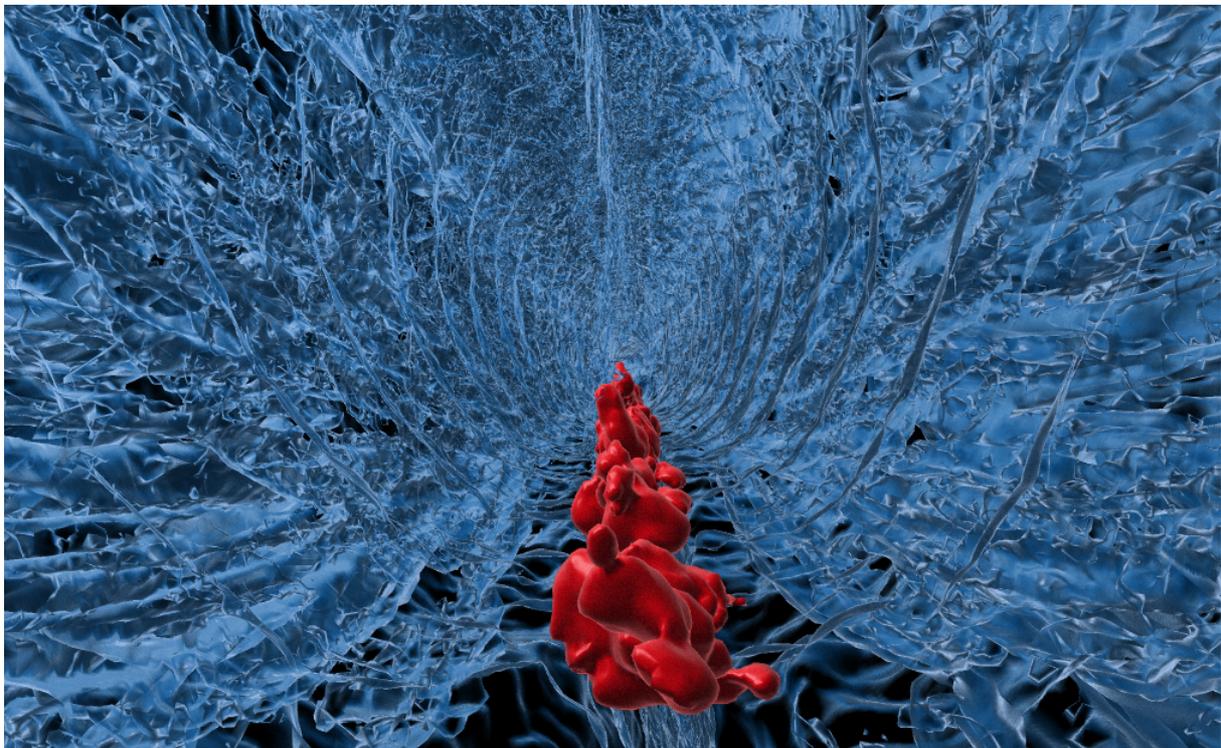


Dear All,

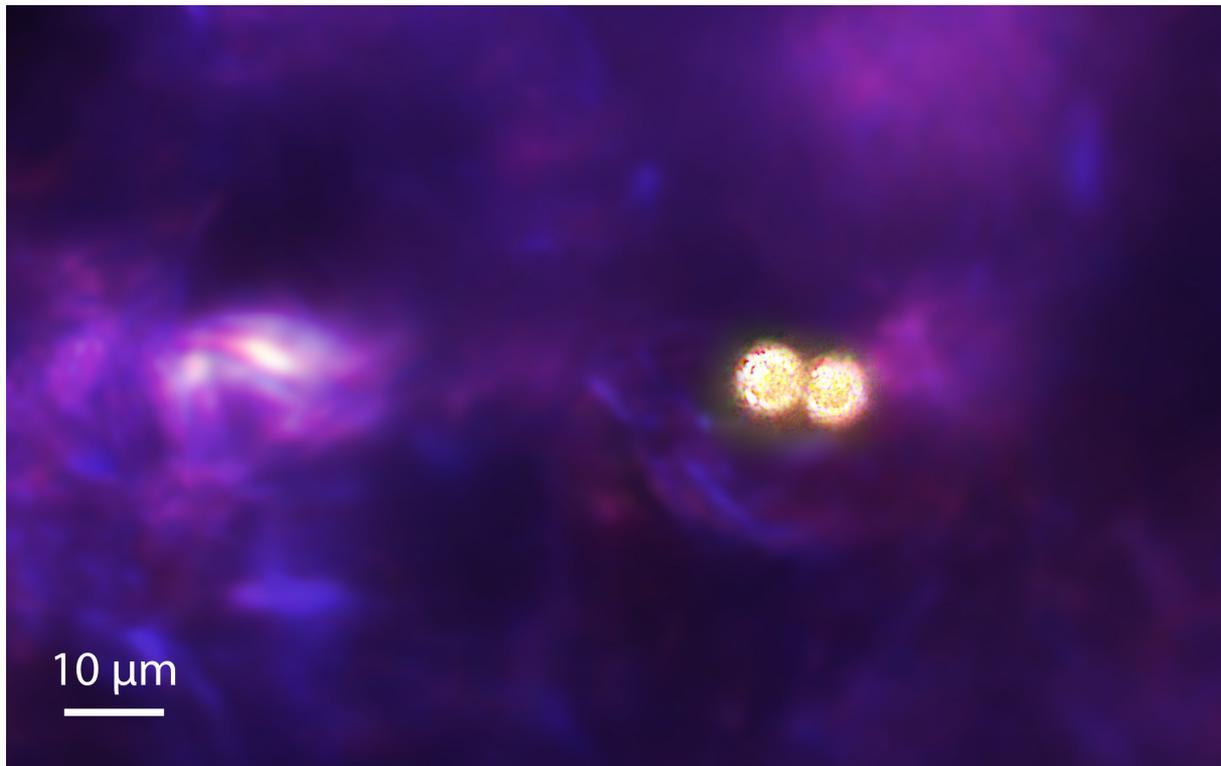
We thank everyone who participated to the SNC Nano Image Award 2020. We received beautiful pictures and we hope that you will participate again in the SNC Nano Image Award 2021. The prizes are sponsored by the Swiss MNT network and the pictures were evaluated by a small committee of the SNC 2020 organizers (SNI, Swiss MNT network and FSRM).

The first prize (500 CHF) goes to the picture: SPIONs - Accumulation of Superparamagnetic Iron Oxide Nanoparticles within a zebrafish embryo of Jan Stephan Bolten from the Institute of Pharmaceutical Technology, University of Basel.



