

# **IATP PRESIDENTIAL ORATION 2010**

## **RESEARCH IN MEDICAL PARASITOLOGY IN INDIA: PAST, PRESENT AND FUTURE**

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Since the late 1800s when Sir Ronald Ross was involved in finding out the route of transmission of malaria, many parasitic diseases have seen extensive research in our country. Over the period there has been a radical change in the approach to diagnosis of parasitic diseases as would be expected. The earlier methods of parasitic diagnosis by microscopy and culture have been made better by the use of non-traditional stains like LPCB and KOH. These direct methods are now supported by a plethora of serological tests ranging from simple tests like Co-agglutination, latex agglutination, indirect hemagglutination, etc to more advanced tests like ELISA and EITB, especially in the diagnosis of amoebiasis, cystic echinococcosis and neurocysticercosis. Many of these innovations are 'home grown' solutions to our own indigenous problems. There are at present a few centers which offer in-house immunoassays for the diagnosis of many of the parasitic diseases which are endemic in India including, leishmaniasis, neurocysticercosis and cystic echinococcosis. These immunoassays range from simple tests like Co-agglutination, which can be adapted for use in even resource poor settings, to the more advanced tests like EITB. The revolution in medical diagnostics due to the advent of molecular techniques has also left its imprint in the field of research in medical parasitology in India. There are already instances where such tools are being used for routine diagnosis and even epidemiological purposes especially in situations like amoebiasis where the older techniques are now deemed not specific enough to define pathogenicity of the organism seen on microscopy. With increased attention to the field of research in parasitic diseases more funds are now available along with a group of scientists with the will to utilize them. There is a need for translational research to pass on the benefits of the research to common people for improved diagnosis and better managements of parasitic diseases.