

 Scientifica
Electrophysiology
Product Catalogue



The world's most trusted partner for
the electrophysiology community

Our international team of experts empower you to push boundaries and achieve your research goals, through high-quality product design, technical guidance, and first-class support. We are proud to say that our customers make world-changing discoveries in neuroscience, cardiology, cancer, and many other areas of scientific research.

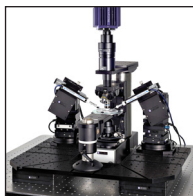
By collaborating with leading researchers, we can provide you with a range of innovative solutions optimised for electrophysiology research - from fully integrated set-ups to individual components, all designed to meet your specific research needs.

We pride ourselves on the expertise and diversity of our team, and the values of our workplace culture. The quality we deliver is recognised by all our customers, as well as the international ISO 9000 certification. You can be sure that everything we do is achieved with excellence.

We look forward to working with you to help lead the way in furthering scientific research.

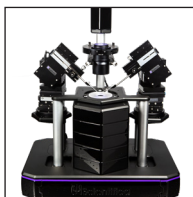
“Scientifica couples high-precision, reliable
instrumentation with world-class customer service.
What could be better? ”

Dr Brian Mathur, University of Maryland



Slice Electrophysiology Rigs

Pages 2 - 5



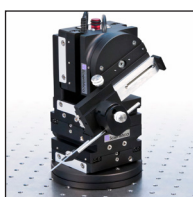
Cultured Cells Electrophysiology

Pages 6 - 9



Microscopes

Pages 10 - 11



Manipulators

Pages 12 -17



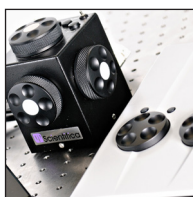
Cameras

Page 18



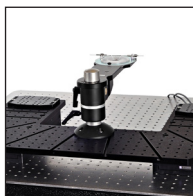
Epifluorescence Illumination

Page 19



Controllers and Software

Pages 20 - 21



Platforms and Stages

Pages 22 - 24



Chambers and Perfusion

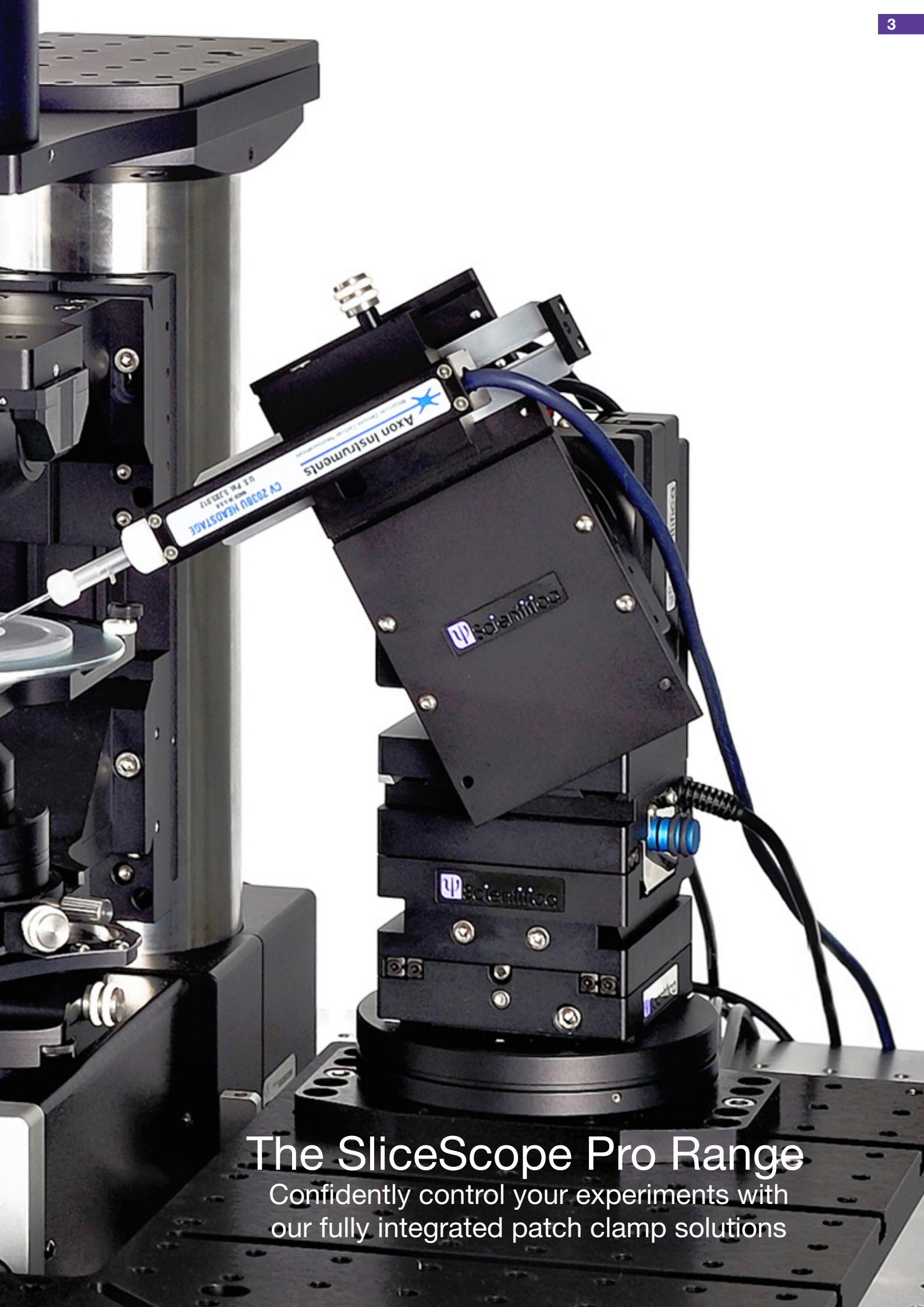
Pages 25



Partner Products

Pages 26

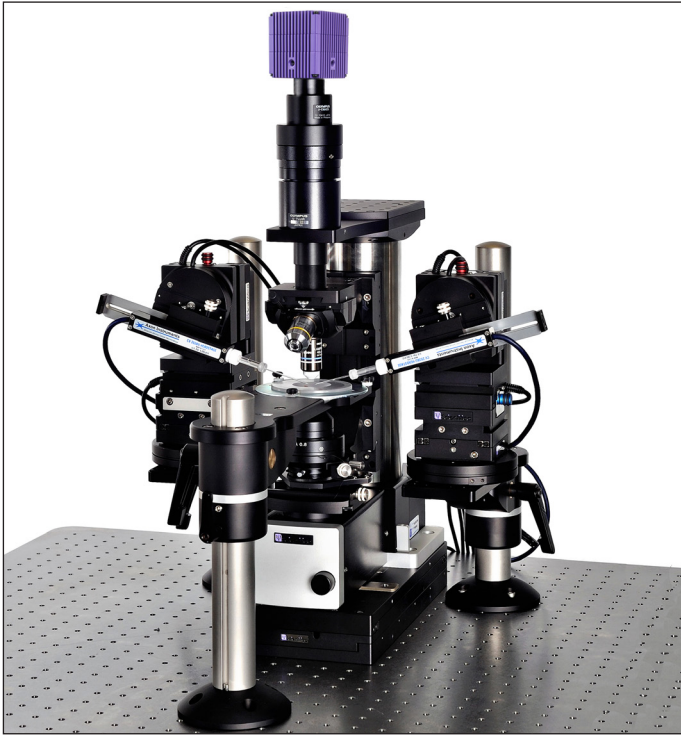




The SliceScope Pro Range

Confidently control your experiments with
our fully integrated patch clamp solutions

The SliceScope Pro Range

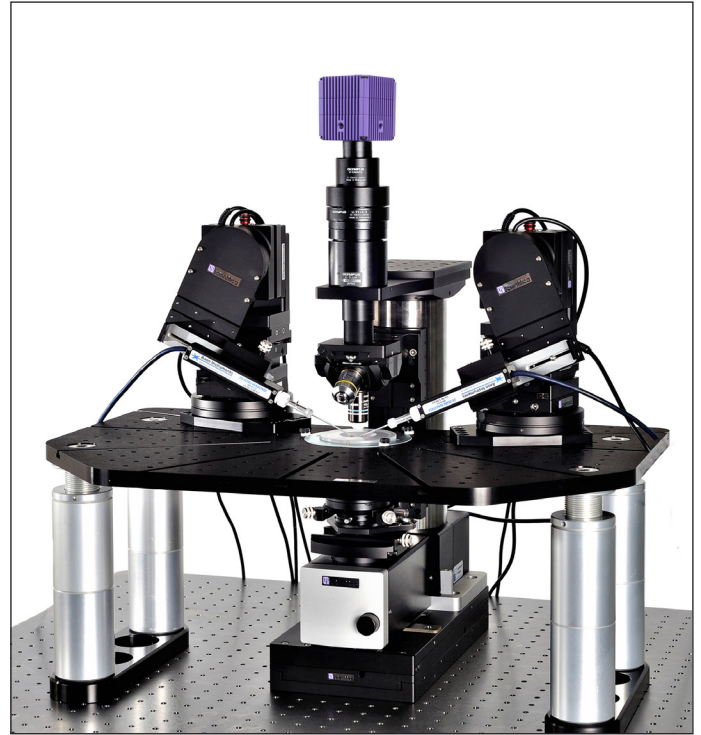


The SliceScope Pro 1000

The most popular tissue slice patch clamp electrophysiology system

The SliceScope Pro 1000 is a moving microscope system, ideal if you prefer the flexibility of Post and Platform mounting for the sample, manipulators and other equipment. This system allows the SliceScope to translate in X and Y axes, using a compact motorised stage to move between fields of view without disturbing established patch recordings.

You can take advantage of the repeatable locking collar on the Post and Platforms, to swing out your manipulators and sample, providing easy access to the microscope.



