

Report...



WORKSHOP ON MOLECULAR BIOLOGY TECHNIQUES & IN-SILICO DRUG DISCOVERY



Submitted by
Department of Zoology,
Rammohan College,
102/1 Raja Rammohan
Sarani,
Kolkata-700009

YEAR 2023

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Workshop Time Table of Department of Zoology, Rammohan College.

Time	9AM-9.30AM	9.30AM-10.30AM	10.30AM-11AM	Batch Division	11AM-12PM	12PM-2PM	2PM-2.30PM	2.30-5PM
Day 1 (16/05/2023) Tuesday	Registration & Workshop Kit Distribution	Inauguration (SNB)	Hi-Tea time	GROUP-A	Lecture session on DNA isolation, quantification & separation following Agarose gel electrophoresis (SNB/SD/SA)	Demonstration/ hands on session on DNA isolation, quantification & separation following Agarose gel electrophoresis and visualization by Geldoc. (SNB/SD/SA)	Lunch	Continuation of previous session.....
				GROUP-B	Lecture session on protein isolation, quantification & separation following Western blot technique (KDC/SP/CR)	Demonstration/ hands on session on protein isolation, quantification & separation by PAGE following Western blot technique (KDC/SP/CR)		Continuation of previous session.....
Day 2 (17/05/2023) Wednesday	<i>Holiday due to Foundation Day of SadharanBrahomoSamaj</i>							
Time	Batch Division	10AM-11AM	11AM-12 PM	12-12.30PM	12.30PM-2PM	2PM-2.30PM	2.30-5PM	
Day 3 (18/05/2023) Thursday	GROUP-A	Lecture session on protein isolation, quantification & separation following Western blot technique (KDC/SP/CR)	Demonstration/ hands on session on protein isolation, quantification & separation by PAGE following Western blot technique (KDC/SP/CR)	Tea Time	Continuation of previous session.....	Lunch	Continuation of previous session.....	
	GROUP- B	Lecture session on DNA isolation, quantification & separation following Agarose gel electrophoresis (SNB/SD/SA)	Demonstration/ hands on session on DNA isolation, quantification & separation following Agarose gel electrophoresis and visualization by Geldoc. (SNB/SD/SA)	Tea Time	Continuation of previous session.....	Lunch	Continuation of previous session.....	
Time	Batch Division	10AM- 11AM	11AM-12PM	12-12.30PM	12.30PM - 2PM	2PM-2.30PM	2.30-5PM	
Day 4 (19/05/2023) Friday	GROUP-A	Lecture session guide of Insilico drug discovery (SP/SD/SRD)	Demonstration/ hands on session on guide of Insilico drug discovery (SP/SD/SRD)	Tea Time	Continuation of previous session.....	Lunch	Continuation of previous session.....	
	GROUP- B	Lecture session on	Demonstration/ hands on		Continuation		Lecture session	Lecture/Hands

		ELISA and its types. (CR/SA/KDC)	session on ELISA (SA/CR/KDC)	Tea Time	of previous session.....	Lunch	on Animal ethical issues in research field (SD/KDC/SNB)	on session on UPGMA/Clus ter Analysis: Creation of Phylogenetic tree (SRD/SP/SA)
Time	Batch Division	10AM- 11AM	11AM-12PM	12-12.30PM	12.30PM - 2PM	2PM- 2.30PM	2.30-5PM	
Day5 (20/05/2023) Saturday	GROUP-A	Lecture session on ELISA and its types. (CR/SA/KDC)	Demonstration/ hands on session on ELISA (SA/CR/KDC)	Tea Time	Continuation of previous session.....	Lunch	Lecture session on Animal ethical issues in research field (SD/KDC/SNB)	Lecture/Hands on session on UPGMA/Clus ter Analysis: Creation of Phylogenetic tree (SRD/SP/SA)
	GROUP- B	Lecture session guide of Insilico drug discovery (SP/SD/SRD)	Demonstration/ hands on session on guide of Insilico drug discovery (SP/SD/SRD)	Tea Time	Continuation of previous session.....		Continuation of previous session.....	
Day 6 (21/05/2023) Sunday	HOLIDAY							
Day 7 (22/05/2023) Monday	Holiday due to Birthday of Raja Rammohan Roy							
Time	Batch Division	10AM- 11AM	11AM-12 PM	12-12.30PM	12.30PM- 2PM	2PM- 2.30PM	2.30-3.30PM	3.30-5PM
Day 8 (23/05/2023) Tuesday	GROUP-A & GROUP- B	Lecture session on Animal handling techniques and related methodologies. (SNB/SD/KDC)	Animal House visit& presentation of animal handling (SNB/KDC/SD)	Tea Time	Continuation of previous session.....	Lunch	Examination & Feedback submission (SRD/SP/CR/SA)	Valedictory Session & Certificate distribution (SD)

