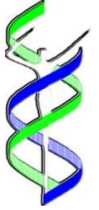




**OIC Course Functional Imaging and Super Resolution  
Rotterdam  
November 11-15, 2024**



|               |  |       |
|---------------|--|-------|
| TOPICS:       | Time Lapse, Lightsheet. FRAP, FRET, FLIM, Single Molecule Localization, SIM, STED, MinFlux, Fluorescent Proteins, Quantitative Data Analysis, and more |       |
| Organizers:   | Adriaan Houtsmuller, Gert van Cappellen, Johan Slotman and Gert-Jan Kremers, Erasmus OIC, Erasmus MC   |       |
| Participants: | PhD's, Postdocs, anyone interested   |       |
| Venue:        | Erasmus MC Rotterdam   |       |
| Registration: | <a href="https://erasmusoic.nl/phd">https://erasmusoic.nl/phd</a>  |       |
| Costs:        | MGC, ONWAR, Graduate School  | 0 €   |
|               | Others (PhD students, Post-docs)   | 300 € |
|               | Others non-commercial participants   | 300 € |
|               | Lectures only  | 0 €   |

This five day course consists of lecture sessions in the morning and practical sessions in the afternoon. On Monday and Thursday there will also be evening sessions with a dinner. In the final session on Friday afternoon participants will present and discuss the results of their practical work. The practical sessions can be attended by a maximum of 25 participants (5 groups of 5 participants).

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## Program

### Monday 11/11

Registration (Natuurhistorisch Museum) 9:00 – 9:30

#### Lectures (Natuurhistorisch Museum)

|  |                         |               |
|--|-------------------------|---------------|
| Introduction   | Gert van Cappellen, OIC | 9:30 – 10:20  |
| Probes for microscopy                                | Gert-Jan Kremers, OIC   | 10:20 – 11:10 |
| Coffee/Tea break                                     |                         | 11:10 – 11:30 |
| Correlated light and electron microscopy and ColorEM | Ben Giepmans, UMCG      | 11.30 – 12.20 |

Lunch 12:30 – 14:00

#### Practical work

|                       |          |               |
|-----------------------|----------|---------------|
| Hands-on Introduction | OIC-team | 14:00 – 16:00 |
| Coffee/Tea break      |          | 16:00 – 16:15 |
| Time Lapse Microscopy | OIC-team | 16:15 – 17:30 |

Evening Session: Participants and OIC 18:00 – 21:00

Dinner in restaurant “de Machinist”

Short introduction by participants (one minute pitch)

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# Functional and Super Resolution Imaging

## Tuesday 12/11

### Lectures (Natuurhistorisch Museum)

|                  |                          |               |
|------------------|--------------------------|---------------|
| FLIM & FRET      | Jan Willem Borst, WUR    | 9:30 – 10:20  |
| Optogenetics     | Jeffrey van Haren, EMC   | 10:20 – 11:10 |
| Coffee/Tea break |                          | 11:10 – 11:30 |
| FRAP             | Adriaan Houtsmuller, OIC | 11:30 – 12:20 |
| Lunch            |                          | 12:30 – 13:30 |

### Practical work

|                  |                  |               |
|------------------|------------------|---------------|
| FRAP             |                  | 13:30 – 15:15 |
| Coffee/Tea break | Coffee/Tea break | 15:15 – 15:45 |
| FRAP             |                  | 15:45 – 18:00 |

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## Wednesday 13/11

### Lectures (Natuurhistorisch Museum)

|   |                       |               |
|---|-----------------------|---------------|
| Super-resolution Microscopy               | Johan Slotman, EMC    | 9:30 – 10:20  |
| Multi-photon and Ca <sup>2+</sup> Imaging | Aaron Wong, EMC       | 10:20 – 11:10 |
| Coffee/Tea break                          |                       | 11:10 – 11:30 |
| MinFlux super-resolution                  | Clara Gürth, Abberior | 11.30 – 12.20 |
| Lunch                                     |                       | 12:30 – 13:30 |

### Practical work

|   |  |               |
|---|--|---------------|
| STED, SMT, RCM, MinFlux, or<br>Lightsheet |  | 13:30 – 15:30 |
| Coffee/Tea break                          |  | 15:30 – 16:00 |
| STED, SMT, RCM, MinFlux, or<br>Lightsheet |  | 16:00 – 18:00 |

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# Functional and Super Resolution Imaging

## Thursday 14/11

### Lectures (Collegezaal-1, EMC)

|                       |                         |               |
|-----------------------|-------------------------|---------------|
| Lightsheet microscopy | Gert-Jan Kremers, EMC   | 9:30 – 10:20  |
| ImageJ / FIJI         | Gert van Cappellen, OIC | 10:20 – 11:10 |
| Coffee/Tea break      |                         | 11:10 – 11:25 |
| Data analysis         | OIC team                | 11:25 – 12:15 |
| Lunch                 |                         | 12:30 – 13:00 |

### Practical work

|   |          |               |
|---|----------|---------------|
| Demo: STED, SMT, RCM, MinFlux, Lightsheet | OIC team | 13:00 – 15:00 |
| Coffee/Tea break                          |          | 15:00 – 15:15 |
| Data analysis                             | OIC team | 15:15 – 18:00 |
| <u>Dinner + Data Analysis</u>             |          | 18:00 – 20:00 |

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## Friday 15/11

## Seminar and Presentations by Participants

|   |   |               |
|---|---|---------------|
| Preparation presentation (Erasmus MC)                                     |   | 9:30 – 12:00  |
| Lunch   |   | 12:00 – 12:45 |
| Presentations by participants (Natuurhistorisch Museum)                   | <i>(5 groups; 15 minutes each + 5 minutes discussion)</i> | 13:00 – 15:00 |
| Keynote lecture: Development of novel fluorescent proteins and biosensors | Joachim Goedhart, UvA                                     | 15:00 – 16:00 |
| <u>Goodbye Drinks/Snacks</u> (Erasmus MC)                                 |   | 16:00         |

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**EVIDENT**

**abberior**



**Leica**  
MICROSYSTEMS