The SliceScope Pro 2000

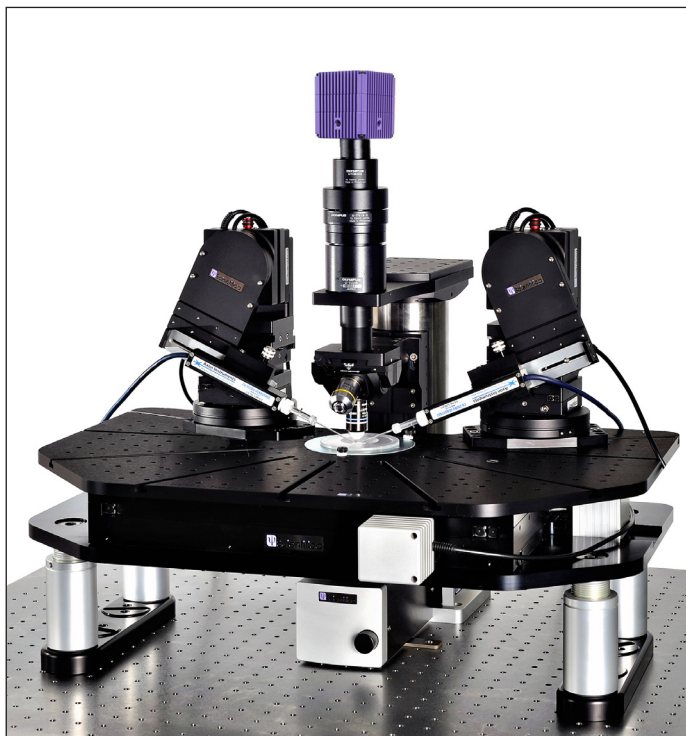
The most spacious patch clamp electrophysiology system with the largest mounting stage

The SliceScope Pro 2000 is a moving microscope system, perfect if you prefer to use the large fixed stage SlicePlatform as the basis of your experimental setup. The SliceScope translates in both X and Y axes using a motorised stage, offering the ability to move around a sample while retaining patches.

The SlicePlatform features height-adjustable legs and sliding lockable mounting carriages for mounting manipulators.

Benefits of the SliceScope Range

- Record even the smallest electrophysiological signals
- Acquire data from long-term experiments
- Record from multiple sites of interest
- Ultimate freedom of manipulator position
- Enjoy total control of your rig with remote control of motorised objective and condensor
- Achieve your perfect rig set up for your desired experiment
- Benefit from complete experimental versatility

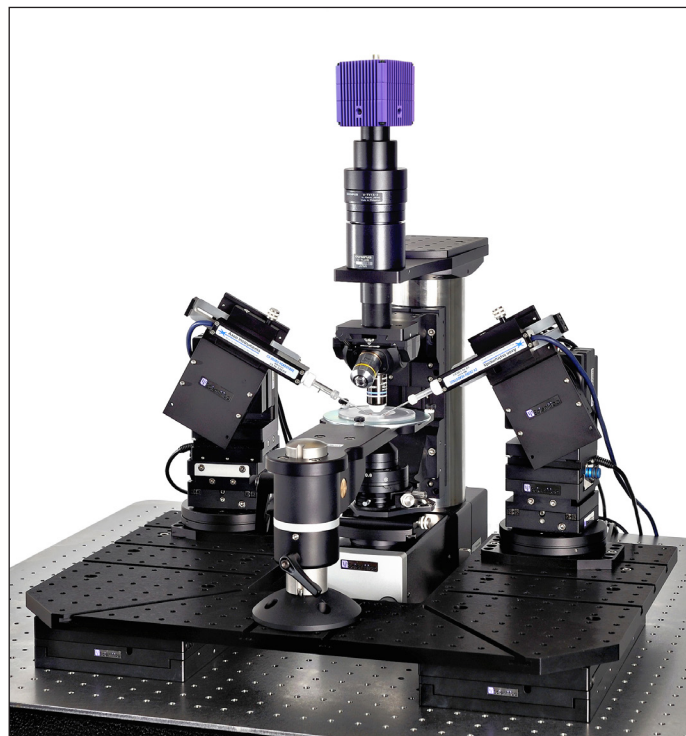


The SliceScope Pro 3000

The most spacious patch clamp electrophysiology system with the largest moveable mounting stage

The SliceScope Pro 3000 system is designed to overcome the limitations imposed by confocal, multiphoton, network studies or other techniques where the microscope should not be moved.

Offering the ability to manoeuvre the entire experimental setup relative to the microscope, it allows imaging of all areas of the sample. The motorised top plate enables smooth remote control movement required to retain patches. This can offer you real benefits, as full access to brain slices and other large samples can give a more complete knowledge of cell interaction.



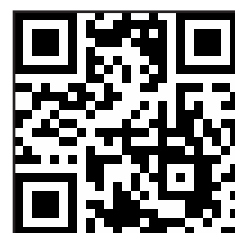
The SliceScope Pro 6000

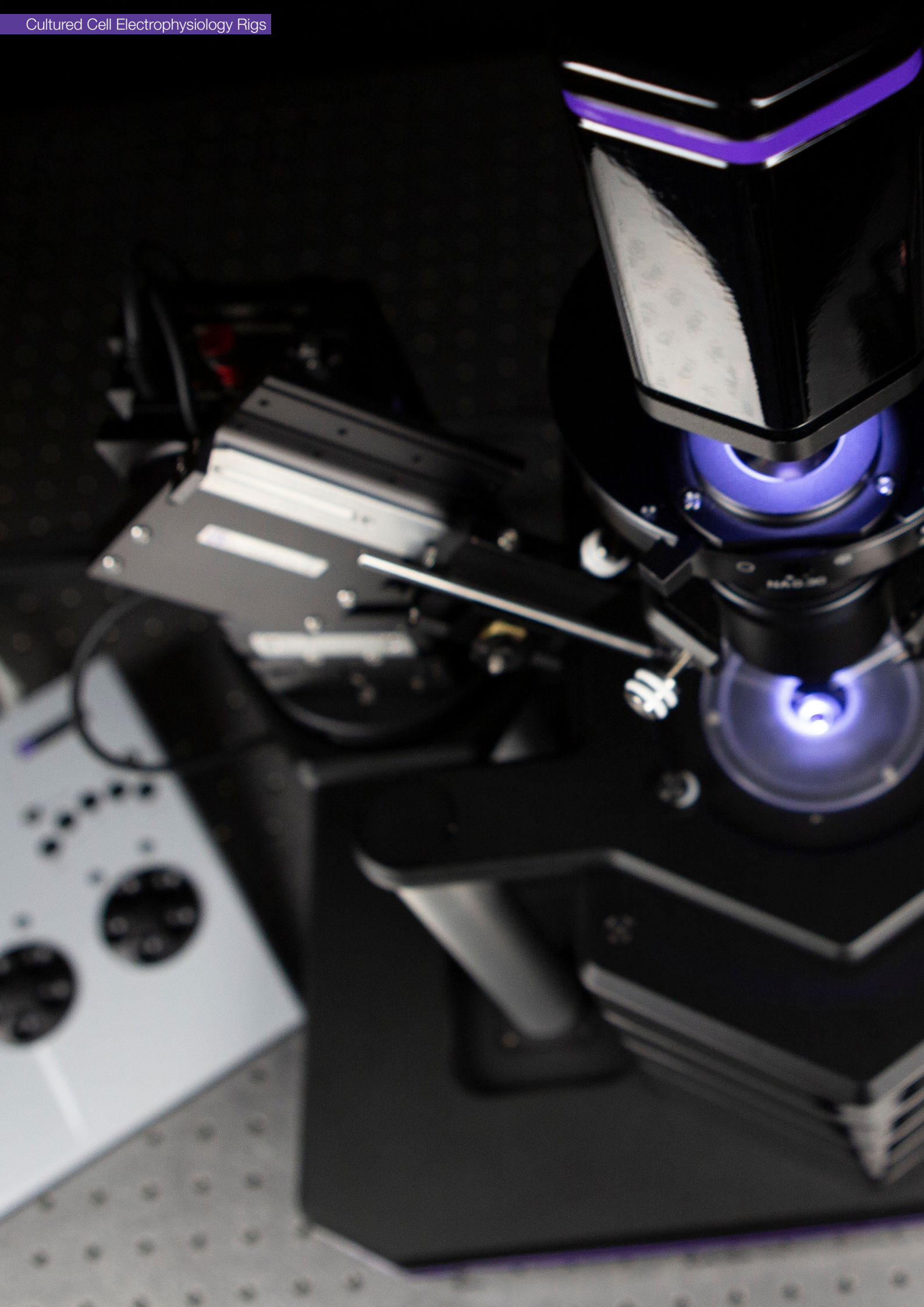
The most versatile patch clamp electrophysiology system

Featuring the motorised movable base plate, the SliceScope Pro 6000 system offers maximum flexibility for both in vitro and in vivo studies. The system can also be adapted for advanced imaging, such as multiphoton imaging and confocal microscopy. The large base plate offers ample space around your experiment for all equipmental configurations. This enables you to retain patches by keeping equipment securely mounted on the same stable surface.

The baseplate features smooth motorised movement, controllable via any of the standard range of control options.

