10TH SPRING SCHOOL ON IMMUNOLOGY, March 9-14, 2014
Ettal, Bavaria, Germany
Organizers: German Society for Immunology (DGfI)

In the intimate setting of an old cloister, 60 doctoral students and 25 lecturers, experts in their field, come together to discuss the latest developments in Immunology. This School is part of the DGfI’s Academy for Immunology and offers advanced training for students who already have good knowledge of Immunology. The School thus primarily addresses doctoral students in the later stages of their PhD training.

The School is based on plenary lectures reviewing the themes of the School while also offering ample time for discussions. Because of the active participation in the sessions and the intense exchange, the students have excellent opportunities for networking early on in their career.

This year, IUIS and DGfI were able to co-sponsor 4 students to attend this course.

Tania Lahera Sanchez, PhD student, Department of Basic Research and Immunology, National Institute of Oncology and Radiobiology, Havana, Cuba

“I had a wonderful experience at the 10th Spring School in Ettal. This meeting provided an ideal setting to discuss the latest advances in Immunology. The scientific program included diverse topics, which let me to learn new knowledge from basic to pathological immunology. It was really great, the tight interaction between renowned immunologists and students, especially in the Question & Answer sessions. Also I had the excellent opportunity to share my work and know other researchers in different fields of immunology. Now, I can apply the new knowledge in my research field.

The organization of the course was excellent and the organizers made an effort so that we had a great time in Ettal. I really enjoyed every day and I got a chance to know another place, nature and people. I feel grateful for receiving one DGfI/IUIS grant. Thanks for this great opportunity and I would like other colleagues can participate in the course.”

Dr Kristian Leisegang, Department of Medical Bioscience, University of the Western Cape, Lynedoch, South Africa

“General purpose and programme of the course:

The German Society for Immunology (DGfI) actively promotes immunology in medicine and the natural sciences through various activities, including research meetings, focus groups, international networking, education for young immunologists in clinical practice, and basic science and travel grants. The Spring School of Immunology is one of the state of the art immunological training programmes that are at the core of this Academy of Immunology. The purpose is to present leading experts in the field on various sub-disciplines to a limited number of young immunologists, have them disseminate their work, and create a space for focused discussion groups and interactions with these leading scientists.

The core aim is to broaden the knowledge of young PhD and post-doctoral students in
immunology, study advanced concepts in the field, and closely interact with the experts in a manner not possible at a traditional conference. The focus is on the student interaction and learning with peers and experts, discussions recent breakthroughs and future directions for the field. This presents opportunities for networking, collaboration building and advanced concept understanding. Details can be obtained at

http://web.dgfi.org/spring-school/

Specific objectives of the course via dedicated sessions and workgroups included:

• Innate Immunity, • Adaptive Immunity • Cutting Edge: Basics & Perspectives,
• Tumour/Allergy/Autoimmunity, • Infection/Vaccination • Career Planning/Publishing

**Highlights:**

The key highlight was the opportunity to be engaged with leading scientists in small working groups of 8 – 12 young scientists, where we had the opportunity to discuss various aspects related to the particular sub-discipline. This was a rare and highly valuable learning space that broadened the scope of the particular research focus of each of the experts, generated future directions and ideas, and allowed the opportunity to discuss potential overlaps with the work of the students. From my perspective, this allowed me to discuss my research focus in other key immunological ‘sub-disciplines’ and related fields with experts I otherwise would not have the opportunity or privilege to engage with. This led to the generation of numerous potential future directions from for my research focus, as well as the opportunity for collaborations and possibly short stay visits and work in other laboratories.

The organisation of the School allowed different focus topics on each day. When this was not a well known area of immunology (for myself, an example would be adaptive immunology), this provided key insight into better knowledge in these areas with excellent presentations that generally had both an overview component, and a detailed component on specific research. This provided advanced and broad training in immunological understanding and science, as well as potential and actual clinical translation of the basic research.

Apart from the research benefits, this opportunity will have a deep impact on my teaching roles at the university. As I am involved in clinical science teaching, including basic and system pathology of which immunology is a core topic, I have gained much up-to-date and relevant understanding in modern immunology. This has a benefit on my understanding of the field in a broad sense, as well as better comprehension in key areas that will translate into benefit in my teaching and for students whom I interact with.

**My own contribution was a poster on:** Inflammatory cytokines as a novel mediator between metabolic syndrome, reproductive dysfunction and impaired steroidogenesis in males.

**Recommendations:**

The School was intensive, with detailed and complex presentations that sometimes were well outside my scope. However, that is a key benefit of an event of this nature. The evenings on poster nights were also long. However, this was offset by the social environment provided by the interesting discussions, and freely available beer, wine and cheese offerings, made by the local monks. I would not suggest any changes to the format.

In terms of speakers, I found them all engaging and interesting. Some aspects were very difficult to follow when well beyond my degree of expertise in some sub-disciplines, but valuable none-the-less. Some topics and speakers I found too broad or too narrow in scope, and this was all submitted in my evaluation sheet required by the organizers. However, those opinions are bias by my knowledge and preferences more than an objective scientific opinion. There was no topic, presentation or scientist I did not learn something valuable from for research and/or teaching. Therefore, a well organized and executed model, which should be replicated in many fields of medical science and in many leading scientific countries.

**Are The Conference Papers And Proceedings Available?**

I have an abstract book with the proceedings. No electronic or online copy available
unfortunately. Further information is available on request. I will make my electronic note taking available to my peers, and discuss as required by colleagues, peers and supervisors.

