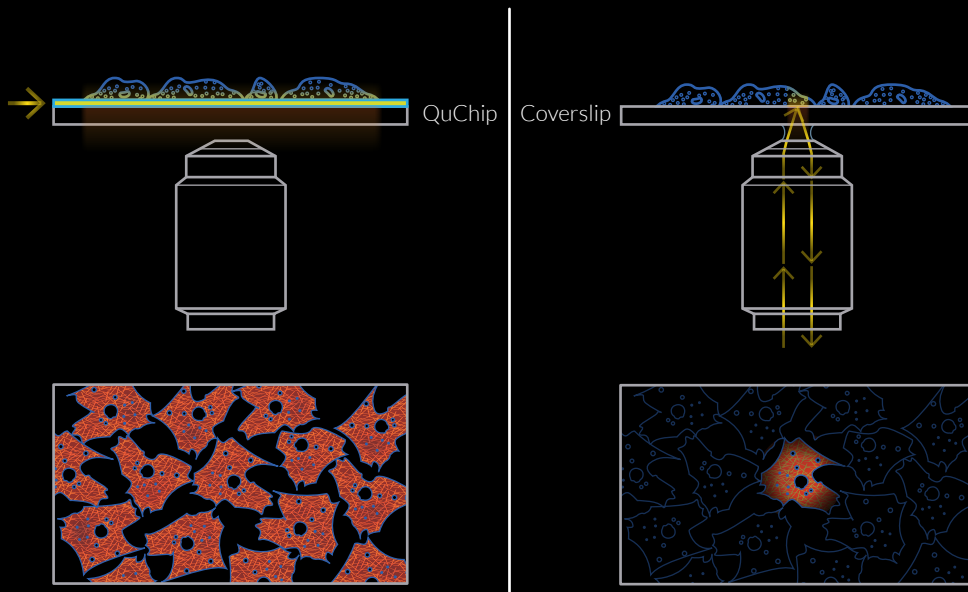


# QUSCITE

## Reimagining TIRF microscopy

**QUSCITE** is the world's first waveguide-based total internal reflection (TIR) microscopy system for high- and super-resolution imaging. Scale up your field of view and capture more details in a single shot, without compromising on resolution. Made for live-cell imaging, single-molecule studies and DNA analysis. Its ease of use saves precious time and allows you to focus on what matters most:

**Reproducible results** for your experiments.



**QUSCITE**

**Conventional TIRF**

**QUSCITE** works with QuChips, which replace your coverslip. They contain thin film optical waveguides (integrated optics) that support a guided mode with a strong evanescent field tail entering into the sample volume. The penetration depth, as well as the illuminated area is only dependent on the waveguide geometry and is independent of your microscope objective. This way you can decouple excitation and detection to enable the capture of TIRF images with any microscope, without modifications reaching field of view on the order of square millimeters.



Ultrawide field of view  
(up to several mm<sup>2</sup>)



Upgrade any microscope  
(no setup modifications required)



Superb signal-to-noise ratio  
(supressed background scattering)



Calibrated intensity  
(active feedback)



Plug & Play  
(no alignment, low maintenance)



Highly homogenous  
illumination profile



# MADE FOR



large area live  
cell imaging



high-throughput single  
molecule detection



microfluidic assays



super resolution studies  
(e.g. STORM)

**QUSCITE** integrates the illumination on the chip and allows the imaging of large scale systems way beyond conventional limits — alignment free and within seconds at your fingertips. Applications include:

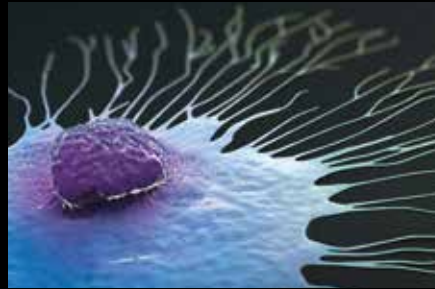


### Biochemical assays

microtubule motor gliding  
assays

protein-protein and protein-  
nucleic acid interactions

supported lipid bilayer research



### Live-cell imaging

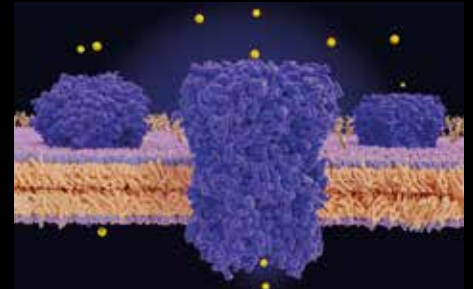
endo- and exocytosis

focal adhesions

cell-cell communication

plasma membrane dynamics

neurites in cultured neurons



### Single-molecule studies

smFRET and localization

DNA origami

spatial biology (MERFISH, DNA  
PAINT etc.)

receptors and ion channels  
studies (e.g. GPCRs)

### Features include:

- compatibility with any objective
- well-defined penetration depth
- perfect field homogeneity
- auto-alignment
- calibrated intensity and active feedback
- light sources included (up to 6 colors)

**QUSCITE** consists of a control unit, light coupling unit and a stage insert with a set of sample holders for easy preparation and handling of your samples. The sample is directly prepared on the QuChip and then inserted with the sample holder into your microscope equipped with QuScite. As part of the device installation we will provide integration of QuScite into your imaging system.

Simply install a **QUSCITE** system on any microscope and widen your imaging horizons!

**EXCITED? REACH OUT TO US TO  
SCHEDULE YOUR QUSCITE DEMO!  
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**INTERHERENCE**  
HIGH SENSITIVITY MICROSCOPY

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