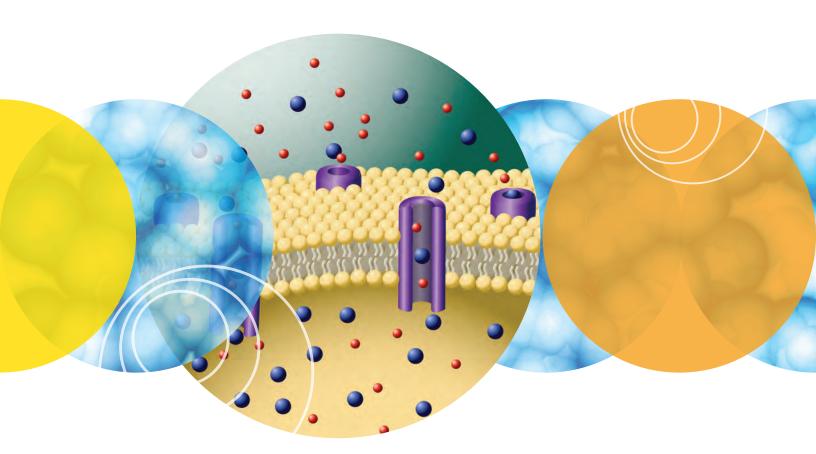
Electrophysiology Solutions: Advancing Basic Research and Drug Discovery







Unleash your brilliance[™]



Push the boundaries of electrophysiology like never before

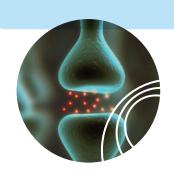
With decades of experience making technology advances in electrophysiology, we have enabled thousands of scientists to publish in high-ranking journals and bring novel drugs to market. With our comprehensive suite of electrophysiology solutions, depth of industry knowledge, and expert Ph.D. trained technical support team, we have earned scientists' trust and preference, becoming the world leader in electrophysiology.

The next landmark scientific discovery is waiting for you; learn how we can catalyze your success.

and Cell

"We consistently obtain quality data. We also have had no issues with the hardware in several years of frequent use. Great overall system. Low noise, high quality data with good software."

Dr. Andrew Voss, Ph.D.
 Wright State University
using Molecular Devices
electrophysiology solutions



companies

MOLECULAR DEVICES ELECTROPHYSIOLOGY BY THE NUMBERS countries 20,000+ 15,000+ served publications systems installed Instruments years of experience in electrophysiology placed in all top 1,000+ publications in pharmaceutical Nature. Science.

Secure grants and expand your tenure with high-quality data

Make your research exceptional by using the best patch-clamping solution available. Proven with over 20,000 publications by Nobel Prize winners, university professors, and principal investigators, we empower you to win your next grant. With landmark scientific achievements published in *Nature*, *Science*, *Cell* and other key journals, we enable you to look for your next horizon in science.

Publish your way to a permanent position

Generate more results faster with best-inclass patch-clamping solutions for reliable high-quality data. Continually publish with science that moves minds and makes you stand out to secure the permanent position you want. You need data fast? Try our new Axon™ Digidata® 1550B Low Noise Data Acquisition System plus HumSilencer™. Equipped with up to four HumSilencer channels, the system enables recording of multiple cells simultaneously without 50/60 Hz line-synchronous noise, all with the push of a single button.

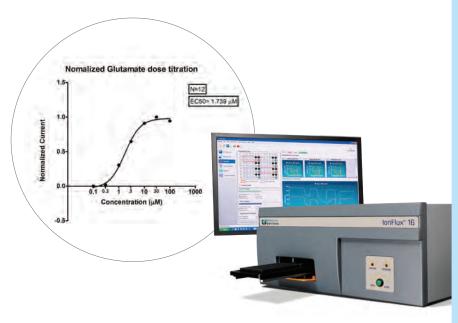


"The capability of eliminating 60 Hz noise in the new Digidata 1550A plus HumSilencer is a very useful feature in my research. It helps me remove the 60 Hz noise that obscures my data in my experiment."

Dr. Zhao-Wen Wang, Ph.D.
 University of Connecticut Health Center

Transform structure-activity relationship research with electrophysiology that is easy to use

Pioneering structure-activity relationship with electrophysiology data is made simple with up to 16 recordings simultaneously in a single run. Not an expert electrophysiologist? Our lonFlux™ 16 Automated Patch Clamp System offers user friendly instrument operation and data analysis putting electrophysiology data within your reach.



Our IonFlux system offers unmatched flexibility, fluidic sophistication and affordability for ion channel research. Integrating microfluidic perfusion with standard well plates produces an automated electrophysiology system that operates with the simplicity of a benchtop microplate reader.

