



The Punic-Roman remains of the ancient town of Nora next to the School venue

"From Genome-wide association studies (GWAS) to function"

Directors:

**Francesco Cucca (Italy),
Marcella Devoto (Italy, USA)
Giovanni Romeo (Italy)**



Faculty:

**Goncalo Abecasis (USA), Myles Axton (USA),
Francesco Cucca (Italy), Daniel Gaffney (UK), Myriam
Gorospe (USA), Agnar Helgason (Iceland), Thomas
Meitinger (Germany), John Novembre (USA), Clelia
Peano (Italy), Nima Rezaei (Iran), Stephen Sawcer
(UK), David Schlessinger (USA), Carlo Sidore (Italy),
Nicole Soranzo (UK), John Todd (UK), Eleftheria
Zeggini (UK)**



For updates, program and info please visit the web site:

www.irgb.cnr.it/summerschool2017

Info: info_sc2017@irgb.cnr.it

6th Sardinian International Summer School From GWAS to function

Pula (Italy), June 12 – 16, 2017

Course jointly organized by IRGB, SR, ESGM and CEUB

Target Audience: This course is designed to explore the current knowledge on the molecular basis of complex genetic variation in humans and to use this information in different research areas applying new methodologies. Data from genome-wide association studies will be explored, starting from experimental design, through data analysis, and the impact of functional information on variations.

The course will use a combination of lectures and demonstrations with a heavy emphasis on hands-on data analysis, which requires students' active participation. The goal is to achieve maximum interaction with the instructors and the other participants.

This summer school is intended for advanced pre-doctoral students and post-doctoral researchers from biological and health sciences and other backgrounds (including bioinformatics and mathematics) that wish to learn more about or move into the complex genomics field.

Venue: Polaris Techno Park, Building 2 - 09010 Pula (CA), Italy (<http://www.sardegna ricerche.it/en/technologypark>). The Technology Park is located in the territory of Pula, in the hinterland of Cagliari, close to the South-Western coast of Sardinia.

Cost: The course is funded by the Regional Sardinian government and registration will be free of charge for all attendees. Registration includes course material, lunches and coffee breaks (not accommodation expenses – see below). Free shuttle services will be provided from Cagliari Elmas Airport to the hotel and from the hotel to the Polaris Technology Park Auditorium. Travel and accommodation expenses are to be covered by the attendees.

Accommodation: Faculty and students will stay at hotels located near the seaside, a few kilometers from the Polaris Technology Park. A very special rate has been agreed with the Local Organizing Committee. All rates include breakfast and dinner and free transfer to and from the Summer School venue. You'll be lodged at the hotel Flamingo (www.hotelflamingosardinia.com) and the hotel Mare Pineta (<http://www.marepinetahotel.com/>) located in front of the sea at few kilometers from the Polaris Technology Park.

For info on arrangements and reservations see: www.irgb.cnr.it/summerschool2017

A limited number of fellowships covering both registration and accommodation will be offered

Applications: all applicants are required to pre-register by sending together with the pre-registration form available at www.irgb.cnr.it/summerschool2017: 1) A curriculum vitae (résumé) in English, including work and research experience; 2) A letter of motivation in English (max. 500 words); 3) A letter of reference from the current supervisor. Incomplete applications will not be considered.

Selection will be based on CV and a letter stating the motivations for attending the course and future research plans of candidates.

The maximum number of participants is 40.

Deadline: for all applications (both for attendance and for fellowships) is **May 1st, 2017**

Applicants from countries for which a visa to Italy is required are encouraged to apply earlier

Abstracts submission: To actively participate in the School, participants are invited to submit an abstract for review by the Scientific Committee. Submission of an abstract together with the application may give an advantage in the competition for admission and for fellowships.

The Committee reserves the right to: 1) Select the abstracts relevant to the sessions; 2) Decide on the final form of presentation (poster or oral presentation). The list of abstracts will be published in the Final Program and on the website only on receipt of full registration.

