

## PhD course – Program

Location: UP MS New building, SIOT0032

Date: August 25, 2022

Program: <https://www.rbc2022.hu/programme.php>

**25<sup>th</sup> August 2022 9:00 – 12:30**

### ***BioImaging section***

**9:00 – 9:45 Plenary lecture – Jaroslav Jacak**

*Department of Medical Engineering, University of Applied Sciences Upper Austria, Linz, Austria*

Three-dimensional microscopy and lithography with sub-diffractive resolution for mimicking blood vessels

**9:45 – 10:15 Invited lecture – Gábor Csúcs**

*ETH Zürich, Switzerland*

Quantitative Phase Imaging using a holo-tomographic system

**10:15 – 10:30 Contributed lecture – Edina Szabó-Meleg**

*University of Pécs, Medical School, Department of Biophysics*

Study of transport processes mediated by membrane nanotubes

**10:30 – 11:00**

*break*

**11:00 – 11:30 Invited lecture – Veronika Huntošová**

*Center for Interdisciplinary Biosciences, Technology and Innovation Park of P.J. Šafárik University, Košice, Slovakia*

Time-resolved detection of oxidative stress level in cancer cells

**11:30 – 12:00 Invited lecture – Péter Horváth**

*Institute of Biochemistry, Biological Research Centre, Szeged, Hungary*

*Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Helsinki, Finland*

Life beyond the pixels: single-cell analysis using deep learning and image analysis methods

**12:00 – 12:15 Contributed lecture – Aleksandar Krmpot**

*Institute of Physics Belgrade, University of Belgrade, Serbia*

Ultrashort laser pulses interaction with hemoglobin micro-patterning and label-free imaging

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| <b>12:15 – 12:30</b><br>tba   |
| <b>12:30 – 14:00</b><br>break   |
| <b>25<sup>th</sup> August 2022 14:00 – 17:30</b><br><b><i>Summer School on advanced optical microscopy</i></b>  |
| <b>14:00 – 14:30 Gábor Csúcs</b><br><i>ETH Zürich, Switzerland</i><br>Which is the best microscope?   |
| <b>14:30 – 15:00 Jaroslav Jacak</b><br><i>Department of Medical Engineering, University of Applied Sciences Upper Austria, Linz, Austria</i><br>Super-resolution optical microscopy   |
| <b>15:00 – 15:30 György Vámosi</b><br><i>University of Debrecen, Faculty of Medicine, Department of Biophysics and Cell biology, Debrecen, Hungary</i><br>Fluorescence correlation spectroscopy and its applications in cell biology                                    |
| <b>15:30 – 16:00</b><br>break   |
| <b>16:00 – 16:30 Veronika Huntošová</b><br><i>Center for Interdisciplinary Biosciences, Technology and Innovation Park of P.J. Šafárik University, Košice, Slovakia</i><br>Intravital imaging as a tool for photodiagnostics and prerequisites for photodynamic therapy |
| <b>16:30 – 17:00 Beáta Bugyi</b><br><i>University of Pécs, Medical School, Department of Biophysics, Pécs, Hungary</i><br>Total internal reflection fluorescence microscopy in life sciences  |
| <b>17:00 – 17:30 Péter Horváth</b><br><i>Institute of Biochemistry, Biological Research Centre, Szeged, Hungary</i><br><i>Institute for Molecular Medicine Finland, HiLIFE, University of Helsinki, Helsinki, Finland</i><br>tba  |