

ACADEMIC ACTIVITIES 2021-2022

**PG & RESEARCH DEPARTMENT OF
BIOTECHNOLOGY**



1. INDUSTRIAL VISIT TO YELAGIRI

Yelagiri Nature Park – 28.5.2022- 29.5.2022

Purpose of the visit: To observe different types of flora and fauna

Outcome: The students observed different varieties of flora in the garden and studied their characteristics.



POSTER COMPETITION & EXHIBITION- 2021

The P.G & Research Department of Biotechnology (Shift II), conducted its annual intradepartmental poster competition for the II M.Sc. students on 22.11.2021 in the department. Like the previous years the theme of the posters was on Environmental awareness. All the students of the class actively participated in the same. The objective of conducting this competition is to create awareness on the depleting natural resources of our planet Earth and to educate the college community about the ways in which each individual is responsible and plays an vital role in the preservation of Mother Earth. The entries were judged by Dr.Alison Fernandez , PG Department of Physics, Faculty Coordinator of Centre for environmental studies, WCC. The posters were displayed both online and offline for all the staff and students (both Shift I & Shift II) of the college.

Link of online exhibition : <https://youtu.be/mEflybpOT64>



TWO DAYS WORKSHOP ON MAMMALIAN CELL CULTURE AND ELECTROPHORESIS

Organizer: Jointly Organized by PG & Research Department of Biotechnology, Women's Christian College, Chennai and S.S. Healthcare, Chennai in association with Hexacara Laboratories and Mitogene Technologies, Chennai.

Date & Time: 29/07/2021 and 30/07/2021, 10:30 am to 12 Noon.

Workshop Platform: Zoom

No. of Participants attended the workshop: 185

Resource Person: Dr. Sheela Sasikumar, Director, Clinical Research, S.S. Healthcare, Chennai.

Hands on Demo:

- Mammalian Cell Culture - Mrs. Latha Ashok, Director, Mitogene Technologies, Chennai
- SDS PAGE Electrophoresis - Dr. Anand Duraiswamy, Senior Scientist, Hexacara Laboratories, Chennai

Outline of the Workshop: Mammalian Cell Culture and Electrophoresis is among the much needed areas of research due to its vast applications in different areas of biotechnology. Mammalian Cell Culture deals with the process of growing cells *In vitro* and finds its application in Tissue engineering, Cancer research, Regenerative medicine, Gene therapy, Drug screening and development etc...while Electrophoresis is a key analytical technique used for separating DNA, RNA and Protein based on their size, electric charge and Molecular weight with application in Forensics, Genetics, Molecular biology etc.. Expertise and Practical knowledge on these techniques seems to be very much important in the current scenario due to its diverse applications. This workshop has been organized with an idea of providing the participants an exposure towards the handling techniques and working procedures of Mammalian Cell Culture and Electrophoresis through a live demo session that could help in improving their existing knowledge in the field and could also enable them to gain a practical learning experience.



ANIMAL TISSUE CULTURE - PRINCIPLE AND APPLICATIONS

Dr. C. Sheela, S.S. Healthcare's founder

S.S. HEALTHCARE

OVER VIEW



S.S. HEALTHCARE

Basic Mammalian Cell Culture Techniques

Latha Ashok, M.Sc., M.Phil (SC), PhD DL,
Director, MitoGENE Technologies
TCS Biotech Phase 2, Chennai
Former Scientist at IIT Madras & ETH Zurich - Switzerland

MitoGENE



Troubleshooting



pH 6.5 7.0 7.4 7.8

- Change from yellow to orange: Change in pH.
- Change from orange to red: Change in pH.
- Change from red to purple: Change in pH.

The presence of an infectious agent sometimes can be detected by turbidity and a sharp change in the pH of the medium usually indicated by a change in the color of the medium, and/or cell culture death.




Class: Participants (15/17)

Participant	Score
Dr. Sheela	100%
LEELAN	100%
Mounika Chidambaram	100%
Dr. C. Sheela Sasi	100%
MithuGeeha Sankar	100%
Dr. PAVITHRA A.	100%
Pragna Sree	100%
AranyaKanthi Mahalingam	100%
TRISHA KISHORE THIRUVAL	100%
TRISHA JAYARAJAN U	100%
TRISHA TRIPATHI	100%

Class: Participants (15/16)

Participant	Score
Dr. Arthana	100%
shirshani kumar	100%
EVANGELIN JAYARAJAN A	100%
Greene Mary	100%
Haritha Gokaraj	100%
Ms. Praveena G.	100%
J. Jyothi	100%
parvitha jayaram	100%
Jayanti G.	100%
JANET JAYARAJAN	100%
Jayashree G.	100%

PANDEMIC AND MENTAL HEALTH

Organizer: PG & Research Department of Biotechnology, Women's Christian College, Chennai

Date & Time: 22/07/2021, 10:30 am to 11:30 am.

Webinar Platform: Zoom and YouTube

No. of Participants attended the webinar: 192

Resource Person: Dr. Vasumathi Balaguru, Child and Adolescent Psychiatrist, The Association for Child and Adolescent Mental Health, United Kingdom.

