The Patchliner®.
Because quality does matter.

The Patchliner® NPC®-16

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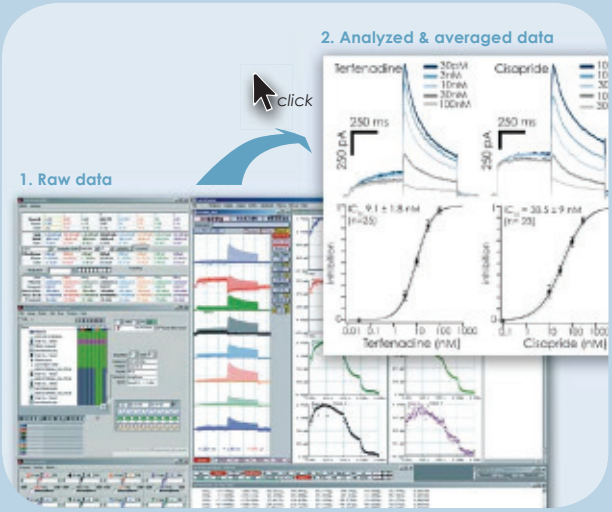
The Patchliner® Electrophysiology in the fast lane

- Sophisticated and efficient platform
- Unprecedented flexibility and user control
- High success rates
- Voltage and current clamp recordings
- Premium data quality and GΩ seals
- Whole cell and single channel recordings
- Voltage- and ligand-gated channels
- Primary cell and stem cell recordings
- Versatile liquid handling
- Advanced temperature control

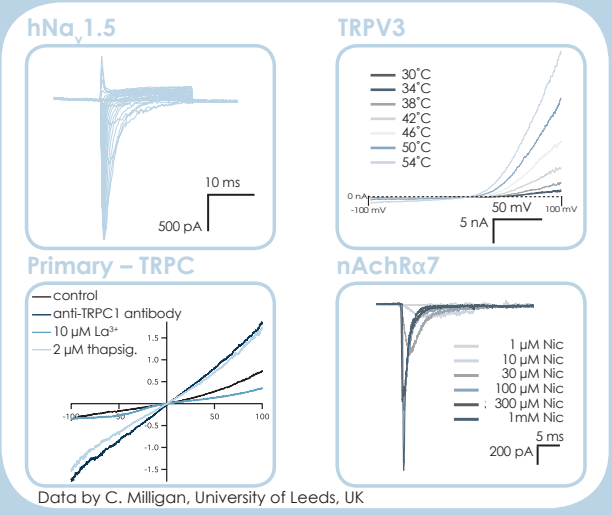


Press one button and walk away – 48 cells in one run

The Patchliner® is a fully automated bench-top patch clamp platform, recording from up to eight cells simultaneously with GΩ seals. Short set-up times, stable whole-cells and sophisticated software allow efficient screening of compounds and ion channels.

The Patchliner® supports:

- Full dose response curves from individual cells
- Up to 100 dose response curves per day (600 d.p.)
- Analysis of up to 300 compounds per day
- Built-in compound redundancy check
- Efficient data analysis – a couple of clicks and that's it!



Data by C. Milligan, University of Leeds, UK

Unlimited experimental freedom

No other automated platform on the market combines the tremendous experimental flexibility, data quality and increased throughput the way the Patchliner® does!

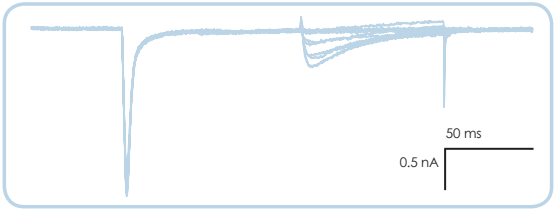
The Patchliner® features:

- Excellent voltage clamp of the cellular membrane
- Primary cell recordings as reported in Nature*
- Heatable pipette – fast temperature jumps
- Fast solution exchange
- Automated current clamp recordings
- Internal solution exchange
- Bilayer recordings

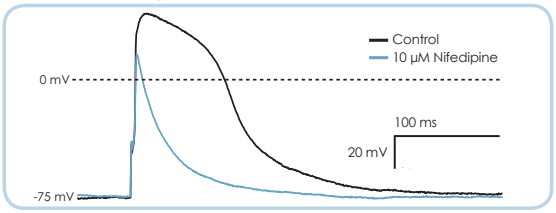
* Nature Protocols, 2009, 4(2), 244-255.

chip resistance:	2 MΩ (customized resistances available)
seal resistance:	> 1 GΩ
series resistance:	< 10 MΩ
liquid consumption:	~ 25 µl/compound
perfusion time constant:	< 20 ms
minimum exposure time:	200 ms
whole cell stability:	> 30 min
successful whole cell recording:	70 - 90 % (consistent between cell lines)
throughput:	250 - 600 dp/day

Voltage clamp



Current clamp



Cells courtesy of CDI.