For me information or resources, email me at kleisegang@uwc.ac.za “

**Ivana Nikolic, PhD student, Institute for Biological Research Sinisa Stankovic, University of Belgrade, Belgrade, Serbia**

“Now, that the 10th Spring School on Immunology has ended, I can consider myself honored to have been selected as one of the participants, due to winning the IUIS stipend. The Program of the School covered all the interesting and hot topics in various fields of immunology, starting from new topics in the field of innate immunology, adapted immunology, autoimmunity, and tumor and vaccine immunity. Having an opportunity to listen to many well-known experts in immunology was truly a pleasure. Because all the lectures were held in the morning session, it was easy to follow them. Also, the Questions & Answers sessions in the afternoon, where Professors gladly share their vast experience, was an excellent idea. Being in small groups and a relaxed atmosphere, we were able to ask Professors all kinds of questions, the ones related to their lectures as well as the ones concerning their work and career.

On the other hand, this School was a great opportunity for me to meet young scientists but also excellent and renowned immunologists and to widen my scientific network, which will be more than helpful for my future scientific work. In addition, the lectures from the first attendees of the School were a hit and broadened my horizons about research in academia and industry. Likewise, the lecture about writing a scientific paper highlighted tips important for a good scientific manuscript, which is of great significance for all of us that are at the beginning of the scientific career. In the end, I must say that I have already recommended the School to my colleagues at work and that I would definitely attend this School again, if given a chance.”

**Evgeny Shilov, PhD student, Moscow State University, Moscow, Russia, at the course in Ettal.**
FOCIS 2014 – ADVANCED COURSE IN BASIC & CLINICAL IMMUNOLOGY,
February 23-27, Fire Sky Resort & Spa, Scottsdale, Arizona, USA

Three students were co-sponsored by FOCIS and IUIS to attend this course.

Dr Carolina Virginia Gorlino, Post-doctoral fellow, Laboratory of Immunopathology, IMIBIO-CONICET, National University of San Luis (UNSL), San Luis, Argentina, was funded by the Gender, Equality and Career Development Committee and her report appear on their website.

Dr Anietie Moses, PhD, University of Uyo, Nigeria

Firstly, it is my pleasure to thank IUIS and FOCIS for my sponsorship to attend this course. It was a rare opportunity given me to learn and update my knowledge of Basic and Clinical Immunology from renowned scholars in the ever so dynamic field of Immunology. Right from my hotel room to the meeting venue, a unique and conducive environment was provided for learning and relaxation. The ambient atmosphere that facilitated learning, interactions and discussions in the whole 3-day event remains memorable, as did all of those who attended the course.

Events/Lectures

After a brief introduction by Shiv Pillai, Jonathan Maltzman and Abul Abbas on day 1, topics assigned to each of the lecturers in the faculty were taken successively. Areas covered on Day 1 included: innate immune recognition and mobilization of immune cells to sites of injury or infection; how antigens from infected and cancerous cells are recognized, captured, processed and presented by dendritic cells to CD4 and CD8 T cells in consonance with some chemokines and cytokines; the mechanism of inflammatory immune response to tissue injury and infections as well as tissue repairs; the role of B cells in response to infection and the interaction between T-and B-lymphocytes in human disease; the activities of costimulators and inhibitors during T cell activation/response.

On Day 2, several lecturers spoke on various aspects of immunology. Topics presented included the activities of three major subsets of helper T lymphocytes (Th1, Th2, Th17) in response to diseases and functionality of CD8 cells in response to viral and tumors; T cell tolerance at central and peripheral lymphoid tissues, and role of T-reg in controlling immune responses; mechanisms of activation of autoimmunity in humans, the understanding that has led to some therapeutic interventions in cases of autoimmune disorders; mechanisms of tumor immunity and challenges thereof.

Day 3 lectures were also given by erudite scholars that spoke to various topics that addressed mucosal immunity and health implications with respect to inflammatory bowel disease; activities of natural killer cells in response to certain viral infections and cancerous cells, particularly, the recent discovery that immune memory can actually be exerted by innate and adaptive immunity, contrary to earlier understanding; primary immune deficiencies and disease manifestations as they affects races and consequences of some environmental factors, etc; mechanisms of direct and indirect alloimmune responses, advances in immunotherapeutics used in solid organ transplantation; advances in biotherapeutics e.g the use of recombinant monoclonal antibodies, and challenges in human immunology.

Benefits of the course

As a University lecturer and scientist in the medical school, my participation in the course has afforded me the opportunity to update my knowledge of basic and clinical immunology. For instance, until I attended this course, I used to understand the subsets of T helper cell to be ‘Th1 and Th2’ only and that ‘NK cell has no immune memory’. The course has no doubt exposed me to current advances in human immunology, and the rudiments and approaches to immunological research in trying to answer some immunological research questions.

In the medical school where I teach and carry out research, we lack current textbooks in medical microbiology and basic/clinical immunology as well as modern facilities for meaningful research work.
My attending this advanced course has revealed the bad situation we faced in my university with respect to dependency on older textbooks and sometimes use insensitive laboratory techniques/equipment, and the need to interact more with erudite international scholars and peer researchers in the field of immunology.

I therefore hope to utilize the knowledge gained from this course to improve upon my teaching skills, update my clinical and postgraduate student’s lecture notes, as well as share with my colleagues especially on recent findings in the mechanisms of innate and adaptive immunity, cellular interactions, etc. and will urge them to spread the message of update in immunology to others.

