

**Programme PhD / Postdoc course
Advanced Optical Microscopy
2023**

Monday, June 12, 2023

Time	Item	Location
09.00 – 09.15	<i>Welcome and brief overview of the course</i> Marc van Zandvoort Dept. Molecular Cell Biology, Maastricht University Medical Center	
09.15 – 10.15	<i>Basics of Microscopy</i> Marc van Zandvoort Dept. Molecular Cell Biology, Maastricht University Medical Center	
10.15 – 10.45	<i>Break</i>	
10.45 – 13.00	<i>Practical course 1: Bright field microscopy, a hands-on course</i> Jos Broers / Dimitris Kapsokalyvas Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 40 C4.556 C4.570
13.00 – 14.00	<i>Break</i>	
14.00 – 15.00	<i>Fluorescence Microscopy</i> Marc van Zandvoort Dept. Molecular Cell Biology, Maastricht University Medical Center	
15.00 - 15.15	<i>Break</i>	
15.15 – 16.15	<i>Practical course 2: Fluorescence Microscopy a hands-on course</i> Group 1 Jos Broers Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 F5.126A
15.15 – 16.15	<i>Group 2 working on assignment</i>	UNS 50 F5.111A
16.15 – 17.15	<i>Practical course 2: Fluorescence Microscopy a hands-on course</i> Group 2 Jos Broers Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 F5.126A
16.15 – 17.15	<i>Group 1 working on assignment</i>	UNS 50 F5.111A

Tuesday, June 13, 2023

Time	Item	Location
09.00 – 10.00	<i>Confocal Microscopy</i> Dimitris Kapsokalyvas Dept. Molecular Cell Biology, Maastricht University Medical Center	
10.00-11.00	<i>From sample to image: a starting guide to sample preparation and staining</i> Timo Rademakers MERLN, Maastricht University Medical Center	
11.00-11.15	<i>Break</i>	
11.15 – 12.15	<i>An introduction to tissue clearing for 3D microscopy</i> Sven Hildebrand Faculty of Psychology, Maastricht University Medical Center	
12.15 – 13.15	<i>Break</i>	
13.15 – 14.15	Light Sheet Microscopy Anna Schueth Faculty of Psychology, Maastricht University Medical Center	
14.30 – 15.30	<i>Practical course 3: Confocal Microscopy Demonstration</i> Group 1 Merel Stiekema Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 F5.126A
14.30 – 15.30	<i>Group 2 working on assignment</i>	UNS 50 F5.111A
16.00 – 17.00	<i>Practical course 3: Confocal Microscopy Demonstration</i> Group 2 Merel Stiekema Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 F5.126A
16.00 – 17.00	<i>Group 1 working on assignment</i>	UNS 50 F5.111A

Wednesday, June 14, 2023

Time	Item	Location
09.00 – 10.00	<i>Super-resolution Microscopy: an overview</i> Dimitris Kapsokalyvas Dept. Molecular Cell Biology, Maastricht University Medical Center	
10.00 – 11.00	<i>STED-Microscopy</i> Marc van Zandvoort Dept. Molecular Cell Biology, Maastricht University Medical Center	
11.00 – 11.15	Break	
11.15 – 12.15	<i>Expansion Microscopy: principles, sample preparation, and results</i> Merel Stiekema Dept. Molecular Cell Biology, Maastricht University Medical Center	
12.15 – 13.00	Break	
13.00 – 14.00	<i>Two-photon microscopy: going deep and life</i> Marc van Zandvoort Department of Genetics and Cell Biology	
14.00 – 15.00	Practical course 5: STED microscopy demonstration Group 1 Merel Stiekema Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 G0.207
14.00 – 15.00	<i>Practical course 6: Two-Photon Hands-on</i> Group 2 Dimitris Kaspokalyvas Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 G0.201
15.15 – 16.15	Practical course 5: STED microscopy demonstration Group 2 Merel Stiekema Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 G0.207
15.00 – 16.00	<i>Practical course 6 : Two-Photon Hands-on</i> Group 1 Dimitris Kapsokalyvas Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 G0.201

Thursday, June 15, 2023

Time	Item	Location
9.00-10.00	exSRRF: Improving resolution without technical adaptations Dominik Klyies Department of Medicine - Nephrology, Rheumatology, Endocrinology, Diabetology, Transplantation and Translational Immunology	
10.00-11.00	<i>Image Processing</i> <i>Dimitris Kapsokalyvas</i> <i>Department of Genetics and Cell Biology</i>	
11.00 – 12.00	<i>High throughput and high content cellular analysis for systems biology</i> Winnok De Vos Antwerp University	
12.00-13.00	<i>Break</i>	
13.00 – 14.00	<i>3D image restoration and imaging pitfalls</i> Vincent Schoonderwoert Scientific Volume Imaging BV	
14.00-14.30	Break	
14.30 – 16.30	Workshop Image processing with Huygens Vincent Schoonderwoert Scientific Volume Imaging BV	

Friday, June 16, 2023

Time	Item	Location
09.00 – 10.00	<i>Raman microscopy techniques</i> Giuditta Perversi Chemistry, Maastricht Science Program	
10.00 – 11.00	<i>Mutliphoton Endoscopy</i> Vytautas Kucikas IMCAR Aachen	
11.00 – 11.15	<i>Break</i>	
11.15 – 12.15	<i>Wrap-up</i> Marc van Zandvoort Dept. Molecular Cell Biology, Maastricht University Medical Center	
12.15 – 7.00	<i>Groups working on assignment</i>	UNS 50 F5.111A