



British Council Researcher Links Workshop Mexico-UK 2015 Programme

Genome research and human health: current applications and translational
potential in inflammation and infectious diseases
Oaxtepec, Mexico, June 24-28, 2015

Venue and hotel:

Hotel Amacuzac, Centro Vacacional IMSS Oaxtepec

Oaxtepec, Morelos, México

Tel.: +52 (55) 5238-2703, +52 (735) 356 0101, +52 (735) 356 0202

http://centrosvacacionales.imss.gob.mx/Paginas/pagina_oaxtepec_informacion.html

Main Restaurant: Restaurante Quetzalli

Dinner Friday evening: Restaurante Chula Vista

Internet points: restaurants, Hotel Amacuzac, Sala Amaranto, Torre Parlamentaria, Casa Club, lobby
Hotel Tepozteco (most don't require a password)

Wednesday June 24

Meeting room: Sala Amaranto

Arrival, overview and introductions

7:30h-9h -> Breakfast

9h-10:30h -> Registration and poster set-up

10:30h-11:15h -> Welcome from organisers:

- Welcome by Prof. Constantino López-Macías (Mexico Coordinator) (5 minutes)
- Researcher Links and Workshop objectives Antonio J. Berlanga-Taylor (UK Coordinator) (5 minutes)
- Mtra. Carla Martínez-Castuera, International Relations, Coordination for Health Research, IMSS (10 minutes)
- Existing collaborations:
 - IMSS-Birmingham and IMSS-Oxford (Constantino López-Macías) (10 minutes)
 - NDM Oxford-TEC-BUAP-UMSNH (Arturo Reyes-Sandoval) (10 minutes)
- Programme and housekeeping (Miguel García-Knight) (5 minutes)





11:15h-12:30h -> Genomics overview and bio-sketch presentations

“Genomics in health and disease: current state, applications and future directions.”

Antonio J. Berlanga-Taylor (15 minutes)

Bio-sketches session I: 5-minute presentations

12:30h-14h -> Lunch

Keynote speakers, bio-sketches and poster session

14h-15:30h -> Bio-sketches session II: 5-minute presentations

15:30h-16:30h -> Keynote “Combination of Mycobacterium tuberculosis immunodominant peptides and serum host response biomarkers for the diagnosis of tuberculosis.”

Prof. José Antonio Enciso-Moreno

Medical Research Unit

Mexican Social Security Institute

Zacatecas

16:30h-17h -> Coffee and poster session I

17h-18h: Keynote “Dynamic control of inflammation by NF-kappaB in cells and tissues.”

Prof. Michael White

Professor of Systems Biology and Head of Systems Microscopy Centre

Faculty of Life Sciences

University of Manchester

18h-20h -> Social and networking activities. Swimming pool open at Hotel Tepozteco.

20h -> Dinner, social and networking

End of day





Thursday June 25

Meeting room: Sala Amaranto

Genomics and computational methods

7:30h-9h -> Breakfast and coffee

9h-11h -> Computational methods and analysis: 'Omics' talks (20 minutes plus 5, 4)

Chair: Antonio J. Berlanga-Taylor

“NGS and Bioinformatics methods for parasite genomics: Does one approach fit all?”

Alejandro Sánchez

“Preliminary analysis for the evaluation of risk prediction methods using SNP-based genomic profile data.”

Faviel Gonzalez

“Microarrays in public health and clinical research applications.”

Laura Uribe (Affymetrix)

“Applying Shotgun RNA Sequencing (RNA-Seq) to *ex vivo* HIV-2 Samples Taken in a Tropical Setting: Challenges, Perspectives and Successes.”

Katherine James

11h-11:30h -> Coffee break and poster session II

11:30h-12:30h -> Keynote “CGAT - Functional Genomics in Practice.”

Dr. Andreas Heger

CGAT Technical Director

MRC CGAT Programme

MRC Functional Genomics Unit

Department of Anatomy, Genetics and Physiology

University of Oxford

www.cgat.org

12:30h-14h -> Lunch

Immunity to viruses and vaccine development

14h-16:30h -> Viral immunity (20 plus 5 minutes, 5)

Chair: Arturo Reyes-Sandoval

“Making use of reverse vaccinology to tackle highly variable pathogens.”

Arturo Reyes Sandoval

“Evidence for T-cell-driven viral evolution in infant acute HIV-1 infection.”

Miguel García Knight





“CD4 TCM cell gene expression signature in HIV infection is consistent with promoted entry to cell cycle, and G2/M arrest, and unexpected reduced apoptosis.”

Enrique Espinosa

“Relationship between CD4+ T cell subsets and the neutralisation breadth of the antibody response generated during HIV-1 infection.”

Isabela Pedroza

“Some aspects of the immune system and HPV infection.”

Sofía Bernal

“Impaired cytokine production by CD4+ T cells in Common Variable Immunodeficiency (CVID) associated with the absence of memory B cells.”