List of resource persons and participants

Resource persons:

❖ **Dr. Samarendra Nath Banerjee**

❖ **Dr. Shantanu Das**

❖ **Dr. Kaustav Dutta Chowdhury**

❖ **Dr. Shanti Ranjan Dey**

❖ **Prof. Chayanika Ray**

❖ **Prof. Sanjay Kumar Paul**

❖ **Dr. Samik Acharjee**

❖ **Ms. Pujita Ghosh**

❖ **Ms. Soumi Banerjee**

List of participants

SI No	Name of the college/University/Office	Name of the participant	Designation
1.	Acharya prafulla Chandra college	Somvit Nandi	UG student
2.	Asutosh college	Snehankita Paul Hrisika Das	PG students
3.	Bangabasi morning college	Ankan Paul Manisa Paul	UG students
4.	Bethune College	Ananya Misra Pourabi Das Trisha Ghosh	PG students
5.	Bhairab Ganguly College	Deepanjan Sarkar Souvik Chakraborty Shruti Ghosh	UG students

		Soumili Sarkar Mehbur Rahaman Shaikh Amrita Jana Krishanu Saha Sumit Banerjee	
6.	Chittaranjan National Cancer Institute	Tanima Das Sunandita Bhar Kanisha Kar	Research Scholars
7.	ICMR- Centre for Ageing and Mental Health	Surajit Das	Technical staff
8.	Jogamaya Devi College	Sayani Dey	UG student
9.	Lady Brabourne College	Tanushree Mondal Shiwangini Banerjee Prajna Hazra Swastidipa Maity	PG students

		Bidisha Ghosh	
10.	Maulana Azad College	Madhu Parna Karmakar Sudeshna Sarkar Rushana Chowdhury Radheshyam Adak	UG/PG students
11.	Presidency University	Sourav Pakrashy	Research Scholar
12.	Serampore college	Arun Jana	PG student
13.	University of Calcutta	Abhilasha Ganguly Shreyasi Guchhait Bikram Das Sreya Sarkar Ayan Bhar Titli Chowdhury Hrithik Mukherjee	PG students

		Paramita Barman Sayan Das	
14.	Vivekananda College, Thakurpukur	Shatabdi Roy	PG student
15.	West Bengal State University	Sushmita Bhowmick	PG student

Department of Zoology, Rammohan College

Report of the Workshop on “Molecular Biology Technique and *in silico* Drug Discovery”

Date: 16th May – 23rd May, 2023

We are delighted to report that the all-faculty and non-teaching staff members of the department organized and conducted the 35 hours duration workshop on Molecular Biology Techniques and *in silico* drug discovery based on theory and practical classes with hands-on training. This type of workshop was held for the first time in Rammohan College, 102/1 Raja Rammohan Sarani, Kolkata–700009. There was a total of forty-three (43) registered participants, such as UG and PG students, research scholars and technical officers from different Colleges, Universities (Calcutta University, Presidency University), Indian Council of Medical Research and Chittaranjan National Cancer Institute, Kolkata. For the last two months, faculty members of the Zoology Department have been trying to set up the plan for the workshop. Likewise, the teachers of this department tried their best to help fellow participants.