Best of all worlds: throughput, performance, versatility

With the Patchliner® you can have it all. Efficient routine screening in voltage clamp mode or automated action potential recordings from stem cell-derived **cardiomyocytes** – it's your choice!
Patchliner's ability to perform **automated current clamp** recordings in combination with great compatibility with stem cell-derived cardiomyocytes allow cardiac **safety testing** in both recording modes.
So, why compromise? The Patchliner® accelerates your drug discovery projects through excellent data quality, unique experimental features, smart software and inexpensive consumables. Ask us how!

Technical Specifications

The Patchliner® platform includes:

- Patchliner Quattro: 4 amplifier channels
- Patchliner Octo: 8 amplifier channels
- 1-2 EPC 10 Quadro amplifiers
- PatchControl HT and PatchMaster software
- Patchliner Data Analysis Package (incl. Igor Pro)
- On-site installation support

Size and weight:

Size (l x w x h): 62 x 56 x 53 cm
Weight: 20 kg

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"Xention is a company specialising in ion channel drug discovery and development, and we have invested in Patchliners because their flexibility and adaptability allow us to utilise this technology to meet the differing needs of our various screening projects. The targets we study require high quality electrophysiological recordings, and we have found that the Patchliner can deliver such output with a high success rate for a range of different ion channels and heterologous cell lines. Nanion has been extremely helpful in customising the software to fit our screening requirements, and I would happily recommend the Patchliner to anyone who needs reliable patch clamp instrumentation for their ion channel screening purposes."

Dr. Marc Rogers, Principal Scientist, Xention Ltd., Pampisford/Cambridge, UK

"To invest in the Patchliner was a straightforward choice for the Vanderbilt Screening Center. This instrument combines a set of features that was particularly important to us. (...) Unlike other planar patch clamp devices we considered, the Patchliner gave us full access to the electrophysiology modes we require for a broad range of experimental protocols including voltage clamp, current clamp, standard whole cell, cell attached, and perforated patch configurations combined with a facile ability to exchange the internal solution. (...) In a short time the Patchliner has already begun to expand Vanderbilt investigators' horizons regarding what they can accomplish with electrophysiology."

Dr. David Weaver, Research Associate Professor of Pharmacology, Director of the Chemical Biology's High-Throughput Screening Facility, Vanderbilt University, Nashville, TN, USA

"In Evotec's continued effort to provide the most valuable services to our customers and increase our capabilites in our ion channel platform, we have invested in multiple Patchliner instruments. These have allowed us to complement our existing patch clamp capabilities and substantially increase our throughput in a number of electrophysiology and screening projects, including hERG screening. The Patchliners provide us with high quality data, are easy to operate with minimal assay development time, and we are particularly happy with the first class support Evotec receives from Nanion."

Dr. Clemens Möller, Team Leader Electrophysiology, Evotec AG, Hamburg, Germany

Europe
Nanion Technologies
Gabrielenstr. 9
80636 Munich
Germany
phone: +49 89 218997972
fax: +49 89 218997960
info@nanion.de
www.nanion.de

USA
Nanion Technologies Inc.
675 US Highway One
North Brunswick, NJ 08902
USA
phone: +1 1-888-9-NANION
info@naniontech.com
www.naniontech.com

Russia
Biotechnologies Ltd.
Thorez pr. 44
194223 St. Petersburg
Russia
Phone: +7 812 2942206
Fax: +7 911 1017781
K.Bolshakov@biotechnologies.ru
www.biotechnologies.ru

India
Medi Analytika India Pvt. Ltd
6, Adyar Bridge road
Adyar, Madras - 600 020
India
phone: +91 44 24460988
fax: : +91 44 24463931
mediana@vsnl.com
www.medianalytika.com

Singapore
Bronjo Medi
Block 16 Kallang Place #03-10
Kallang Basin Industrial Estate
Singapore 339 156
Singapore
phone: +65 6 4764011
fax: +65 6 3920551
bronjo@singnet.com.sg

China
Nanion Technologies China
Room 337, Building 6, Yard No.1
10th Shangdi road
Haidian District, Beijing, 100085 China
Phone: +86 10 85120277
Fax: +86 10 85120276
andy.di@nanion.de
www.nanion.cn

Korea
Quantum Design Korea
517-18 Kyungbin Bldg. 4F, Dogok-dong
Kangnam-gu, Seoul
Korea, 135-270
Phone: +82 2 20572710
Fax: +82 2 20572712
qdk@qdkorea.com
www.qdkorea.com

Taiwan
Sunpoint Scientific Instrument
9f-1, No. 146, Wen Shing
Rd. Taoyuan Hsien 333
Taiwan, R.O.C
phone: +886 3 3273889
fax: +886 3 3273908
sunp55@ms36.hinet.net
www.sunpointworld.com

Japan
Bio Research Center Co., Ltd
2-28-24, Izumi, Higashi-ku
Nagoya 461-0001
Japan
phone: +81 52 9326421
fax: +81 52 9326755
ohtsuki@nanion.de
www.brck.co.jp