



संजय गाँधी स्नातकोत्तर आयुर्विज्ञान संस्थान

Sanjay Gandhi Postgraduate Institute of Medical Sciences

CENTRAL RESEARCH FACILITY

Hands-on workshop on
“Molecular Genetic Technique”
17th to 19th November, 2022

Focus of the workshop:

- Overview of Molecular Genetic Technique
- Hands-on training
- Introduction to genomic data acquisition and analysis
- Genomic in clinical practice; application presentation from molecular experts

Who can apply:

- Research Scholars\Students*
- Faculty members*
- Technology enthusiasts*
(*both inside and outside of the institute are eligible).

How to apply:

- Please send a motivation letter stating how this workshop will benefit your research along with your one page CV to aloksgpgi@gmail.com; drkhaliq81@gmail.com with email subject “Genetic Workshop”. Selected participants will be notified along with payment details by 5th November 2022.

Number of participant to be selected: 24

Participation Fee: Research Scholar/Students: INR 3000#/-

Faculty members/industry delegates and others: INR 4000#/-

(*Includes food/beverage during sessions).

Last Date of Application submission: 31st October 2022

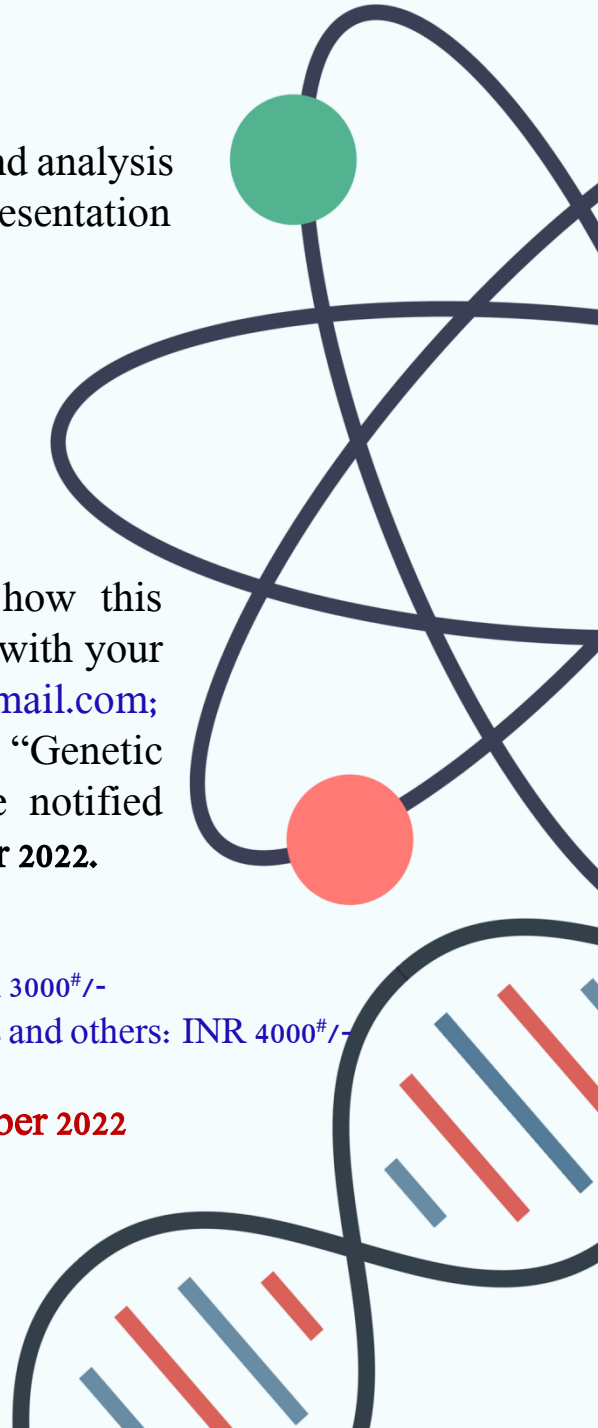
Organizers:

Core Lab Committee Members

Further Contact Details:

Phone number: 0522-249 5229,

corelab@sgpgi.ac.in



Molecular Genetic Technique 2022

Thursday November 17th

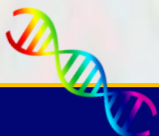
09:30 to 10:00 AM	INAUGURATION
10:00-	Introduction to Genomics,
10:45 AM	Gene and Genome nomenclature and structure
10:45-	DNA and RNA extraction
11:30 AM	
11:30-	TEA BREAK
11:45 AM	
11:45 -	HANDS ON:
1:30PM	• Nucleic acid extraction techniques
1:30-2:15 PM	LUNCH BREAK
2:15 - 4:30 PM	HANDS ON: Nucleic acid analysis; measurement of the quality and quantity, fundamentals of sample preparation for high end equipment analysis such as next-generation sequencing (NGS).
04:30 to 05:15 PM	Discussion: Limitations, Do's and Don'ts, Clinical relevance

Friday November 18th

09:30 to 10:20 AM	Polymerase chain reaction (PCR):- Principle, Methods, Types, Component and application
10:20 to 11:10 AM	Real-time PCR (RT-PCR) : Principle Methods, Types and application
11:10 to 11:30 AM	TEA BREAK
11:30 to 01:30 PM	HANDS ON: • Setting up PCR, Gel preparation for product analysis, • Setting up an RT PCR and data analysis
01:30 to 02:15 PM	LUNCH BREAK
02:15 to 04:00 PM	HANDS ON: • Setting up PCR, Gel preparation for product analysis • Setting up an RT PCR and data analysis
04:00to 05:00 PM	Group Discussion on utility and Dos and Don't

Saturday November 19th

09:00-09:30 AM	Sanger sequencing:- Introduction, Principle and protocol
09:30-10:15 AM	Next generation sequencing (NGS)- Introduction, Principle and protocol
10:15 to 11:00 AM	Use of Next generation sequencing (NGS) in research and clinical diagnostic laboratory
11:00 to 11:20 AM	Tea Break
11:20 to 13:30 PM	HANDS ON: Demonstration of Sanger Sequencing and NGS
13:30 to 14:15 PM	LUNCH BREAK
14:15 to 14:45 PM	Basic Bioinformatics tool in Molecular genetics
14:45 to 15:15 PM	Planning an experiment: Studying the genes, designing the primer, In-silico validation
15:15 to 15:45 PM	Data interpretation of Sanger sequencing
15:45 to 16:15 PM	Data interpretation of NGS and understanding the NGS report
16:15 to 16:45 PM	Discussion, feedback and windup





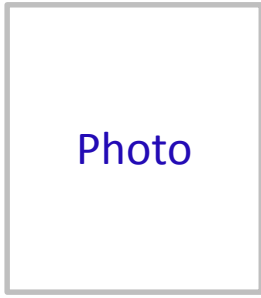
CENTRAL RESEARCH FACILITY (Core Lab)

One page CV for “Molecular Genetic Technique” Workshop

1. Name in block letters:

2. Contact Address with email ID and mobile number:.....

3. Date of Birth:.....



4. Educational qualification (Graduation onwards):

Name of Examination	Month & Year of Passing the examination	Speciality	Institution / University	Marks & Division

5. Experience:.....

6. How this workshop will benefit your research /clinical work:

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.....

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Date:

SIGNATURE OF THE APPLICANT