I look forward to having many more opportunities for interaction and participation wherever and however this might happen, particularly, having hands-on experience in any advanced research laboratory. Once again thank you for giving me this rare opportunity to attend this course. I remain grateful.

Dr Neda Barjesteh, DVM, PhD student
Department of Pathobiology, Ontario Veterinary College,
University of Guelph Guelph, Canada

This course was designed to cover all aspects of immunology in a short period of time. It started from basic topics in immunology such as basic understanding in immunology and importance of each compartment of this system in healthy or pathologic conditions. Then it moved to clinical aspects such as the treatment of autoimmune diseases or cancers, which I felt helped participants move forward in their fields. Instructors did a great job. Especially, I could review the slides after their presentations and ask my questions the day after. Participants would not be left unanswered for any questions that they asked during session. In addition, I had a great opportunity to meet pioneer immunologists and discuss about my questions.

The 4-day course has been a great time! I feel that I came back home with a good review on cutting-edge topics in Immunology. This course helped me to connect basic and clinical immunology. I would say that this course is good for anyone who needs foundation knowledge and wants to learn a lot about immunology in a short period of time, especially in my case just before my comprehensive exam. In addition to the educational aspect, the course was well organized at an excellent resort with delicious lunches and dinners. I would like to thank IUIS, FOCIS and the course coordinators for this great opportunity that they provided.
Carolina Virginia Gorlino, Anietie Moses, Neda Barjesteh
First National School of Cytometry, Faculty of Medicine and Pharmacy (FMPM), Marrakech, Morocco, 9-13 December 2013.

Organizers: Pr Brahim Admou (Immunology, FMPM), Pr Jamal Hafid, President Moroccan Society of Immunology (SMI), and Dr Claude Lambert President of European Society of Clinical Cell Analysis (ESCCA).

The school organization was possible thanks to the partnership of University Cadi Ayyad of Marrakech, Faculty of medicine and Pharmacy of Marrakech, Faculty of Sciences Sémia of Marrakech, Institut National d’Hygiène (INH) of Rabat, Centre National de Recherche Scientifique et Technique (CNRST), Agence Universitaire de Francophonie, International Union of Immunological Society (UIIS), Association Française de Cytométrie (AFC) International Society for Advancement of Cytometry (ISAC) and the sponsorship of BD Biosciences, Beckman Coulter, Masterlab, Cliniscience and Exbio.

The school announcement was well received and 48 registrants were selected from more than 100 applicants by the pedagogic committee, based on Immunology and Cytometry backgrounds and motivation. Attendees were from diverse origin including sciences, medical biology and pharmacy. Among them, 20 benefited from a grant of the UIIS, SMI and CNRST that included the registration fees. The UIIS grants were attributed to two students from Morocco (Tabyaoui Imane and Zouine Soukaina), and one student from each of following countries: Algeria (Zerka Yasmine), Lebanon (Kamaleddine Ahmed), Mauritania (Mint Lekweiry Khadijetou), Mali (Keita Abdelaye) and Tunisia (Bouallagui Younes). SMI and CNRST provided 11 grants for student from Morocco.

The school included lecturers, practical exercises on computer based list mode data, and on instrument in the laboratory. The courses were from 8:30 am till 7:00 pm. The program was based on the ESCCA recommendations including basic knowledge of flow cytometry principles, sample preparation, conjugates, protocol setting, instrument settings, compensation, data analysis, quality assurance and result interpretation. The courses addressed the fields of cell biology including cell cycle, viability, toxicology, immune-allergy, hematology, microbiology, and food science applications. Teachers were experienced cytometrists in fields of medical biology, research, or industry, members of SMI, SFI, ESCCA, AFC and INH and coming from Morocco and France.

Overall, the students and teachers were very happy and enthusiastic with the course. Many discussions were prolonged during the lunch or in the evening at the hotel. At the end of the school an anonymous questionnaire was distributed to the participants for evaluation. The main conclusion is the demand for an advanced course in immunology and hematology and having more practical exercises. Due to the full success of the first school, and the large number of candidates, SMI and ESCCA have decided to continue the project and organize a second school of cytometry next year. INH in Rabat will host the course. There is also a project of formal inter-university diploma on cytometry, which has been deeply discussed during the school and should be prepared for a near future.

The school of Cytometry was immediately followed by the first Moroccan Scientific meeting on cytometry held in the Faculty of Medicine and Pharmacy in Marrakech on 13-14th of December. Eighty registered delegates including almost all students who attended the school followed the conferences and short communications or posters on different fields of cytometry. The program included: Diagnosis of drug allergy, primaryimmunodeficiencies, monitoring HIV, tuberculosis, immunopathology of Behçet disease, hematology, microbiology, environment, toxicology, through 11 invited speakers and 15 young scientists coming from Morocco, France, Algeria and Tunisia.
The practical work on instrument

On computer exercise
“Cette formation était vraiment complète, les bases de la cytométrie ont été bien détaillées, reprises à plusieurs reprises par les différents experts français et marocains, les conférences étaient interactives, les travaux pratiques ont permis de bien fixer les différents principes. Les applications étaient variées et très enrichissantes.

Personnellement, j’ai trouvé mon compte au cours de cette semaine, mes lacunes concernant surtout les principes généraux et les réglages en cytométrie en flux ont pu être comblées, ceci va me permettre de mieux travailler dans le futur en respectant les bonnes pratiques de cytométrie et à avoir des résultats plus fiables.”

