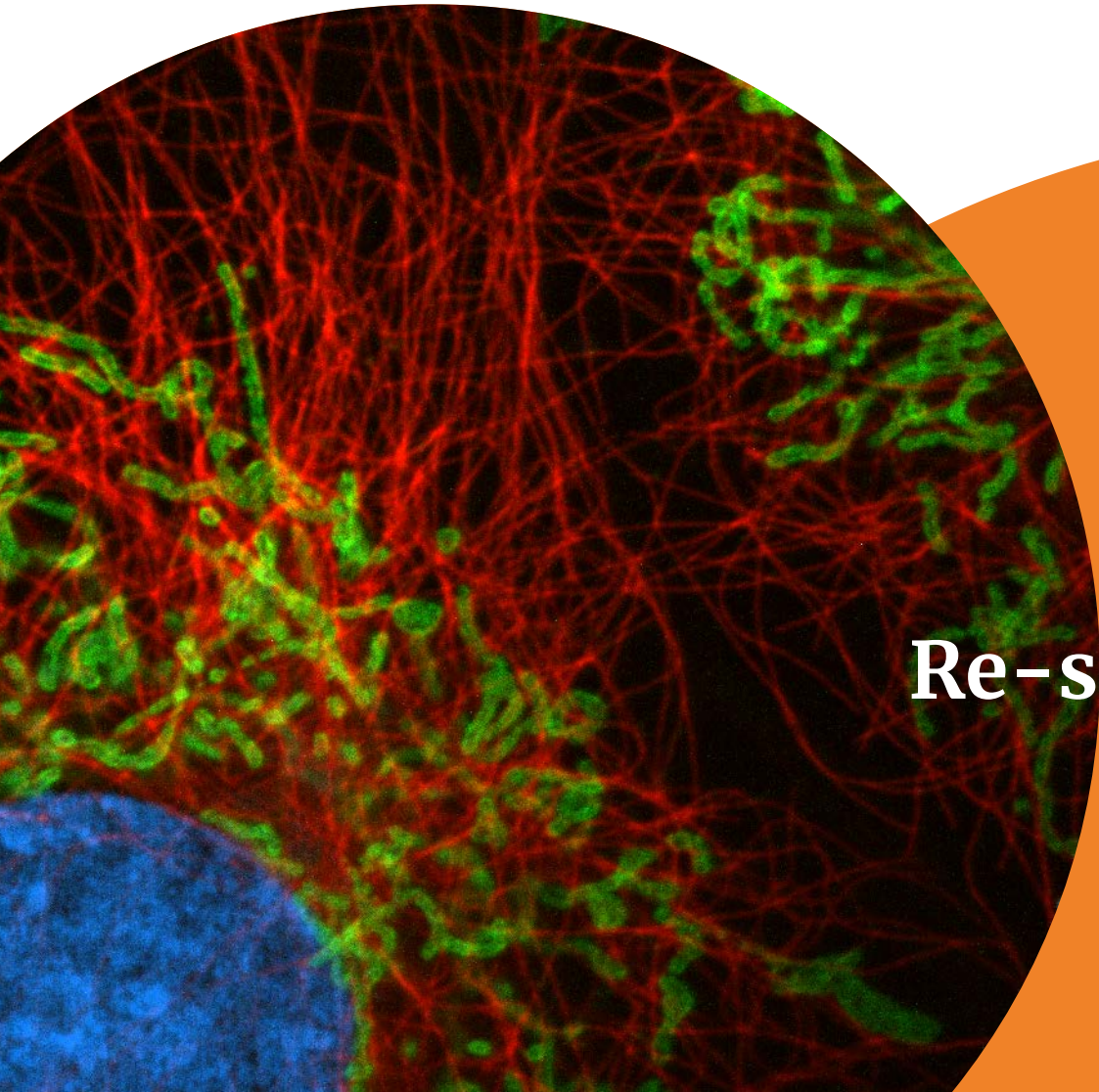
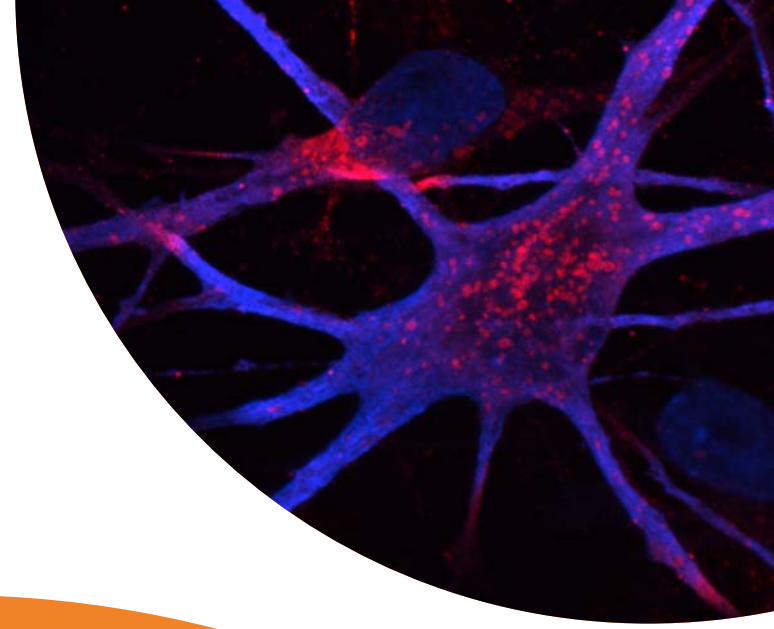
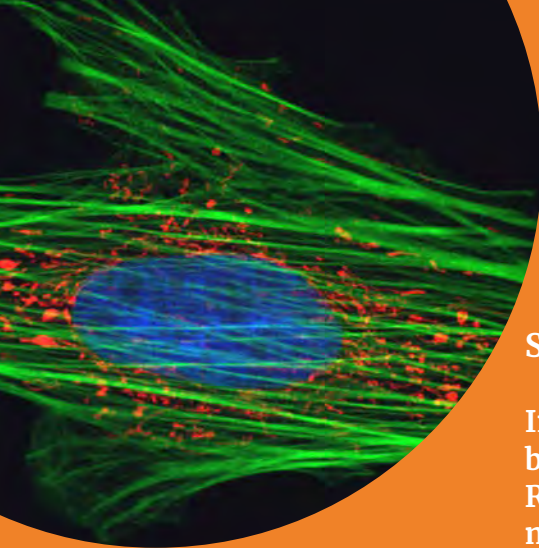


