, Spain. (2017)
- The EMBO meeting on Ribosome structure and function (2016). Strasbourg, France. (Poster)
- Personalized Cancer Care (2016). Oslo, Norway. (Poster)
- Danstem retreat (2013). Dragsholm, Denmark. (Talk)  
Title: Identification of novel epigenetic regulators of Glioblastoma
- The EMBO meeting (2010). Barcelona, Spain. (Poster)
- The EMBO conference on "Nuclear Receptors" (2009). Dubrovnik, Croatia. (Poster)
- The EMBO meeting (2009). Amsterdam, Netherlands. (Poster)
- The Swiss-German Cell Biology meeting (2009). Konstanz, Germany. (Poster)
- The ELSO meeting (2008). Nice, France. (Poster)

## RESEARCH EXPERIENCE

**Jan 2018 – present:** Started working as an independent researcher at the dept. of Molecular Microbiology, Rikshospitalet, Oslo after acquiring the Helse Sør-Øst researcher fellowship. My research focus is to identify and characterize novel functional dependencies required for Glioblastoma. Using a combination of genetic and biochemical approaches to study gene regulation in clinically relevant GBM models, I aim to identify and characterize novel molecular mechanisms of gliomagenesis, hopefully leading to novel therapeutic intervention strategies for GBM patients.

**Jan 2011 – March 2017:** Postdoctoral fellow in the lab of Prof. Kristian at the University of Copenhagen in the area of epigenetics and cancer. I setup mouse models of glioblastoma multiforme (GBM), the most prevalent and aggressive of primary brain tumors and performed *in vivo* and *in vitro* shRNA screens to identify epigenetic factors required for the tumorigenic process in GBM. After validating a number of hits, I characterized their function in detail to understand how do they contribute to regulation of GBM. Furthermore, I collaborated with another postdoc in the Helin group, to model pediatric gliomas and identified Ezh2 inhibition as a potential therapeutic strategy to target them, leading to a publication in *Nature medicine*.

**Oct 2005 – Dec 2010:** Graduate student in the group of Prof. Didier Picard at the University of Geneva, defended Phd in Oct 2010. I focused on two major aspects of estrogen signaling in my PhD thesis. In the first work, related to estrogen signaling mediated by GPR30, we characterized estrogen signaling through GPR30 using DNA microarray analysis and found that GPR30 signaling induces a transcriptional network, which resembles that induced by serum in fibroblasts. Furthermore, we showed that GPR30 mediates migration and proliferation of breast cancer cells through CTGF, the most up-regulated GPR30 target gene identified in our study. In the second study, we focused on the role of microRNAs (miRNAs) in regulating estrogen receptor (ER)  $\alpha$  and estrogen signaling. ER  $\alpha$  is predicted to be the target of many miRNAs. We found that miR-22 represses estrogen signaling by directly targeting the ER  $\alpha$  mRNA. Additionally, I performed a genetic screen in the budding yeast *Saccharomyces cerevisiae* to identify factors that are necessary for the proper function

of ER $\alpha$ . The resulting candidates led to several projects one of which was published in Molecular Cell in 2016 and another is under review in Nature Communications in 2018.

**Feb 2003 – Sep 2005:** Research associate and master student at the dept. of Biochemistry and Molecular Biology, University of Southern Denmark in the group of Prof. Kenn Gerdes. The research work was in the field of bioinformatics and the main projects were:

- Genomic analysis of Toxin – Antitoxin genes in prokaryotic organisms. It was done by setting up genomic databases on a linux computer locally from publicly available genome sequences available at NCBI.
- Finding targets of small RNAs in *E. coli* using bioinformatics.

**June 2002 – August 2002:** Summer internship at INRIA Lorraine (Nancy, France) in the group of Dr. Alexander Bockmayr. The work was to develop a computational model of the life cycle of HIV using hybrid concurrent constraint (HCC) programming language.

## PROFESSIONAL SKILLS

- **Cancer/cell biology**
  - Modeling gliomas, using *in vitro* and *in vivo* mouse (PDX) models
  - In vivo* tumor imaging
  - Working with stem cells, ES/NS and other mammalian cells
  - Generation of stable cell lines
  - Experience working with yeast and the **SGA** technology
- **Molecular biology/biochemistry:**
  - Cloning DNA into **lenti/retrovirus expression** vectors, working the viruses and infecting the cells.
  - Technologies to perform loss-of-function experiments, RNAi and CRISPR/cas9
  - Identification of protein-protein interaction partners using tandem affinity pull-down
  - Expression and purification of proteins in *E. coli* and insect cells
  - Generation and characterization of monoclonal and polyclonal antibodies
- **High-throughput methods:**
  - Loss-of-function screens using lentiviral expression of shRNAs and sgRNAs/CRISPR
  - ChIP-seq, RNA-seq, Polysome-seq
  - In-charge of running Agilent microarrays for the institute
  - Setup and running of Illumina NextSeq instrument
- **Bioinformatics/Software Skills:**
  - Data analysis using Galaxy and R for the next generation sequencing data
  - Working with Linux/Shell/scripting
  - Expert level experience with setting up and running **Transfac** to identify transcription factor binding sites in a set of DNA sequences and good experience with **Cytoscape**
  - More than 2 years of experience in doing high throughput genomic sequence analysis of prokaryotic organisms. It includes setting up different kinds of biological databases on linux; extensive experience with **EMBOSS/NCBI** suite of programs for **genomic data-mining** and large-scale phylogenetic analysis.