Ahmad Kamaleddine, Beirut, Lebanon

“As a participant to the first scientific flow cytometry sessions, I was glad to be there and I can say that the training sessions were excellent because they covered most of the flow cytometry topics. Now I have understood very well all flow cytometry basic principles (preanalytical methods; specimen collection and conservation, different types of light sources, forward and side scatter, absorption and emission wavelength, filter systems, light detectors) and I know the most common application of flow cytometry, including clinical diagnosis.

At the end of theses sessions I am able to: -select the correct light source, fluorochromes and antibodies compatible with each protocol; -perform multicolor staining experiments with adequate compensation; -elaborate and apply gating strategies for data analysis; -avoid the common mistakes in result interpretation (debris, dead cells, artifacts...)”.

Imane TABYAOUI, Casablanca, Morocco

“These courses were designed for clinicians, scientists, students and all researchers who have already carried out or would like to perform the flow cytometry. The training objectives were:
-toto familiarize participants with the technique of flow cytometry through the acquisition of various theoretical and practical concepts. -to define the principles, basic concepts, limitations, utility and application areas of the flow cytometry; -to teach participants how to apply this practice to various medical and scientific fields. These courses gave me the opportunity to: -improve and deepen my knowledge on the flow cytometry; -understand the prodigious usefulness of this practice; -to meet leading scientific experts. I acknowledge: -all the people who organized this scientific meeting ; -all managers who ensured the success of this event; - IUIS and MSI who granted me a training fellowship allowing me to take these courses.”
Interest of the course for the region and speakers:

This spring school, first of its kind in the Córdoba region, was intended to bring top-level investigators in Immunology closer to young PhD students from the region. Although there are different aspects of immunology research (such as infection and cancer) that have reached a certain level of local development, crucial issues of fundamental immunology are not currently investigated.

The type of fundamental questions addressed by these renowned immunologists as well as the technology and design of their experiments to answer these questions has a direct influence on the formation of our human resources. The selection of speakers of the course was based on the impact that their findings have had on the current knowledge of fundamental immunology, findings that have established new avenues in the way immunology is understood.

Invited speakers included: -Dr Sebastian Amigorena from Paris, France, on Regulation of phagosomal functions and cross-presentation during dendritic cell maturation; -Dr Oscar Burrone from Trieste, Italy, on Active and passive gene-based immunotherapies against tumors and viruses; -Dr Peter Cresswell, New Haven, USA, on Molecular mechanisms of antigen processing; -Dr Matthew Krummel, San Francisco, USA, on Dynamics of immune responses in tissues and organs; -Dr Hidde Ploegh, Cambridge, USA, on A fresh look at antigen receptors; -Dr Gabriel Rabinovich, Buenos Aires, Argentina, on Regulatory circuits in autoimmunity and cancer mediated by lectin-glycan interaction; -Dr Alexander Rudensky, New York, USA, on Differentiation and function or regulatory T cells; -Dr Carola G. Vinuesa, Canberra, Australia, on Germinal center T cells, heterogeneity in function, ontogeny and regulation; -Dr Carla Rothlin, New Haven, USA on Resolution of inflammation; -Dr Eva Acosta Rodriguez, Cordoba, Argentina, on IL-17 family in the immunity against infections.

Participants and IUIS Awardees:

Eighty graduate students enrolled in academic PhD programs and early postdoctoral fellows engaged in research in the area of fundamental, applied and clinical immunology, participated in the course. Most were from different regions of Argentina, but there were several students from India, France, Peru, Brazil, Columbia and Uruguay. All participants submitted an abstract and presented a poster at the meeting. All poster abstracts were published in the detailed program book.

Four students received IUIS fellowships:

-Rafael Frandoloso, Microbiology and Immunology Laboratory. Universities of Passo Fundo, Brazil.
  Proinflammatory cytokines and chemokines gene expression in pigs immunized with subunit vaccines and challenged with Haemophilus parasu.

-Claudio Ocampo Acuña, Experimental Microbiology Lab, Instituto de Medicina Tropical Alexander von Humbolt – Universidad Peruana Cayetano Heredia, Lima, Perú.
  A flow cytometry-based assay to measure red blood cells infection by bartonella bacilliformis.

-Martin Rossoti, Cátedra de Inmunología, Instituto de Higiene, Facultad de Química, Universidad de la República, Montevideo, Uruguay.
  An in vivo biotinylation system for high throughput screening of single-domain antibodies to dendritic cells receptors.

  Identification of brucella canis immunogenic proteins of diagnostic interest.
Funding:
The course was funded by -ICGEB, -IUJS, -Conicet, -EMBO, -Sociedad Argentina de Inmunologia, -National University of Córdoba Secretaria Ciencia y Tecnologia, -Facultad de Ciencias Quimicas, -Fundacion para el progreso de la medicina and - TWAS , the Academy of Sciences for the developing word,. 

Thank you for coming!!!!
THE EFIS-EJI RUGGERO CEPPELLINI ADVANCED SCHOOL OF IMMUNOLOGY
ADVANCED COURSE ON NOVEL VACCINATION STRATEGIES AGAINST THE 3 MAJOR KILLERS-
THE LATEST NEWS ON MALARIA, TUBERCULOSIS, HIV/AIDS, AND VACCINE DEVELOPMENT IN
GENERAL, 16-20 October 2013
Restoring Ancient Stabiae, Vesuvian Institute, Castellammare di Stabia (Naples), Italy.
Directors: Stefan H.E. Kaufmann (Max Planck Institute, Berlin) & Francesca Chiodi
(Karolinska Institute, Stockholm)

Report of Dr Silvia Fontana Zappacosta, President of the Ruggero Ceppellini Advanced School of Immunology, Università "Federico II" Napoli.

