

Dr. Ambedkar College, Deekshabhoomi, Nagpur.

International Webinar On Expert Directives and Experiences to Develop Global Research Career in Biological Sciences

Monday, 24th August 2020

Organized by The Department of Biochemistry & Biotechnology

Report

The world is facing the global pandemic challenge COVID-19. Most of the countries declared lockdown to restrict its spread. It is first time, when world come together to face this pandemic problem. Due to lockdown, except essential services, all private, government sectors, along with school, colleges and universities were closed. Still exchange and transfer of knowledge, awareness and guidance to students about the education, learning procedure and most importantly about their career during this condition also never stop and should not be stopped. With this aim Department of Biochemistry and Biotechnology, Dr. Ambedkar College, Deekshabhoomi Nagpur , organized one day International Webinar on "Expert Directives and Experiences to Develop Global Research Career in Biological Sciences" on 24/08/2020.

The webinar started with formal Introduction by Dr. Deovrat Begde, Assistant Professor, Department of Biochemistry and Biotechnology. Our Principal Honorable, Dr. Pratibha M. Siriya madam address the gathering about importance of the webinar followed by welcome address by Dr. B. A. Mehere, Head of the Department of Biochemistry and Biotechnology.

First session started with introduction of the guest speaker Ms. Snehal Raut, Doctoral student, Texas Tech University Health Sciences Center at Amarrilo, Texas, USA by Mrs. Shweta Paranjape, Assistant Professor, Department of Biochemistry and Biotechnology. The topic of her presentation was "Assessing the impact of Alzheimer's Disease on the Blood-Brain Barrier using induced pluripotent stem cells". In her talk she mainly focused on Alzheimer's disease and explained how it is a slowly progressing brain disease, which begins many years before symptoms emerge. Her research focused on Assessing the role of Presenilin mutations associated with familial Alzheimer's disease (FAD) on blood-brain barrier functions.

She explained Presenilin mutations that lead to onset of familial form of Alzheimer's disease adversely impact the Blood Brain Barrier. The session ends with question by students and faculties and very well answers by Speaker madam.

The second session was started with the introduction of the speaker **Mr. Sujeet Bhoite**, **Doctoral Student, University of Michigan, Ann Arbor, Michigan, USA.** By Mr. Rohan Thaware, Assistant Professor, Department of Biochemistry and Biotechnology Mr. Sujeet Bhoite started his talk with his journey of perusing PhD from India to USA and motivating students about higher education and career. The Title of his talk was "Following the gut instinct: From PhD to Parkinson's disease". In his presentation he gave brief outline of Parkinson's disease and how the Gut brain axis plays important role in onset of Parkinson's disease. He briefly discussed previously done work on the topic and elaborated on the work going on in his laboratory. He explained his work with alpha synuclein like protein from *E. coli* called Curli. He elaborated his experiments pointing out the possible relation between the aggregations of alpha synuclein in presence of Curli protein. Based on his experiment he proposed the mechanisms with which the CsgA proteins were responsible for the aggregation of alpha synuclein. His study gives important insights in developing therapeutics for Parkinson's disease.

The third session was started with introduction of t the speaker Dr. Ansul Lokdarshi, Post Doctoral Research Associate, Von Arnim, Lab of Biochemistry, & Cellular and Molecular Biology, University of Tennessee, Knoxville, USA, by Miss. Rita Lakkakul, Assistant Professor, Department of Biochemistry and Biotechnology. The Title of his talk was "Regulation of Translation in Response to Reactive Oxygen by the Protein kinase GCN2". He started with very basic question that why plants are important to us. He explained that photosynthetic output is majorly affected from Excess light stress. In his presentation he focused on how plants respond to light stress. GCN2 is the only kinase which is present in plants and takes input from all different kinds of stress and phopshorylates eIF2 alpha resulting in down regulation of global translation to save energy under abiotic stress conditions. In his presentation he very well briefed that excess light is a form of photo-oxidative stress that lowers the photosynthetic output and how loss of GCN2 affect phenotype of plants under Excess Light stress. He elaborated his experiments pointing out how different types of stress is involved in activation of GCN2.He highlighted on the future perspectives of the GCN2 model as how it plays an important role in balancing global translation with its interaction with ribosome and to look if this model apply in crops by regulation of GCN2 expression for increasing resilience of the crops and better plant health. At the end he inspired students to identify a problem and work with a passion towards research that definitely will lead to success by giving examples of his own experience.

The fourth session started with introduction of speaker by **Dr**. **Sunayana Mitra, Post Doctoral Research Fellow, Michigan state university, USA.** by Mr. Pradip Hirapure, Assistant Professor Department of Biochemistry and Biotechnology . Her talk was on topic "Shining a light on Noval Magnetosensing Protein". She explained EPG halo tag protein visualization by epiflueroscence microscopy and the process of characterization of magnetosensing protein and also peptides, particle localization and tracking by MATLAB. She also explained the various application of magnetosensing sensing proteins in various field. Her lecture was very interesting, informative and novel for participants at the end of session speaker madam solved queries of participant.

The last session of International webinar was started introduction the speaker. **Dr. Dipanwita Pal, Post-Doctoral Scientist, Shriners Hospitals for Children , Oregon Area, USA**, by Miss. Swati Chimurkar , Assistant Professor, Department of Biochemistry and Biotechnology. The title of her talk was "Decoding the Molecular regulation of tendon development". She explained her area of research pertaining to muscular skeletal tissue especially tendon. Her journey started from Nagpur to Portland to pursue her dreams .She explained about feeling of pain in writing or doing some work it's just because involvement of tendon. She also discussed with the induction and elongation of tendon growth and the transcription factors which are known so far are Scleraxis, Mohawk, & early growth response(Egr)1/2 out of which Scleraxis plays an indefinite role in tendon development. She also elaborated Scleraxis is only marker that labels early tendon cells that stage throughout development. The session end with questions by audience and answered by speaker madam. The International Webinar ends with formal vote of thanks by Dr. Utpal Dongre, Assistant Professor, Department of Biochemistry and Biotechnology. All session's topics are very novel and also well explained and discussed by all these young and dynamic speakers. Which motivate and inspire students and ignite their mind for higher education and also for their bright future.



University of Michigan, Ann Arbor, Michigan, Texas Tech University, Health Sciences Center USA at Amarillo, Texas, USA

> Registration link: https://forms.gle/igG6xibP2SV9Q4bB7

Feedback form link: https://forms.gle/KsWuAFUJcz7u88Mv8

Youtube link: https://youtu.be/N4DQYQOrSSM

Participant Feedback Summary









Any overall feedback for the event? 250 responses	
Excellent	^
No	
Good	
Nice	
Excellent	
Very good	
Excellent webinar	
Very Informative	
Nice	-

