



# R. J. COLLEGE of Arts, Science & Commerce (Empowered Autonomous)

(Hindi Vidya Prachar Samiti's RAMNIRANJAN JHUNJHUNWALA COLLEGE of Arts, Science & Commerce)

Opposite Ghatkopar Railway Station, Ghatkopar (West), Mumbai - 400086, Maharashtra, INDIA.

Website: www.rjcollege.edu.in • Email : rjcollege@rjcollege.edu.in • Tel No. + 91 22 25151763

*College is recognized under Section 2(f) & 12(B) of the UGC Act, 1956*

**Affiliated to UNIVERSITY OF MUMBAI || NAAC Re-Accredited 'A' Grade (CGPA: 3.10)**

DATE: 12th October 2023

## NOTICE

### DEPARTMENT OF BIOTECHNOLOGY

#### Hands on Training Program

On

#### “Culturing of blood cells and Karyotyping”

The Department of Biotechnology is organizing a hands-on training program on “culturing of blood cells and karyotyping” for MSc part I students from 22nd October 2023 to 4th January 2024.

Interested Students kindly register in the Biotechnology Department by 18th October 2023.

Dr. Sucheta Golwalkar  
Department of Biotechnology

  
Dr. Himanshu Dawda  
Principal

PRINCIPAL  
RAMNIRANJAN JHUNJHUNWALA COLLEGE  
OF ARTS, SCIENCE & COMMERCE (AUTONOMOUS)  
Ghatkopar (W), Mumbai-400 086, Maharashtra, INDIA



2019: Star College Status by DBT

2008: Best College by University of Mumbai 2010: IMC RBNQ Award 'Performance Excellence' for the year 2009  
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2018: ISO 27001:2013 by University of Mumbai (No. Aff./ICD/18-19/440 - 08.06.2018)



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RAMNIRANJAN JHUNJHUNWALA COLLEGE (EMPOWERED AUTONOMOUS)



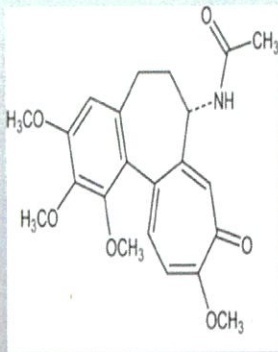
## Department of Biotechnology Organises

Hands-on training program

ON

### "CULTURING OF BLOOD CELLS AND KARYOTYPING"

22nd October 2023 to 4th January 2024



Poster of hands-on training program on "culturing of blood cells and karyotyping" organized by the Department of Biotechnology from 22nd October 2023 to 4th January 2024.



  
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## REPORT

Date-22nd October 2023 to 4th January 2024

Students Benefited: MSc Part I Students of Biotechnology

Number of students: 21

Teacher In Charge: Dr Pratibha Possam

The Department of Biotechnology organized a hands-on training program on “culturing of blood cells and karyotyping” for MSc part I students from 22nd October 2023 to 4th January 2024. Dr Pratibha Possam was incharge of the training program.

Objective of the training program was

- Gain practical experience in isolating and culturing specific types of blood cells, such as peripheral blood mononuclear cells (PBMCs) or lymphocytes.
- Develop skills in sterile technique, handling of biological samples, and maintaining cell cultures over time through subculturing and monitoring.
- Acquire knowledge and proficiency in the preparation of metaphase spreads and karyotyping techniques.

Phlebotomy was performed to collect blood from a donor in heparinized tubes under sterile conditions. RPMI media was used for culturing of peripheral blood mononuclear cells separated from blood sample and colchicine was used for arresting culturing cells in metaphase to study karyotype. Giemsa stain was used to stain chromosomes after fixation, and slides were analyzed under a light microscope.

21 MSc part I students of registered and completed training program.

Outcome of the training program-

The successful culturing of blood cells and subsequent karyotyping provided valuable insights into cellular morphology and genetic stability. The methodology outlined in this report can be applied to study various genetic disorders, investigate chromosomal abnormalities, and assess the effects of environmental factors on cell growth and genomic integrity. Future research could focus on applying these techniques in clinical diagnostics or personalized medicine.