Directors:

Francesco Cucca (Italy), Marcella Devoto (Italy, USA), Giovanni Romeo (Italy)

Faculty:

Goncalo Abecasis (USA), Myles Axton (UK), Francesco Cucca (Italy), Myriam Gorospe (USA), Daniel Gaffney (UK), Agnar Helgason (Iceland), Thomas Meitinger (Germany), John Novembre (USA), Nima Rezaei (Iran), Clelia Peano (Italy), Stephen Sawcer (UK), David Schlessinger (USA), Carlo Sidore (Italy), Nicole Soranzo (UK), John Todd (UK), Eleftheria Zeggini (UK)

MONDAY JUNE 12 ST	
<i>Morning Lectures</i>	
08:30-9:00 Registration	
09:00-10:00 Introduction to Population Genetics – <i>John Novembre</i>	
10:00-11:00 GWAS overview – <i>Eleftheria Zeggini</i>	
11:00-11:30 Coffee break	
11:30-12:30 From genes to pathways to therapeutic opportunities and a better understanding of the human immune system - <i>John Todd</i>	
12:30-14:00 Lunch Break	
<i>Afternoon Workshops</i>	
14:00-15:30 GWAS – Tips and Tricks- <i>Thomas Meitinger</i>	
15:30-16:00 Coffee break	
16:00-17:30 Population Structure/Signature of Selection – <i>John Novembre</i>	
TUESDAY JUNE 13 ST	
<i>Morning Lectures</i>	
09:00-10:00 Whole Genome Sequencing – <i>Goncalo Abecasis</i>	
10:00-11:00 Understanding the function of human genetic variation using transcriptome analysis - <i>Daniel Gaffney</i>	
11:00-11:30 Coffee break	
11:30-12:30 Analysis of Multiple Omics Layers- <i>Thomas Meitinger</i>	
12:30-14:00 Lunch Break	
<i>Afternoon Workshops</i>	
14:00-15:30 NGS variant calling – <i>Carlo Sidore</i>	
15:30-16:00 Coffee break	
16:00-17:30 Analysis of RNA-seq data- <i>Daniel Gaffney</i>	
WEDNESDAY JUNE 14 ST	
<i>Morning Lectures</i>	
09:00-10:00 The genomic and functional architecture of human complex traits and diseases - <i>Nicole Soranzo</i>	
10:00-11:00 Noncoding RNAs in aging physiology and disease - <i>Myriam Gorospe</i>	
11:00-11:30 Coffee break	
11:30-12:30 The genetics of multiple sclerosis - <i>Stephen Sawcer</i>	
12:30-14:00 Lunch Break	
<i>Free Afternoon</i>	
THURSDAY JUNE 15 ST	
<i>Morning Lectures</i>	
09:00-10:00 From mutations to migration: Using genealogies in genetics research– <i>Agnar Helgason</i>	
10:00-11:00 From GWAS to function: The example of the Sardinia founder population – <i>Francesco Cucca</i>	
11:00-11:30 Coffee break	
11:30-12:30-Primary Immunodeficiency Diseases: From Genes to Clinics - <i>Nima Rezaei</i>	
12:30-14:00 Lunch Break	
<i>Afternoon Workshops</i>	
14:00-15:30 Poster Session	
15:30-16:00 Coffee break	
16:00-17:30 Microbiome and Metagenome Analysis– <i>Clelia Peano</i>	
FRIDAY JUNE 16 ST	
<i>Morning Lectures</i>	
09:00-10:00 Genetics of Aging – <i>David Schlessinger</i>	
10:00-11:00 Publishing your work in <i>Nature</i> journals - <i>Myles Axton</i>	
11:00-11:30 Coffee break	
<i>Open Meeting</i>	
11:30-12:30 Round table on Genetic issues and Biomedicine perspectives	
12:30-14:00 Lunch Break	
<i>Adjourn and Departure</i>	

Course Organizer: Dr. Andrea Angius

Summer School Secretary: Jessica Bazzoli

Please do not hesitate to contact the Secretariat if you require any additional information or assistance.

Please address all correspondence to: infosc2017@irgb.cnr.it

For more information visit:

www.irgb.cnr.it/summerschool2017