Learn more about the
SliceScope range



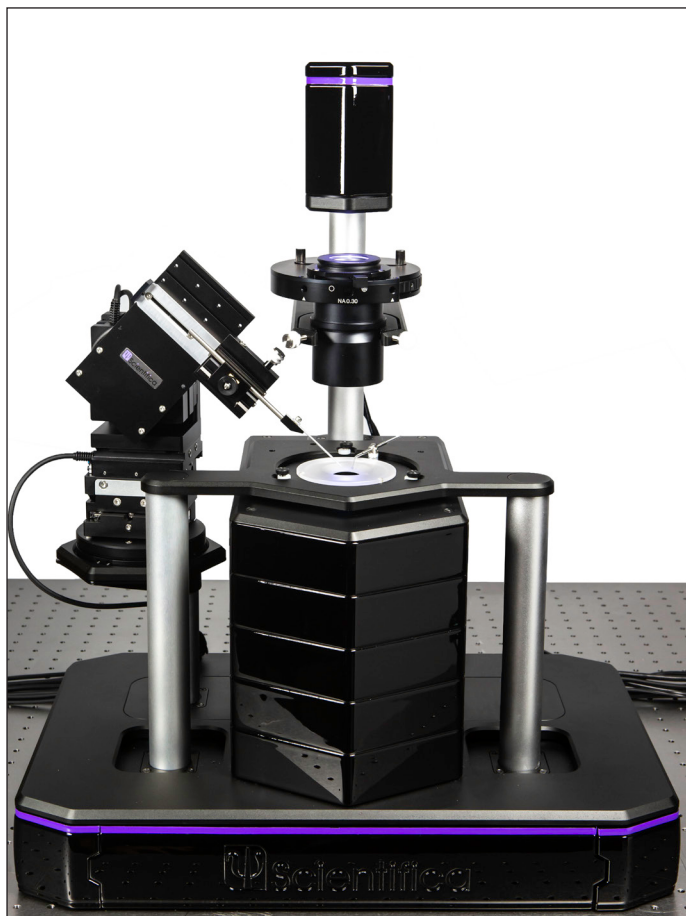


The PatchScope Pro Range

Designed by electrophysiologists,
for electrophysiologists



The PatchScope Pro Systems

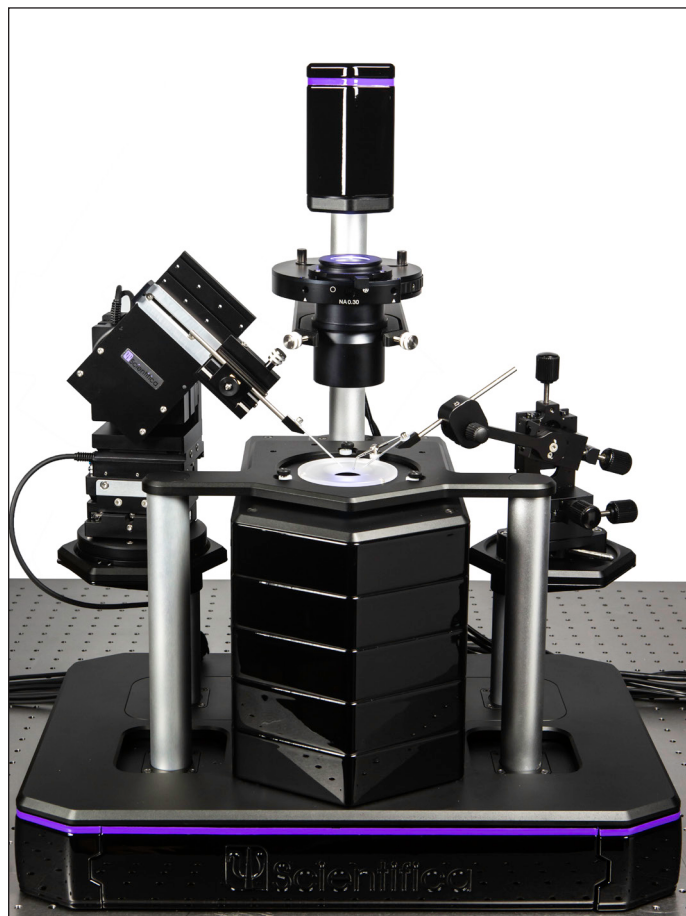


The PatchScope Pro 1000

The perfect patch clamp rig for cultured cell electrophysiology

The PatchScope Pro 1000 is an integrated, inverted, hands-free, electrophysiology system designed for patching in single cells or monolayers. This compact and versatile systems includes a world-renowned PatchStar manipulator and can be customisable to your specific research needs, including fluorescence imaging.

The PatchScope Pro is easy to set up and quick to master, your complete focus can be on acquiring high quality data.

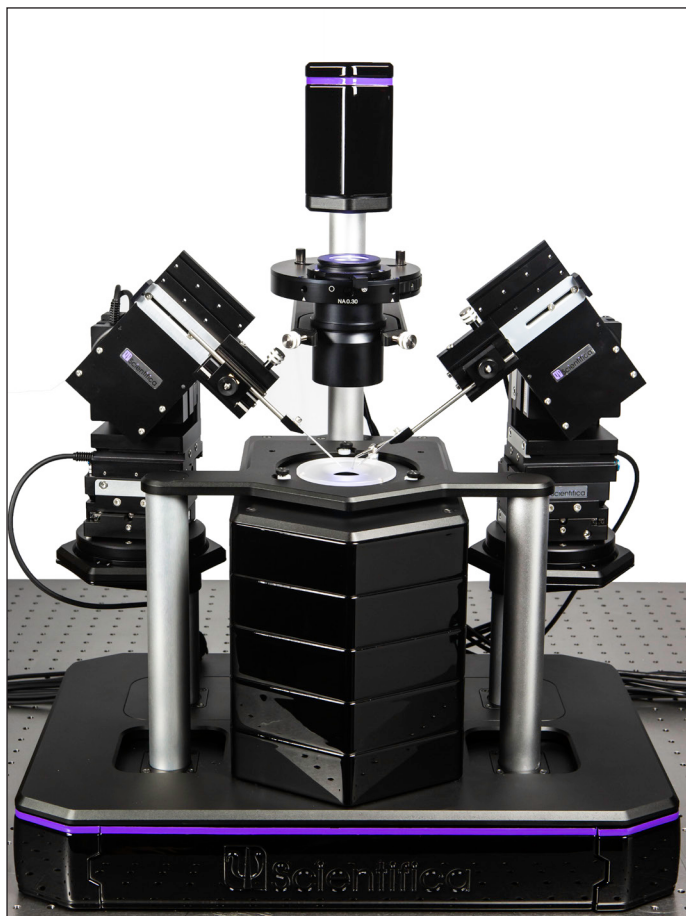


The PatchScope Pro 2000

A complete patch clamp rig, ideal for pharmacological studies or cultured cell stimulation

The PatchScope Pro 2000 is an integrated, inverted electrophysiology system specifically built for patching with field stimulation and local perfusion in single cells or monolayers. The system includes the ultra-stable motorised manipulator, the PatchStar, and the reliable LBM-7 manual manipulator.

The PatchScope Pro is a complete rig, meaning you can be sure that all components will integrate flawlessly.



Benefits of the PatchScope Pro Systems

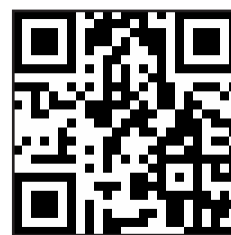
- Built for patch clamping cultured cells
- Acquire data from long-term experiments
- Record even the smallest and most sensitive electrophysiological signals
- Get patching, quickly
- Compact design maximises lab space
- Keep your sample in focus, at the push of a button
- Maximise patching time with fast, reliable pipette exchange
- Ideal for neuroscience, cardiac, and many other research areas

The PatchScope Pro 3000

Hands-free patch clamp rig for pharmacological and network studies

The PatchScope Pro 3000 is an integrated, inverted, hands-free, electrophysiology system. Designed for pharmacological studies, network studies and any other techniques in cultured cells, where more than one micromanipulator is required. This system includes two PatchStars micromanipulators.

The user-friendly design means that the PatchScope Pro is simple to handle and work with - perfect if you are new to patch clamping as well as if you are experienced.



Learn more about the PatchScope Pro range

Microscopes



The SliceScope

An advanced slim microscope designed to support diverse and demanding electrophysiology experiments

The SliceScope is a fully motorised upright, fixed-stage, nosepiece-focusing microscope. The small footprint, low noise electronics and simple conversion between in vitro and in vivo, have made the SliceScope an integral part of electrophysiology rigs around the world.

The SliceScope provides a stable, compact platform, that takes a range of industry standard optics for efficient microscopy. Its smart design is ready to accept a wide variety of accessories and light sources to suit your application.

In vivo and in vitro configurations

The SliceScope is easily interchangeable between in vivo and in vitro configurations, enabling a single setup for both techniques, saving both space and money. The in vitro configuration includes the condenser and substage optics.

However, for in vivo applications, the condenser and substage optics are not required and therefore can be removed. Thus providing plenty of space to position additional equipment around the SliceScope body - including treadmills, visual or odour stimulation and many others.

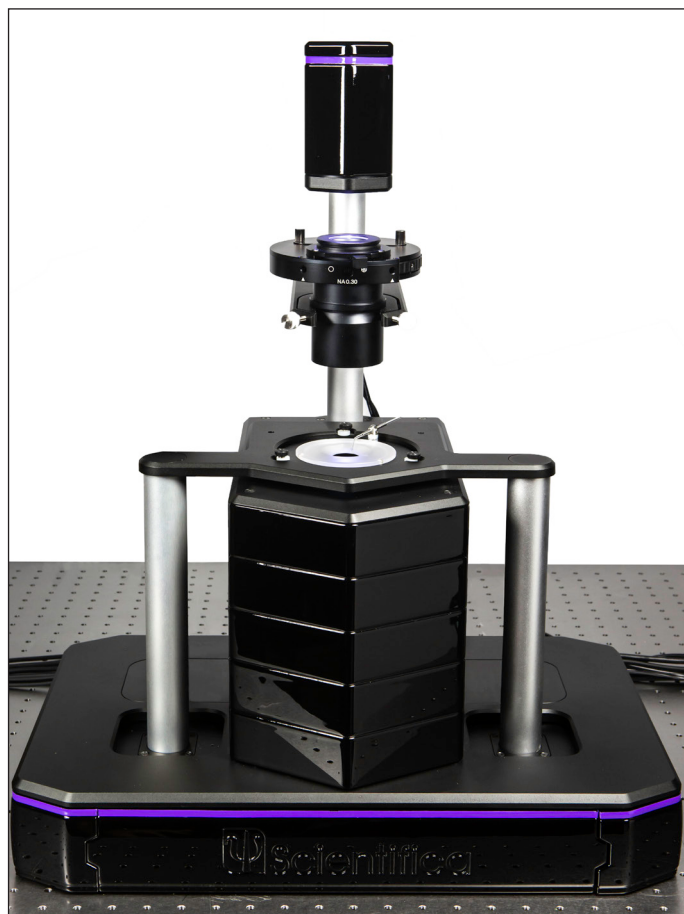


The VivoScope

Ultra-stable microscope perfect for larger in vivo behavioural studies

The VivoScope is specifically designed to accommodate larger in vivo samples and is well-suited for various configurations, including linear or spherical treadmills, expansive stereotaxic frames, and various virtual reality setups.

