



Gian
GLOBAL INITIATIVE OF ACADEMIC NETWORKS



“Ethnopharmacology – challenges and opportunities at the face of globalization”

[Course Code: 176021H03]

December 14-18, 2019

Sponsored by Ministry of Human Resource Development (MHRD)
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Organised by
**Department of Pharmaceutical Sciences,
Maharshi Dayanand University, Rohtak
Haryana, India**

“Ethnopharmacology – challenges and opportunities at the face of globalization”

MHRD Scheme of Global Initiative of Academic Networks (GIAN)

1. Overview

Ethnopharmacology is the study of indigenous medical systems that connects the ethnography of health and healing with the physiologic relevance of its medical practices. This is an amalgam of perspectives, primarily those of pharmacology, pharmacognosy, anthropology, and botany. There are three potential theoretical contributions of traditional knowledge systems to ethnopharmacological research. First, while many plants used in indigenous pharmacopoeias have active compounds, those compounds do not always act alone in indigenous healing systems. Research highlights the holistic nature of traditional knowledge systems and helps understand plant's efficacy in its cultural context. Second, research on traditional knowledge systems can improve our understanding of how ethnopharmacological knowledge is distributed in a society, and who benefits from it. Third, research on traditional knowledge systems can enhance the study of the social relations that enable the generation, maintenance, spread, and devolution of cultural traits and innovations, including ethnopharmacological knowledge.

The overarching goal of ethnopharmacology is the search of biologically active compounds of plants, fungi, animals, and mineral substances used in traditional medicines. But, as this new field of research grows, ethnopharmacologists "strives for a more holistic, theory-driven, and culture- and context sensitive study of the pharmacologic potential of (largely botanical) species used by indigenous peoples for medicine, food, and other purposes".

2. Objectives

To develop a critical understanding of the ethnopharmacology and its significance in the design, development, and performance of pharmaceutical products in Healthcare system. A key aspect is hands-on experience of current technologies and evaluation in the quality control and standardisation of medicinal plants.

Learning Outcomes Knowledge & Understanding

On successful completion of this course you will be able to

- Understand and evaluate the significance of ethnopharmacology in Healthcare system.
- Deal with method development techniques in major herbal analytical instruments.

Subject-Specific Skills

On successful completion of this course the participant will be able to

- Understand the relevance of ethnopharmacology in the development of novel healthcare products.
- Handle the sophisticated instruments used for quality control and standardisation of medicinal plants.

Personal Transferable Skills

On successful completion of this course, the participant will be able to

- Write a paper, prepare research project, prepare for interview
- Write scientific reports for laboratory based experiment
- Data analysis

4. Course Details

Duration: December 14-18, 2019 (5 working days)

Teaching Strategy

This will involve lectures that will explore concepts, principles and theoretical ideas. The latter will be developed and demonstrated in laboratory classes, which will also develop practical skills. There will be a total 10 lectures and 5 tutorials spread evenly during 5 days. In tutorials, practical aspects and hands on training will be provided by industry/academia experts on sophisticated instruments used in pharmaceutical analysis.

This course will cover various aspects of indigenous understanding of health. Through this program, the Quality control and standardization, toxicological aspects, rational use of phytochemicals, relevance of ethnopharmacology in the fast changing world, methods of ethnoscience, food and medicines interface and some important additional topics like, writing a world class paper in herbals, preparing research projects and interview skills in herbals will be discussed. This is an innovation program which will bridge the gap of traditional Indian Knowledge with indigenous knowledge of the world. As the indigenous plants are used all over the world in many ways, this program is designed to transmit the knowledge of ethnopharmacology to develop new possibilities in the healthcare system.

This is a relevant course for Indian perspective given to the widespread application of ethnopharmacology in development and evaluation of bioactive compounds mainly from medicinal and aromatics plants.

5. Who can attend?

This is an advanced level course on medicinal plants designed to train young research scholars, UG/PG teachers and mid-career scientists.