The October 2013 Ceppellini course reviewed aspects of the immunology of Malaria, Tuberculosis, and HIV/AIDS which are important for vaccine development, and discussed how host protective immunity can be translated into design and development of novel vaccines.

The course was aimed at PhD, MD students and early post-docs from European and other countries, with extensive participation of Africans – those most affected by these diseases. Many of the participants from Africa were already studying and working in very specific fields, and were highly motivated to advance their own knowledge, and consequently that of the others.

With 14 Faculty members and 84 participants all housed in the same structure, the Faculty, participants and organizers shared meals and coffee breaks together, took walks, and found comfortable sitting corners to ask questions and share experiences, and shared a guided tour of the Roman ruins of Stabiae.

Announcing the prospect of BMGF full fellowships, we were overwhelmed by the number of applications from African countries alone – five times more than we could possibly fund. The selection process was often difficult, but when the final BMGF candidates were chosen, we were pleased to be able to select yet another two people from the many worthy candidates, and to offer them your IUIS fellowships. We know that the experience enriched their knowledge and careers, and most certainly furthered their education.

The Ceppellini School is very grateful to the members of the IUIS Education Committee for extending this generous offer. Heather Hong from South Africa, and Wondewosen Tsegaye Sime from Ethiopia were the two candidates funded by IUIS. Two photographs are attached that are most relevant – that with the Directors Stefan Kaufmann and Francesca Chiodi, and the group photo.

Hong, Heather, MSc Biomedical Technology,
PhD student in Virology
University of the Witwatersrand, Johannesburg,
National Institute for Communicable Diseases (NICD)
Centre for HIV & STI's: Cell Biology
Sandringham 2131, South Africa

As a young South African PhD student (studying the role of natural killer cells and their cell-surface receptors in mother-to-child transmission of HIV-1) the opportunity to attend the Ceppellini Immunology Course allowed me to gain invaluable exposure to the international research community.
Furthermore, the course allowed me to discuss my PhD project with other researchers as well as clinicians and also gave me the opportunity to foster international collaborations.

Overall, the course reviewed many aspects of the immunology of malaria, tuberculosis (TB) and HIV/AIDS - the three most common diseases in sub-Saharan Africa. More so, the burden of co-infection HIV/TB and HIV/malaria is becoming more prevalent. The need for vaccine development against these three diseases thus remains crucial to ending the epidemics. This course gave me a wide overview of the immuno-pathology and research developments in both TB and malaria. As an HIV researcher, I think we often focus on our own field of interest and do not understand pathologies of co-infection. This course gave participants from different fields of research and expertise the chance to discuss the immunology of co-infection(s) and the future/ongoing direction of vaccine development. Discussions that took place during lunch and dinner allowed guest speakers and junior researchers to interact and talk about their individual research as well as their life experiences. The senior researchers openly gave their advice for future research opportunities for young scientists.

As a student the financial resources to attend international conferences are limited in South Africa; I am thus sincerely grateful to the Education Committee of the IUIS for their full scholarship that allowed me to attend this course. This has been an unforgettable experience; what I have gained in terms of science as well as friendships will leave me with long lasting memories. I would like to give special thanks to the organizing committee (Prof. S. Kaufmann, Prof. S. Fontana-Zappacosta and Prof. F. Chiodi) and to Roberta and Tricia for all their help and assistance in organizing this course.

Sime, Wondewosen Tsegaye, MSc Medical Microbiology, PhD student in Medical Microbiology, Addis Ababa University
Amauer Hansen Research Institute
Addis Ababa, Ethiopia

I have attended this course with my participation made possible through a special grant from the IUIS Education Committee covering all my travel and accommodation costs and I am very thankful for this opportunity. There were a large number of participants from different countries of Africa and Europe and we were five from Ethiopia. The course was designed to give advanced knowledge and skill in Immunology.

The Course objectives:
- To enhance understanding of both basic and advanced concepts in the field of vaccine development for the three major killer diseases and vaccine development in general.
- To create opportunity for interaction with world-class Immunologists and Vaccinologists.

The benefits, Knowledge, and Skills I got from the course
- Acquired new knowledge on vaccine development strategies and stages for the most killer diseases (Malaria, TB and HIV) and vaccine development in general.
- Got clarity in topics which were very vague for me while I was teaching my students
- Gained new skill in reviewing articles and presentations
- Able to meet with known immunologists from different countries
• Lucky to meet different individuals from various countries giving me a chance to share experience
• Obtained a very important book published by Professor Stefan H.E Kaufmann
• Gained new knowledge from Lunch and Dinner time discussions with the scientists who were very interesting and impressive
• Identified researchable topics to be undertaken
• Had the opportunity to visit the ancient Roman Stabiae villas

Things to be improved
We didn’t get any material that we could use as a reference in the future. It would have been better if we had both hard and soft copies of all presentations.

(SIC: Since this report all participants were sent a Dropbox containing the power-point presentations of all Faculty who granted their written permission)
ICGEB TRAINING COURSE: GLOBAL INFECTIOUS DISEASE RESEARCH
06-13 OCTOBER 2013 CAPE TOWN, SOUTH AFRICA
Organisers: Drs. Jeffrey Dorfman & Frank Brombacher, ICGEB Cape Town,
Prof. Clive Gray, Head of Division, Immunology, University of Cape Town

Funding was provided by ICGEB and IUIS, and eight students received travel awards. The central course covered all course expenses. 26 participants were selected on the basis of the quality of the applicant’s cv, his/her academic and research accomplishments, taking into account resources available to the individual, and the extent to which the applicant’s research will benefit from this course. Most were senior PhD students and postdoctoral fellows. Priority was given to nationals of African countries and of other low to middle income countries. Students were from 11 countries: Poland, Ghana, South Africa, Zimbabwe, Egypt, Sudan, Nigeria, Spain, Kenya, India, Cameroon.

