

## **PG Dept. of Biotechnology Annual Report 2020-2021**

### **Objectives of the Department**

- **To provide better opportunity to every one for performing their capacity in knowledge and innovative research to compete with the global**
- **To bring advanced knowledge among youth generations and skills of research oriented work based on theoretical knowledge**
- **To motivate students on handling basic research work along with academic curricula**

### **Memorandum of Understanding (MoU)**

- ✓ Department signed MoU with Centre for Bioscience and Nanoscience Research (CBNR), Coimbatore on 8<sup>th</sup> February 2013 for collaborative research and academic programs (Renewed till 2020).
- ✓ Signed MoU with Synkro Max Biotech, Chennai on 2<sup>nd</sup> November 2013 (Renewed till 2019).
- ✓ Signed MoU with CYTXON BIOSOLUTION Pvt. Ltd, Hubli, Karnataka on 26<sup>th</sup> Feb 2017.
- ✓ MoU with KVK, Regional Research Station (ICAR), Brahmavar, Udupi 2017 onwards
- ✓ MoU with PG Dept of Chemistry (Organic Chemistry), Alva's College 2017 onwards
- ✓ MoU with Indian Institute of Horticulture Research

### **Staff members**

Number of Teaching Faculties - **04** (4 with Ph.D., 2 with M. Phil. and 2 with SLET)

Ph D. Guides – 03, PhD Scholars : 08 (under Mangalore University)

Total number of students – 07+ 21 = 28

Results – During 2019 - 100%

Academic year interrupted due to COVID 2019. From 20/3/2020 lockdown was announced, all institutes and other offices closed.

From June to August 2020 online classes were conducted for all students. From 01/09/2020 to 16/9/2020 offline classes started with conditions and covid regulations.

16/9/2021 to 16/10/2020 university examinations.

26/12/2020 I MSc classes started by offline mode.

28/4/2021 to 11/7/2021 II lockdown announced.

01/6/2021 to 10/7/2021 online classes for II and IV semesters.

11/8/2021 onwards university theory examination and practical examinations on 3/9- 6/9 /2021.

From 7/9/2021 onwards regular classes for I M.Sc. and II M.Sc.

From 7/12/2021 onwards University special examinations to those students who unable to write the exams on scheduled time due to corona sick.

### **International Conference 2021**

Alumni Sponsored International e-Conference on “Post-Covid Developments in Biological Sciences” organized Department of Biotechnology in association with Karnataka State Pollution Control Board, Mangalore held on 5<sup>th</sup> March 2021.

#### **Speakers: Alumni of Biotechnology**

**Ramya Shanivarsanthe Leelesh, PhD** Department of life sciences, University of Bedfordshire, Luton, LU13JU, UK - **SARS-CoV-2 Genome, Evolution and Vaccine**

**Srinivasa Reddy B, PhD** Senior Group Leader I, New Drug Discovery and Research, Mankind Research Centre, Plot NO.191-E, Sector-4, IMT Manager -**Drug Discovery-Path of a drug from target selection to approval**

**Ashutosh Yende, PhD** Post-Doctoral Scientist, GW Cancer Centre, The George Washington University, Washington DC, 20052,USA - **Cancer research and the impact of COVID-19**

**Mahesh M. Poojary PhD** Assistant Professor, University of Copenhagen, Ingredient and Dairy Technology, Department of Food Science, Rolighedsvvej, 26, 1958, Frederiksberg C, Denmark - **Replacing animal-based food proteins with alternative protein sources: current trends and future challenges**

There were 3 oral presentations on various topics were presented by research scholars, Faculty member and students which includes participants from different colleges and universities. Poster presentations were judged by Dr. Sukesh, Assistant Professor of Botany and Dr. Rashmi K, HOD of Applied Zoology, Alva's College, Moodbidri.

There were 10 e-poster presentations on various topics were presented by research scholars, and students which includes participants from different colleges and institutes. Poster presentations were judged by Dr. Sukesh, Assistant Professor of Botany and Dr. Raghavendra Rao B, Associate Professor of PG Biotechnology, Alva's College, Moodbidri.

**Winner in Poster presentation**

I Prize: - Ms. **Samrudhi Shenoy**, PG Dept. of Applied Zoology, Alva's College.

II Prize: - Ms. **Sruthi Prakash**, PG Dept. of Applied Zoology, Alva's College.

**Winners in Oral presentation**

I Prize: - Gagana B, Research Scholar, Dept. of PG Biotechnology, Alva's College, Moodbidri

Students attended online seminars, webinars and also online internships.

Faculties attended several online seminars and conferences during lockdown period.

Most of the college meeting also conducted through online and all classes through Google class rooms.

All the faculties attended one week online Faculty Development Program on "e-Content Development" organized by Alva's College during July 19-25, 2020.