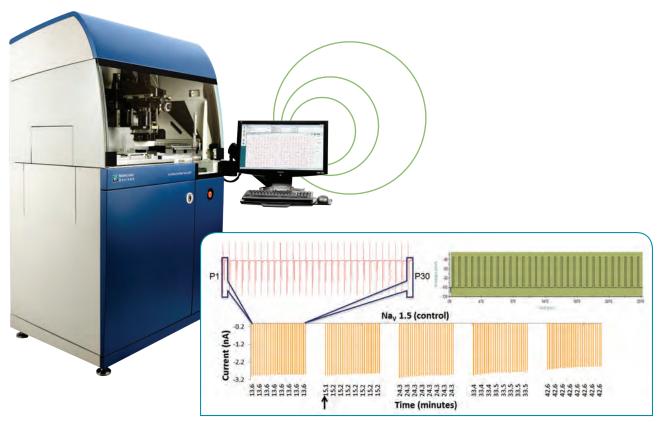
BASIC RESEARCH APPLICATIONS

- Single-channel recording
- Whole-cell voltage & current clamp recording
- Intracellular sharp electrode recording
- Extracellular field potential recording
- Two-electrode voltage-clamp recording
- Discontinuous single-electrode voltage-clamp recording
- Bilayer ion channel study
- Electrochemical study
- Nanopore study
- Clonal selection
- Compound screening

Transform successful library screens to routine so you can focus on what is next

Need to identify compound hits quickly? With the highest available throughput of up to 6,000 data points per hour and the lowest data point cost, the lonWorks Barracuda® System is your solution. Perform 100,000+ compound library screens quickly with assay robustness and system reliability you can afford.

Are you screening state-dependent or slowly-acting compounds? Population Patch Clamp™ (PPC) recording gives you robust and reproducible results in long assay windows in excess of 30 minutes with stable ionic currents to support the study of use-dependent and slowly-acting compounds. With best-in-class recording stability and longevity to detect these compounds, PPC technology reduces false negatives and false positives so you can select your active compounds fast and with greater confidence.



IonWorks Barracuda wide assay window, in excess of 30 minutes, enables compound identification faster and with greater confidence.

Select the next drug candidate for clinical trials

Do you need to study ligand-gated ion channels today and voltage-gated ion channels tomorrow? Understand mechanism of action through structure activity relationship studies to identify the next clinical trial candidates. With our lonFlux™ HT system, you get the flexibility and throughput you require with the ease of use and data quality you need.



Have the edge in a competitive contract research market

Are you competing for the next drug screen? Cost and ease of use are everything. Yet you want flexibility and uncompromising data quality! Today's drug screen requires ligand-gated channels, yet tomorrow's might require voltage-gated assays. How do you choose? With our IonFlux HT system, you get both without the need to compromise, so you can stay focused and win your next contract.

LIGAND-GATED TARGETS SUCH AS

- Acid Sensing Ion Channel
- N-Methyl-D-Aspartate
- Gamma Aminobutyric Acid
- Nicotinic α 1, α 3, α 4, α 7
- Transient Receptor Potential
- Purinergic Receptors

VOLTAGE-GATED TARGETS SUCH AS

- Voltage-Gated Calcium Channels
- Voltage-Gated Sodium Channels
- Voltage-Gated Potassium Channels
- Human Ether-A-Go-Go Related Gene (hERG)
- Chloride Channels

BASIC RESEARCH SOLUTIONS



Axon™ pCLAMP™ Software

Our pCLAMP Software is built to be a user-friendly electrophysiology data acquisition and analysis program with versatile features for a variety of usage in patch-clamp experiments.



Axon™ Digidata® 1550B plus HumSilencer™

A low-noise data acquisition system that eliminates 50/60 Hz line-frequency noise in less than one second.



Axon™ Axopatch™ 200B **Amplifier**

Widely accepted as the goldstandard for ultra low-noise patch-clamp recordings, it is the premier amplifier for single-channel recordings.



Axon™ MultiClamp™ 700B **Amplifier**

A versatile and computer-controlled microelectrode amplifier designed for patch voltage-clamp or highspeed current-clamp recordings.



Axon™ AxoClamp™ 900A Amplifier

A versatile and computer-controlled microelectrode amplifier designed for twoelectrode voltage-clamp recordings and highspeed current clamp recordings.



IonFlux™ 16 Automated Patch **Clamp System**

Flexible, fluidic sophistication and affordability for ion channel research. Integrated microfluidic perfusion with standard well plates produces an automated electrophysiology system.



DRUG DISCOVERY SOLUTIONS



IonFlux™ HT Automated Patch Clamp System

Flexible, fluidic sophistication and affordability for ion channel research. Integrated microfluidic perfusion with standard well plates produces an automated electrophysiology system.



IonWorks Barracuda® Plus System

A high-throughput solution for voltage- and ligand-gated ion channel research for drug discovery screening and safety assessment.

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