Students were expected to present a research project in which they had participated, as a poster or a short talk to the class and instructors. All students submitted a research abstract and 10 were selected for oral presentations; the other students presented a poster in one of two poster sessions. A committee of instructors selected the best poster and the best short talk.

Lectures were on Health status of South Africans, HIV and public health in the African setting, Biology of HIV-1, Hepatitis viruses, HIV and Tuberculosis vaccines, Epidemiology and Immunology of TB/HIV co-infection, Immune responses to Trypanosomes, Epidemiology and immunology of malaria and Leishmania. This year, a lecture on Ethics and human studies research was introduced in the course.
The 5th summer school in the Balkans was accompanied by the daily protests against the Bulgarian government that had been ongoing in Sofia for months. The local organizer of the school, Prof. Andrey Tchorbanov from the Institute of Microbiology, Bulgarian Academy of Sciences in Sofia, had been a candidate in the elections for the post of President of the Republic of Bulgaria. Although he got a very honorable number of votes, he did not win and therefore, fortunately, could help to organize the school.

This summer school is meanwhile well known among students and young investigators in immunology from South-East Europe. Its primary aim is to teach immunology as this region is still far behind and needs help to establish state-of-the-art Immunology. Another aim of the school was to foster contact of these young investigators with other immunological societies. They could meet foreign speakers and other students both from up the road and from other nearby countries. The Balkan region urgently needs a network of immunologists between the different countries.

Thanks to the support by IUIS we could enrol 60 participants from 13 countries in the school (Belarus, Bosnia & Herzegovina, Croatia, Bulgaria, Greece, Italy, Kosovo, Montenegro, Romania, Serbia, Slovakia, Ukraine, and also one participant with a travel grant from India) and we could finance the entire costs for the students, i.e. accommodation, subsistence and most of the travel.

The school took place in the Hotel Legends near the center of Sofia; we had rented the entire hotel and could therefore sit until late in the nights. The faculty consisted of lecturers from Austria (H. Stockinger, G. Stanek), Bulgaria (A. Tchorbanov, M. Nikolova), Finland (S. Meri), France (M. Zouali), Germany (B. Fleischer, A. Gospos, H.W. Mittrucker, H.J. Seitz), India (N.K. Mehra), and Hungary (A. Erdei). Lectures dealt with basic concepts in immunology and also with clinical immunology because many participants had a medical background. Plenary lectures were held in the morning.

To provide an optimal discussion the participants formed small working groups in the afternoon according to their knowledge and interests that were be guided by the faculty members. In these groups methodological aspects and new concepts were discussed. The company Euroimmun (Luebeck, Germany) provided microscopes for a training in practical immune diagnostics. Presentation of the work of the young investigators themselves in a special poster session including a short oral plenary summary for each poster was an important part of the school and took place on one entire evening. The website of the school is accessible at www.bnitm.de/seeis2013.
5TH AFRICAN FLOW CYTOMETRY WORKSHOP, (2-6 September 2013)
University of Cape Town, South Africa.

Background

The goal of the workshop was to provide advanced training, through lectures and hands-on sessions on the principles of flow cytometry, set-up and quality control of flow cytometry instruments, design and optimization of experiments and analysis and interpretation of data. The overall aim of this biennial training event, now in its fifth year, is to develop expertise and build a critical mass of young African scientists studying cellular immunity to the three major pathogens, HIV, TB and malaria. These Workshops serve not only to enhance local African scientific capacity, but also contribute to the global health agenda.

The workshop was preceded by the ‘Infectious Diseases in Africa (IDA)’ Symposium, a forum for providing cutting-edge knowledge of TB, HIV and malaria by international experts, organised by Prof Clive Gray (UCT) and Dr Guido Ferrari (Duke University). Students who were selected for the Flow Cytometry Workshop attended the Symposium and presented their research, placing the week’s technical and practical training in the context of new developments in major disease research.

The 2013 African Flow Cytometry Workshop

Fifteen trainees from nine African countries participated in the event. Students were selected based on an abstract of their work. Thirty-four abstracts were received and scored by three experts in the field, and full sponsorship was provided for travel and accommodation in Cape Town for those selected. The organising committee consisted of Dr Wendy Burgers, Dr Tom Scriba, Dr Catherine Riou and Dr Elisa Nemes, all from the University of Cape Town (UCT). Additional teaching faculty included Prof Mike Betts (University of Pennsylvania), Dr Guido Ferrari, Dr Steve Perfetto (Vaccine Research Center, NIH) Dr John Quinn (TreeStar) and Dr Andreia Soares (UCT).

An assessment of flow cytometry knowledge was performed before and after the Workshop, with all students showed an improvement, with a median increase of 30%, which translated into a doubling of knowledge in most. An anonymous evaluation of the workshop was conducted to evaluate the impact and experience of the trainees. Overall, the trainees expressed overwhelming enthusiasm for what they had learnt during the Workshop, which is best communicated in the selection of comments below:

“Perfect, so much of what I have read in papers now makes sense. I really went from 1% flow knowledge to 98.9%. I have had answers to things I didn’t know I needed as well as things I did need to know. Really, it has been the best workshop I have ever attended.”

