Name: Deepak Balaji Thimiri Govinda Raj

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Research Experience (Post-Postgraduate Experience: 2006-2018)

1.2.2016- present: Senior Postdoctoral Fellow in Precision Medicine-NCMM- EMBL Oslo Norway

Chronic Lymphocytic Leukemia (CLL) and Multiple Myeloma are considered incurable. Current challenges include design of optimal treatment for individual patients based on characterization of the tumor and its intra tumor heterogeneity. Efficient therapies require a personalized approach that combines targeting both malignant B cells as well as its tumor microenvironment. I established *in vitro* culture-setting for CLL and MM at Prof. Kjetil Tasken and Prof. Ludvig A Munthe's group. To define drugs that inhibit malignant B cell growth, I perform drug sensitivity screening (DSS) on CLL and MM with 517 drugs. I select potential drug candidates along with pathway inhibitors and analyze by flow cytometry to assess effects on intracellular signaling. I propose to use DSS platform to validate drug candidates for xenografts and precision medicine.

Nov 2015- Feb 2016: 3 Months Career Break (see Career break section).

1.11.2014-31.10. 2015: EU FP7 ComplexINC Research Associate in Synthetic Nanobiosystems- EMBL, Grenoble, France

I worked as Research Associate in Imre Berger's lab which was coordinating ComplexINC. ComplexINC was an international, intersectoral and innovative consortium combining world-leading expertise at EU academia and successful SMEs. I initiated the project on reengineering E.coli genome using homologous recombination and transforming Helper plasmid free MultiBac™ and EmBacY™ Bacmid toward robust eukaryotic protein expression. I was involved in regular reports writing and presentations in external meetings.

1.10.2011-21.10.2014: Marie Curie CoFund Postdoctoral Fellow in Synthetic Biology-European Molecular Biology laboratory, Heidelberg Germany and Grenoble, France

I worked on an interdisciplinary synthetic biology project in collaboration with three labs (Prof. I. Berger, Prof. AC Gavin and Prof. T. Gibson). Herein, I was involved in computational design and *in vitro* construction of synthetic baculovirus SynBac™ genome which will be implemented, for the first time, in an optimized, streamlined, highly versatile format for gene transfer and recombinant protein production.

1st Sept 2011- 1st Nov 2011: 2 Months Career Break (see Career break section)

1.01.2007-31.08.2011: PhD at Flanders Institute of Biotechnology (VIB), Belgium

I worked on the design and development of a nanobiotechnology tool for mammalian cell membrane isolation for high resolution MS analysis of the proteome, lipidome and glycome. Aligned with the objectives of a CREA Grant, my PhD work spawned several research projects, which are currently ongoing in several VIB Labs. I worked in the groups of Prof. Gustaaf Borghs (IMEC), Prof. Wim Annaert (VIB), Prof. Bart De Strooper (VIB), Prof. Kris Gavaert (VIB), Prof. John Swinnen (KU Leuven) and Prof. Etienne Waekens (KU Leuven).

01.05.2006-01.06.2006: Industry Internship in Merck Sharp at Singapore.

I designed Excel-PI-Minitab based process control interface for simvastatin crude process and production.

01.04.2006-01.05.2006: Project Intern in Bioprocessing Tech. Institute, Singapore.

I studied cell surface glycosylation in gene targeted CHO cells at Dr. M. Yap Lab.

01. 01.2005-01.07.2005: Project Intern at Indian Inst. for Toxicology Research, India.

I performed biochemical studies in Drosophila as an animal model against the pesticide exposure..

2003: Intern at Central Electrochemical Research Institute, India.

I performed research on yeast based Biosensor design and characterization studies at Mr. Murugasen lab.

Career Break

2011- 2018 My father was diagnosed with Parkinson's disease in 2014 and he had symptoms of neuro related disease from 2011. He passed away on April 14th 2018. I took a career break of 12 months.

