



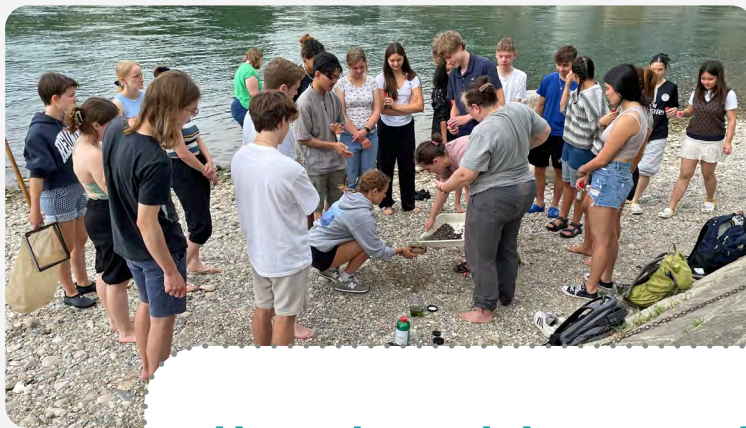
University
of Basel

Department
Biozentrum

BIOZENTRUM

The Center for
Molecular Life Sciences

Basel Summer Science Academy 2024 for Gymnasium Students.



**How about doing something
different this summer?**

Getting a taste of the world of research?
Meeting new people?
Discovering new things together?



At the Basel Summer Science Academy, you find yourself on a journey of discovery between the Rhine and the lab. You will collect samples from the river and the surrounding environment to study in a real lab at the Biozentrum, University of Basel. You might even discover a brand new phage, which is a virus that infects bacteria. You will get to know new people from the region and also the Life Sciences hub of Basel. During shared excursions and social activities, you can exchange ideas with other young researchers.

What are phages?

Phages are viruses, which only replicate in bacteria. Our world is full of them. Each second, phages kill many millions of bacteria on the Earth. For a long time, particularly in the days before antibiotics, they were a source of hope for a way to combat bacterial infections. Today, the pursuit of treatments using phages is again relevant, as effective antibiotics are becoming increasingly scarce. This has led to more and more researchers searching for alternatives, such as phage therapy.

What does the course offer?

At the Basel Summer Science Academy, you will look for new phages at the Rhine River and surrounding environment to investigate them in the lab. For this, we collect water and soil samples and examine these using microbiological methods in a real lab.

You will learn microbiology skills, such as working in sterile conditions, culturing bacteria and viruses and preparing culture media. Using the most modern microscopes, including the electron microscope, you will examine the lab-grown phages more closely, analyze their DNA and follow the traces of evolution.

You will learn all about phages: what they are, how they work, what we can do with them and how bacteria defend themselves against phages using diverse defense systems. And if you are lucky enough to discover a new phage, you can give it a name.

What about the side program?

Along with the research project, the course offers interesting lectures and excursions to major life sciences companies in the area. You will get to know the many aspects of the Life Science hub of Basel and meet other young researchers during the social activities.

Who can participate in the course?

Students from grades 11 to 13, attending a Gymnasium in the Basel region, who are interested in biology, would like to find out what research is about and enjoy discovering new things.

What language will be spoken?

The course and lectures will be held in English. However, the Course Coordinator as well as many of the tutors also speak German and will gladly assist if anything is unclear.

At a glance

When

1st to 12th July, 2024

Where

Biozentrum, University of Basel

Number of participants

24 students

Language

English

Course Coordinator

Dr. Dominik Buser and a team of science tutors from the Biozentrum

Application

Fill in the application form online and upload a short letter of motivation (max. 1 page)

www.biozentrum.unibas.ch/en/summer-science-academy

Closing date for applications

29th February, 2024

Costs

Participation is free of charge, lunch included

Certificate

The participants will receive a certificate at the end of the course.

Contact

summer-science-academy@unibas.ch