Moreover, this upright microscope forms the foundation for a patch clamp electrophysiology system tailored for in vivo behavioural studies.



The PatchScope

Integrate your existing manipulators to create a full patch clamp rig for cell culture

The PatchScope is an ultra-stable, motorised inverted microscope. It is perfectly suited to patch clamp electrophysiology in cultured cells when you want to integrate your existing manipulators. The PatchScope can also be used as a standalone inverted microscope.

The motorised fluorescence allows you to adjust the fluorescence filters without touching the microscope, improving the reliability of your delicate recordings.

Learn more about
Scientifica Microscopes



Manipulators

PatchStar

The perfect electrophysiology micromanipulator – from single channels to in vivo field recordings

The globally recognised PatchStar micromanipulator is perfect for electrophysiological recordings. The stable design and ultra-quiet electronics mean you can perform long-term patch clamp experiments and record even the smallest signals.

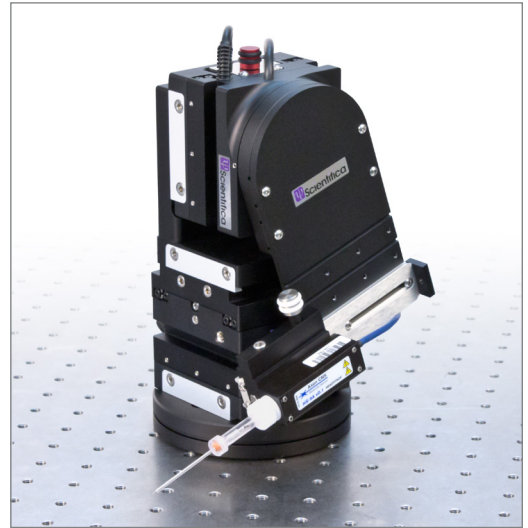
The PatchStar's compact footprint and incredible versatility means it can be configured to fit around any sample, at any angle, in vitro or in vivo. The intelligent design and automated control enables you to reliably change and position your electrodes quickly and easily.

Benefits of the PatchStar

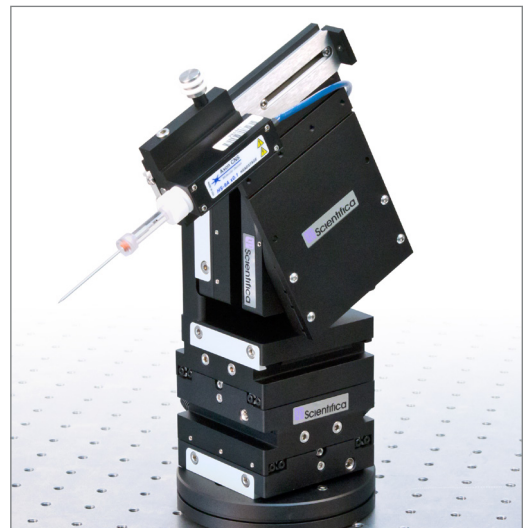
- Perform sensitive recordings
- Acquire long-term recordings on small structures
- Easy to customise to your requirements
- Simple and repeatable pipette exchange
- Effortlessly adjust your approach angle
- Easily rotate away from your sample, and then return to your precise recording position
- Ideal for a range of in vivo and in vitro experiments
- Precise positioning of probes perfect for microinjection and other applications



