

RIKEN Yokohama Open Day on the Web (All Programs)

1. LIVE-STREAMING

1-1. YouTube

Time	Program	Details
10:00~	<p>【Try it at home (Remote experiment)】 How to make a specimen? Let's watch a preparation in real time!</p>	<p>This live-stream program is to show the details of making specimens step-by-step, from how to section a sample to stain specimens and how they observe them under a microscope.</p>
11:00~	<p>【Learn about our labs】 RIKEN Center for Integrative Medical Sciences Joint Graduate School : Session 2 Laboratory introduction</p>	<p>RIKEN Center for Integrative Medical Sciences (IMS) Joint Graduate School program is seeking Master and PhD students to study at IMS. In Sessin2, we will introduce our IMS laboratories and their activities.</p>
13:00~	<p>【Lecture (RIKEN Yokohama 20th Anniversary Special Lecture)】 The Evolution of Life Sciences and 20 Years of Research on the Yokohama Campus Speaker: Dr. SHINOZAKI Kazuo, Special Advisor to RIKEN CSRS and Director of the RIKEN CSRS Gene Discovery Research Group)</p>	<p>Analysis of the functions of various genes progressed with genome analysis in the 21st century, and the analysis of proteins and metabolites has dramatically improved our overall understanding of life. Focusing on research at RIKEN Yokohama, this lecture takes a look at the achievements in the life science field and consider new developments, particularly with regard to plant science.</p>
14:00~	<p>【Lecture (Yokohama City University Extension Course)】 The Story of Undeciphered Code of DNA Speaker: Kohsuke Kataoka, Associate Professor, Department of Biomedical Sciences, Yokohama City University Note: Advance application required</p>	<p>DNA is the blueprint of life. The genetic code of DNA was deciphered and the human genome project was finished. However, the huge number of instruction codes for extracting information from DNA remain largely undeciphered. This lecture considers the importance of the extraction mechanism of "transcription."</p>
15:00~	<p>【Try it at home】 Do you have high or low alcohol tolerance? Let's find out with an alcohol patch test!</p>	<p>Alcohol patch tests allow individuals to determine whether they have high or low alcohol tolerance. Let's try this test with your family at home and find out who has the highest. (If you already know you are hypersensitive to alcohol, we recommend just watching!) ♦ Things to prepare: Ethanol (over 75%), Plasters, a straw</p>
16:00~	<p>【Try it at home (Remote experiment)】 The mechanisms of the Sleeping Chironomid (Lecture in Japanese) (Online Experiment Kit: Pre-entry only)</p>	<p>Larvae of the sleeping chironomid (non-biting midge) survive dry conditions and return to their original shape in a short time when water is added. Would you like to see how it changes? ♦ We will provide you a kit that you can experiment with the remote lecture. You need to apply in advance by September 27th. If there are a large number of applicants, it will be a lottery *We can send it to domestic only and the application form is in Japanese only.</p>

1-2. Zoom

Time	Program	Details
10:00~	<p>【Learn about our labs】 RIKEN Center for Integrative Medical Sciences Joint Graduate School program : Session1 Program Briefing & Consultation</p>	<p>RIKEN Center for Integrative Medical Sciences (IMS) Joint Graduate School program is seeking Master and PhD students to study at IMS. IMS has collaborative graduate school agreements with various graduate schools, students can therefore study at RIKEN and get Master/PhD degree with the collaborative graduate school. In Session 1, We will consultate Master/PhD students how to join this program.</p>

11:00~	<p>【Seminars】 Plant science today: 1. A Canadian researcher in the Far East and the globalization of academia (in English) (10/10) 2. Introduction to plant hormones (10/17) 3. The Story of Movements in Plants (10/24) 4. Metabolism-based strategy for sustainable development in plants (10/31)</p> <p>(Participation requires application in advance)</p>
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We are happy to discuss with you about what's new in the plant science and the globalization of academia.