In this context we are also happy to inform that the Department of Zoology has been awarded the BOOST grant sanctioned by the Department of Science and Technology and Biotechnology (DSTBT), Government of West Bengal, in 2019. In the last week of December 2018, we started to process our project proposal for the award of the BOOST grant. First, we submitted our proposal, then we had shortlisted by the DSTBT and had to defend DSTBT through a ppt presentation. Finally, the DSTBT approved our proposal and sanctioned Rs. 25 Lac for purchasing equipment and chemicals and our department's infrastructure development. Since the beginning of our proposal submission, shortlisting, and ppt presentation in front of distinguished scientists, secretaries, and higher administrative members of DSTBT, Dr Subhasis Mondal, Scientist and other members, scientists, and Additional Secretary have played the most significant role and has given extensive support for approval and release of the grant.

On behalf of our department and also from our college, we would like to extend our sincere gratitude and thanks to all distinguished persons of DSTBT, Government of West Bengal.

We also express our regards and sincere thanks to our Principal madam, President madam and honourable members of governing body as they had sanctioned a particular central instrument room for keeping these instruments.

The inaugural programme of the mentioned workshop was conducted by Dr. Samarendra Nath Banerjee. He expressed gratitude and sincere thanks to Principal madam, President madam, IQAC coordinators, Dr. Subhasish Mondal, Head of Zoology Department, teaching and non-teaching staff of the college, students and participants.

The workshop was inaugurated with a brief speech by Dr. Saswati Sanyal, Principal, Rammohan College and Smt. Tapati Ghosh, President, Governing body, Rammohan College, Kolkata.

Dr. Subhasish Mandal, Scientist, Department of Science and technology and Biotechnology, Government of West Bengal, Kolkata, Chief guest of the inaugural programme, deliver the talk and discussed the importance of BOOST, DSTBT and expressed his satisfaction about the proper use of the grant for purchasing instrument and infrastructural development through the BOOST grant in the department of Zoology, Rammohan College. Dr. Krishnendu Sarkar, IQAC Coordinator, Rammohan College and Dr. Sumallya Karmakar, IQAC Coordinator, Victoria Institution (College) discussed the importance of workshop on Hands on training in UG level. They expressed their satisfaction and thanks to all staff of the department. Prof. Chayanika Roy, Head expressed her satisfaction that Department of Zoology is going to conduct this workshop. Dr. Kaustuv Dutta Chowdhury, one of the joint coordinators of the work shop had delivered Vote of Thanks. He expressed his gratitude and honours to President madam, Principal madam, Head of the Zoology Department, IQAC coordinators and all other faculty and non-teaching staff members of the college for their extensive support and cooperation.

Then the new central instrument room in new science building was opened through the inaugural programme.

Day 1: 16th May 2023(Tuesday)

Group - A

- **Dr. Samarendra Nath Banerjee: Delivered lecture on DNA isolation Technique and conducted hands -on – training on DNA isolation Technique.**
- **Dr. Shantanu Das: Delivered lecture on Gel Electrophoresis Technique and conducted hands -on – training on Gel Electrophoresis.**
- **Dr. Samik Acharjee: conducted hands -on – training on DNA isolation Technique and Gel electrophoresis.**

Group - B

- **Dr. Kaustuv Dutta Chowdhury:**Delivered lecture on Western blotting Technique and conducted hands -on – training of this Technique.
- **Smt. Soumi Banerjee, and Smt. Pujita Ghosh, Departmental research scholar, jointly co-operated Dr. Kaustuv Dutta Chowdhury.**

Day 2: 18th May 2023(Thursday)

Group - B

- **Dr. Samarendra Nath Banerjee:** Delivered lecture on DNA isolation Technique and conducted hands -on – training on DNA isolation Technique.
- **Dr. Shantanu Das:** Delivered lecture on Gel Electrophoresis Technique and conducted hands -on – training on Gel Electrophoresis.
- **Dr. Samik Acharjee:** conducted hands -on – training on DNA isolation Technique and Gel electrophoresis.