Learn more about
the PatchStar



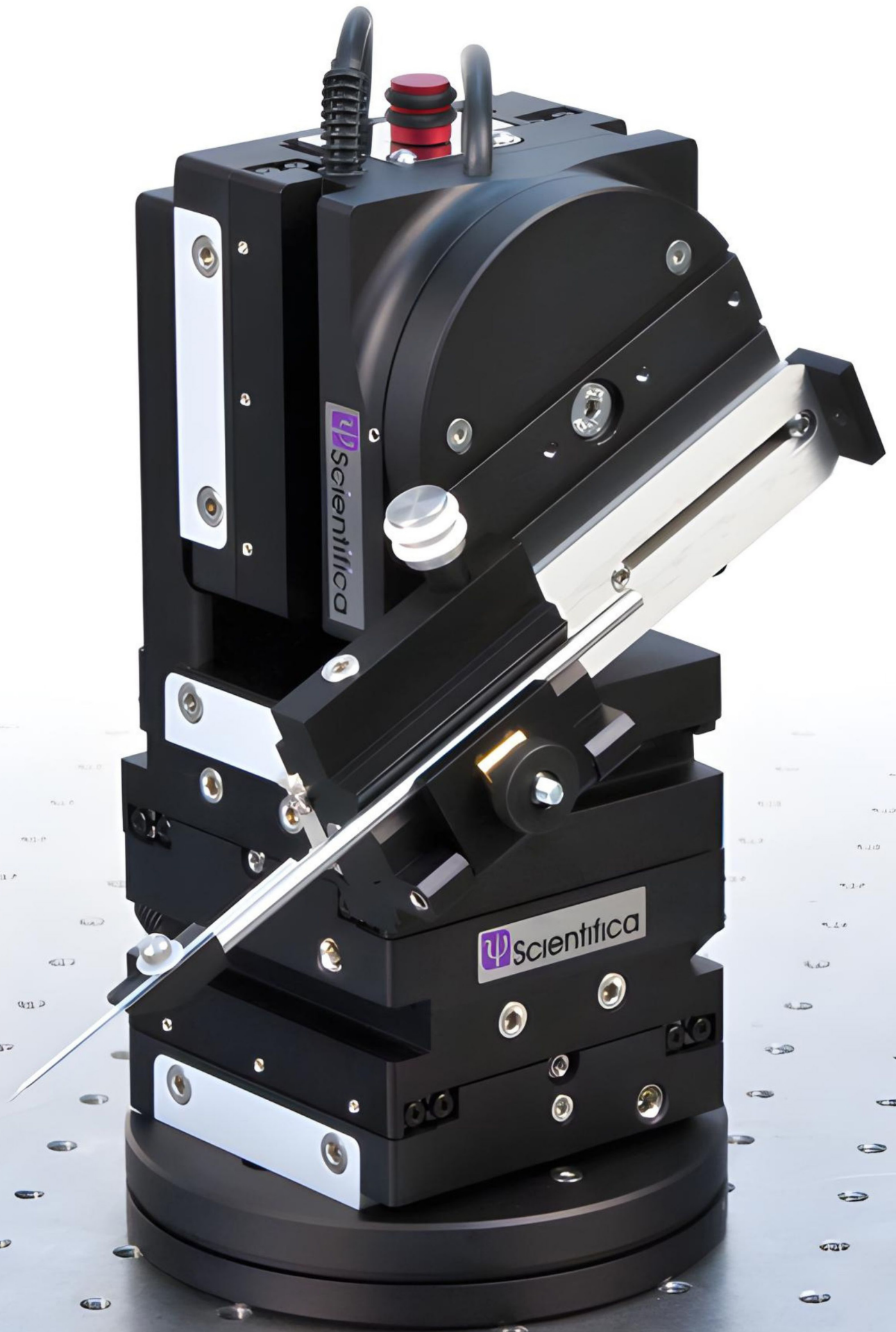
PatchStar with shallow bracket



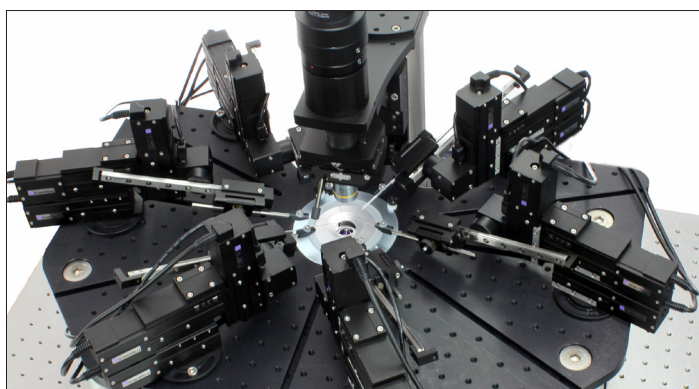
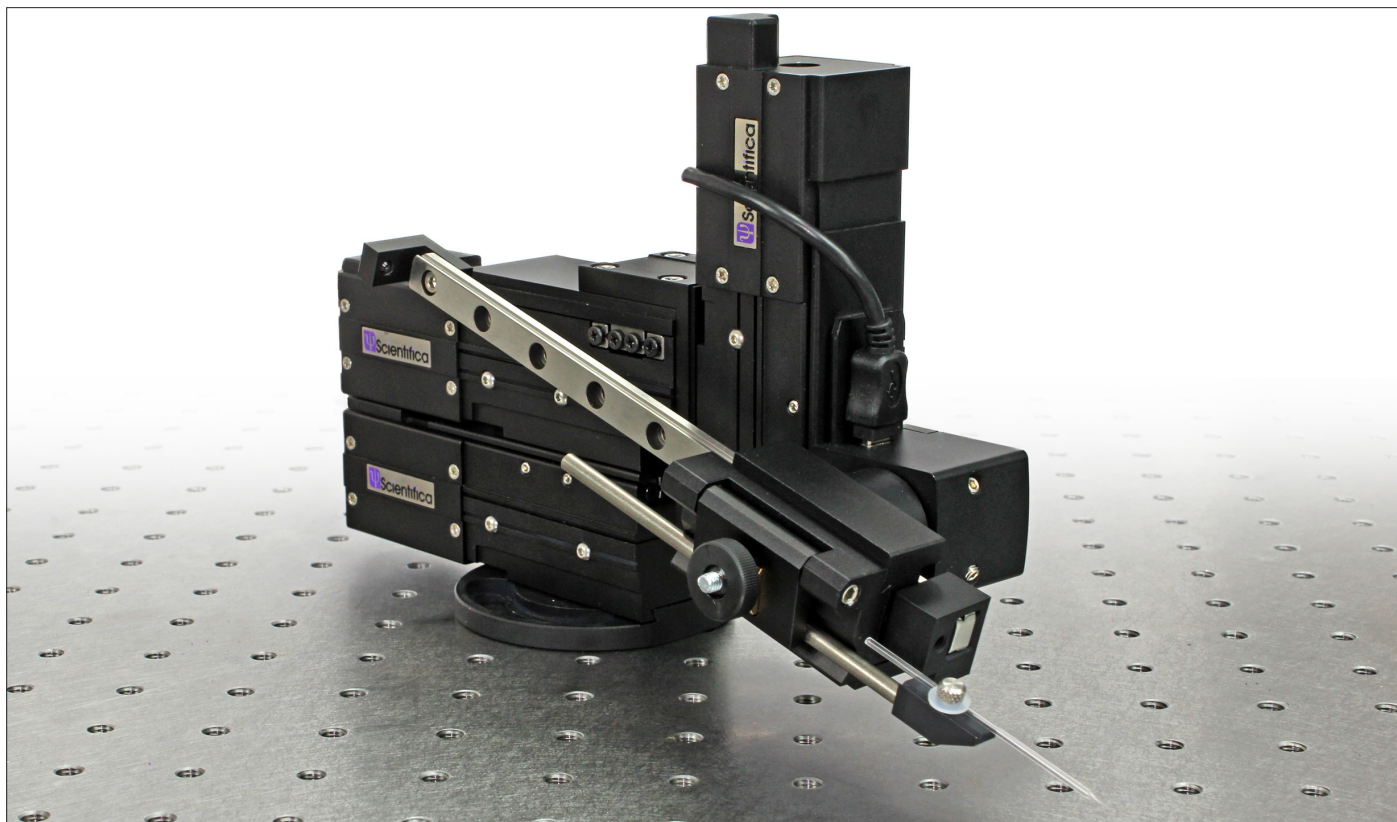
PatchStar with steep bracket



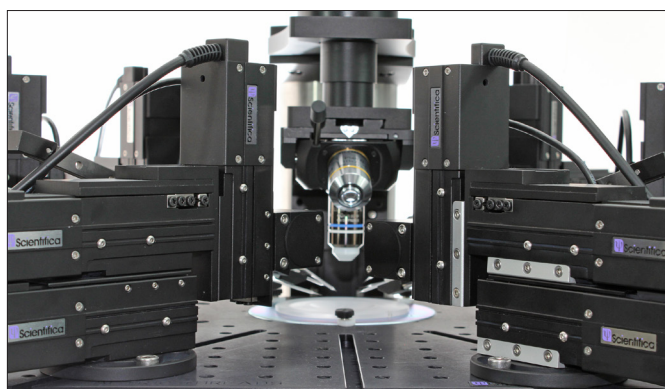
PatchStar with Control Cube



Motorised Manipulators



The MicroStar is perfect for multipoint network studies



MicroStar

The ultimate motorised micromanipulator for network studies and long-term recordings on small cells and dendrites

The MicroStar is a motorised micromanipulator with three axes of mechanical movement and a further virtual 'approach' axis, designed for intricate in vitro electrophysiology recordings.

Record from multiple points simultaneously and determine connections between cells and subcellular structures, thanks to the slimline design. The electrical and audible quietness of the MicroStar makes it perfect for sensitive recordings, such as single channel recordings.

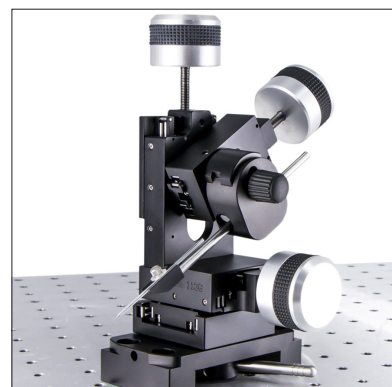
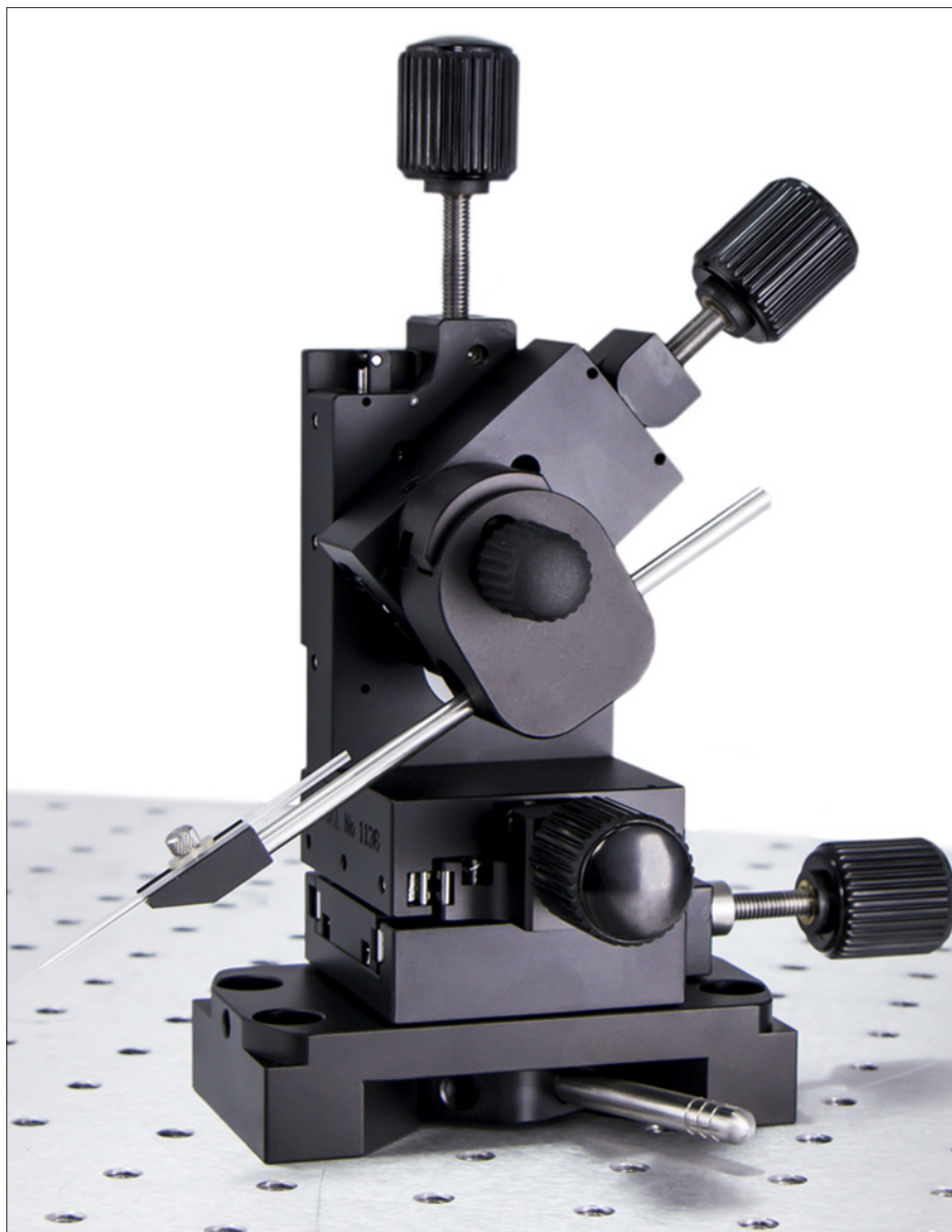
Benefits

- Accurate patching of small cells or dendrites
- Detect small signals
- Perform demanding long-term research
- Maximised reach of cells in your sample
- Easy speed adjustment for greater control

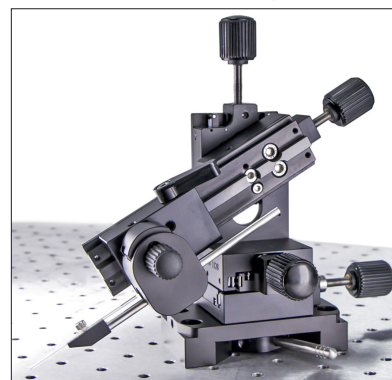


Learn more about the MicroStar

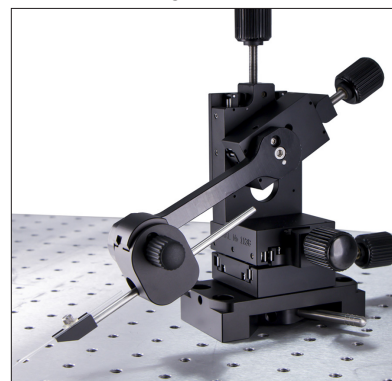
Manual Manipulators



LBM-7 with extra smooth adjusters



LBM-7 with sliding bracket



LBM-7 with extension bracket

LBM-7 Manual Manipulator

Versatile manual manipulator customisable for all your experimental needs

With long travel, low-drift, 4 linear axis of movement and 3 rotary axis the LBM-7 delivers precision across a wide range of experimental needs.

