

Catch of the Day: PowerLab Systems Measure Zebrafish QT Prolongation

COLORADO SPRINGS, Colorado, August 29 2007

ADInstruments today announced that PowerLab systems are being used to establish the zebrafish as a model for assessing drug effects on cardiac function, using QT prolongation as a key indicator. Researchers at Phylonix Pharmaceuticals are recording ECG signals from the small fish species, and using Chart's ECG Analysis Module software to analyze the effects of pharmacological interventions.

Phylonix, a contract research organization headquartered in Cambridge, MA, develops and markets *in vivo* zebrafish assays for therapeutic drug screening for research and preclinical studies. The zebrafish is extremely cost-effective compared to larger animal models, and its embryo is already established as a powerful model for studying genetics and developmental biology.

Recently, articles validating adult zebrafish as a model for researching drug-induced QT prolongation have appeared in *Circulation* and *AJP Heart and Circulatory Physiology*. Zebrafish and human heart electrophysiological properties are comparable, and ECG patterns, including the PR interval, QRS complex and QT interval, are similar.

According to Patricia McGrath, Phylonix President and CEO, "We decided to get into this area because we could see that the pharmaceutical industry was being mandated to do QT prolongation testing for all their drugs, so if we could get the model to catch on, we hoped we'd catch some customers!"

Phylonix researchers add drugs to the water in the zebrafish's recording chamber. The ECG signal is recorded using needle electrodes with an ADInstruments' Octal Bio Amp, PowerLab data acquisition unit and Chart software. Phylonix electrophysiologist Dr Demian Park has worked closely with ADInstruments staff to optimize their recordings.

The ECG Analysis Module has accelerated Phylonix's data analysis processes. It automatically detects, analyzes and extracts signal parameters, including the QT interval, in real time. As Phylonix's recordings are extremely long, Dr Park considers this software "really necessary" for research productivity.

About ADInstruments

Established in 1988, ADInstruments is a leading provider of computer-based data acquisition and analysis systems for life science research and education. Based on the PowerLab® data acquisition system with Chart™, Scope™ and LabTutor® software, ADInstruments products record, display and analyze life science data quickly and efficiently, both to pursue research outcomes and advance understanding in biomedical classrooms. PowerLab systems are used in academic institutions, pharmaceutical and contract research laboratories, government organizations, and private companies. ADInstruments is headquartered in Sydney, Australia with offices in the United Kingdom, United States, Germany, Japan, India, China, Malaysia and Chile.

Media Contacts

ADInstruments Worldwide

Tom Grzelak
Corporate Marketing Manager
61 2 8818 3400
t.grzelak@adinstruments.com

ADInstruments Europe

Paula Croft
Support Manager- Europe
44 1865 - 891 623
p.croft@adinstruments.com

Agency

Doug Forsyth
Alchymia Communications LLC
(+1-541) 482-8744
df@alchymiacomm.com