



**SARDEGNA
RICERCHE**



CRS4
IDEAS BECOME LIFE

EUROPEAN SCHOOL OF GENETIC MEDICINE



Istituto di Ricerca Genetica e Biomedica



CENTRO RESIDENZIALE
UNIVERSITARIO



5th Sardinian Summer School June 20th - 24th, 2016

'From GWAS to function'

Polaris Technology Park, Pula (CA), Italy



School Directors:
Francesco Cucca (Italy)
Marcella Devoto (Italy, USA)
Giovanni Romeo (Italy)

Faculty:
G. Abecasis (USA)
F. Cucca (Italy)
T. Meitinger (Germany)
S. Montgomery (USA)
J. Novembre (USA)
D. Nickerson (USA)
O. Ohara (Japan)
L. Pagani (UK)
S. Sawcer (UK)
D. Schlessinger (USA)
J. Todd (UK)
E. Zeggini (UK)

Contact: info_sc2016@irgb.cnr.it S Petri in sula

For updates, program
and info please visit the web site:
www.irgb.cnr.it/summerschool2016

The Institute of Genetic and Biomedical Research of CNR in collaboration with the Technology Park of Sardinia, the European School of Genetic Medicine, the University Residential Centre of Bertinoro and the Center for Advanced Studies, Research and Development in Sardinia (CRS4) organize the



5th Sardinian International Summer School June 20-24, 2016

“From genome-wide association studies (GWAS) to function”

The Summer School is dedicated to cover state-of-the-art theory and practice of the approaches to the identification of the genetic bases of human diseases, in particular related to complex and monogenic traits.

Venue:

Polaris Techno Park
Building 2
Loc. Piscinamanna,
09010 Pula (CA), Italy

Registration Fee:

FREE OF CHARGE FOR
ALL ATTENDEES.

Selection based on CV
and motivation letter.

**Deadline for
application:**

June 10th 2016

For updates, program,
registration and info
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Course Program

This course is designed to explore the current state of the molecular basis of complex genetic variation in humans and to use this information in different research areas applying new methodologies. The course program consists of lectures and practical sessions that are geared toward moving from GWAS data to functional studies. Data from genome-wide association studies will explore, starting from experimental design, through data analysis of genetic control of traits and their 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 focus will be on making maximum interaction with teachers and the creation of useful contacts with the other participants.

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

Timetable

| Monday, June 20 | | Specific titles * |
|---------------------------|---|--------------------------|
| 08:30-9:00 | Registration | |
| 09:00-10:00 | Introduction to Population Genetics | J Novembre |
| 10:00-11:00 | In and out of Africa: our genomic whereabouts | L Pagani |
| 11:00-11:30 | Coffee break | |
| 11:30-12:30 | GWAS overview | E Zeggini |
| 12:30-14:00 | Lunch Break | |
| 14:00-15:30 | Workshop: Population Structure/Signature of Selection | J Novembre |
| 15:30-16:00 | Coffee break | |
| 16:00-17:30 | Workshop: Next generation association studies in isolated populations | E Zeggini |
| Tuesday, June 21 | | |
| 09:00-10:00 | Whole Genome Sequencing | G Abecasis |
| 10:00-11:00 | Insights from Next Generation Sequencing | D Nickerson |
| 11:00-11:30 | Coffee break | |
| 11:30-12:30 | Regulatory variants in individuals, families and populations | S Montgomery |
| 12:30-14:00 | Lunch Break | |
| 14:00-15:30 | Workshop: NGS variant calling | C Sidore |
| 15:30-16:00 | Coffee break | |
| 16:00-17:30 | Workshop: Variants databases | D Nickerson |
| Wednesday, June 22 | | |
| 09:00-10:00 | From GWAS to function: The example of the Sardinia founder population | F Cucca |
| 10:00-11:00 | Genetics of neuroblastoma: linkage studies of the familial form and GWAS of sporadic cases | M Devoto |
| 11:00-11:30 | Coffee break | |
| 11:30-12:30 | Poster viewing | |
| 12:30-14:00 | Lunch Break | |
| | Free afternoon | |
| Thursday, June 23 | | |
| 09:00-10:00 | From genotype to phenotype: Mind the gap in multi-scale structure of the phenotype | O Ohara |
| 10:00-11:00 | From genes to pathways to therapeutic opportunities and a better understanding of the human immune system | J Todd |
| 11:00-11:30 | Coffee break | |
| 11:30-12:30 | Workshop: Mitochondrial Diseases | T Meitinger |
| 12:30-14:00 | Lunch Break | |
| 14:00-15:30 | Workshop: RNA sequencing and analysis | S Montgomery |
| 15:30-16:00 | Coffee break | |
| 16:00-17:30 | Workshop | |
| Friday, June 24 | | |
| 09:00-10:00 | Students Presentations | |
| 10:00-11:00 | The genetics of multiple sclerosis | S Sawcer |
| 11:00-11:30 | Coffee break | |
| 11:30-12:30 | Genetics of Aging | D Schlessinger |
| 12:30-14:00 | Lunch Break | |
| | Adjourn | |

* list of titles is provisional and subject to change

Language

English is the official language of the school.

Venue

Polaris Technology Park- Loc. Piscinamanna, 09010 Pula (CA), Italy. The Technology Park is located in the territory of Pula, in the hinterland of Cagliari, close to the South-Western coast of Sardinia. Its grounds cover an area of 160 ha, set in a nature park at the foot of the Sulcis mountain range.

Accommodation

Faculty and students will stay at Hotel located near the seaside, a few kilometers from the Polaris Technology Park. A very special rate has been agreed with the Local Organizing Committee.

In order to benefit from the special Summer School rate for accommodation arrangements and reservations, please contact: info_sc2016@irgb.cnr.it

Superior

The rate for a double standard room occupancy (to be share with another participant) is € 92,00/per night per person.

The rate for a double standard single use per person is € 117,00/per night.

Standard

The rate for a double standard room occupancy (to be share with another participant) is € 72,00/per night per person.

All rates include breakfast and dinner and free transfer to and from the Summer School venue.

Applications:

The course is funded by the Regional Sardinian government and registration will be free of charge for all attendees. Selection will be based on CV and a letter stating the motivations for attending the course and future research plans of candidates. A letter of reference from the current supervisor must also be attached to the application.

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.

Deadline for all applications: June 10, 2016.

Please address all correspondence to:

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