2. ONLINE VIDEOS

2-1. New Coronavirus

Program
Proper knowledge about the new coronavirus so you can stay safe!

Details
How much do you know about the new coronavirus? Dr. Usui leader, head of the Genetic Diagnostic Technology Development Unit at RIKEN IMS has put together an animated video with correct knowledge about the new coronavirus and preventive measures that anyone can do. Make sure you have the right knowledge and protect yourself against infection!

2-2. Virtual Lab Tours

Program
Take a virtual tour of the RIKEN Center for Integrative Medical Sciences (IMS) laboratories
Take a virtual tour of the RIKEN Center for Sustainable Resource Science (CSRS) laboratories
The shape of frozen proteins—a virtual tour of our cryo-electron microscope
Take a virtual tour of one of the world's largest NMR facilities

Details
"South Research Building Lab Tour!" It has been well received as an Open Day event every year. At this time, we will be held in VR (Virtual Reality)! There will be no lottery this year. You can take this tour even if you live in far from Yokohama.
Enjoy 360-degree panoramic views of laboratories, greenhouses, device and microscopes that are normally accessible only to researchers. Investigate and move around at your own pace!
Various kinds of proteins are at work in our bodies. Cryo-electron microscopy visualizes the shapes of instantaneously-frozen proteins. Learn about cryo-electron microscopy and the research that explores the mechanisms of life through the shape of proteins.
Take a virtual tour of our high-performance NMR (Nuclear Magnetic Resonance) instruments. You'll also learn about our various research activities.

2-3. Learn about our labs

Program
Supercomputer calculations: How virus mutations affect the behavior of drug molecules
Yokohama NMR research technologies support industry-academia-government R&D

Details
Viruses constantly mutate. We used a supercomputer to calculate changes in virus proteins and strategies of drug molecules at the micro level.
Yokohama City University is fully equipped with the world's highest level LC-NMR equipment and ultra-high magnetic field solid-state NMR, participates in MEXT's NMR Shared Platform Business (NMR-PF), and is a leading base for research technology in Japan. Learn about how we support a wide range of R&D in industry, academia and government.

The interesting mechanics of plants that overcome dryness
A tour of the Yokohama City University Tsurumi Campus

Tapioca is made from the cassava plant. This crop is also important for food security and economies. Our research aims to heighten cassava production stability. We will introduce how plants protect themselves against dryness, using cassava as an example.
A video introduction to Yokohama City University's Tsurumi Campus (Graduate School of Medical Life Science, and the Faculty of Science in the International College of Art and Sciences) and its facilities and devices (NMR devices, X-ray diffraction equipment, mass spectrometers, supercomputers, etc.)

2-4. Try it at home

Program
Let's draw a new/ideal type of Euglena for "Imaginary Euglenapedia"!
Understanding molecular structures through science beads
Try programming in the easy Scratch language
Quiz: The technologies that drive plant science
Plant science trivia and quiz
Everyday, fun science experiments for kids in the YCU Hiyo Lab

Details
What kind of Euglena would you like to be discovered in our Euglena-seeking project "Euglena for ALL"? Submit some illustration/function of your ideal Euglena. We are going to publish "Imaginary Euglenapedia" from your ideas!
Swarovski beads are used to represent molecular structure of drugs used in the treatment of the novel coronavirus. Multiple-angle GIF animations will help you visualize each molecule in three dimensions. We'll also show you how to create your own DNA bases from beads!
Scratch is an easy-to-learn programming environment that does not require learning difficult syntax. The Scratch runtime environment, demonstrations and materials will also be used to promote understanding the role of programming in research and in society.
Plant science is advancing through various research techniques. Learn about two of these techniques, mass spectrometry and microscope analysis, through a fun quiz.
Join us for some plant trivia. Take the quiz and consider the future of the earth together with us!
Enjoy fun visual experiments using luminol reactions, coloring/decoring flowers, extracting the fluorescent dye from Garigari-kun ice candy and making artificial cod roe.