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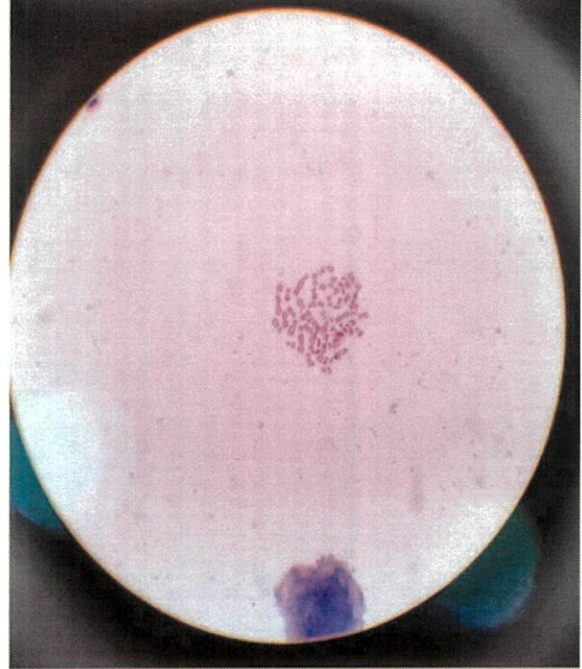
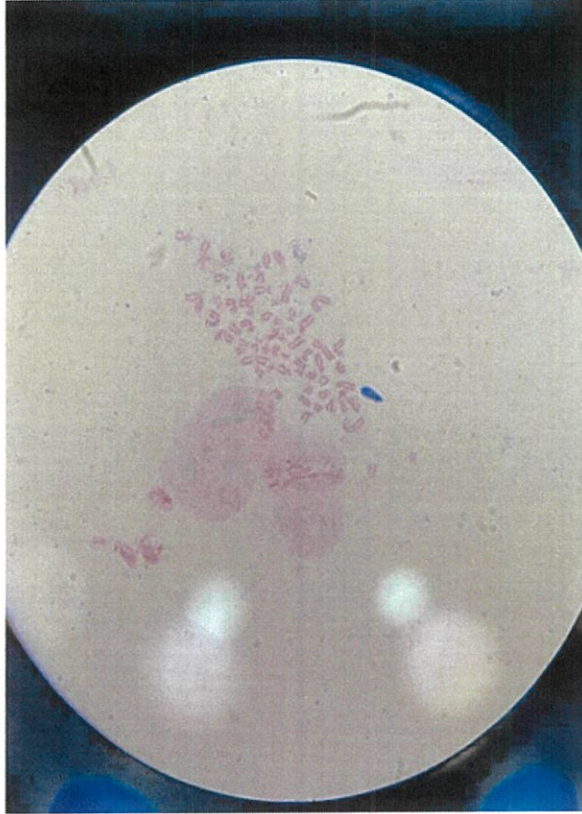


Image of chromosomes observed in a Karyotyping slide during hands-on training program on “culturing of blood cells and karyotyping” organized by the Department of Biotechnology from 22nd October 2023 to 4th January 2024.



  
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2018: ISO 27001:2013 (No. 15001/2018) & ISO 14001:2015 (No. 15002/2018) by Bureau of Indian Standards (BIS) & by University of Mumbai (No. Aff/UCD/18-19/440 - 08.06.2018)





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## LIST OF STUDENTS WHO COMPLETED TRAINING PROGRAM

Sr. No.	Roll No.	Name of the Student
1	403	Divya Rao
2	406	Manasi Parab
3	407	Esha Dubey
4	408	Sejal Mishra
5	409	Khushi Dukhand
6	410	Anchal Gupta
7	411	ManitaYadav
8	413	Priyanka Bhuwad
9	414	Archana Gupta
10	418	Aleena Siddiqui
11	419	Aadarsh Gupta
12	420	Sejal Tiwari
13	421	Blessy Paul
14	422	Riya Kudpane
15	423	Sonali Gupta
16	425	Aniket Mhase
17	426	Nandini Thorat
18	427	Vedanti Palav
19	428	Sharvari Borkar
20	429	Manasi Jha
21	430	Gayatri Nair



  
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**DEPARTMENT OF BIOTECHNOLOGY**



## CERTIFICATE

This is to certify that Mr. **ADARSH GUPTA** of Biotechnology MSc Part I has completed hands-on training program on “culturing of blood cells and karyotyping” organised by the Department of Biotechnology from 22nd October 2023 to 4th January 2024.

**Sucheta Golwalkar**  
Head, Dept. of Biotechnology



**Dr. Himanshu Dawda**  
In-charge Principal

**Certificate given to students on completing a training program on “culturing of blood cells and karyotyping” organized by the Department of Biotechnology from 22nd October 2023 to 4th January 2024.**



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