Group - A

- **Dr. Kaustuv Dutta Chowdhury:** Delivered lecture on Western blotting Technique and conducted hands -on – training of this Technique
- **Smt. Soumi Banerjee, and Smt. Pujita Ghosh, Departmental research scholar, jointly co-operated Dr. Kaustuv Dutta Chowdhury.**

Day 3: 19th May 2023

Group A

- **Prof. Chayanika Roy: Delivered lecture on ELISA and conducted hands -on – training on ELISA.**
- **Dr Samik Acharjee: Delivered lecture on ELISA and conducted hands -on – training on ELISA.**
- **Dr. Santi Ranjan Dey: Delivered lecture on Evolutionary Biology with an emphasis to theory and problems.**

Group B

- **Prof. Sanjay Kumar Paul: Delivered lecture on “*In Silico* Drug Discovery” and conducted hands -on – training on its application.**
- **Dr. Shantanu Das: Delivered lecture on Institutional Animal Ethics Committee.**

Day 4:20th May 2023 (Saturday)

Group B

- **Prof. Chayanika Roy: Delivered lecture on ELISA and conducted hands -on – training on ELISA.**
- **Dr Samik Acharjee: Delivered lecture on ELISA and conducted hands -on – training on ELISA.**
- **Dr. Santi Ranjan Dey: Delivered lecture on Evolutionary Biology with an emphasis to theory and problems.**

Group A

- **Prof. Sanjay Kumar Paul: Delivered lecture on “*In Silico* Drug Discovery” and conducted hands -on – training on its application.**
- **Dr. Shantanu Das: Delivered lecture on Institutional Animal Ethics Committee.**

Day 5: 23rd May 2023 (Tuesday): Pre-Lunch session

Group – A and B

Dr. Samarendra Nath Banerjee: Lecture on Institutional Animal Ethics Committee and Animal handling

Dr. Kaustuv Dutta Chowdhury: Animal House visit and demonstration

Day 5: 23rd May 2023: Post lunch session: Valedictory Programme

Dr Shantanu Das, a faculty member of the Department, conducted the valedictory programme of the workshop. He expressed gratitude and sincere thanks to Principal Madam and President Madam. He also expressed his gratitude to our Chief Guest of this session, Professor Madhusudan Das, Department of Zoology, University of Calcutta. Prof. Madhusudan Das delivered a presentation on "Precision Medicine". His presentation was outstanding and excellent. Dr Saswati Sanyal, Principal, Rammohan College and Smt. Tapati Ghosh, President, Governing body, Rammohan College, Kolkata, delivered a brief speech about the utility of the workshop that was very relevant to our students. Participants of the workshop expressed their great satisfaction with the workshop. They requested that this type of workshop should be organized regularly in future as a certificate course for the benefit of students and research scholars. Dr. Samik Acharjee, Course Coordinator of the workshop, delivered a brief speech about the curriculum of the workshop and expressed his sincere thanks to the Head of the Department and all Departmental colleagues who handled the event throughout. A wide round of applause and thanks were given by him to all the participants who actually made the event a memorable one by their active participation and attendance. Prof. Sanjay Kumar Paul, one of the workshop's joint coordinators, delivered Vote of Thanks. He expressed his gratitude and honours to the President madam, Principal madam, Head of the Zoology Department, IQAC coordinator and all college faculty and non-teaching staff for their extensive support and cooperation. He also mentioned that satisfaction of the participants is not only the true award for the Department it also boosts the level of confidence of ZOOLOGY TEAM for the continuation of this programme as a certificate course in the future. Finally session was ended with thanks to and by the chair.