Education

2007-2012: PhD in biomedical Sciences Katholieke Universiteit Leuven Belgium

2005-2006: Singapore-MIT Alliance Certificate in Molecular Engineering in biological and chemical systems (**MEBCS**) at Massachusetts Institute of Technology (MIT), Boston USA.

2005-2006: Master of Science in **MEBCS** at National University of Singapore (NUS), Singapore.

2003-2005: Master of Engineering (Biotechnology) at BITS Pilani, India

1999-2003: Bachelor of Tech. (Biotechnology) at Bharathidasan University India.

Experience in Supervision:

2009-2011: Arun Kumar Tharkeshwar KU Leuven Belgium (follow-up of my PhD project).
2015-till date: Hannah Crocker University of Bristol (Follow-up of my Postdoc Project).
2015-till date: Barbara Gasia University of Bristol (Follow-up of my Postdoc Project).
2018-till date: Mariaserena Gilberto University of Oslo (Follow-up of my Senior Postdoc Project).

Examples **of leadership in industrial innovation:**

1. I am the lead inventor of three international patents with IMEC & VIB. The technology has been licensed to VIB, IMEC and seed funded research to KU Leuven Belgium. I actively participated in finding potential customers.
2. My Synbac patent is licensed to Geneva Biotech (GB) ltd. http://geneva-biotech.com/product_category/insect-cell-expression/synbac/ and newsletter in EU FP7; I participated mainly in patent drafting and patent licensing.
https://www.slideshare.net/slideshow/embed_code/key/FzG33b3tPJDKUP
3. As a cofounder of Envirotransgene® and Thimiri Consulting Group (DTCG®), I was awarded INSEAD Certificate. https://www.insead.edu/executive-education/partner-programmes/certificate-business-acumen
4. I was awarded Stanford -Ignite certificate in Innovation and Entrepreneurship. Venture capitalists selected my business pitch among top 6. https://www.gsb.stanford.edu/programs/stanford-ignite/global-locations/london
5. I am selected for INSEAD-FOCIS ECA 2017. http://www.focis-eca.com/2017-course/candidates/
6. I have been admitted to School of Health Innovation which is an initiative by University of Oslo (UiO), NTNU, Trondheim, and Karolinska Institutet (KI), Stockholm and Nansen Neuroscience Network.

Examples of **Science for Society, outreach activities, Responsible Research and Innovation:**

1. As a Consultant at DTCG™, I have organized several social gathering with Business angels, start-up investors for life science and science for society. I participate in EMBO Young Scientist meet 2012 and PSB Postdoc 2015
2. I was part of EMBL Staff team that negotiated for pension and unemployment benefits for Postdocs.
3. I attended UIO Responsible research and innovation summer school. I am currently working with group of social scientist on the research article which is on RRI in agriculture and healthcare.
4. I was trained at Science Communication Workshop (organized by Alan Alda Center for Communicating Science, Stony Brook University) for public outreach and communications
5. I participated on Eurodoc 2017 “Open Science – Challenges and Opportunities for Early Career Researchers”.

Coursework:

1. WIPO course in DL-101 General Course on Intellectual Property and Primer on Intellectual Property
2. NUS- Chemical Engineering Coursework on Process Control and Biomolecular Engineering;
3. VIB-IMEC PhD Coursework in chemical lab safety, Imaging course, Patent filing and licensing;
4. EMBL Postdoc coursework in scientific writing and presentation, EICAT and negotiation skills;
5. UIO Postdoc coursework in mentoring, successful grant proposal, career and research development.

Membership of Scientific Society:

2016-: Norwegian Society for Immunology, Norwegian Biochemical Society Membership;
2017-: UK Biochemical Society, Austrian Biochemical Society and Danish Biochemical Society;
2017-: European Hematology Association;
2014-2015: Sociéte FranÇasie de Biochime et Biologie Molécularie and FEBS German society GBM;
2011- : Member of EMBL and EMBL Alumni Association;
2011-Life: Lifetime member of 100 years old Indian Science Congress;
2009-: Biomaterials Journal young scientist refereeing programme;
2003-2011: **IEEE Student Member** Engineering in Biomedicine Society.