## ALUMNI SPONSORED INTERNATIONAL CONFERENCE

ON

## POST COVID DEVELOPMENTS IN BIOLOGICAL SCIENCES

**Date:** - 05/3/2021

**Venue:** - MBA SEMINAR HALL, ALVAS INSTITUTE OF ENGINEERING & TECHNOLOGY, MIGAR

**Total number of participants:-125 (ONLINE AND OFF LINE)**

**Inauguration:** - The conference was inaugurated through the lamp illumination and Abstract CD release by chief guest Trustee Mr. M. Vivek Alva, President of the function Dr. Kurian, Principal, Alva's College and Conveyer Dr. Rama Bhat P.

**Master of ceremony:** Ms. Manasvi MM

**Prayer song:** - By the Ms. Aiswarya R. Kallur, Ms.Gouthami and Anvith Ullal, First year MSc., Biotechnology students

**Guest Welcome and Brief note on conference:-** By the conveyer Dr. Rama Bhat

**Lamp illumination and Abstract CD release:-** By the guests on the dais.

**Inaugural address:** - Mr. M. Vivek Alva, Managing Trustee

**Presidential Address:-** Dr. Kurian, Principal, Alva's College.

**Vote of thanks:** - Ms. Mriduna MM, Faculty, Dept. of Biotechnology.

**Technical Session:** - Resource Person's presentation and talk

### SESSION -1

**1. Ramya Shanivarsanthe Leelesh, PhD.,** University Of Bedfordshire, Luton, UK  
**“SARS-CoV-2 Genome, Evolution and Vaccine”**

#### **Brief Summary of talk**

- COVID – 19 origin and transmission:
- SARS-CoV, MERS-CoV, 2019-nCoV
- Different variants across the globe: **UK variant** (B.1.1.7), **Brazil variant** (P.1), **South Africa variant** (B.1.351).
- Cause of mutations (D614G) in spike glycoprotein (binds to ACE2), is responsible for transmission.
- **COVID-19 Vaccination**
- Types of coronavirus vaccines- protein based, viral vector, m-RNA based vaccines.
- Various aspects of coronavirus vaccines are discussed based on the type, dosage, storage, company, approval

- Pfizer-BioNtech Vaccination, Adenovirus based Oxford AstraZeneca Vaccine, COVID-19 NOVAVAX Vaccine, MODERNA, JANSSEN, VALNEVA, and Glaxo SmithKline.

## **2. Srinivasa Reddy B, PhD, Sr. Group Leader I, IMT Manager**

Brief summary of talk,

### **“Drug Discovery-Path of a drug from target selection to approval”**

- Discovery, development and approval processes.
- Research, preclinical Phases and programs for approval.
- Identify disease and protein, generating optimization.

## **3. Ashutosh Yende, PhD, Post-Doctoral Scientist, GW Cancer Centre, The George Washington University, Washington DC, USA**

**Brief summary of talk**

### **“Cancer research and the impact of COVID-19”,**

- SARSCOV-2 and Cancer Biology
- Risk of Occurrence of Cancer in COVID-19 patients.
- Mechanism of oncogene activation on COVID infection.

## **Oral Presentations:-**

There are 3 oral presentations on various topics were presented by research scholars, Faculty member and students which includes participants from different colleges and universities. Poster presentations were judged by Dr. Suresh, Assistant Professor of Botany and Dr. Rashmi K, HOD of Applied Zoology, Alva's college

## **SESSION-II**

## **4. Mahesh M. Poojary PhD, Assistant Professor, University of Copenhagen, DENMARK**

### **“Replacing animal-based food proteins with alternative protein sources: current trends and future challenges”**

**Brief summary of talk**

- Food proteins in vegetarian diet and non-vegetarian diet
- 17 goals of sustainable development like climate change, population, poverty, hunger, etc.
- Food v/s protein deficit- alternative protein foods, plant-based foods (sustainable food).
- Antinutrients and phytochemicals in food: Spirulina biscuits (CFTRI), Tissue culture grown meat (Singapore).

### **E-Poster Presentation:**

There are 10 poster presentations on various topics were presented by research scholars, and students which includes participants from different colleges and institutes . Poster presentations were judged by Dr. Sukesh, Assistant Professor of Botany and Dr. Raghavendra Rao B, Associate Professoer of Biotechnology, Alva's college

### **Valedictory ceremony and Prize distribution: -**

The valedictory ceremony chief guest was Dr. Manjunath Kotari and Dr. Rama Bhat. Programme chief guest was Dr. Manjunath Kotari,, Professor & HOD of Computer Science and Engineering, AIET, Mijar, spoke on importance of various development aspect after post covid. And distributed the prizes to oral and poster presentation winners along with Dr.Rama Bhat.P,

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