

Conference Report

Swiss Youth in Science: Study Week in ‘Chemistry and Materials Science’

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Young Talents Gain First Insights into Chemistry

From February 5–9, 2018, the Swiss Youth in Science Foundation ran the study week ‘Chemistry and Materials Science’ that took place at four Swiss universities and four international companies. Every year the Foundation receives numerous applications from high school students from all over Switzerland. For this year’s edition, we received nearly 60 applications of which 39 were selected and assigned to different groups according to their preferences: synthetic chemistry, analytical chemistry and materials science.



We work closely with our university and industry partners to give the students the possibility to work in professional laboratories. The contact persons within our partner’s institutions, the so-called coordinators, manage every year to offer quality projects and to find skillful tutors, mainly PhD candidates. The participants work on topics such as ‘Nanoparticles for Magnetic Hyperthermia Treatment’,

‘Photochromic Molecules: How is the Chemical Reactivity Influenced by Light?’, ‘Structural Elucidation and Kinetic Monitoring by Nuclear Magnetic Resonance Spectroscopy’ and ‘Preparation of an Intermediate for a Multiple Sclerosis Drug’. The feedbacks we received from the students showed that most of them are delighted by what they learned and experienced during their time in the laboratories. Some of them even suggested prolonging its duration! The study week is only possible thanks to the engagement and the professionalism of the coordinators and the tutors working in the hosting universities and companies. The financial support of the Swiss Chemical Society and other donors make it possible to offer this unique opportunity to young talents.

Benefits of the Study Week

The study week allows:

- To familiarize young people with chemistry and materials science and arouse their interest in these fields.
- To learn about scientific work and about the activities in a professional laboratory.
- Through the insights gained, to facilitate the choice of future studies.
- To encourage exchanges between research institutions and talented young people.
- To enable to start build their own network.



Participant of the study week 2018 working in a laboratory at the University of Geneva. Photo credit: Didier Perret



Intervention during the closing event at the Adolphe Merkle Institute. Photo credit: Marion Savoy

Testimonials of Participants

“The study week at Roche was very enjoyable and unique. It is fascinating to work in a fully equipped laboratory with experts who share the same interest as me. I have learnt a lot both from the chemistry perspective as well as how a pharmaceutical company functions.” **Tianci Shao**

“I had a very good time there. Very informative week. Very different from what we do at school, which is really nice.” **Mélanie Imhof**



Participants presenting their results during the closing event at the Adolphe Merkle Institute in Fribourg. Photo credit: Marion Savoy

“It has been a great experience! Especially to talk to students but also people who have graduated long time ago. Like that I had the opportunity to get to know what possibilities there are after studying chemistry or material science.” **Sulamith Leuenberger**

Swiss Youth in Science Offers Different Study Weeks

The Foundation Swiss Youth in Science offers the possibility to curious high school students between the ages of 16 and 21 years to participate in five study weeks in different fields such as Informatics, Biology, Human Sciences, Chemistry and Materials Science. After a selection process, the applicants have the chance to participate in a scientific project during one week in a researchers' team in one of our hosting institutions (see the list below). The study week is a great opportunity for students to participate in the activities of a professional laboratory and as a result, to improve their skills and knowledge in this specific field. It allows them to discover new horizons and helps them to take decisions about their future studies. An expert in the field supervises and guides every student during the entire duration of the project. Generally, the week lasts from Monday to Friday with a public closing event on the last day, during which all projects are presented to the public. After the study week, the participants write a scientific project report, which is published on our website.

The Future

We are committed to continue with this successful study week and to provide this opportunity to more students in the future. To this end, we are currently assessing possible financing options. We have also identified opportunities for improvement, such as increasing the benefit of the closing event for the participants. We are convinced that with this study week, we can contribute to the next generation of chemists and material scientists.

Hosting Institutions and Companies

Universities

University of Fribourg &
The Adolphe Merkle Institute
University of Geneva
University of Basel
ETH Zurich

Industry

Bachem
BASF
Hoffmann - La Roche
Syngenta

About the Foundation

Since 1967, the Foundation Swiss Youth in Science (SYiS) has been supporting curious and motivated children, teenagers and young adults with the objective of inspiring their interest and fascination for science and technology.

The sustainable promotion of young talents who show scientific curiosity, creativity and problem-solving skills is central to securing the position of Switzerland as a center of innovation.

Swiss Youth in Science provides motivated adolescents with the opportunity to

- get first insights into their preferred scientific field
- establish contacts with industry and universities
- be actively supported in their career and study choice
- gain experience in scientific work and be accompanied by experts in the process
- present their ideas to the public
- build a network with peer groups

Contact

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