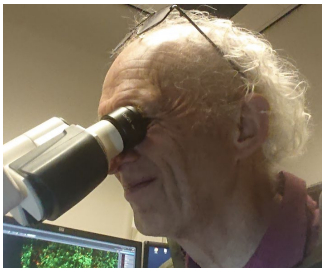
UMIC Newsletter nr.06 December 21st 2023
www.umic.info umic@umcg.nl

UMCG Microscopy & Imaging Center

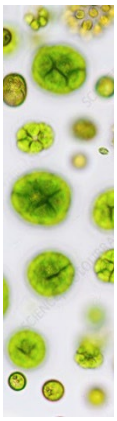
UMIC offers training and access to advanced microscopes and image processing. This newsletter informs users about innovations and events and invites users for feedback.

OPEN HOUSE & FAREWELL KLAAS SJOLLEMA



Save the date:

April 5th



Wim van Egmond (tentative) gives a view on the small living world (image WvE).

CONTACT UMIC always via umic@umcg.nl
Anouk, Axel, Ben, Daan, Jeroen, Kim or Klaas will help.
For now **we wish you a COLOURFUL 2024!**

UPDATE MACHINES O&O INVESTMENT PLAN

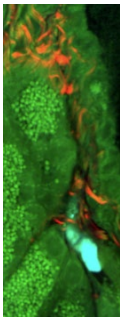
The plan has been crucial to acquire systems for (1) 3D and live acquisition; (2) nanometer-range resolution; (3) label-free identification of structures.

The Leica SP8 is our workhorse: easy to use high-end confocal with advanced functions for precise, background-free 3D imaging.

The Zeiss Cell Discoverer 7 is a highly versatile high-end widefield & confocal microscope for many vessel and slide types. *The* instrument for life cell imaging. Book on time, it is heavily used.

The Zeiss Lightseet (LS7) superb for 3D analysis in bigger living systems like larvae & organoids and extreme fast acquisition and low phototoxicity!

ColorEM: The Talos200 for regular transmission electron microscopy, serial section (Color)EM and more. Label free ColorEM to identify biomolecules better exemplified by the prize-winning data below!



The Leica Stellaris CRS is the first instrument capable of identifying molecule types without any labeling using Raman light scattering. Exciting first results! Also for regular CLSM, life-time and second harmonics imaging. Exocrine granules and other structures (green), erythrocytes (in blue), collagen (red). Pancreas zebrafish larvae, labelfree!

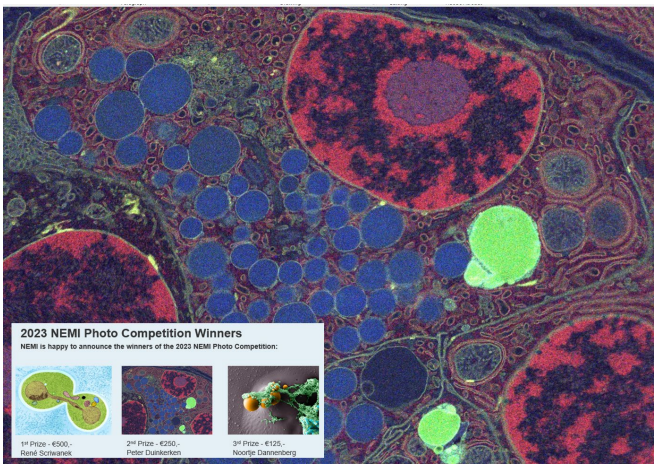
Spatial Omics - Transcriptomic and proteomic profiling at the near cellular level with the **nanostring GeoMx DSP** is available for users. In 2024 **the 10X genomics Xenium** will allow for (sub)cellular spatial omics.
Stay tuned!

COURSE: CELLULAR IMAGING ADVANCED

Microscopy of biomolecules applied in YOUR project using super(depuper)resolution microscopy. Localization (ONI) as well as STED microscopy will be available. Other highlights are FLIM and ColorEM. **Subscribe NOW**! Students already have Cellular Imaging Light certificate

March 11-15th	Techniques and sample preparation
March 16-31st	Prepare your samples in your lab
April 2-4th	Image acquisition & analysis
April 9th	Presentations

Peter Duinkerken & ColorEM: Prize-winning!



Contact us for a 2024 NEMI calendar featuring ColorEM

Contact: umic.info or umic@umcg.nl