6. Fee Structure (The fees for attending the Course (other than one time (Non-Refundable) GIAN Course Registration fees INR 500/-):

Participants from Countries other than INDIA	: USD 200
Industry Participants	: INR 5000
Faculty	: INR 3000
Students/Research Scholars	: INR 1000 (UR/OBC); INR 500 (SC/ST)

The participation fee includes instructional lecture materials, computer use for tutorials & assignments and 24-hr internet facility.

The participants will be provided with accommodation on payment and prior request basis.

7. Maximum number of participants for the course will be limited to Fifty only (50).

How to Apply

Registration Process:

In order to register for the courses, one has to apply online using the following steps.

1. Register yourself on GIAN portal of IIT Kharagpur (<http://www.gian.iitkgp.ac.in/>)
2. Choose the course "Ethnopharmacology – challenges and opportunities at the face of globalization" by drop down menu.
3. Fill the registration form and pay the GIAN course registration fee Rs 500/- through online process.
4. Scan the filled registration form & send to Course Coordinator by E-mail.

The course coordinator will go through the submitted application and will inform the selection as a participant. After selection, the participant(s) have to pay the requisite fee within stipulated time. The bank and other details for the payment will be sent to the selected participants through an E-mail.

Foreign Faculty



Prof. Michael Heinrich is a Pharmaceutical biologist (Dr. rer nat.habil, Univ. Freiburg 1989, 1997, Dipl. Biol, 1985) / pharmacognosist, and anthropologist (M.A., Wayne State Univ, 1982). Currently, he is Head and Professor at the Centre for Pharmacognosy and Phytotherapy, UCL School of Pharmacy, London (UK). To his credit, he has 280 peer-reviewed publications. His h-index is 57 and i10 index of 163 with 11059 citations. He has served as an editorial role in many journals such as “Frontiers in Ethnopharmacology”, “Journal of Ethnopharmacology” and “Phytochemistry Letters”. His research area is transdisciplinary which integrate approaches from the natural and social sciences with an overall aim of tackling the fast-changing global health needs. His focus is to use plant-derived products as ‘medicinal plants’, ‘health foods’ or nutraceuticals. His recent specific scientific research integrates metabolomic approaches in medicinal plant research, anti-inflammatory, and anti-oxidant natural products, focusing on the transcription factor NF-kB and its pathway as molecular targets of natural product research, quality and safety of herbal medicinal products and intervention studies with herbal medicines. He has made many media appearances in media organizations such as BBC and ZDF regarding his research.

Course Co-ordinator,



Dr. Munish Garg is presently working as Professor of Pharmacognosy and Dean, Faculty of Pharmaceutical Sciences, Maharshi Dayanand University, Rohtak, India. He has more than 18 years of experience in teaching and research. His present area of interest is quality control and standardization of herbals with more emphasis on development of herbal formulations and technologies for direct societal benefit. He has published more than 70 papers in Journals of repute, authored two books in quality control and standardization and one book on scientific communication skills and about 10 chapters in reputed books. He has developed one patented nutraceutical drink along with three other patents in process. He has supervised more than 35 dissertations and 4 projects leading postgraduate and doctorate degrees respectively. He has handled research projects of more than INR 1.5 crores sanctioned by AICTE and NMPB, Ministry of AYUSH and UGC, New Delhi and serving on various platforms regarding quality assurance issues.

Course Deputy Co-ordinator:



Dr. Harish Dureja is currently working as Professor in Dept of Pharmaceutical Sciences, M. D. University, Rohtak. He is also acting as Director, IPR cell and professional consultancy cell. He has a total of 20 years teaching experience. He was awarded with Gold medal with best thesis award and best young pharmacy teacher award. He has written one book, 13 books chapters and 160 peer reviewed national/international publications in reputed journals. He has carried out four research projects as Principal Investigator. His research area include Nanoparticulate Drug Delivery; Regulatory Affairs, Chemical Computation and In-silico ADME modeling.

Course Coordinator

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