Whether positioning extracellular probes, aligning perfusion systems, or carrying out microinjection, the variety of accessories means the LBM-7 can be customised to suit your own experiment.

Benefits

- Perform reliable long-term experiments
- Perfect for a range of experiments such as focal perfusion, microinjection and Oocyte recordings
- Easily integrate into your rig



Learn more about
the LBM-7

In Vivo Manipulators

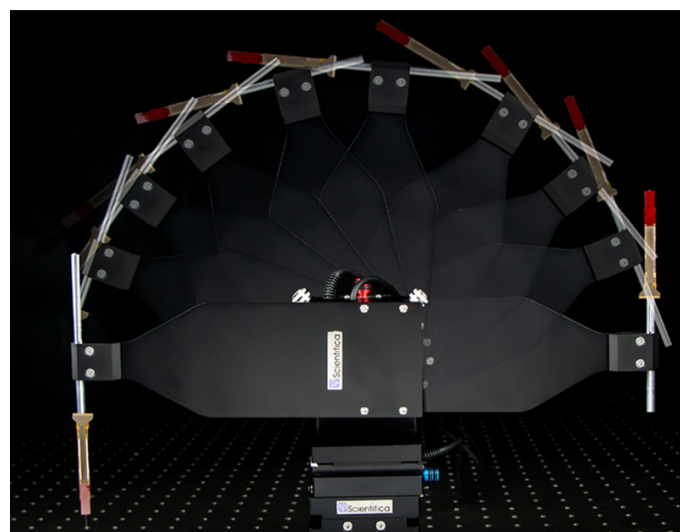
The InVivoStar

Confidently use the world-renowned PatchStar Micromanipulator for in vivo multielectrode electrophysiology recordings

The InVivoStar offers stability and precision for in vivo recordings, ensuring confidence in obtaining high-quality data.

Its universal compatibility with multielectrode probes like Neuropixels, Neuronexus, and Atlas streamlines setups, eliminating the need for holder adjustments.

The InVivoStar design provides ample workspace where it matters most, while ultra-low electronic noise ensures undisturbed samples and cleaner signals, boosting data quality and research efficiency.



Benefits

- Space where it matters - more space than any other system
- Position the manipulator where you want it
- Know your angle for precise positioning
- Maximise sample comfort and attention for the most reliable results
- Explore entire brain regions



Single Axis In Vivo Motorised Manipulator



Triple Axis In Vivo Motorised Manipulator

The IVM Range

Ensure maximum tissue health when reliably positioning electrophysiological and microinjection probes in your sample

The IVM is a super-smooth, stereotaxic motorised manipulator which enables you to precisely position your pipettes and probes. Designed for multielectrode recording (such as Neuropixels probes) in vivo patch clamp electrophysiology, and microinjection.

The IVMs long range of travel means you have ultimate freedom to position anywhere within your sample, allowing you to investigate deep within your structures.

Thanks to complete compatibility with all common stereotaxic frames and most multielectrode head-stages, the IVM is simple to add to your existing set-ups.

Both the IVM Single and Triple Axis are available as a mini range.

Benefits

- Maximises tissue health
- Confidently record from the exact area of interest
- Acquire reliable data for the full duration of your experiments
- View real-time positioning of your probes
- Record even the smallest electrophysiological signals
- Focus on your sample's welfare



Learn more about Scientifica's
in vivo manipulators

Cameras



SciCam+ Camera

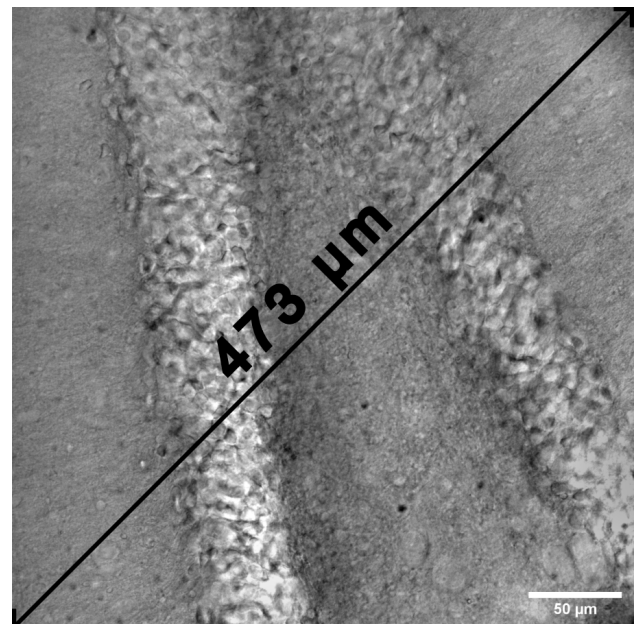
Visualise beautifully contrasted cells for easier patch clamping and fluorescent imaging

The SciCam+ is a high-resolution sCMOS camera purpose-built to meet the demands of patch clamp electrophysiology. Its fast frame rate and high sensitivity allow for precise electrode positioning and clear visualisation of even the smallest cellular structures.

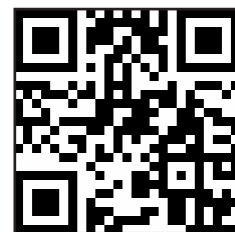
Ideal for Infrared (IR) Differential Interference Contrast (DIC) imaging, as well as fluorescence, live cell, and calcium imaging, the SciCam+ delivers high contrast and customisable settings, ensuring accurate data collection and smoother experimental workflows.

Benefits

- Built for patch clamping
- See more at once
- Capture fast cellular events in full detail
- Visualise smooth positioning of your electrodes
- High sensitivity at key wavelengths for electrophysiology
- Capture even the faintest fluorescent signals



Mouse hippocampus was visualised using IR-DIC on the SciCam+ at 40x objective magnification.
Sample courtesy of Vincenzo Mastrolia, Kings College London



Learn more about the
SciCam+

Epifluorescence Illumination

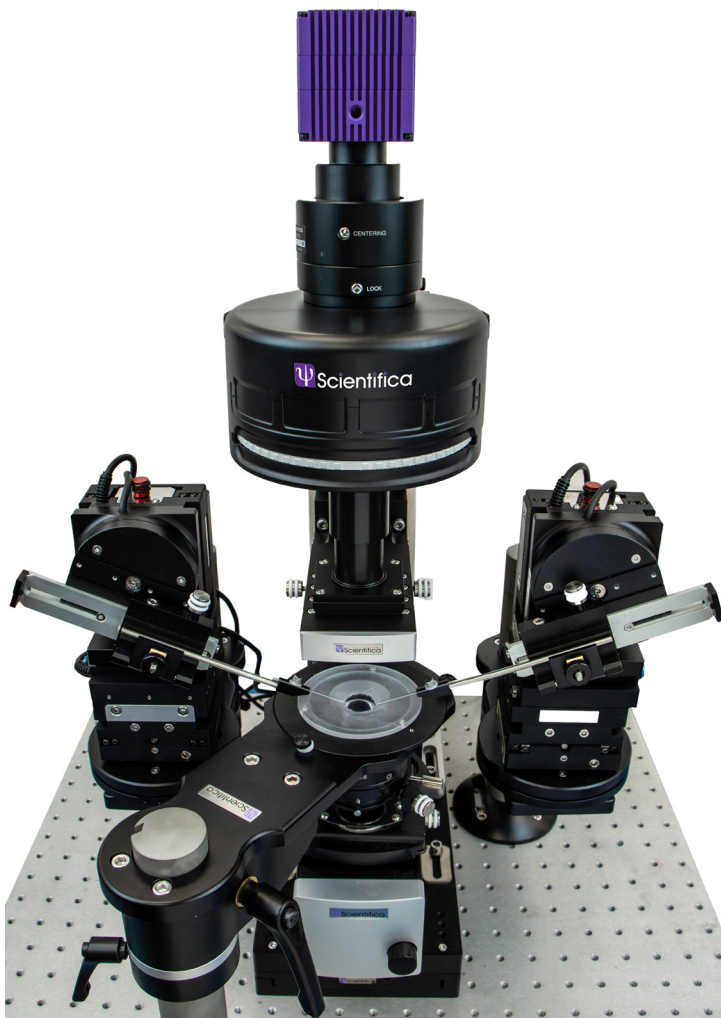


Filter Cube Module+ (FCM+)

Illuminate the full field of your sample for high-quality epifluorescence imaging and data

The FCM+ delivers high-quality sample illumination with the benefit of soft-switch filters and DIC contrast, perfectly suited to delicate experiments including patch clamp recordings.

Optimised for LED illumination and incorporating multiple filter sets and adjustable irises, the FCM+ is easy to use and adaptable for any sample, enhancing your imaging flexibility and data accuracy across various experiments.



Benefits

- Perfect for patch clamp recordings
- Switch filter sets while keeping your patched cell stable
- Flexible DIC adjustments without disrupting your patched cell
- Collect quality data across the entire field of view
- Utilise your industry standard filter cubes

Control Options



PatchPad Evo

Total control of your electrophysiology setup,
with integrated visual feedback

The PatchPad Evo is Scientifica's next-generation controller, featuring an integrated display that shows real-time positional and device information directly on the unit.

This means you can see exactly where your probe is always, giving you the confidence to position accurately and target specific regions, particularly in demanding in vivo experiments where depth and location are critical.

Bringing control of your Scientifica motorised equipment into a single interface, Evo helps you work more efficiently, move precisely, and stay focused on your experiment.