“It has been very helpful. I have learnt so much that I didn’t know about flow cytometry. I now realize what we need to do on the machine and the analysis to ensure our data is valid and credible.”

“With my little experience, I have been exposed to advanced knowledge on flow cytometry, which is very good. I will be able to understand critically all the papers published, that address flow cytometry experiments and eventually I will be able to design such experiments in my own work.”

“It will help our whole team to improve the quality of our data, [and] prepare me for my dream, a PhD.”

Funding for the Workshop was obtained from a number of sources, including the IUIS, the Clinical Infectious Diseases Research Initiative (CIDRI, a Wellcome Trust initiative at the University of Cape Town), the South African Immunology Society (SAIS), the Canada-Africa Prevention Trials Network (CAPT), the Canadian Global Health Research Initiative (GHRI), BD Biosciences, Biocom Biotech, and Treestar.
Ikbel Naouar, Pasteur Institute, Tunis, Tunisia, IUIS funded student.
IUIS/Bill and Melinda Gates Foundation Travel Grants to attend the International Congress of Immunology in Milan, August 2013

2013 is the first year that IUIS succeeded to obtain substantial support from the Bill and Melinda Gates Foundation to create travel grants for young immunologists from developing countries. It enabled IUIS to give grants to 36 people working in non-OECD countries so that they could attend the ICI in Milan.

There were approximately 700 applicants for the 36 grants. The winners were selected based upon the quality of their work as described in the abstract they submitted to the congress. "The grants gave them the opportunity to meet and talk to the people they had only read about in textbooks and scientific journals. Providing such wonderful opportunities is one of the aims of IUIS," commented Jorge Kalil, IUIS's newly elected president.

The winners were:
“Objectives of the Course: To expand and update our knowledge in immunology. Personal Objectives: Besides the general objectives of the course, my personal ones were to refresh and learn all about the latest findings in Immunology and to acquire new techniques and the knowledge to enable us to develop new research protocols in the field of Chagas disease.

Development of the Course: The program covered nearly all aspects of immunology that, given the complexity of the subject, is something difficult to achieve. The speaker level was excellent in the majority of cases. I appreciated the clarity of the expositions, the continuity between the different subjects during the lectures and the deep knowledge that they showed. Also, all speakers were open to questions and discussions with students. Unfortunately there were too many questions, too many commentaries and not enough time. Sometimes, speakers used too many figures from journal articles that were very difficult to follow.

The schedule of the course was followed closely at all times by both speakers and students. I have to congratulate the organizers. There were no problems of any kind and the AAI personnel were present during the course to answer any questions and to help with any problems.

Personal considerations: It would have been very helpful to have all the presentations available in electronic format. A very interesting aspect was the fact that students came from very different fields of immunology; a list of all course participants, their position and area of research, could have helped us meet people with similar interests.

Conclusion: The course was excellent, well organized and educational. I highly recommend it for people who are working in immunology and want to have an overview of all immunological fields.”

I am a physician and junior researcher working in a small city in Gabon (Central Africa). I am currently doing a PhD in immunology and my work focuses on helminth and malaria co-infection and their impact on the immune response of children living in an area where both diseases are endemic. In 2013 thanks to a travel award I had the privilege to attend the advanced course in immunology organized by AAI and IUIS. This was an exceptional event for me, which will play an important role in my career as an immunologist.

During the 5 days of the course, I was exposed to immunology like never before. I had the opportunity to receive lectures from outstanding researchers that were leaders in their field of expertise. What was remarkable with the speakers was their ability to master and teach us complex concepts with simple words. I learnt a lot during this course and I can say that I will always see it as one of the most important events in my career. I have been taught basic and new concepts in immunology and this has broadened my career perspectives. As I work in the field of infectious diseases, I am particularly interested in understanding how helminth infection can modulate the immune response to other pathogens. However during the course, I realized that we can also learn from the immunomodulatory effects of helminth, how to treat or prevent inflammatory and to some extent metabolic diseases or even cancer. Last but not least, I also had the possibility to interact with other researchers, share ideas and establish contact that may lead to future collaboration.

I definitely had a memorable experience by attending this course and I would like to thank once more the AAI and the IUIS for giving me this opportunity.
Rashmi Tippalagama, MSc, Scientific Officer at the Genetech Research Institute, Colombo, Sri Lanka

“The course was attended by a large audience of Immunologists ranging from Industrial to Academic staff and students. The course covered a range of topics, from host body defenses to latest advances in immune therapy. I was selected by the IUIS Education committee and by the IUIS Gender, Equality and Career Development Committee and was awarded an IUIS/AAI travel grant to attend this course.

Dr. Mary Litzinger delivered the welcome and overview of the course after which the lectures commenced. The Lectures were conducted by some of the most well renowned experts in the immunology field and extensively covered the latest advances in Immunology. I also had the opportunity to meet other researchers in the field attending the course.

I found the course both informative and eye opening. I learned about the latest advances in the field and its applicability in a clinical setting. Our work at the Genetech Research Institute mainly focuses on infectious diseases such as dengue. Understanding the role of pathogens as well as the host defenses will benefit us greatly to understand the impact each component has on the manifestations of disease. In Sri Lanka, dengue is considered an epidemic and the government spends millions each year on health care. There is an urgent need to understand the disease, and many scientists are now collaborating with clinicians in dengue research to decipher the immune response.

Additionally, at Genetech we are encouraged by the institute head to develop small research projects that address local needs. Speaking to other researchers attending the course also gave me awareness to other forms of immunological research work being carried out. The Advanced Immunology course will help me to develop new ideas for research that can be used to contribute to the development of Immunology in the country.