Confocal.nl
the Dutch microscopy company



Re-scan Confocal Microscope

by scientists for scientists

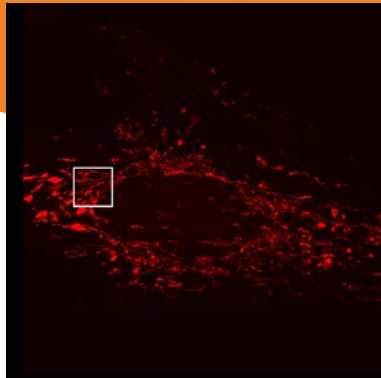


SEE THE DIFFERENCE WITH RCM

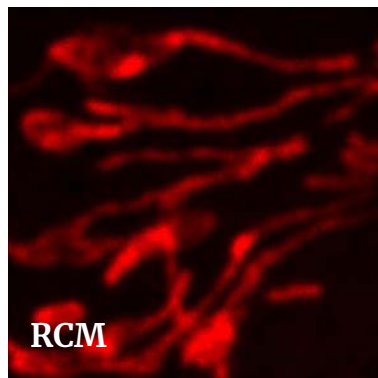
In order to demonstrate the image improvement by RCM, we have made images of the same cell using RCM, wide-field and conventional confocal microscopy. The image taken by RCM has been further improved using deconvolution.

Skin fibroblast with DAPI in blue, actin in green and mitochondria in red. For exact imaging details, please visit:

