

<b>SL NO.</b>	<b>5</b>
<b>TITLE OF THE SEMINAR</b>	<b>ROSALIND FRANKLIN SEMINAR SERIES on “Cell Mediated Immunity (CMI) and Immune Regulation in Health and Diseases”</b>
<b>DATE &amp; TIME</b>	11 AM to 12:30 PM; Date: 17.03.2022 (Thursday)
<b>DETAILS OF EXPERT SPEAKERS</b>	<b>Dr. Subhasis Chattopadhyay</b> , School of Biological Sciences, NISER, Bhubaneswar.
<b>NO. OF PARTICIPANTS</b>	76
<b>MEETING VENUE</b>	Smart classroom, Academic Block-2
<b>BRIEF REPORT ON THE WEBINAR</b>	<p>Dr. Chattopadhyay spoke about the evolution of the immune system in organisms to respond efficiently to infections. He gave an outline of immunology, the basic difference between innate immunity and adaptive immunity and the four main criteria in adaptive immunity such as antigenic specificity, diversity, immunologic memory and self/non-self-recognition. Cell-mediated immunity is an immune response that does not involve antibodies. Rather, cell-mediated immunity is the activation of phagocytes, antigen-specific cytotoxic T-lymphocytes, and the release of various cytokines in response to an antigen. Tregs are specialized cells responsible for the maintenance of peripheral tolerance through their immune modulatory capabilities. Dr. Chattopadhyay discussed about the research findings in the field of host cell responses and cellular immunology with special interest of immunoregulatory responses, cellular function and phenotypes associated to cell mediated immunity (CMI) of T cells and accessory antigen presenting cells. He also discussed about the expression and function of Toll like receptors (TLR) and Transient Receptor Potential (TRP) channels in CMI, cellular and immunological responses of host cells during Chikungunya virus (CHIKV) infection. Dr. Chattopadhyay and his team investigated the endogenous functional expression of TLR4 in naive mice T cells during TCR and mitogenic stimulation in presence of VIPER peptide (VP), an established inhibitor of TLR4 signalling. It was found that TLR4 expression goes down during TCR and mitogenic activation and VP treatment restores TLR4 expression on those activated T cells. Dr. Chattopadhyay discussed about the evaluation of immuno-regulatory cells which may differentially work towards inflammation and immunosuppression, help to unravel the cellular pathways, strategies associated with host cell responses for an ongoing infection, cancer progression, inflammation-immunity and immuno-regulatory responses associated with disease biology and cellular responses. Dr. Chattopadhyay and our faculties discussed about investigations which might be helpful towards designing new immunotherapeutic proposals to control various diseases.</p>



**Dr. Subhasis Chattopadhyay, School of Biological Sciences, NISER, Bhubaneswar speaking at Rama Devi Women's University on 17.03.2022**