



Global Initiative for Academic Networks (GIAN) Program

On

PERSONALIZED CANCER MEDICINE

Overview

The type of cancer a person is suffering from – and how it gets treated – is no longer just about where in the body the cancer started. The approach of doctors today has changed, from a traditional way to a more specific targeted way. Now they are equipped with a wealth of knowledge about the specific molecular and genetic makeup of their patient's tumor.

The present day clinicians and scientists have embraced this modern approach of personalized cancer care. Though it is in its early stages, this area of study and treatment is spearheading at a rapid pace. Study and research in this direction is very much needed to speed up the progress of personalized medicine for all.

Delivering this new technology of personalized medicine, though, will take a massive effort from not just researchers and doctors, but also from pharmaceutical companies, and government agencies, it promises a bright future for cancer patients

A lot of work has been done to make cancer care more personalized, partly because cancer is so complex that it has forced scientists to peek into the inner mechanisms of human cells and the metabolic processes and unravel the facts about what causes cancer.

Decades of advances in basic science, technology, therapeutics, and the understanding of the genetic causes of cancer have amalgamated in recent years to make personalized cancer care possible.

When it comes to cancer, personalization can take several different forms currently, in the present scenario:

- Testing a person's cancer to find out if a certain type of treatment will work on it,
- Conducting a genetic test to determine if a person has certain genetic mutations that could put them at a higher risk for developing cancer.
- Selective targeting of cancer stem cells

International Faculty:

**Prof. K. Sandeep
Prabhu**

Professor of Immunology
and Molecular Toxicology

The Pennsylvania State
University, USA

**29TH MAY - 10TH
JUNE 2017**

AT

**Department of
Biotechnology, SJCE,
JSSTI Campus,
Mysuru**

Course Co- coordinators

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**Registration through
GIAN Portal**

<http://www.gian.iitkgp.ac.in/GREGN>

Modules	<p>Module 1:The Clinic</p> <p>Module 2: The Diagnostic Lab</p> <p>Module 3: Pharmacogenomics</p> <p>Module 4: Looking to the Future– emphasis on cancer stem cell biology</p>
Who can attend	<ul style="list-style-type: none"> ✓ Student at all levels (B. Tech /MSc/M. Tech/Ph. D) or Faculty from reputed academic institutions and technical institutions. ✓ Executives, engineers and researchers, service and government organizations including R&D laboratories
Registration Fees	<ul style="list-style-type: none"> • Students/ Research Scholars/Faculty from host institute: Rs.750/- • Faculty members from Academic Institutions(Other than host institute) : Rs. 1500/- • Industry/ Research Organizations : Rs. 2000/- • Participants from abroad : US \$100
	<p>Number of seats limited to 50. Selection will be based on first come first served.</p>

Faculty

Prof. K. Sandeep Prabhu: Professor of Immunology and Molecular Toxicology at The Pennsylvania State University, University Park, USA, received his PhD from University of Mysore in Biochemistry and performed post-doctoral work at The Pennsylvania State University. He subsequently joined the faculty as an Assistant Professor of Immunology and Molecular Toxicology where he rose through the ranks to his current position as a full Professor. He is also the Associate Director, The Center for Molecular Immunology and Infectious Disease and a Co-Leader of the Molecular Carcinogenesis Research Program at the Penn State Cancer Institute, The Pennsylvania State University. His laboratory has made significant contributions in field of eicosanoid biology with discovery of novel endogenous bioactive metabolites and their role in resolution of inflammation and selective targeting of cancer stem cells. Prof. Prabhu has a vast teaching and research experience of 22 years. He has to his credit nine patents, 61 peer-reviewed publications in journals such as Journal of Immunology, Blood, Journal of Biological Chemistry, and Cancer Research, in addition to 71 invited conference presentations and 4 book chapters. Funding for his research work comes from federal, private, and industry sources. He is a recipient of the Innovator Award by Penn State Research Foundation and The Young Investigator Award from the Eicosanoid Research Foundation. He has guided many undergraduate and doctoral students and post-doctoral fellows.

Prof. N.Haraprasad received his Master's degree in Biotechnology from University of Mysore in 1992, and Ph.D (2002) degree in Biotechnology from Department of Biotechnology, University of Mysore, Karnataka, India. He was a post-doctoral researcher in Yong Loo Lin School of Medicine, National University of Singapore, Singapore. He has to this credit 17 years of research and teaching experience. He is currently the Professor and Head of the Department of Biotechnology, Sri Jayachamarajendra College of Engineering, Mysuru. He has published 62 research articles and presented at various reputed conferences. His research interests are in the areas of Medical Biotechnology and Management of Infectious and Non infectious Diseases.