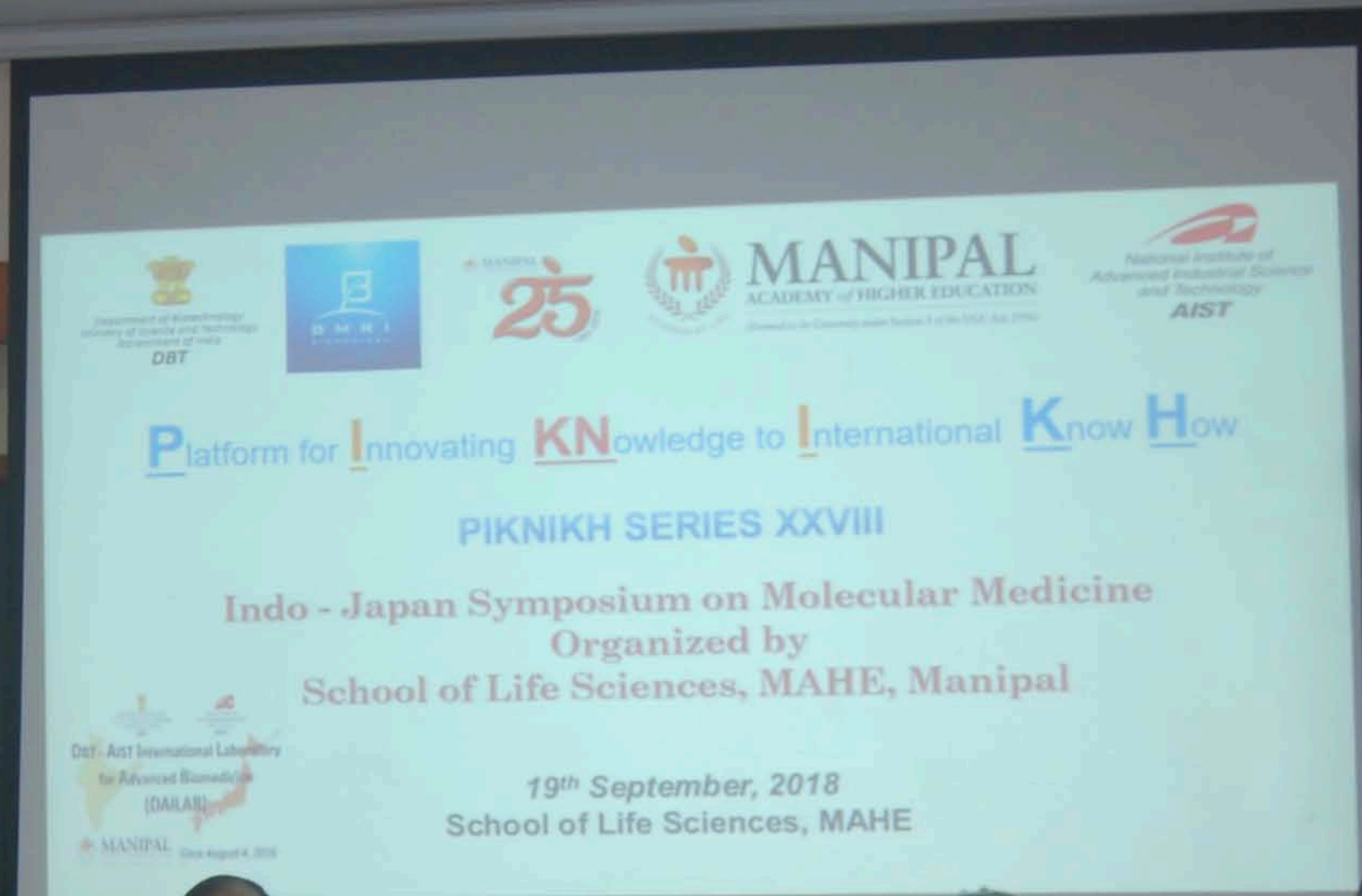


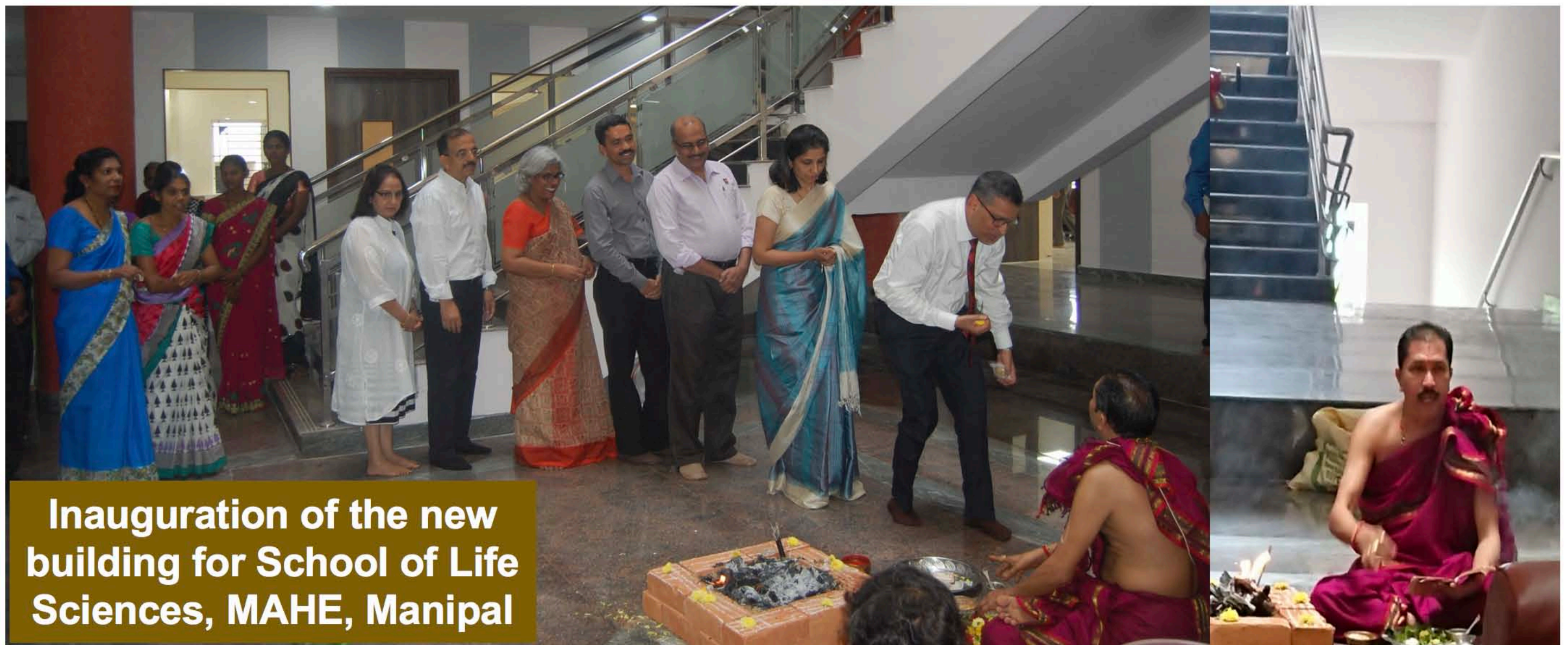
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**DAILAB
PIKNIKH
Series XXVIII@
MAHE, Manipal**



