

Nanion is launching the Port-a-Patch mini – Plug & Patch

Munich, Germany, October 7th 2019: Nanion is pleased to announce the launch of the Port-a-Patch mini, further simplifying electrophysiology. The world's smallest patch clamp rig just got smaller! The Port-a-Patch mini contains a miniature digital amplifier integrated into the system creating the smallest and lightest patch clamp rig on the market. There's no compromise on quality with giga-Ohm seals routinely achieved and its ease of use ensures patch clamp experiments can be performed with minimal training. Marketed at an attractive price, the Port-a-Patch mini is a powerful research tool for studying ion channels and also the ideal technology platform for teaching basic electrophysiological concepts in academic institutions.

With a footprint of only 7 x 4 x 1.5 inches, the Port-a-Patch mini is the most compact electrophysiological instrument on the market for studying ion channels. The modest dimensions of the Port-a-Patch require minimal bench space, and its light weight makes it highly portable.

Ion channels are dynamic pore-forming proteins embedded in cell membranes, allowing conduction of ions. The list of human diseases known to be associated with defects in ion channels has grown considerably during the past decades. Consequently, ion channels are well recognized as important therapeutic drug targets. The Port-a-Patch mini allows for precise ion channel recordings from various cell types and can be used to quickly characterize voltage dependency and current magnitude of ion channels of interest.

The Port-a-Patch mini is perfectly suited for teaching patch clamp technology and enabling efficient and rapid ion channel pharmacology and biophysical experiments. The instrument is comprised of a recording station with an integrated amplifier and a suction control unit. Connected to a computer via a USB connector, the Port-a-Patch mini is set up for experiments in a matter of minutes.



"We noticed an increased demand for affordable, easy-to-use automated patch clamp instrumentation, thus we designed the Port-a-Patch mini to precisely fit this need. If a user would like to quickly test ion channel activity in cells, or investigate the effect of compound blockers or activators, the Port-a-Patch mini is the perfect instrument!", explains Dr. Patrick Mumm, Port-a-Patch Product Manager, Nanion Technologies, Munich, Germany.

Working with the system is straightforward – one simply adds a droplet of cells onto a disposable recording chip. A single cell is then automatically captured and sealed by suction using a computer-controlled pump. Similar to its bigger sibling, the Port-a-Patch, the Port-a-Patch mini can record from reconstituted ion channels as well as from primary cells and stem cells with high success rates. The in-house production of consumable patch clamp chips at Nanion guarantees high quality recordings at all times.

Modelled on the success of the Port-a-Patch, the Port-a-Patch mini is also designed to be an easy-to-use basic research patch clamp instrument, perfect for academic laboratories that teach electrophysiology and patch clamping to new students.



"One afternoon was all I needed to get familiar with the features and perform measurements. As an electrophysiologist and university lecturer, I see the Port-a-Patch mini as a great tool to introduce patch-clamp to young university students, but also post-doc level scientists in need of fast, high-quality electrophysiology data.", explains Dr. Martin Sumser from the Ludwig Maximilian University, Munich, Germany.



The Port-a-Patch mini is an entry-level patch clamp system, complementing the well-established Port-a-Patch and providing further ease of use, portability and very attractive pricing. However, with its numerous add-ons including external or internal perfusion, temperature controlled recordings, advanced pressure stimulation for mechanosensitive targets or optogenetic approaches, the original Port-a-Patch remains the instrument requiring more complex experimental designs.

About Nanion Technologies:

Nanion Technologies is a leading provider of instrumentation for ion channel drug discovery and screening. Founded in 2002, Nanion has grown over the last 17 years to a company with over 100 employees worldwide. With headquarters in Munich, Germany, Nanion has subsidiaries in the USA, Japan, China and Denmark, as well as distribution partners in seven other countries.

Nanion's team has developed and successfully established four generations of sophisticated automated patch clamp instruments from medium to high throughput addressing applications in ion channel research and drug discovery (Port-a-Patch, Patchliner and SyncroPatch product families). Further product lines enable cell monitoring and cardiotoxicity screening (CardioExcyte 96), parallel bilayer recordings (Orbit family), and detection of electrogenic membrane transporter activity (SURFE²R).

For more information, please visit www.nanion.de

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