<http://www.confocal.nl/comparison>

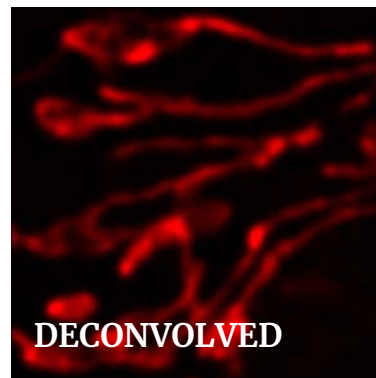


10µm

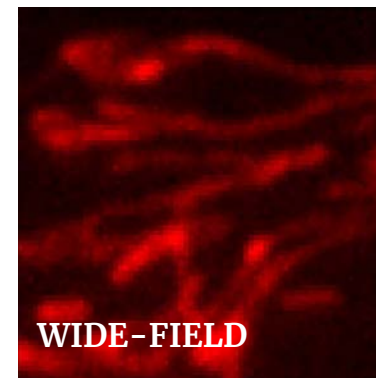


RCM

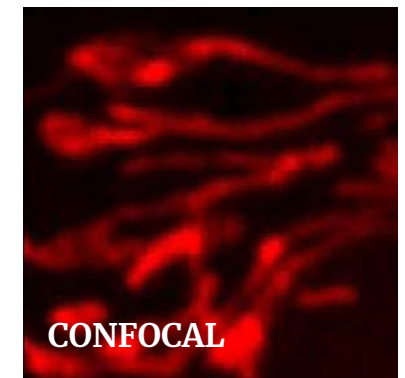
1µm



DECONVOLVED



WIDE-FIELD



CONFOCAL



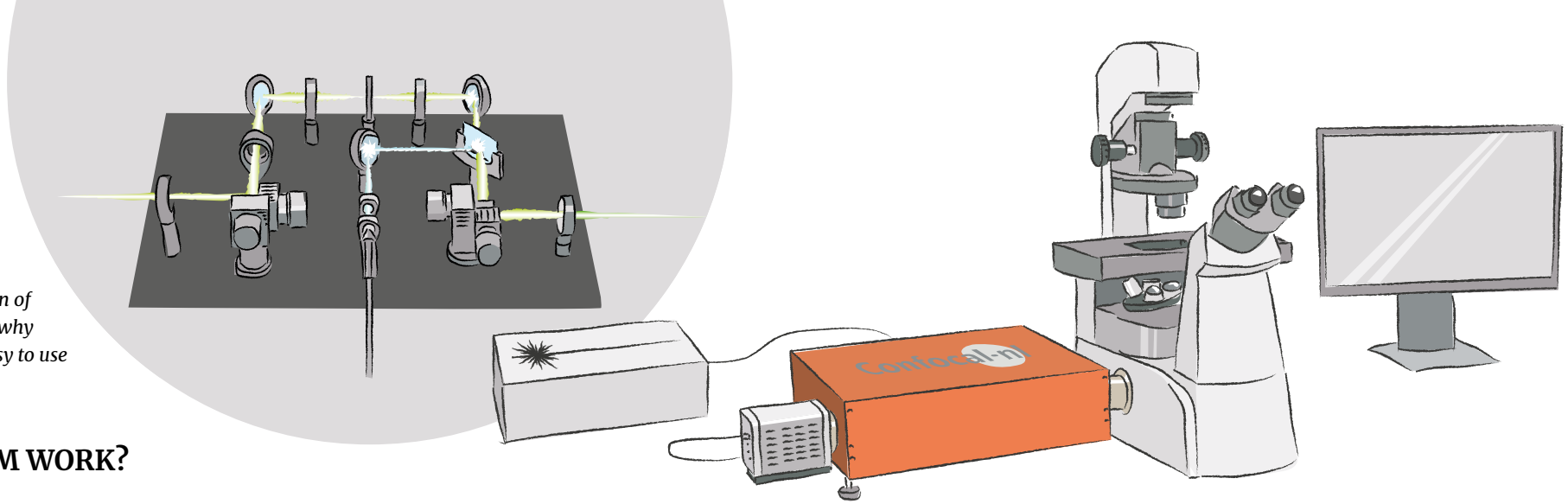
*Left: Peter Drent
Right: Dr. Erik Manders*

WHAT THE FOUNDERS SAY ABOUT RCM

Inventor of Re-scan Confocal Microscopy, CTO Erik Manders says, “Confocal.nl brings a new approach to provide better microscopy solutions to the market using simple, no-nonsense technology.”

His partner & CEO, Peter Drent, says “Confocal microscopy has become the norm in microscope imaging. We help scientists with more affordable solutions achieving this. Furthermore, we have significantly increased the performance of our confocal microscope compared to regular PMT based confocal microscopes. Light-efficient design means we are saving photons while skilful engineering brings costs down.”

The simple optical design of the RCM module shows why RCM is so robust and easy to use



HOW DOES RCM WORK?

Re-scan Confocal Microscopy (RCM) is a new super-resolution technique based on standard confocal microscopy extended with an optical (re-scanning) unit that projects the image directly on a CCD-camera.

This new microscope has improved lateral resolution (170 nm at 488 nm excitation) and strongly improved sensitivity while maintaining the sectioning capability of a standard confocal microscope. It is particularly useful for biological applications where the combination of high-resolution and high-sensitivity is required.

