

**Programme PhD/Postdoc course
Advanced Optical Microscopy
2025**

Monday, June 23, 2025

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	UNS 50 F5.111A
09.15 – 10.15	<i>Basics of Microscopy</i> Marc van Zandvoort Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 F5.111A
10.15 – 10.45	<i>Break</i>	
10.45 – 12.30	<i>Practical course 1: Bright field microscopy, a hands-on course</i> Dimitris Kapsokalyvas Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 60 M3.09
12.30 – 13.30	<i>Break</i>	
13.30 – 14.30	<i>Fluorescence Microscopy</i> Marc van Zandvoort Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 F5.111A
14.30 – 15.00	<i>Break</i>	
15.00 – 15.45	<i>Practical course 2: Fluorescence Microscopy a hands-on course</i> Group 1 Monique Ummelen Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 F5.150A
15.45 – 16.30	<i>Practical course 2: Fluorescence Microscopy a hands-on course</i> Group 2 Merel Stiekema Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 F5.150A
16.30 – 17.15	<i>Practical course 2: Fluorescence Microscopy a hands-on course</i> Group 3 Merel Stiekema Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 F5.150A

Tuesday, June 24, 2025

Time	Item	Location
09.00 – 10.00	<i>Confocal Microscopy</i> Dimitris Kapsokalyvas Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 F5.111A
10.00 – 11.00	<i>Two-photon microscopy: going deep and life</i> Marc van Zandvoort Department of Genetics and Cell Biology	UNS 50 F5.111A
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	UNS 50 F5.111A
12.15 – 13.15	<i>Break</i>	
13.15 – 14.15	Light Sheet Microscopy Anna Schüth Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 F5.111A
14.15 – 14.30	<i>Break</i>	
14.30 – 15.30	<i>Practical course 3: Confocal Microscopy Demonstration</i> Group 3 Merel Stiekema Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 G0.207
14.30 – 15.30	<i>Practical course 3: Confocal Microscopy Demonstration</i> Group 2 Ziyu Xu Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 F5.150A
15.30 – 16.30	<i>Practical course 3: Confocal Microscopy Demonstration</i> Group 1 Ziyu Xu Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 F5.150A

Wednesday, June 25, 2025

Time	Item	Location
09.00 – 10.00	<i>Super-resolution Microscopy techniques: an overview</i> Dimitris Kapsokalyvas Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 F5.111A
10.00 – 11.00	<i>STED-Microscopy</i> Marc van Zandvoort Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 F5.111A
11.00 – 11.15	Break	
11.15 – 12.15	<i>Expansion Microscopy, Super-resolution based on sample preparation: principles, sample preparation, and results</i> Merel Stiekema Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 F5.111A
12.15 – 13.15	<i>Multiphoton Endoscopy</i> Vytautas Kucikas Dept. Molecular Cell Biology, Maastricht University Medical Center/RWTH University Hospital Aachen, Aachen Germany	UNS 50 F5.111A
13.15 – 14.00	Break	
14.00 – 14.40	<i>Practical course 6: Multiphoton Endoscopy Hands-on</i> Group 2 Vytautas Kucikas Dept. Molecular Cell Biology, Maastricht University Medical Center Center/RWTH University Hospital Aachen, Aachen Germany	UNS 50 F5.150A
14.50 – 15.30	<i>Practical course 6: Multiphoton Endoscopy Hands-on</i> Group 3 Vytautas Kucikas Dept. Molecular Cell Biology, Maastricht University Medical Center Center/RWTH University Hospital Aachen, Aachen Germany	UNS 50 F5.150A
15.30 – 16.10	<i>Practical course 6: Multiphoton Endoscopy Hands-on</i> Group 1 Vytautas Kucikas Dept. Molecular Cell Biology, Maastricht University Medical Center Center/RWTH University Hospital Aachen, Aachen Germany	UNS 50 F5.150A
14.00 – 14.40	Practical course 5: STED microscopy demonstration Group 3 Merel Stiekema	UNS 50 G0.207

	Dept. Molecular Cell Biology, Maastricht University Medical Center	
14.40 – 15.20	Practical course 5: STED microscopy demonstration Group 1 Merel Stiekema Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 G0.207
15.20 – 16.00	Practical course 5: STED microscopy demonstration Group 2 Merel Stiekema Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 G0.207

Thursday, June 26, 2025

Time	Item	Location
09.00 – 10.00	<i>From sample to image: a starting guide to sample preparation and staining</i> Timo Rademakers MERLN, Maastricht University Medical Center	UNS 50 F5.111A
10.00 – 11.00	<i>High throughput and high content cellular analysis for systems biology</i> Winnok De Vos Antwerp University	UNS 50 F5.111A
11.00 – 12.00	<i>Break</i>	
12.00 – 13.00	<i>3D image restoration and imaging pitfalls</i> Vincent Schoonderwoert Scientific Volume Imaging BV Nu deelnemen aan de vergadering Vergadering-id: 398 747 713 023 Wachtwoordcode: Yg6kF2iN	UNS 50 F5.111A Teams
13.00 – 13.30	<i>Break</i>	
13.30 – 14.30	Workshop Image deconvolution with Huygens Vincent Schoonderwoert Scientific Volume Imaging BV Nu deelnemen aan de vergadering Vergadering-id: 376 106 892 703 7 Wachtwoordcode: Wd9qk6sh	UNS 50 F5.111A Teams
14.30 – 16.00	<i>Image Processing hands-on</i> Dimitris Kapsokalyvas Department of Genetics and Cell Biology	UNS 50 F5.111A

Friday, June 27, 2025

Time	Item	Location
10.00 – 11.00	<i>Applications of STED</i> Marcel Lauterbach University of Homburg	UNS 50 F5.111A
11.00 – 12.00	<i>Spontaneous Raman microscopy techniques</i> Giuditta Perversi Chemistry, Maastricht Science Program	UNS 50 F5.111A
12.00 – 13.00	<i>Stimulated Raman Microscopy, CARS, and virtual histology</i> Hervé Rigneault CNRS Marseille	UNS50 F5.111A
13.00 – 14.00	<i>Break</i>	
14.00 – 15.00	exSRRF: Improving resolution without technical adaptations Dominik Kyries Department of Medicine - Nephrology, Rheumatology, Endocrinology, Diabetology, Transplantation and Translational Immunology Nu deelnemen aan de vergadering Vergadering-id: 354 053 684 614 7 Wachtwoordcode: f5w2Pg7T	UNS 50 F5.111A Teams
15.00 – 15.15	<i>Wrap-up</i> Marc van Zandvoort Dept. Molecular Cell Biology, Maastricht University Medical Center	UNS 50 F5.111A
15.15 – 17.15	<i>Groups working on assignment</i>	UNS 50 F5.111A