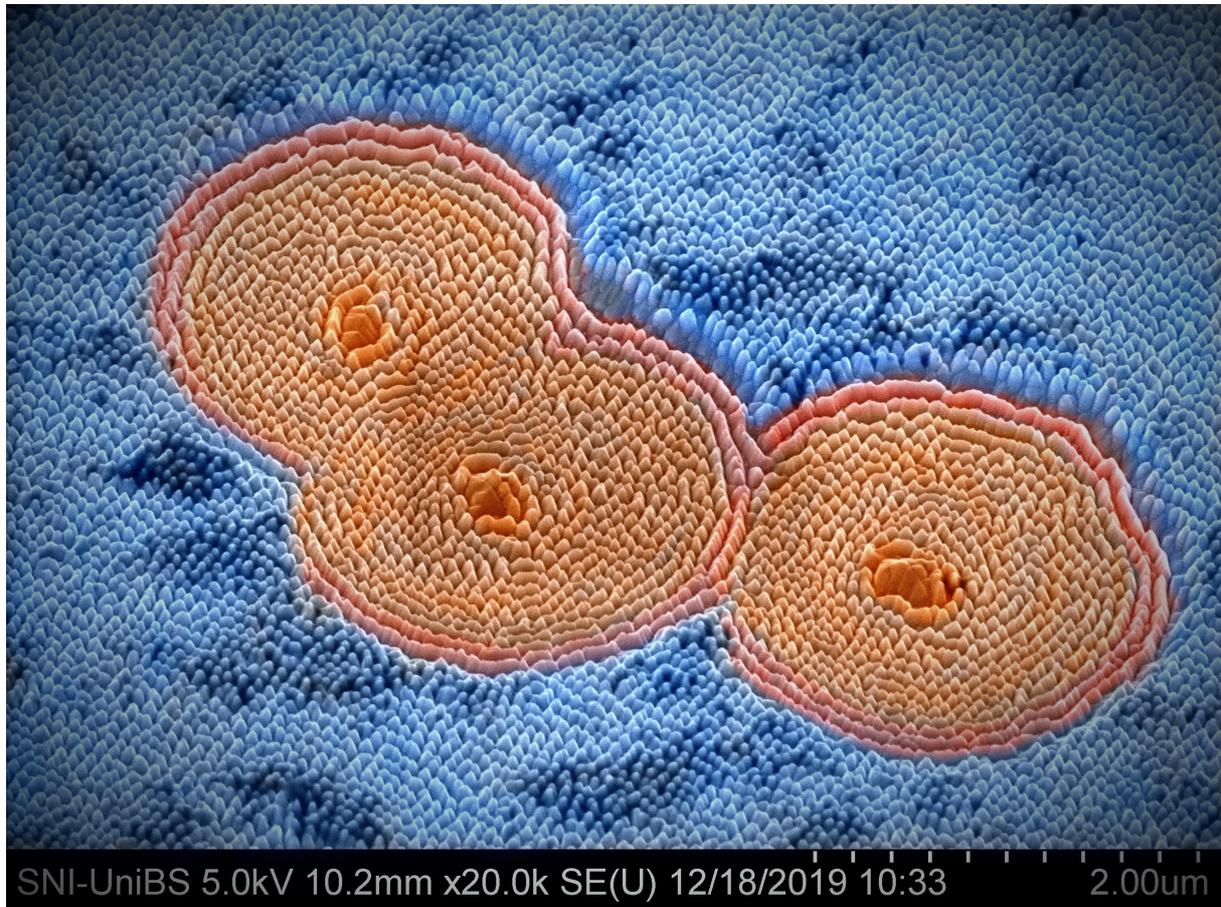
Superparamagnetic Iron Oxide Nanoparticles (SPIONs) with a mean size of 100 nm are clinically used as diagnostic agents. They serve as a contrast media when exposed to a magnetic field. Here, the tissue distribution of SPIONs was visualized after intravenous injection in a zebrafish embryo by synchrotron radiation-based X-ray tomography. Agglomerates of SPIONs sequestered by macrophages are shown in a caudal direction. We are thus seemingly placed within a blood vessel of a 2.5 mm sized zebrafish looking at the surrounding soft tissue and onto embedded macrophages.

The second prize (300 CHF) goes to the picture: Cosmic hierarchy – from nano to micro from Darius Urbonas, IBM Research GmbH.



An optical image of supraparticles (SPs) of self-assembled semiconductor CdSe/CdS nanocrystals (NCs). The SPs have an average diameter of $10.2 \pm 0.5 \mu\text{m}$ and are synthesized using in-flow microfluidic device from NCs having an average diameter of $11.4 \pm 1.5 \text{ nm}$. The SPs support whispering gallery modes and optically pumped lasing. Here, the quartz substrate is roughened using a sandblaster to remove the excess ligands and reveal the SPs. The SPs are drop casted onto the substrate from a liquid solution. The sample is imaged using a 100x objective and illuminated with a polarized white light, which is absorbed by the SPs and reemitted at approximately 627 nm (reddish color). To pronounce the SPs versus the background, the image is colored with a blueish color.

And the third prize (200 CHF) goes to the picture: Surface patterning of single-crystal rhodium by Fabien Sanchez from the Department of Physics & Daniel Mathys from the Nano Imaging Lab at the University of Basel.



This image is a top-view of a single-crystal rhodium imaged by a Hitachi S4800. The exposure of the Rh surface to Ar⁺ leads to the appearance of ripples that propagate outwards, eventually leading to coalescence.

Most warm congratulations to all the winners!