Learn more about
the PatchPad Evo



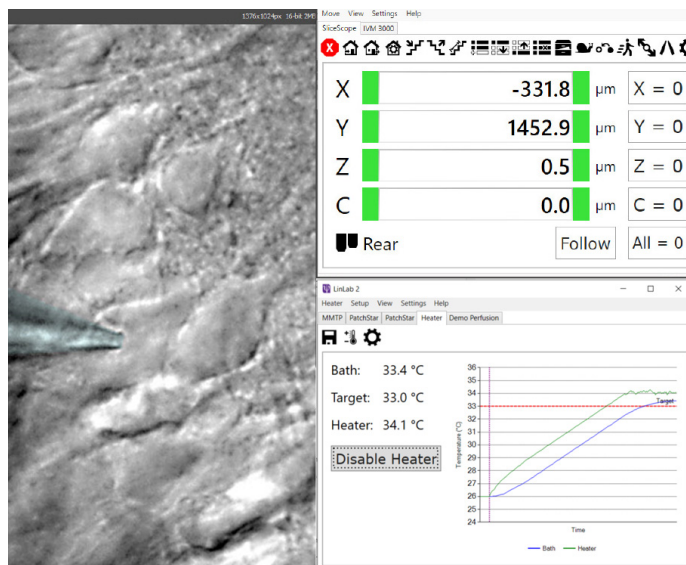
Control Cube

Compact, intuitive control for everyday use

The Control Cube offers a smaller, streamlined way to control your Scientifica motorised devices.

Designed for comfort and ease of use, it provides intuitive access to key functions such as speed, memory positions, and step movement, ideal for routine positioning and day-to-day workflows.

Its compact, ergonomic design keeps your setup simple, while still delivering precise and reliable control.



LinLab Software

Fully customise your control device for your experimental requirements

LinLab software works in partnership with your controller, enabling both advanced customisation and hands-free control of your setup. It allows you to adjust key settings such as speed, direction, step size, and memory positions, tailoring system behaviour to your experimental needs and preferences.

With features that support coordinated movement such as the market leading “follow function” and controlled positioning, LinLab helps you achieve more consistent, precise experiments.

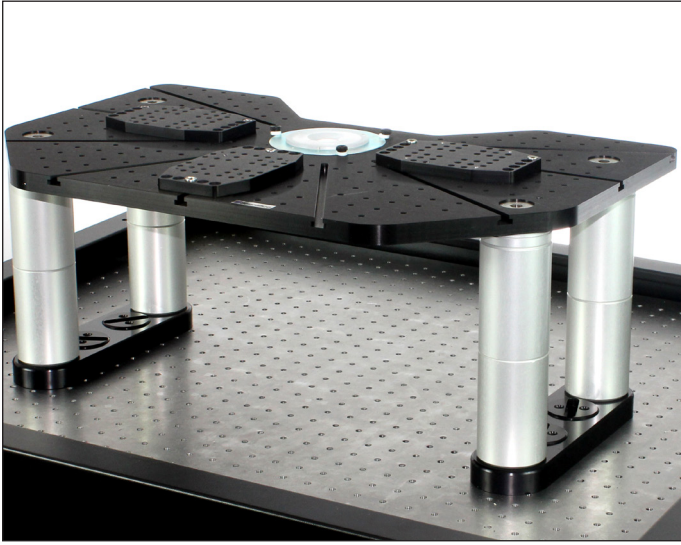
Benefits of control options

- Control multiple motorised devices from a single system
- Store and return to key positions to improve workflow efficiency
- Achieve precise, smooth movement for delicate positioning
- Adjust speed and movement to match different stages of your experiment
- Emergency stop for sample safety



Learn more about the
Scientifica controllers

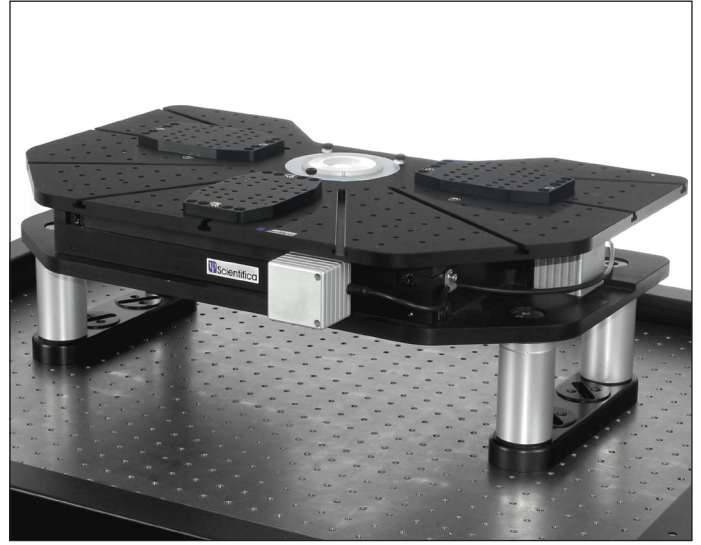
Stages and Platforms



SlicePlatform

A spacious, stable and versatile platform for long-term electrophysiology experiments

The SlicePlatform provides a large, extremely stable mounting surface onto which several manipulators and the sample can be mounted. Height adjustable legs accommodate any microscope while the unique rotating slotted inserts mean that it can be attached to any standard vibration isolation platform. The sliding carriages and tapped surface enable you to securely and conveniently position a full range of equipment at optimal distances from your sample.



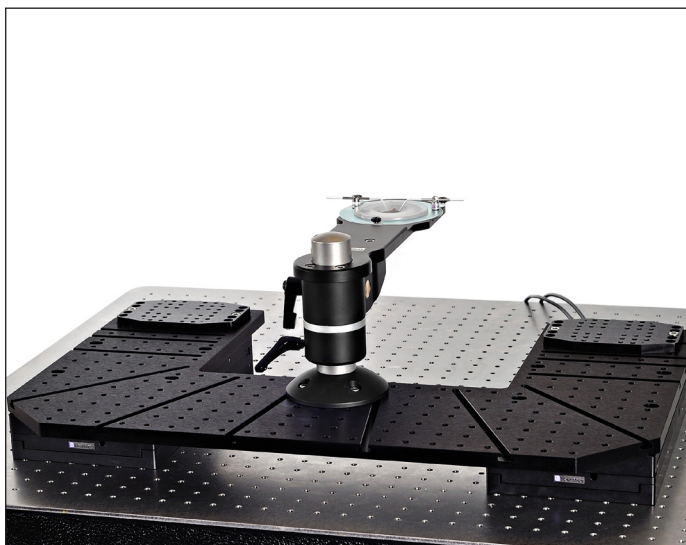
Motorised Movable Top Plate (MMTP)

A large, versatile platform perfect for combining electrophysiology and multiphoton imaging

Compatible with all major upright microscopes and featuring an integrated sample plate holder, the MMTP offers a large mounting surface with 25 mm of super-smooth X and Y travel at a resolution of 20 nm. Up to 50 memory positions can be stored and recalled in X and Y axes (via control device). The ultra low noise electronics mean you can continue to record sensitive signals even during sample adjustment. Platform positioning can be carried out by our range of control options.

Benefits

- Form part of the SliceScope Pro range
- Simple to integrate with existing setups
- Designed for electrophysiology and imaging so smooth motion
- Freedom to set up your experiment to suit your needs
- Easy to integrate with all Scientifica equipment
- Convenient to use
- Ultra low noise ensuring reliable electrophysiology experiments and recording of small signals
- Stable mounting platform enabling long term experiments



Motorised Movable Base Plate (MMBP)

Versatile foundation that enables in vitro and in vivo electrophysiology and imaging experiments

The MMBP offers a solid low-level foundation for an electrophysiology rig. The real benefit of this approach to mounting equipment is that you can convert it between in vivo and in vitro configurations, and due to ample space around the microscope can accommodate more equipment. This versatility can help you save on lab space and money. It offers long, motorised travel in X and Y at a resolution of 20nm.

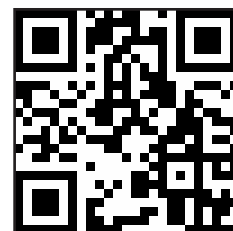


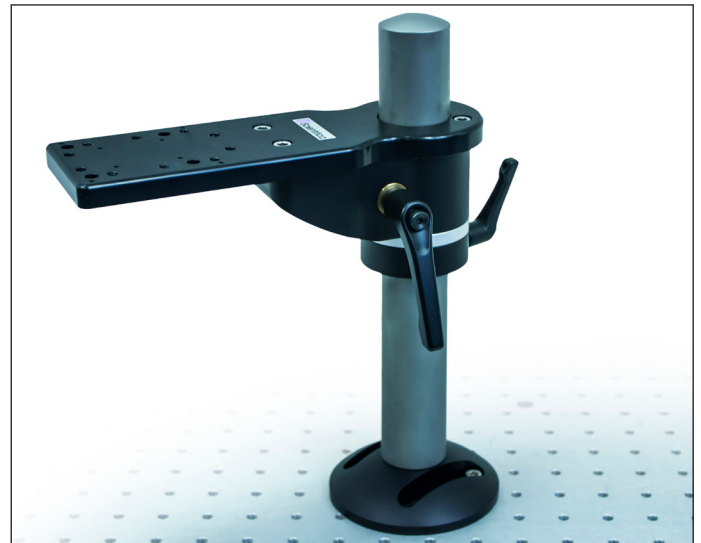
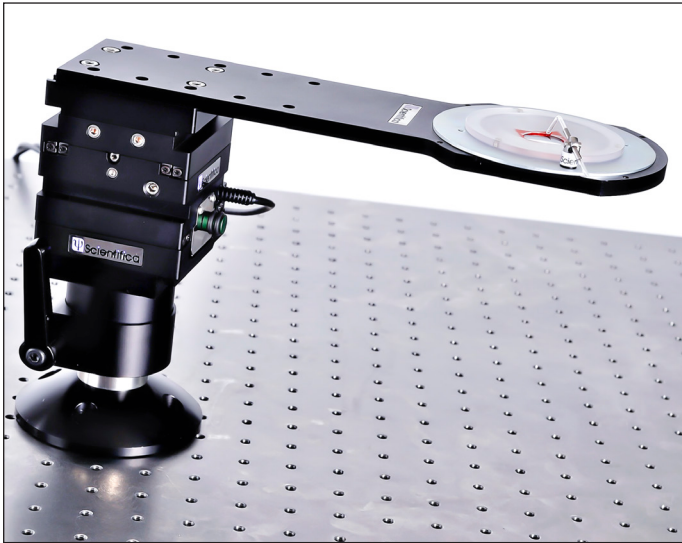
Universal Motorised Stage (UMS)

Controlled super-smooth platform to move your microscope around your sample

The UMS provides accurate and intuitive remote control, removing the effort and potential for error from the adjustment process. With 50 mm of travel in both the X and Y axes at a resolution of 20 nm, the largest of samples can be explored. Translation speed can be user-customised down to 1 micron per second and up to 50 memory positions can be stored and recalled.