Inaugural Function

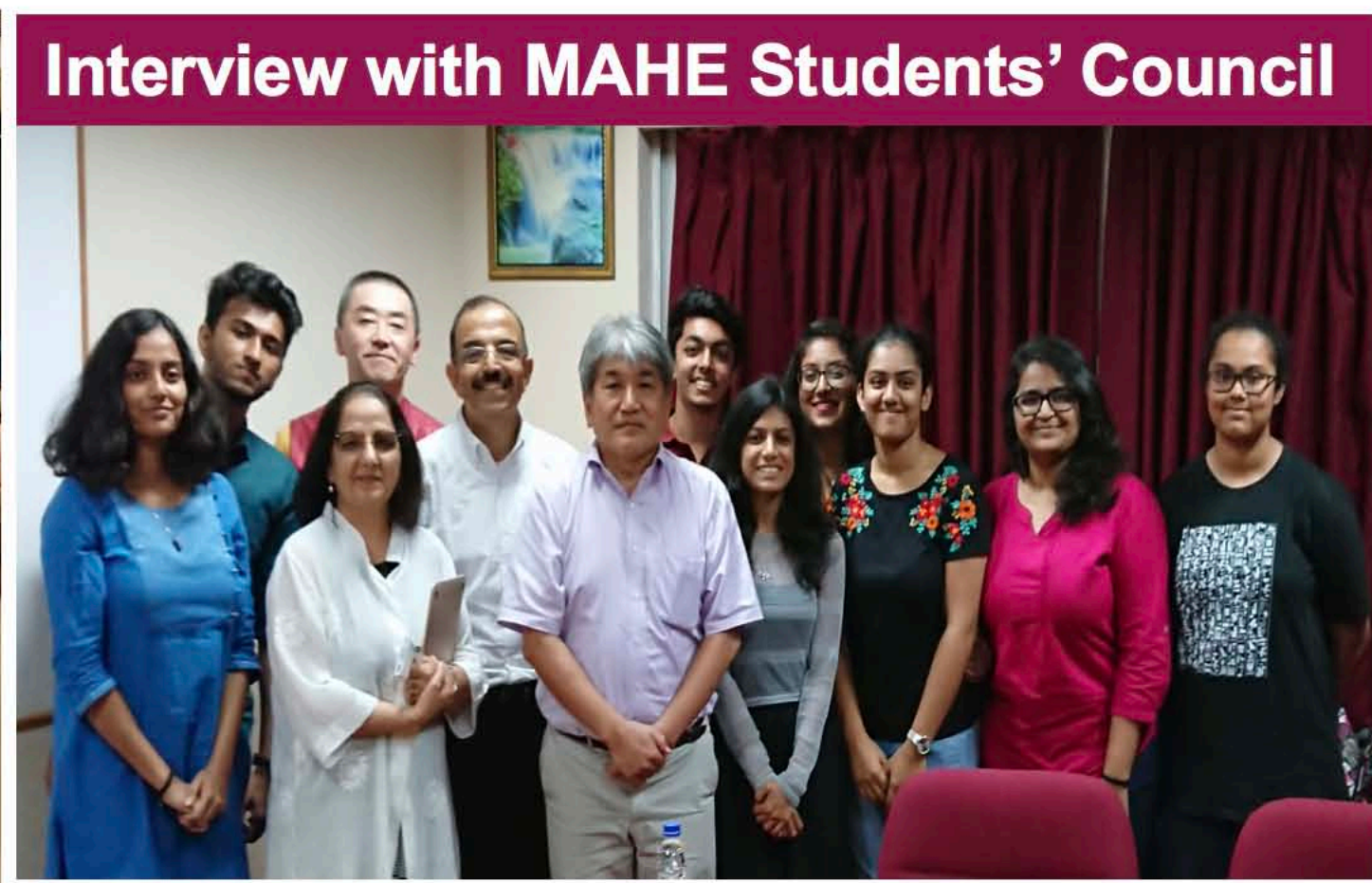




Inauguration of the new building for School of Life Sciences, MAHE, Manipal



Welcome & Reunion



Interview with MAHE Students' Council



Lectures & Interactions





Bioluminescence: Biology to Biotechnology
Lecture and Demonstration by
Dr. Yoshihiro Ohmiya
Director, BMRI, AIST, Tsukuba, Japan

DAILAB - PIKNIKH Series XXVIII@School of Life Sciences (SLS), MAHE, Manipal, India on September 19, 2018

DAILAB PIKNIKH Series XXVIII was organized at the School of Life Sciences (SLS), MAHE, Manipal on September 19, 2018 as a part of the continuing collaborative arrangement between the two institutions aimed at exchange of research knowledge, education and training in the areas of mutual expertise in the area of biomedicine.

