



Panjab University
Chandigarh

Global Initiative of Academic Network

GIAN

GLOBAL INITIATIVE OF ACADEMIC NETWORKS

PU GIAN
Workshop
No. 5



MINISTRY OF
HUMAN RESOURCE DEVELOPMENT, GOVT. OF INDIA



National Coordinating Institute
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

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INTERNATIONAL WORKSHOP

on

**"Discovery of Drugs Targeting G
Protein-coupled Receptors"**



An event under
GIAN
Global Initiative of Academic Networks



November 21-26, 2016



Organized by
Panjab University, Chandigarh
under the aegis of





Panjab University
Chandigarh

Global Initiative of Academic Networks

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Overview of Workshop

Total number of participants: 46

Sr. No.	Name of the Institute	Number of participants
1	Panjab University	31
2	MDU, Rohtak	5
3	M.S. University, Baroda	1
4	CSIR-CSIO	1
5	Rangaraju College of Pharmacology, Hyderabad	1
6	Dept. of Pharm. Chemistry, Andhra Pradesh	1
7	UIPSR, Faridkot	1
8	Sachdeva College of Pharmacy	2
9	Chaitanya College of Pharmacy	1
10	P.G.G.C.G. Sec-42, Chandigarh	1
11	G. Pulla Reddy College of Pharmacy, Hyderabad	1

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Day-1-5 Overview of Workshop **Global Initiative of Academic Network**

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Guest Faculty



Prof. Dr. Karl-Norbert Klotz
Rudolf Virchow Center/DFG Research
Center for Experimental Biomedicine,
University of Würzburg



Course Coordinator



Prof. Ranju Bansal
Professor, Pharmaceutical Chemistry
Deputy Coordinator, Centre of Advanced Study
University Institute of Pharmaceutical Sciences,
Panjab University





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Day-1: Inauguration Global Initiative of Academic Network

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Day-1-5 Overview of Workshop
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Discovery of Drugs Targeting G Protein-coupled Receptors



Prof. Dr. Karl-Norbert Klotz

**Rudolf Virchow Center/DFG Research
Center for Experimental Biomedicine,
University of Würzburg**

Course details

- Lecture 1:** Introduction into receptors, GPCR biology and downstream signalling
GPCRs as drug targets (Professor Karl-Norbert Klotz)
- Lecture 2:** Interactive session/ General discussion (Professor Karl-Norbert Klotz)
- Lecture 3:** Methods for drug discovery over time (Professor Karl-Norbert Klotz)
- Lecture 4:** GPCR structure-Docking and molecular dynamics in ligand
development



Lecture 5: Demonstration of research equipments (NMR, LCMS) and visit of CIL

Lecture 6: Physiological and pathophysiological roles of adenosine (includes biology and pharmacology of adenosine receptors)

Lecture 7: Therapeutic options with adenosine receptors as drug targets A systematic

Lecture 8: Development of xanthines as adenosine A_{2A} receptor selective approach towards novel nondopaminergic therapy for Parkinson's disease (Professor Ranju Bansal)

Lecture 9: Adenosine receptor activation with agonists and partial agonists

Lecture 10: Interactive Session/ General discussion

Lecture 11: Biased, inverse, partial agonism (Professor Karl-Norbert Klotz)

Lecture 12: Allosteric modulators (Professor Karl-Norbert Klotz)

Lecture 13: Adenosine receptor antagonists (Professor Karl-Norbert Klotz)

Lecture 14: Radioligands and binding assays (Professor Karl-Norbert Klotz)

Lecture 15: Collective session addressing questions/queries/suggestions



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Day-5: Valedictory Function

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Day-5: A Group Photograph

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