



Experience Bratislava



Date.

12 November, 2025

Venue.

Biomedical Research Center of SAS
Block B, 8th floor, room 9.63
Dúbravská cesta 9, Bratislava



Audience.

University students and early stage researchers.

Registration.



Register at
<https://forms.office.com/e/5kwr9RpSHK>
before 5 November 2025

www.carlahub.eu

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Description.

The **International Laser Centre of SCSTI** is delighted to invite you to the upcoming **360 CARLA Health Experience** on **Biomedical applications of photonics**, taking place at the **Biomedical Research Center of SAS, University Science Park for Biomedicine**, Dúbravská cesta 9, Bratislava, Slovakia.

This one-day seminar will offer a professional introduction to the use of **fluorescence, confocal as well as superresolution microscopy in biomedical research**. In the morning lectures, principles of fluorescence will be explained to the participants followed by its use in imaging microscopic methods and calcium signaling in living cells.

The afternoon sessions will allow the attendees to get familiar with real experimental setup for the study of calcium signaling in cardiac muscle cells and a demonstration of work with a confocal microscope with permanent samples.

Don't miss this opportunity to gain hands-on experience and discover how cutting-edge photonics technologies are advancing biomedical sciences!

Program

12 November 2025

9:30–10:00 Course introduction and set-up

10:00–11:00 Fundamentals of fluorescence, introduction to fluorescence, confocal and super-resolution microscopy

10:30–12:00 Fluorescence as a tool to study cell calcium signaling

12:00–13:30 Lunch Break

13:30–14:45 A – Hands-on on the confocal microscope – image acquisition optimization (live)
B – Study of calcium signaling in cardiac myocytes – experimental setup introduction

14:45–16:00 A – Study of calcium signaling in cardiac myocytes – experimental setup introduction
B – Hands-on on the confocal microscope – image acquisition optimization (live)

16:00–17:00 Q&A, discussion, closing remarks

17:00 End of the Event

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