

# Cytocentrics gets approval for patch clamp

By Johan Falk

German based biotechnology company has now taken a huge step to deliver top-notch pharmacological tests. Not only did Cytocentrics receive a GLP approval, their automated patch clamp technology CytoPatch™ was approved in addition to the conventional patch clamp method.

**PATCH CLAMP** The approval for Good Laboratory Practice (GLP) was an important step for Cytocentrics AG. The approval of the ministry of health and social affairs of the state of Mecklenburg-Vorpommern, not only means that Cytocentrics becomes the first biotechnology company in the new federal states of Germany that is authorised to carry out safety tests on human ion channels.

“An approval of GLP is also a stamp of approval of all our processes and personnel. It is very important in our contacts with clients, and I have already seen that we get more accepted in our contacts with potential customers since the approval,” Dr. Corina Ehnert of Cytocentrics says.

One key factor for the approval and proven utility of the automated patch clamp technology CytoPatch™ was to have a high quality cell line available.

“The CytoPatch™ chip technology is of very high standard, but we also need a cell line of equally high standard. We have developed such a line of cells that we have been frozen in nitrogen. Every batch of these cells called CytoPAQ Instant cells is validated by our electrophysiologists in regard to PAQ (Performance, Accuracy and Quality),” Corina Ehnert says.

## hERG-channel measurements

The ion channel that the people at Cytocentrics focus on is the hERG channel. This conduit into the cells has been identified to be of great importance when studying adverse effects of active substances on the cardiac system.

“One of the areas where we as a CRO can assist our clients is to help them with drug safety development. We have developed voltage protocols in order to be able to apply compounds in different concentrations, in order to measure the blockage of the ion channel under realistic circumstances,” Corina Ehnert says.

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With the automated system the throughput is higher which is always an advantage, but it does so without the disadvantages of data-artefacts.

“We have actually been able to show that results from the automated system are not only of the highest quality and reproducibility, the data also matches the manual measurements,” Corina Ehnert says.

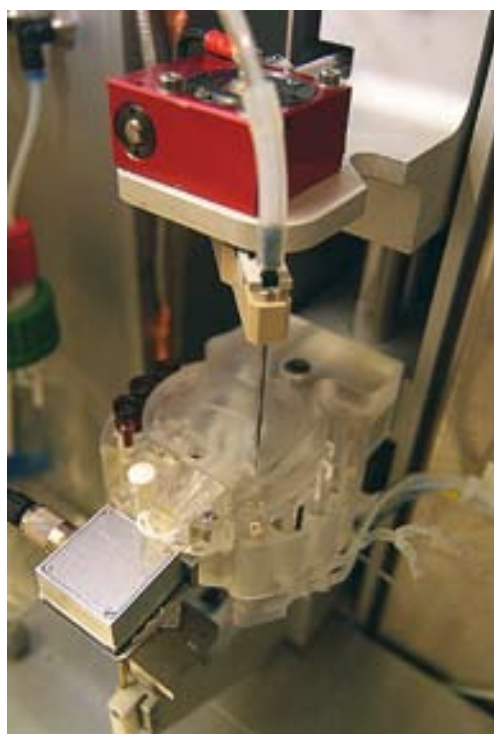
Naturally Cytocentrics do not limit themselves to the hERG channel, other

important sodium and potassium channels are under development.

## Outside of the laboratory

Corina Ehnert is a very experienced electrophysiologist, a fact that she feels is important when she meets the clients. “I have investigated ion channels for over ten years now, so when our president, Dr. Christa Nutzhorn and I meet the clients, we combine over twenty years of business experience with scientific expertise,” she says.

The combination of an extensive and proven track record with the data quality of the CytoPatch™ system is usually more than enough to impress. “When I show our IC<sub>50</sub> values which are in the low range of compared to what is published in the literature, that more or less speaks for itself,” Corina Ehnert.



Patch clamp screening with CytoPatch™.

