

### Registration Fee

- Foreign Participants : US\$ 200
- Students (UG, PG.,) : RS 800
- Faculty / Scientist : RS 1500
- Ph.D./ Post doc Fellows : RS 1000
- Sport Person : Rs 1000
- Member of SAI : Rs 1000
- On Spot Registration (Limited) : RS 5000
- Fee for SC/ST Students : Rs 500

**Note-** Registration fee includes only tuition fee, instructional materials but not for accommodation.

### Registration Work Flow

MHRD- GIAN is a global program where participants are required to register online at GIAN portal : <http://www.gian.iitkgp.ac.in>. Follow instructions at “**Courses Registration Portal**” and submit login details with brief academic details. Rs **500** to be paid online for registration at GIAN portal. Participants then need to select *Pharmacology and Toxicology of Doping agents and International Overview in the Field Doping Control* course from the list at “**Course Registration**”. Finally submit the registration form create a pdf print and submit it to us . Selected participants will be informed and they need to submit the “**Course Registration Fee**” by Demand Draft in the favor of “**The Registrar, Dr. Harisingh Gour Vishwavidyalaya, Sagar.**”

### Accommodation

Accommodation, if required could be arranged on payment basis subject to availability. For accommodation booking participant may contact with course coordinator well in advance.

### PATRON

Prof. R. P Tiwari  
Vice -Chancellor  
Dr. Harisingh Gour Vishwavidyalaya, Sagar,  
Madhya Pradesh, India  
(A Central University)

### PROGRAM ADVISOR

Prof. A.N Sharma  
**Director**  
Academic Affairs

Prof. Farid Khan  
**Dean and Head**  
School of Chemical Science and Technology

Prof. Devasish Bose  
**University Coordinator GIAN**  
Department of Criminology and Forensic  
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### COURSE COORDINATOR

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## A Course Under Global Initiative of Academic Affairs Government of India One week Course On

16<sup>th</sup> -21<sup>st</sup> September 2019

## Pharmacology and Toxicology of Doping Agents and International Overview in the Field of Doping Control



**Expert Foreign Faculty**  
Dr. Simona Pichini  
National Institute of Health,  
Rome, Italy



**Organized By**  
Department of Chemistry  
Dr. Harisingh Gour Vishwavidyalaya  
Sagar, (M.P.)

## About the Course

Doping is nowadays a global problem, that not only interests elite athletes involved in international sporting events worldwide, but also recreational athletes and young population in search of physical and psychological maximum performance.

For the past half century, International sports federations, led by the International Olympic Committee, have attempted to stop the spread of this problem, with little effect. It was expected that, with educational programs, testing, and supportive medical treatment, this substance-abusing behavior would decrease. Unfortunately, till now this has not been the case..

Since 21<sup>st</sup> century World Anti Doping Agency (WADA) established a very strict ethical code and a detailed list of prohibited substances and methods. Nevertheless, new, more powerful and undetectable doping techniques and substances are now abused by professional and non professional athletes, while sophisticated networks of distribution (eg. Websites on internet) have also been developed. Professional athletes are often the role models of adolescents and young adults who often mimic their behaviors and physical performance. Anti doping, forensic and pharmacotoxicological laboratories need to know the complex problems of detection of doping agents in biological matrices and establish educational program for young population, health professionals and policy makers.

## About the Expert Faculty



**Simona Pichini**

A Doctor in Pharmacy and European Ph.D. in Clinical Pharmacology. She works as senior investigator at the National centre on Addiction and Doping, National Institute of Health, Rome, Italy. Doctor Pichini is also the supervisor of national free phone line on tobacco smoking, alcohol and doping. In-charge of analytical laboratory on drugs and doping agents in conventional and non-conventional matrixes related to clinical and forensic pharmacotoxicology. She is also a member of Italian national counter part on alcohol policy at WHO, antidoping inspector of DCO at national sport competitions. She is author of over 300 articles published in international scientific journal with high impact factor and member of the editorial board to many scientific journals

## Who can Participate

Academicians and researchers with scientific interest in doping i.e. Officers of doping control unit, biologists, chemists, toxicologists, pharmacologists, forensic experts, members of SAI, sports person are welcome to participate in the course. Students at the level of graduate, post graduate, doctoral and post- doctoral fellows are also encouraged to participate in the program.

## Course Schedule

### Day 1 –

**Lecture 1-** WADA legislation all over the world, WADA organization.

**Lecture 2-** Pharmacotoxicology of prohibited substances in the WADA list as detailed: Non-approved substances - Anabolic steroids, hormones and peptide

### Tutorial 1 -

How to validate an analytical qualitative-quantitative method for doping agents. All possible methods of detection of doping agents as now carried out in all the National Antidoping Authorized Laboratories will be explained

### Day 2 –

**Lecture 3 -** Beta-2 agonists, hormone and metabolic modulators, diuretics and masking agents.

**Lecture 4 –** Stimulants, narcotics

**Tutorial 2-** Method Development, Validation as per different guidelines.

### Day 3 –

**Lecture 5-** Non-approved substances- growth factors, related substances, and mimetics

**Lecture 6 –** Cannabinoids, Glucocorticoids

**Tutorial 3 –** How to write and publish a research article on doping agents

### Day 4 –

**Lecture 7-** Medicalization of the athletes

**Lecture 8-** Organization of an antidoping laboratory and analysis of doping agents of different classes

**Tutorial 4-** Case study

### Day 5-

**Lecture 9 -** Chemical and physical manipulation, gene doping

**Lecture 10 -** Use over time and international cases.

**Tutorial 5-** Evaluation of participants; Discussions and problem solving

### Day 6

Course evaluation by participants. Valedictory and certificate distribution