To understand the principle of re-scanning, resolution improvement and the optical layout of the RCM, please visit our web site and watch a video that explains the components and the light path of the RCM module: www.confocal.nl/explanation

WHY CHOOSE RCM?



BETTER SIGNAL-TO-NOISE RATIO
Increases sensitivity of your system



IMPROVED LATERAL RESOLUTION
Enabling super-resolution performance, 170 nm



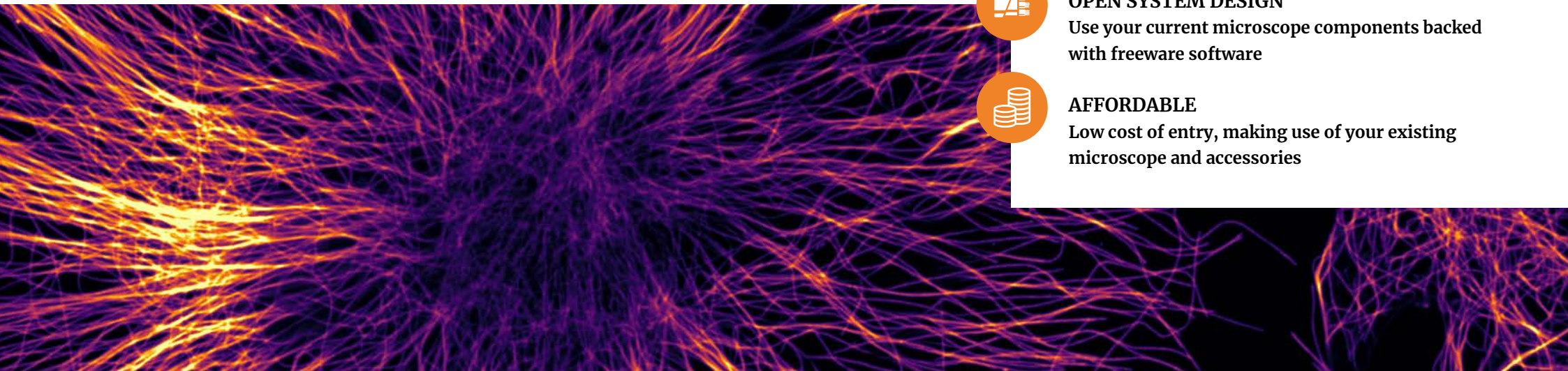
USER-FRIENDLY OPERATION
Get your first RCM-images with minimal training



OPEN SYSTEM DESIGN
Use your current microscope components backed with freeware software



AFFORDABLE
Low cost of entry, making use of your existing microscope and accessories



WHO ARE WE?

Confocal.nl offers turnkey solutions for microscopists who need much better than a standard confocal microscope.

The members of our team have extensive experience in the field of microscopy. With a strong background in science, we have learned to listen to other scientists and understand what they find important in their research. For them it is important that microscopes are easy-to-use and have the best resolution, sensitivity and reproducibility. They like to clearly understand the technology and what they do not like is black-box-technology or -software. Finally, they want improved confocal performance for a price that is accessible to them.

We make a custom-designed confocal solution at a most affordable price. To do that, we use as much as possible the users' current instrumentation like lasers, cameras and microscopes. Why dispose of perfectly functioning components when they can be upgraded to a Re-scan Confocal Microscope? Our users tell us that we have the best approach: deliver a turnkey solution using high-end technology at a price level that is a fraction of other commercial 3D confocal microscopes.

“WHY WE BOUGHT OUR RCM”

The RCM system configured for Markus Sauer's Biomedical Imaging Facility at the University of Würzburg's Biocenter is a typical offering from Confocal.nl. Based on an existing light microscope and accessories from Nikon, Andor, Cobolt and NIS software, the RCM module was the missing part to complete a turnkey, super-resolution 3D scanning confocal microscope for minimal investment.

The main user is Andreas Kurz and he describes his setup. “This is a fast, resolution-enhanced and live-cell capable system configured with dSTORM for super-resolution performance. Our main reason for purchase was the promised performance of the complete package integrating our existing components at a very fair price. We have found the multi-colour capability with incredibly low laser power is very useful for live cell imaging.”

*COS7 cells, with actin and tubulin staining
Andreas Kurz, University of Würzburg*

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the Dutch microscopy company

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