Laura Bonifaz

16:30h-17h -> Coffee break and poster session III

17h-18h -> Keynote “Epidemiological Research and Surveillance.”

Prof. César González Bonilla

Division Head

Epidemiological Surveillance and Investigation Laboratory

Epidemiological Surveillance Centre

Mexican Social Security Institute, Mexico City

18h-20h -> Social and networking activities, visit to XVI century former convent and archaeological site.

20h -> Dinner, social and networking

End of day





Friday June 26

Meeting room: Sala Amaranto

Immunogenomics

7:30h-9h -> Breakfast and coffee

9h-11h -> Immunogenomics (20 plus 5, 4 talks)

Chair: Miguel García-Knight

“Primary Immune Deficiencies: genetics and functional characterization.”

Gabriela López Herrera

“KIR and HLA Systems on Renal Trasplant Outcome.”

Gamaliel Benitez

“Mining The B cell repertoire in response to infection and vaccination.”

Jesus Martínez

“Secuenciación de nueva generación para la tipificación de genes HLA.” / “Next generation sequencing for typing of HLA genes.”

Carmen Alaez (sponsored by Biotech del Norte)

11h-11:30h -> Coffee break and poster session IV

11:30h-12:30h -> Keynote “Genomic complexities of HLA and its relevance in matching and outcome of haematopoietic stem cell transplantation.”

Prof. Alejandro Madrigal MD, PhD, FRCP, FRCPath, DSc, HonDSci, FMedSci

Scientific Director and Professor of Haematology;

UCL Pro-Vice-Provost for the Americas;

Anthony Nolan Research Institute

Royal Free Hospital

www.anthonynolan.org

12:30h-12:45h -> Group photo

12:45h-14h -> Lunch

Immunity to bacteria and inflammatory response

14h-16:30h -> Immunity to bacteria and inflammatory response (20 plus 5, 5)

Chair: Constantino López-Macías

“Infections in immunocompromised patients.”

Guadalupe Miranda

“Inflammatory Cytokines And Autoantibodies Discriminate Between Different Stages Of Rheumatoid Arthritis: A Strategy For Classification.”

Julio Enrique Castañeda





“About the immaturity of newborn immune system.”

Arturo Cébulo Vázquez

“Induction of Long-Lasting Immunity by Pamptigens.”

Constantino López Macías

“An introduction to the National Laboratory for Advanced Microscopy (LNMA) in Mexico.”

Chris Wood

16:30h-17h -> Coffee break and poster session V

17h-18h -> Keynote “The modulation of immune function by infection.”

Prof. Adam Cunningham

Professor of Functional Immunity

School of Immunity and Infection

MRC Centre for Immune Regulation

University of Birmingham

18h-20h -> Social and networking activities. Walk through the ecology path, visit to geodesic dome and sulphur pools.

20h -> Dinner at Restaurante Chula Vista, social and networking

End of day

Saturday June 27

Meeting room: Torre Parlamentaria

Epidemiology, statistical genetics and surveillance

Chair: Antonio J. Berlanga-Taylor

7:30h-9h -> Breakfast and coffee

9h-11h -> Epidemiology and statistical genetics of non-communicable diseases (20 plus 5, 4)

“The Mexico City Prospective Study: a blood-based study of 150,000 Mexican adults prospectively followed for 15 years.”

Jonathan Emberson

“Producing reliable biomarker data for large-scale research.”

Mike Hill

“Integration of phenotypic and genomic data for rare disease gene discovery: an overview of the available methods with real data examples.”

Valentina Cipriani

“Genomics Strategy to Accelerate Translational Research in Pre-Eclampsia.”

Eleonora Staines





11h-11:30h -> Coffee break

11:30h-12:30h -> Genetics and epidemiology of infectious diseases (20 minutes plus 5, 3)
Chair: Miguel García-Knight

“Polymorphisms in promoter region of Th2 and Th3 cytokines conferring genetic susceptibility to cervical cancer and differential profile of the microbiota in the cervix as a microbiological marker of dysbiosis associated to women with premalignant lesions and cervical cancer.”

Kirvis J. Torres

“Large scale integration of disparate systems for real time infectious disease research.”

John Finney

13h-14h -> Lunch

Social activities and networking

From 14h -> Trip to Tepoztlán, networking and dinner at “El Ciruelo” Restaurant (Tepoztlán)

End of day

Sunday June 28

Meeting room: Torre Parlamentaria

Next steps

7:30h-9h -> Breakfast and coffee

9h-12h -> Funding opportunities for Mexico-UK collaborations
Funding for projects and mobility at the Mexican Social Security Institute
Mtra. Carla Martínez-Castuera
IMSS CIS International Cooperation Office

- Discussion (all participants) (coffee and drinks available):
 - Possible projects, second meeting, funding sources
 - Integrating genomics technologies to research and healthcare
 - Themes to propose

12:30h -> Departures, coaches for Mexico City and airport

End of meeting