OUTLINE OF THE WEBINAR: COVID-19 is one among the lethal diseases and a serious predicament that had its in depth impact on the Physical and Mental health of millions of people all over the world irrespective of their age. Besides being a life threatening condition causing an increased mortality rate, its repercussions had evoked mental stress and depression among the people with an oscillation of countless thoughts accompanied with fear and anxiety that could possibly affect their mental well being. This webinar has been organized with an idea of disseminating useful and relevant information on the possible ways of managing and overcoming such afflictions.

The poster is a white rectangular document with a black border. At the top left, it features the logo of Women's Christian College, Chennai, and text describing its affiliation with the University of Madras and its NAAC accreditation. To the right is the logo of The Association for Child and Adolescent Mental Health (ACAMH) in the United Kingdom. The center of the poster contains the text 'PG & Research Department of Biotechnology' and 'Jointly presents NATIONAL WEBINAR ON PANDEMIC AND MENTAL HEALTH'. Below this is a portrait of Dr. Vasumathi Balaguru, a woman with dark hair wearing a red and black sari. Underneath her photo is her name and title: 'Dr. Vasumathi Balaguru, Child and Adolescent Psychiatrist, The Association for Child and Adolescent Mental Health, Editor of Mental Information for Kids, United Kingdom'. A 'Save The Date!' banner in a cursive font is followed by the date and time: 'July 22nd 2021 10.30am – 11.30am'. The bottom section includes 'Registration: Free', a 'Registration Link' with a URL, and a contact email 'wccbiotechevents@gmail.com'. At the very bottom, there are small social media icons and the text 'E-certificates will be provided'.

Women's Christian College, Chennai
An autonomous institution affiliated to the University of Madras
Re-Accredited by NAAC in July 2019 with Grade A+
College with Potential for Excellence

The Association for Child and Adolescent Mental Health
United Kingdom

PG & Research Department of Biotechnology

Jointly presents

NATIONAL WEBINAR ON PANDEMIC AND MENTAL HEALTH




Dr. Vasumathi Balaguru
Child and Adolescent Psychiatrist
The Association for Child and Adolescent Mental Health
Editor of Mental Information for Kids
United Kingdom

Save The Date!
July 22nd 2021 10.30am – 11.30am

Registration: Free

Registration Link: https://docs.google.com/forms/d/ej1FAloGt5dthPzMyVfjapwq_Gw53yv2j0d4fna8a1iupXZDg6A/viewform?c=0&c=0&c=1&fr=0

For further assistance contact: wccbiotechevents@gmail.com

Join us @    E-certificates will be provided

COVID-19 ASSOCIATED MUCORMYCOSIS

Organizer: PG & Research Department of Biotechnology, Women's Christian College, Chennai

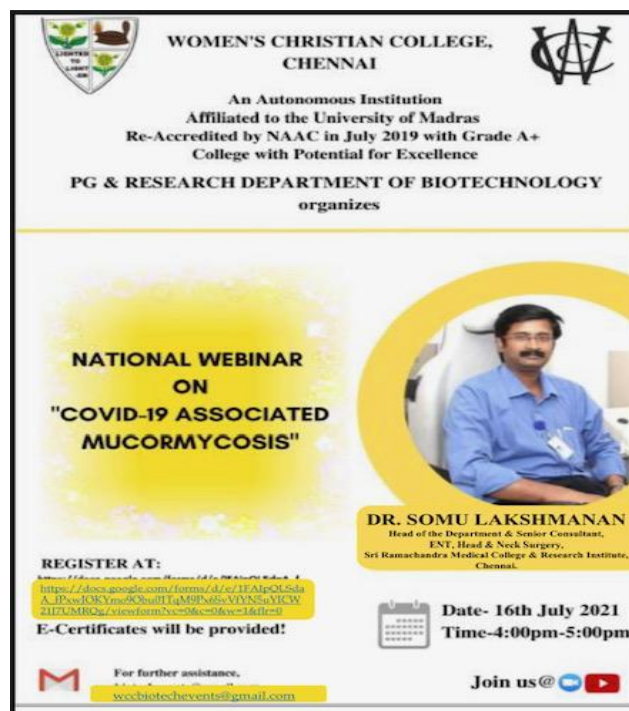
Date & Time: 16/07/2021, 4pm to 5pm.

Webinar Platform: Zoom and YouTube

No. of Participants attended the webinar: 289

Resource Person: Dr. Somu Laxman, Head of the Department and Senior Consultant, ENT, Head and Neck Surgery, Sri Ramachandra Medical College and Research Institute, Chennai.

OUTLINE OF THE WEBINAR: Mucormycosis is being the current topic of wide discussion due to its rapid onset amidst the COVID-19 Pandemic. It is an aggressive and life threatening fungal infection caused by the black fungus *Mucor* spp. The infection gets transmitted through inhalation/direct contact with fungal spores which could cause serious complications and even fatality if left untreated. This National Webinar has been organized with an idea to put forth the effects and impacts of this epidemic condition among the participants and to get them benefited with additional knowledge on this topic.



