

Press Release

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TILL Photonics will present new solutions for fluorescence microscopy at the FOM meeting 2011 in Konstanz: iMIC 42 and Yanus multiport

iMIC 42, a four camera solution requiring only two cameras, is a complete microscope system which combines many advanced fluorescence microscopy applications in a unique way.

The dual camera module of iMIC 42 can be used with both, TILL's confocal spinning disk unit Andromeda and the epi- and TIRF pathway of the iMIC digital microscope. Only a single motorized slider needs to be switched to direct emission light either from the confocal spinning disk unit or the iMIC's widefield output to the beam splitting dual camera unit. By this design the functionality of a four camera setup is realized with only two cameras.

iMIC 42 also replaces the widefield bypass of other spinning disk units.

Fast motorized filter wheels in front of the cameras allow further selection of the emission light. All components are under real time control. The Live Acquisition software combines a user friendly interface with powerful protocol optimization for highest speed and minimized photobleaching.

iMIC 42 provides dual camera FRET with confocal and widefield/TIRF images. It allows for fast galvo based switching between different imaging techniques like FRAP, TIRF, epi or confocal. Only one set of lasers is required for confocal and



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FRAP/TIRF excitation with full laser power due to the integrated laser switch.

The Yanus Multiport is an extension to the Yanus digital scan head, which is used by research groups for Multiphoton and STED setups or as an extension to TILL's digital microscope iMIC for FRAP and TIRF experiments.

The Yanus Multiport allows combining up to three laser inputs for fluorescence excitation (single lasers and/or laser line combiner) or combining one or two laser inputs with an emission module for de-scanned detection.

Lasers can be connected directly to the Yanus without the need for a separate laser line combiner. If single lasers are combined with a laser line combiner, the Yanus multiport increases the number of available laser wavelengths.

The focus for each port can be adjusted individually which allows to correct focus positions for chromatic differences. The mirrors used for beam merging are of excellent flatness for best results e.g. in TIRF microscopy.

The emission module allows de-scanned detection (signals run through the Yanus scan head) of fluorescence emission. The emission signal is fiber coupled directly to the detector or to a beam splitting unit with two Avalanche photodiodes also available from TILL Photonics.

More information will be available during Focus on Microscopy from 17-20 April 2011, at booth 27 of University Konstanz, Germany.



TILL was founded in 1993 as systems provider for fluorescence microscopy. From its very beginning TILL had placed its focus on the development of innovative, enabling technologies for the study of live cells. Setting out with a novel light source for ratio imaging and the first real-time imaging system on the market, TILL developed a novel, award-winning microscope platform concept, which allows integrating an unprecedented number of functionalities into a single instrument. Based on this technology TILL has subsequently become a provider for complete microscope systems, and the new TILL intends to step into these footsteps and plans to extend the platform concept in order to grow into a wide range of markets, both in basic research, screening and medical diagnostics.

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