

INTRODUCTORY COURSE IN IMMUNOLOGY REPORT

Date of event:	14 th -19 th July ,2012	Reporters name and contact details:	Dr. Caroline Amolo Ogwang Research Medical Officer KEMRI Wellcome Trust Research Programme Tel: (+254) 417 522 535/522 063/525 043 Email: cogwang@kemri-wellcome.org Recipient of the AAI-IUIS Summer Course Grant
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Name of Event	AAI Introductory Course in Immunology
Venue	University of Pennsylvania
Nº of participants	183

- **Objectives of attending the course**

I am a research medical officer at our Clinical Trials Facility and part of my work involves safety and reactogenicity assessment of vaccines under trial. I also have an interest in infectious disease and vaccinology. I am currently an investigator in a phase IIb malaria vaccine trial that uses a heterologous prime boost vaccination approach with two viral – vectored candidate malaria vaccines. Understanding how vaccines work, the factors that predispose one to infection as well as how various pathogens interact with our bodies to cause illness is important in my line of work.

- **Impressions of the course**

The course was well laid out, simplified for our understanding and the coloured pictorials brought to life the various immunological concepts. The lecturers were audible and eloquent and were always ready to answer our questions. I liked the fact that the course started off with the basics of immunology (introduction to the immune system and cells, innate and adaptive immunity) then progressed to new/advanced knowledge. This enabled us to have a foundation before some new concepts were introduced. What mesmerized me in part one of the course was NETosis by neutrophils and learning just how important the dendritic cells are as a bridge between the innate

and adaptive immune system. It had never occurred to me that dendritic cells were very important for B and T cell function. The lecturers were also able to give us the latest updates in the field of immunology.

The topics of Type 2 immunity and Parasite infection, Immunity to Bacterial Pathogens, Immunity to Viruses and Vaccination were some of the most useful ones to my current line of work. Learning how various pathogens interact with our bodies to cause disease and how vaccines can be used to prevent these organisms from causing illness was very enlightening. One thing that I was left yearning for to become more available in developing countries like mine are the immunomodulants; if only they could be affordable they would greatly improve the management of autoimmune diseases and neoplasms. I also enjoyed the lecture on the history of vaccines; learning how important a tool a vaccine could be in disease eradication as well as the fathers and mothers of vaccinology was very interesting.

- **Benefits of this exposure to my career**

I can now with confidence explain to anyone how various vaccines interact with the body to prevent disease, the innate and adaptive immune system, the different types of vaccines, factors that predispose one to illness by various pathogens and the mechanism by which various pathogens evade the immune system amongst other things. This is important when training the staff that I oversee on how the vaccines we use/ under trial work as well, in the sensitization of potential clinical trial participants and when I make presentations on our vaccine trials in scientific meetings . I also built on some earlier immunological concepts that weren't clear to me e.g. autoimmunity and solid organ transplantation and learnt totally new things like genetic approaches to immune – mediated disease.

Interacting with other course attendees and the lecturers made me become aware of the various advances in the field of clinical trials. The group was quite cosmopolitan and very friendly. It was also nice to get to know other people's backgrounds, similar and different things in our work environments as well as make new friends. It was also an honour to meet some lecturers whose published work I greatly admire.

- **Conclusions**

This course was an eye opener and was very informative to me and I'd highly recommend it to anyone in the medical field, vaccine trialists as well as lab scientists /immunologists. I hope to attend the advanced immunology course some day so as to continue building my immunology knowledge which I need to apply in my day to day life as a clinician and vaccine trialist. I am grateful to IUIS and AAI for having given me the opportunity to attend this course.



IUIS sponsored participants at the 2012 AAI Introductory Course in Immunology in Philadelphia with Michele Hogan (second from left), AAI Executive Director. First on the right is Caroline Amolo Ogwang, sponsored by the IUIS Gender Equality and Career Development Committee. The other two participants are Armen Sanosyan and Fatoumatta Darboe, sponsored by the IUIS Education Committee.