The symposium was inaugurated by Dr. Vinod Bhat (Vice-Chancellor, MAHE, Manipal) in the presence of Dr. Yoshihiro Ohmiya (Director, BMRI-AIST, Japan), Dr. Yoshiaki Onishi (Deputy Director, BMRI-AIST, Japan), Dr. Sunil Kaul (Chief Senior Research Scientist, BMRI-AIST, Japan), Dr. Renu Wadhwa (Prime Senior Researcher and Lab Head, AIST, Japan) and Dr. K Satyamoorthy (Director, SLS, MAHE). Dr. Vinod Bhat, in his inaugural address, listed the outcomes in terms of exchange of researchers, students and faculty members that has happened in the past few years of the collaborations between AIST, Japan and SLS, MAHE, Manipal under the DAILAB program. He emphasized on the importance of more such collaborations to facilitate the interaction between researchers and students that will enhance the eminence of MAHE. Speaking on the occasion, Dr. Yoshihiro Ohmiya highlighted the various activities of AIST, Japan and the collaborative research programs on biomedicine with Manipal. Dr. KP Guruprasad welcomed the gathering and Dr. TG Vasudevan delivered the vote of thanks on the occasion.

Scientific lectures by Dr. Yoshihiro Ohmiya, Dr. K Satyamoorthy, Dr. Yoshiaki Onishi, Dr. Sunil Kaul, Dr. Renu Wadhwa, Dr. Padmalatha Rai, Dr. Mohan Kumar, Dr. Shama Prasada K, Dr. Manjunath B. Joshi and Dr. K P Guruprasad included the molecular approaches in modern and traditional medicine.

Dr. Yoshihiro Ohmiya enlightened the topic of Bioluminescence-based imaging: Basics and Application. He elaborated the history of research on fire fly and bioluminescence in Japan and on the different types of bioluminescent insects from all around the world. He also explained about luciferin and luciferase, bioluminescent mechanisms, effect of pH on bioluminescence, natural and synthetic bioluminescence and their applications in biological research especially on imaging. He also demonstrated experimentally the bioluminescence using both natural and synthetic samples. Dr. Sunil Kaul discussed on the therapeutic potential of Ashwagandha (*Withania somnifera*) extracts. He explained the anti-cancer activity of withanone and withaferin in the *in vivo* nude mouse and *in vitro* models. He also mentioned the role of extracts on increasing neuromuscular activity in Parkinson's model of *Drosophila*. Dr. Yoshiaki Onishi explained about the circadian rhythm. He provided an insight on how sunlight regulates circadian rhythm and explained the role of genes involved in circadian rhythm like *PET1*, *clock*, and *BMAL1*. He also mentioned that the extracts of plants including Ashwagandha affects circadian rhythm. Dr. Renu Wadhwa discussed on role of mortalin as a stress chaperone. She explained that, mortalin belongs to Hsp70 protein family and was found overexpressed in cancers. It is a multifunctional protein that regulates proliferation, apoptosis, mitochondrial functions and interacts with p53. She also mentioned that mortalin may be used as a candidate target/marker for cancer therapy.

EXTRACT

Dr. K Satyamoorthy presented a data on deregulation of miRNAs linked to cancer development and progression. Understanding the regulation and biological functions of miRNAs and how their crosstalk help in knowing the fundamental mechanism and clinical relevance of miRNAs in the etiology of cancer. Dr. Padmalatha Rai presented her work on the genetic determinants of Type 2 diabetes along with disease predisposition which affect individual's response to drugs. Dr. Manjunath B Joshi presented data pertaining to neutrophil extracellular traps (NETs). He described how metabolic reprogramming in neutrophils under diabetic conditions results in impaired neutrophil function and reduced formation of NETs. Dr. Mohan Kumar gave elaborate insight on mesenchymal stem cells, their plasticity and ability to differentiate into different lineages. Dr. Shama Prasada, explained the role of Double C2 Like domain beta as a tumor growth regulator in cervical cancer. Dr. K P Guruprasad presented his data on role of *Centella asiatica* water extracts on cognition, neuromuscular activity, longevity, autophagy and DNA repair in *Drosophila* wild type and Alzheimer's models.

A total of 84 participants comprising researchers, faculty members and students of various institutions of MAHE, Kuvempu University and Nitte University attended the symposium. Researchers also presented their work as poster presentations during the being part of the prayers for the opening ceremony of new building of SLS.