The poster is for a national webinar on COVID-19 associated mucormycosis. It features the logo of Women's Christian College, Chennai, and the PG & Research Department of Biotechnology. The webinar is organized by the PG & Research Department of Biotechnology. The speaker is Dr. Somu Lakshmanan, Head of the Department & Senior Consultant, ENT, Head & Neck Surgery, Sri Ramachandra Medical College & Research Institute, Chennai. The webinar is scheduled for 16th July 2021, from 4:00pm to 5:00pm. The poster includes a registration link and a note that E-Certificates will be provided. It also features social media icons for Zoom and YouTube.

WOMEN'S CHRISTIAN COLLEGE, CHENNAI
An Autonomous Institution
Affiliated to the University of Madras
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College with Potential for Excellence
PG & RESEARCH DEPARTMENT OF BIOTECHNOLOGY
organizes

NATIONAL WEBINAR ON "COVID-19 ASSOCIATED MUCORMYCOSIS"



DR. SOMU LAKSHMANAN
Head of the Department & Senior Consultant,
ENT, Head & Neck Surgery,
Sri Ramachandra Medical College & Research Institute,
Chennai.

REGISTER AT:
<https://docs.google.com/forms/d/e/1FAIpQLS5iaA-IPswJOKYms@ObuITqM9Pn6s-VYNSuYICWZHTUMRQz/viewform?c=0&c=0&c=0&c=0&c=0>

E-Certificates will be provided!

Date- 16th July 2021
Time-4:00pm-5:00pm

For further assistance,
wccbiotechvents@gmail.com

Join us @  

Workshop -Foundation Course On Synthetic Biology

A three day workshop on "Foundation Course on Synthetic Biology" at Golden Jubilee Biotech Park for Women Society, Siruseri was held from 15th December to 17th December, 2021. The program was organized by Entrepreneurship Development and Innovation-TN (EDII-TN) in association with Golden Jubilee Biotech Park for Women Society and Jananom Pvt Ltd., The workshop was inaugurated by Dr. Sheela Sasikumar , SS healthcare , Chennai followed by an inspiring talk about Entrepreneurship scenario in Tamil Nadu by Thiru E.Bhaskaran (Additional Director). There was an introductory session on "3D PRINTING" by Dr. Sheela Sasikumar followed by a session on "Synthetic Biology" by Mr. Akash Kumar Ramiya Kishore Babu from Jananom Pvt. Ltd. followed by hands-on training on Vectordigestion , Preparation of competent cells , Ligation, setting up and running a PCR, Gel electrophoresis and discussion on Digital synthetic biology. The students got basic insights on how multiple genes can be combined into a vector in a single step using various Bioinformatic tools. On the closing day, we had a detailed presentation by EDII-TN creating awareness on various schemes related to entrepreneurship prevailing in Tamil Nadu. Lastly, a valedictory function was held where certificates were distributed to every participant.



Workshop on Menstrual cup

Organizer: PG & Research Department of Biotechnology, Women's Christian College, Chennai

Date & Time: 25/03/2022, 4pm to 5pm.

Venue : PG & Research Department of Biotechnology

No. of Participants attended the webinar: 67

Resource Person: Ms.Rajalakshmi, Health & Hygiene Trust , Trichy

A workshop on "Menstrual Cup" was organized by PG & Research department of Biotechnology on 25th March, 2022.

The **Objectives** of the workshop was to bring an awareness on environmental pollution caused by improper disposal of used sanitary napkins by girls and providing them with an alternative solution of using Menstrual cups which is Eco friendly.

The resource person Ms.Rajalakshmi explained on the ill effects of sanitary pad usage highlighting that it is contain a chemical compounds like Dioxin which can cause cervical cancer and other reproductive issues among women .She also mentioned about the economic and environmental burden behind the improper use and disposal of sanitary pads. She spoke about menstrual cups and its advantages and also explained about how to use it .

Outcomes:

Participants gained information about menstrual cup and felt social responsible in safe guarding our environment through the workshop . They also clarified their doubts with the speaker which helped them overcome the fear and hesitation in using the Menstrual cups .



Report – Scientific Session on miRNA expression in Endometriosis

Organizer: PG & Research Department of Biotechnology, Women's Christian College, Chennai

Date & Time: 31/03/2022, 2.45pm to 3.30pm.

Venue : RMS – Conference hall

No. of Participants attended the webinar: 65

Resource Person: Dr.T.Ramani Devi M.D., D.G.O., Ramankrishna Medical Centre, Trichy

A Scientific Session on miRNA expression in Endometriosis was organized by PG & Research department of Biotechnology on 31th March, 2022.

The **Objectives** of the workshop was to bring a scientific temper among the Post graduates and Research scholars on the recent research advances in the field of Biotechnology.

Dr.T.Ramani Devi, National Vice President of Endometriosis Society-2020 addressed the students on Endometriosis, its prevalence, symptoms and methods of diagnosis currently in clinical practice. She added that Endometriosis in future can be diagnosed using Non invasive methods (miRNA). She shared her research experience on miRNA expression in southern population and clarified the doubts of the students.

Outcomes:

Participants gained scientific insights on miRNA and its importance in clinical diagnosis of various diseases. Overall the session was productive for both PG students and Research Scholars.

