1st International Summer School

Summer in Science

June 12-23, 2017
The first edition of “Summer in Science” - the International Summer School organized at the European Molecular Biology Laboratory (EMBL) Campus in Monterotondo, Rome - buds off years of research, development and validation of effective and innovative actions aimed at supporting scientific culture in young generations.

Within the long-term strategies to innovate the European school systems, one of the key goal is to structure and consolidate exchange opportunities between lower and higher education entities and work environments. Bridging the educational systems to work environments is central to consolidate knowledge and skills acquired in school, and to build more solid strategies for future career planning.

“Summer in Science” organised by Adamas Scienza in collaboration with the EMBL builds on the solid ground of such strategies, and looks beyond the benefits for the participants by establishing an incubator aimed at:
- deploying key best practices in didactics and advanced training and validated innovative approaches;
- nurturing excellences among science oriented students;
- catalyzing the establishment of virtuous networks where public and private research entities, governmental bodies and companies can responsibly coordinate actions and build strategic collaborations.

Goals

- Promote awareness of how science works and consolidate scientific literacy and knowledge
- Develop skills through an integrated theoretical and practical approach carried out in a laboratory setup
- Explore the most recent techniques and methodologies used in research, and foster a positive perception of the relations between Science and Society
- Support Career Orientation and Development and provide opportunities to improve language and relational skills within an international research context.

Recipients and Location

The Summer School will host 20 4th-year Italian upper secondary school students within the EMBL Research Campus in Monterotondo (RM). Participating students will have the opportunity to be trained by science educators in fully equipped and teaching targeted laboratories and will share real lab experiences at supporting research groups located in the campus (CNR and EMBL) and in other local high profile research departments of CNR and of “Sapienza” and “Tor Vergata” Universities.

More detailed information about locations and logistics of the summer program will be agreed upon after application deadline and depending on students’ preferences and availability at hosting laboratories.
Program

“Summer in Science” offers an integrated program composed of seminars, focus groups, hands-on laboratory modules and social events. The scientific program is developed in collaboration with the science educators at EMBL and is scheduled for two weeks, from June 12th to June 23rd, 2017.

- **Phase 1** (June 12-16, 2017): Laboratory training and science exploration modules; activities will be held at teaching labs, computer room and seminar rooms available at the Campus in Monterotondo (RM).

- **Phase 2** (June 19-23, 2017): Students will attend a stage within laboratories of supporting research groups and will be tutored by educators during reporting scheduled at the end of the program.

During Phase 1 participating students will engage in activities aimed at developing basic knowledge and skills needed to conduct simple molecular biology experiments. This training is key to acquire awareness and trust on the basic requirements of laboratory work, but it will also be an opportunity to explore learning of Science in an informal context and to collectively elaborate on science relations with individuals and societies.

During Phase 2 students will be introduced to real laboratory life, hosted by supporting research groups who will share with them goals, strategies and methodologies adopted in each lab to address the scientific questions in line with each lab’s research focus.

At the end of the Summer School program all students will prepare a final scientific and experiential report.

Uniqueness and Excellence

“Summer in Science” features some unique and distinctive elements which highlight its value compared to other formative scientific experiences available to Italian students:

- Students are trained in laboratory practices with effective methodology and innovative approaches validated by expert science educators at Adamas Scienza. This Phase 1 training empowers the students with self-confidence and autonomy which will enable them to actively participate to the real laboratory experience of the second week. The formative process is therefore comprehensive and leaves the students highly qualified at the end of the two-week program.

- Recruitment of experts from public and private entities supporting the Summer School, adds value to this program and inspires our students towards science careers.

- Summer School placement within the context of an International Research Campus allows us to implement a high profile scientific program, contributed by eminent scientists and offering access to complex and highly specialized infrastructures.

All the above are key elements that make the Summer School an ideal model to promote scientific culture and to nurture our excellent students, with considerable impact and international visibility.
Application - Certifications

Online application is available at: www.adamascienza.com/summer-in-science, and must be submitted by May 8th 2017. Outcome of selections will be notified by e-mail within two weeks from application deadline. A EUR 400,00 registration fee is required upon confirmation and will include: food and accommodation costs, transfers to/from the campus, all teaching and support materials. Travel costs from/to the place of residence are not included in the registration fee. Payment details are included in the Registration Form. Eligible students may apply for fellowships/subsidies. Details and forms are available at the registration page.

Adamas Scienza will certify 100 hours valid towards the Alternanza Scuola Lavoro (ASL) program to each participating student.

ASL certification is subject to agreements between Adamas Scienza and each student’s school, to be signed by start of the Summer School. Schools are required to provide accident and personal liability insurance for their students for the entire duration of the Summer School.

Organisers

Adamas Scienza is a no profit association committed to the promotion of scientific culture through an integrated program of activities targeted to upper secondary school teachers and students, with the aim to:
- establish sustainable networks of research centers, schools and science centers;
- develop, validate and disseminate innovative teaching models and tools and resources inspired to the Inquiry-Based Science Education (IBSE) approach;
- validate and promote use of Web 2.0, multimedia and digital technologies in didactics.

The Association relies on the solid experience of its expert science educators and co-founders, accrued over more than 10 years of activity in the field of science education and dissemination within the international context of EMBL.

EMBL is Europe’s flagship laboratory for the life sciences, an intergovernmental organisation established in 1974 and supported by 24 member states. EMBL performs fundamental research in molecular biology, studying the story of life. EMBL offers services to the scientific community; trains the next generation of scientists and strives to integrate the life sciences across Europe. EMBL is international, innovative and interdisciplinary. It operates across six sites in Barcelona (Spain), Grenoble (France), Hamburg (Germany), Heidelberg (Germany), Hinxton (UK) and Monterotondo (Italy).

At the EMBL site in Monterotondo, researchers explore the links between the expression of genes and the environment of the animal and study how the neurological system senses the environment and reacts to it.

The European Learning Laboratory for the Life Sciences (ELLS) at EMBL supports the professional development of European science school teachers, brings pupils into the lab and develops teaching resources.