



# Global Initiative of Academics Networks (GIAN)

## “One week course”

on

## “An Insight into Human Infectious Diseases”



**Overview**

Infectious diseases are caused by pathogenic prokaryotes and eukaryotes, microorganism such as fungi, viruses, bacteria and single celled or multicellular parasites. The diseases can be spread directly or indirectly between individuals. Aminoacyl tRNA synthetases (AARS) are an acknowledged molecular target for anti-infective drug discovery. However, the evolutionarily novel secondary functions for this family of enzymes makes the number of strategies much greater and thus increases the variety of useful strategies to discover agonists or antagonists of AARS primary or secondary functions. This class will introduce students to the various approaches labs around the world have taken to discover therapeutic AARS inhibitors. The course would expose participants to the fundamental diversity of drug discovery targets related to tRNA synthetases (AARS) – prokaryotic versus eukaryotic and build confidence and capability amongst the participants in the application of AARS structure and function to drug discovery. It would also provide exposure to practical problems through case studies and projects on the development of new AARS inhibitors as anti-infectives and immunomodulators. Enhancing the capability of the participants to consider the multifunctional biological activities of synthetases for complementary drug discovery strategies. There will also be a practical computer session on database mining of new AARS targets to treat human parasitic diseases. Course participants will learn these topics through lectures practical sessions and tutorials. Also assignments will be shared to stimulate research motivation of participants.

<b>Dates</b>	<b>Centre for Biotechnology: From February 6<sup>th</sup> to February 10<sup>th</sup> 2017</b> <b>Number of participants for the course will be limited to fifty.</b>
<b>You Should Attend If...</b>	You are a student (PhD,M.tech & MBBS) Faculty, Research scholar, research scientist from Academia/ industry interested in Infectious diseases, Drug discovery, hierarchy of enzyme structure and role of inhibitors as anti-infectives and immune modulators. If you are interested in Biochemistry, Molecular Biology, Medical Sciences, Immunology, Genetics, Special Biology or any other Life Sciences.
<b>Number of Credits</b>	One
<b>Fees</b>	The participation fees for taking the course is as follows: <b>Students: Rs. 2000/-</b> <b>Research Scholars: Rs. 4000/-</b> <b>Faculty and Scientists: Rs. 7500/-</b> <b>Industry/Research Organizations: Rs. 10,000/-</b> <b>Mode of payment of fee: Demand draft in favour of "The Director CTDT, Anna University" payable at Chennai.</b> The above fee include all instructional materials, computer use for tutorials and assignments, laboratory equipment usage charges. The participants will be provided with accommodation on payment basis.

## Foreign Faculty



**Dr. Michael Kron, MD, MSc, FACP** is a Professor of Medicine in the Infectious Disease division and a member of the Biotechnology and Bioengineering Center at the Medical college of Wisconsin, USA. His professional interests are in clinical tropical medicine, infectious diseases, and research into the structure and function of parasite enzymes. His work is focused on understanding the role of AARS in immunopathological mechanisms in parasitic diseases and new strategies to discover anti-parasite drugs. In 2013, Dr. Kron was selected as a Jefferson Science Fellow by the US National Academy of Sciences. He is the first MCW faculty member to have been awarded the prestigious Jefferson Fellowship and is only the third physician to be recognized by this honor in the history of the Jefferson program

## Course Coordinator



**Dr. C.D. Anuradha M.Phil., PhD.,** is HOD & Director, Centre for Biotechnology, Anna University. She obtained her M.Phil and Ph.D. degree in Biochemistry. She has 25 years of research experience in the field of Stem cell Technology, Cancer Therapeutics and Cardiovascular therapy in Germany, Japan and USA. She has more than 40 research articles in International peer reviewed Journals like JBC, PLOS and American Journal of Physiology and has several ongoing research projects .She collaborates with various labs in the UK and USA and has a great passion for research in cell signaling mechanisms.

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**Course offered by Medical College of Wisconsin,USA. Organized by Centre for Biotechnology, Anna University, India.**