I aim to pursue higher studies in Immunology in the future, and I believe this course will provide me with the solid backing that is necessary to reach my goal. I wish to be a part of future projects and collaborations and continue in my field. I will be sharing this information with my fellow colleagues at Genetech. Finally, as a lecturer at Genetech, this course has helped me broaden my understanding and knowledge in Immunology, which I can then share with my students.

I would like to thank IUIS and AAI for giving me the opportunity to attend this course as it has helped to broaden my understanding of immunology. I also enjoyed my stay in Boston. As this was my first time in the US, I stayed a few days extra to travel. I managed to visit most of the historical sites in Boston and I also travelled to New York.”
Rashmi Tippalaga, Dr Michele Hogan,
Dr Leslie J. Berg, Dr Ulysse Ateba Ngoa
“I am indeed very much thankful to the International Union of Immunological Societies and American Association of Immunologists for giving me an opportunity to attend the Introductory Course in Immunology. The course was well organized and covered all aspects of Immunology from very basic to clinical level. The major topics covered by the leading scientists were Innate Immunity by Kathleen E. Sullivan, Complement by Oriol Sunyer, Introduction to Pattern Recognition and Intracellular Signaling by Igor E. Brodsky, Introduction to Adaptive Immunity by Jennifer A. Punt, MHC Restriction and Thymic Selection by Terri M. Laufer, Antigen Processing and Presentation by Laurence C. Eisenlohr, The Bridge Between Innate and Adaptive Immunity by Edward E. Behrens, Effector T-Cell Differentiation and Response by Jonathan D. Powell, B-Cell Activation and Humoral Immunity by Michael P. Cancro, Trafficking of Immune Cells by Andrew D. Luster, T and B Cell Tolerance by Ethan M. Shevach, Cytokines by Christopher A. Hunter and Autoimmunity by Vijay K. Kuchroo. There was sufficient time in between lectures to interact with the speakers for discussion. This course has given me a strong background of immunology in a short time and certainly helped me in improving my research career. It gave me an opportunity to interact with people and also helped me to know about the latest findings and technological advancements in the field of Immunology. I am indebted to Dr. Christopher A. Hunter and Dr. Michael P. Cancro of the University of Pennsylvania for their pleasant hospitality and superb organization of this course. I would like to acknowledge Dr. Pawan Sharma for recommending my application and earnest thanks to all the speakers of the course."

Dr. Deshinta Putri Mulya, MSc, Internist,
Dept of Internal Medicine, Gadjah Mada University
Sardjito Hospital, Sekip, Yogyakarta, Indonesia

“I want to show my deepest thanks for the opportunity that had been given me by IUIS and AAI to attend this course. As we know, Indonesia is a big country with the fifth biggest population in the world. Health care is still a big problem for us. Immune related diseases in Indonesia are like the Peak of Ice Mountain. There are many, but not properly diagnosed or treated. One of the reasons is because health practitioners don’t really have enough knowledge to recognize the disease. There are only a few centers of medical schools which Allergy and Clinical Immunology Divisions and able to teach their students about autoimmune diseases and immunodeficiencies. This is the reason why our department built an Allergy and Clinical Immunology Division under the Internal Medicine Department in our teaching hospital, which will be the first such centre in Central Java. As the one who has been assigned to take on this responsibility, I realize I lack knowledge and ability. Therefore this course was very important to prepare me in becoming someone who is going to work in the field of Allergy and Clinical Immunology either as a clinician or as an educational staff member/researcher. After 6 days following this Introductory Immunology course, I found it really interesting and stimulating. Each lecture gave me a deeper understanding of how our Immune System works.”

Dr Mulya was supported by the Gender, Equality, and Career Development Committee of IUIS.
Laurent Azonvidé, PhD student, Research Assistant
Laboratory for Immunology of Infectious and Allergic Diseases (IMMIA),
University of Abomey-Calavi, Cotonou, Benin, Africa

“I am a research assistant at IMMIA, the Faculty of Science and Technique, and the Institute of Applied Biomedical Sciences. Part of my work involves performing routine laboratory works, which include sampling, processing, analyzing and dispatching under the supervision and technical guidance of Dr. Judith Satoguina-Gbenoudon. I have also been involved in teaching immunology. I am currently working on a project dealing with two different pathogens Plasmodium and Helminthes. The objective is to understand how different pathogens interact with one another and with the human body to cause illness, the factors that predispose the human body to infection as well as how to avoid some infections.

The course was clear, easily understandable with clear examples and illustrations that allowed me to understand without difficulty the various immunological concepts taught. The lecturers regularly answered our questions. I appreciated the way the course started with the basics of immunology, the introduction to the immune system and the progression to advanced immunological concepts. It built a very good foundation before adding new concepts. What amazed me in part one of the course was 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 so important for B and T cell function such as APC. The lecturers showed us the latest discoveries in the field of immunology. The topics of Immunity and parasitic infections, B and T cell tolerance and Cytokines were some of the most useful ones for my current line of work. I also enjoyed the lecture on the history of Dendritic cells, learning how their function could affect our body fighting against diseases.

I have now a good understanding and can explain with confidence to anyone how parasites enter and interact with the body, the innate and adaptive immune systems, the function of each component of the immune system, factors that predispose one to illness by various pathogens and the mechanism by which various pathogens evade the immune system amongst other things.

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

This course was an eye opener and was very informative for me and I highly recommend it to anyone in the medical or biological field 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 researcher. I am grateful to IUIS and AAI for having given me the opportunity to attend this course.”