

conclusion
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The major finding of the work presented in this thesis is identification of truly endemic normal individuals in *W.bancrofti* endemic area where parasite transmission has been reported to be taking place at a high intensity. If any individual living in such an area remains infection free he/she must be mounting protective immune response against *W.bancrofti* parasite. Therefore, it became necessary to develop methods using which we can identify such individuals. The present study has attempted to do so by observing for about three years a group of individuals who do not have any clinical symptoms of filariasis, no circulating *W.bancrofti* parasite antigens and much lower titres of parasite antigen-specific IgG4 antibody in comparison to what is found in the blood of asymptomatic microfilaremic individuals. We have used SDS-PAGE separated crude fractions of soluble antigens of *Setaria digitata* adult for initial study purpose as the parasite was available in large quantity from infected cattle. We confirmed our observations by using excretory-secretory antigens from *W.bancrofti* microfilariae. To the best of our knowledge no one has observed their study population longitudinally for three years and has attempted to identify truly endemic normals by noting their clinical status, presence of circulating parasite, measuring circulating parasite antigens in the blood and determining parasite antigen specific IgG4 levels. By using the low molecular. wt. antigen fraction, fraction-6, (20- to 14-kDa) of *S.digitata* adult as well as the excretory-secretory antigens of microfilaria we have been able to define the cytokine profile of truly endemic normals which is different from that of asymptomatic microfilaremic individuals. The lymphocytes from the truly endemic normals when stimulated with fraction-6 of *S.digitata* adult or excretory secretory antigens from *W.bancrofti* microfilariae showed preferential IL-2 and IFN- γ (Th1 type) responses whereas the lymphocytes from the asymptomatic microfilaremic individuals showed

preferential IL-4, IL-5 and IL-10 (Th2 type) responses. Using this information one can now identify truly endemic normal individuals and study the nature of protective response they mount against *W.bancrofti* parasite antigens..