Learn more about the Scientifica range of stages and platforms





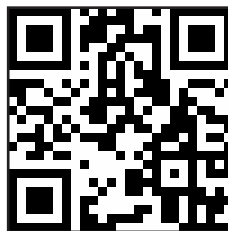
Motorised Movable Sample Plate (MMSP) Post and Platform

A stable, motorised mounting platform for experimental samples suited to electrophysiology and imaging research

A stable mounting platform for experimental samples, especially suited to electrophysiology and imaging research. Up to 20 mm of super-smooth motorised movement in X and Y axes to easily align the preparation in your microscope's field of view, especially when your microscope is fixed.

Total versatility for mounting your micromanipulator, or other equipment, around your sample

The Post and Platform offers a versatile yet stable approach to mounting manipulators and other equipment around your microscope. The choice of a bolt down or magnetic base means that the Post and Platform is suitable for many different table tops. The platform is fully height adjustable and has the benefit of a convenient swing in/swing out function for repeatable positioning.



Learn more about the Scientifica range of stages and platforms

Chambers and Perfusion



Slice Recording Chamber Kit

The most versatile and easy to use slice recording chamber for electrophysiology experiments

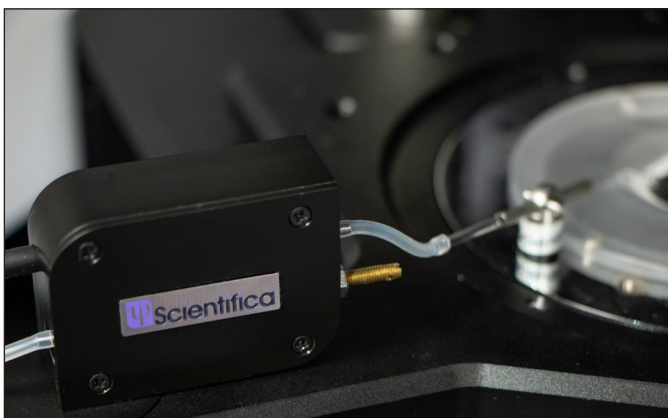
Designed for precision and ease of use, the Slice Recording Chamber features an optimised shape for easier pipette positioning, magnetic perfusion ports for seamless alignment, and a cover-slip base for the best possible imaging. This innovative design makes it the perfect solution for your patch clamp experiments.



Bath Perfusion Tool

Precise and space-efficient perfusion tool

Perfect for positioning perfusion tubes, reference electrodes, and small devices in tight spaces around the recording chamber. Made from durable stainless steel with a strong magnetic base for secure, flexible placement.



Perfusion Temperature Controller

Ensure reliable perfusion temperature for your sample

Record the highest quality data and maintain sample health by accurately controlling the perfusion environment. The ultra-low noise and reliable temperature stability means that this system is perfect for electrophysiology recordings.

Partner Products

We collaborate with leading suppliers to provide a comprehensive electrophysiology setup, ensuring you have everything you need. Our partnerships allow us to offer seamlessly integrated solutions, tailored to your research needs. For full details on third party offerings visit our website.

Molecular Devices

Patch clamp amplifiers and data acquisition

The Molecular Devices Axon Instruments® offer a complete range of patch-clamp solutions for data acquisition and analysis, including amplifiers, digitizers, and software. These systems support whole-cell, extracellular, and single-channel recordings, ensuring precise control for various electrophysiology applications. With the Axon™ pCLAMP™ 11 Software Suite for acquisition, recording, and analysis, researchers can achieve a streamlined and efficient workflow.



CoolLED

LED illumination systems

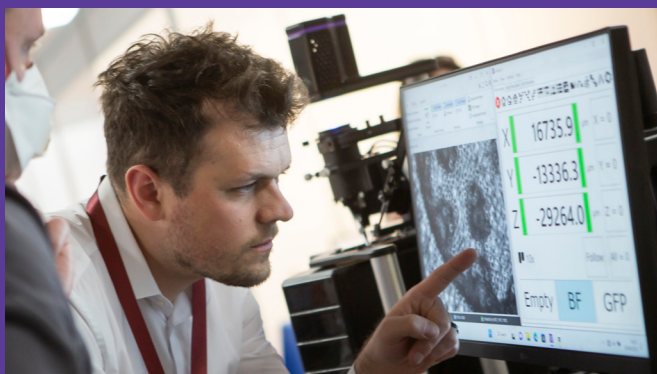
CoolLED's advanced LED illumination systems are designed for high-performance fluorescence microscopy. Their energy-efficient, long-lifetime LED light sources provide precise control and fast switching for a wide range of applications. Compatible with electrophysiology setups, CoolLED systems integrate seamlessly with our equipment, delivering reliable and consistent illumination.



For more information on our partner products



Our Services and Support



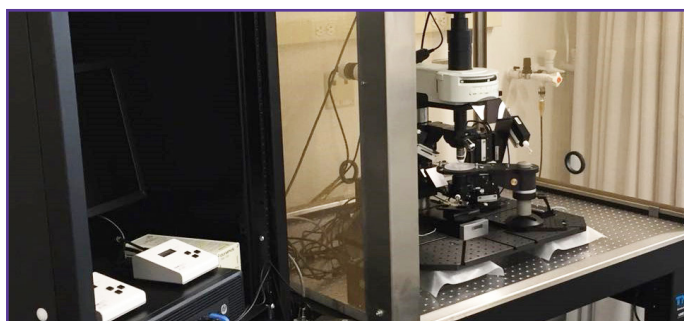
Free Lab Consultations

Take advantage of our Free Lab Consultation Service. Whether you're setting up a new lab, upgrading your current setup, or making a switch in applications, our team of friendly experts are here to help you every step of the way.



Installation and Support

We ensure seamless installation and optimisation of your electrophysiology systems worldwide. With expertise in research and electrophysiology, our service ensures your equipment is set up efficiently and ready to use.



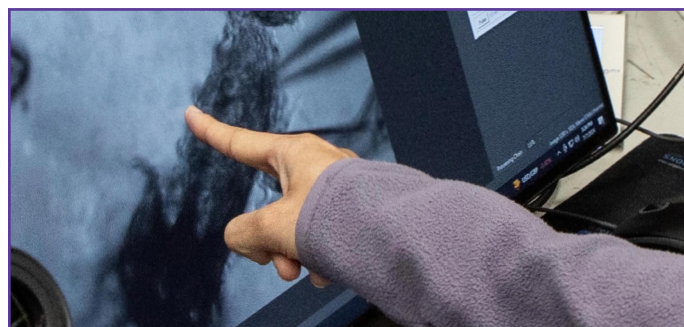
Lab Move Service

Moving lab space? Our service ensures a smooth transition, with expert consultation, careful packing, transport, and reinstallation of your electrophysiology system—getting your lab up and running again quickly.



Warranty & Exchange Programme

We offer a two-year warranty on all Scientifica-manufactured products and a one-year warranty on third-party goods for peace of mind. If your Scientifica-manufactured product requires servicing, we'll exchange it for a replacement from our service stock—keeping your lab running with minimal disruption.



Demonstrations

Product demonstrations provide a hands-on way to explore our systems, ask questions, and see them in action. Whether testing small items or evaluating larger setups, demos are tailored to your experimental needs—with no pressure to buy.

For more information on Scientifica's services and support



What our customers say

“ I brag about our Scientifica set-up a lot! It's such an improvement from conventional systems because it was built with the ergonomics of the ephys component as the primary focus. ”

Thomas Papouin
Washington University in St Louis

“ I am always thoroughly impressed with the service provided by Scientifica. The team is expedient and effective in addressing our needs without fail. Highly recommend their services. ”

Phatsimo Oatile Kgwarae
Imperial College London

“ Superb ... Can't think of another instrument provider whose support is as effective, quick and personable as Scientifica. ”

Dr Dave Lyons
University of Manchester

“ My entire experience with Scientifica has been exceptional. From my initial inquiry through to the installation, everyone I interacted with was quick to respond to my questions and worked with me to ensure my system was exactly what I needed for my research program. I will highly recommend Scientifica to my colleagues. ”

Dr Sam Centanni
Wake Forest University School of Medicine

“ Scientifica has exceeded my expectations with their top-notch products and impeccable service. Their commitment to providing high quality patch-clamp electrophysiology set-ups is unmatched. ”

Dr Marco Bocchio
University of Durham

“ I love Scientifica! I always get better with the knowledge on my device as Scientifica explains every detail of it. ”

Hugo Kim
UC San Diego

“ I have used Scientifica equipment since I was a graduate student. and now as an Asst Professor, I cannot choose another brand. Scientifica rigs are the best in the market and as a neuropharmacologist, Scientifica fits nicely with my research goals. The customer service, sales and installation were the best, Scientifica is always caring about giving the customer the best. ”

Dr Braulio Munoz
Indiana University School of Medicine



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