

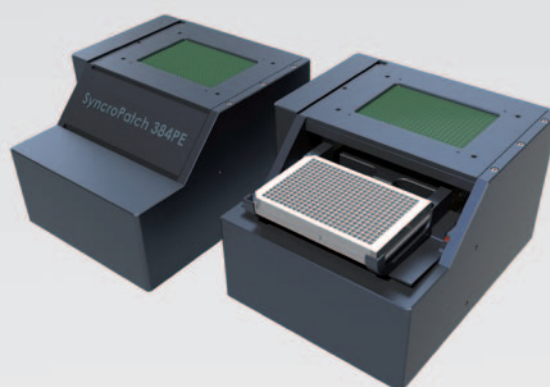
# SyncroPatch 384 PE.

## Patch clamp finally goes HTS.

- 384 or 768 cells in parallel
- 20,000 data points per day
- 85 % success rates routinely obtained
- True giga-seal recordings
- Reliable data from diverse ion channel targets
- Available for shipping NOW

### SyncroPatch 384PE – Giga-seals at 20,000 data points per day

The SyncroPatch 384 Patch Engine (PE) is a fully automated device for massively parallel patch clamp recordings. The Patch Engine itself is a module, which integrates into commercially available liquid handling robots. Up to two patch engines (PE's) can be integrated per platform, granting up to 768 giga-seal recordings in parallel in a purely automated fashion. The system contains 384 - 768 patch clamp amplifiers and a 384 channel pipettor, so that all experiments are done completely in parallel.



**The Patch Engine -**  
Modular approach for effortless  
integration into HTS environments

Solution exchange rate is fast, typically <50 ms. Success rates achieved are routinely over 85 %. A full run of 384 cells for dose response analysis takes less than 15 minutes, delivering several thousand data points per hour. SyncroPatch 384PE has been validated with a wide variety of cell lines and ion channels, performing excellent for ligand- and voltage-gated channels. The modular approach and the use of commercially available liquid handling robots, promote complete integration of the system into HTS environments.

SyncroPatch 384PE

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## SyncroPatch 384PE – Superior ion channel drug screening



### SyncroPatch 384PE set-up using the Biomek FX robot:

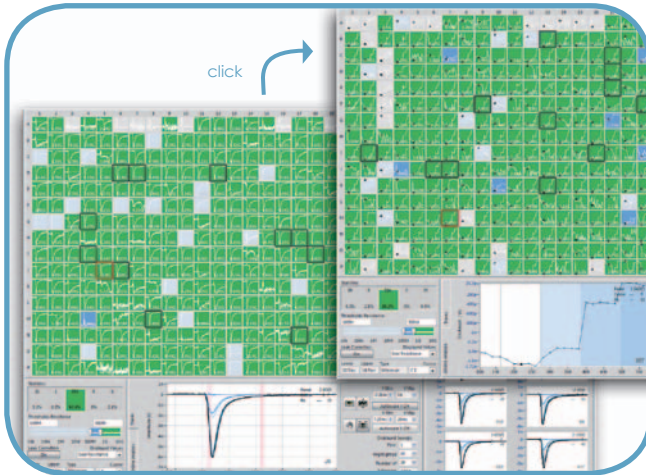
- 1 - 2 SyncroPatch 384PE modules
- 1 - 2 x 384 channel amplifiers
- Biomek FX with a 384 pipetting head
- SyncroPatch 384 software
- NPC-384 borosilicate recording plate
- Temperature-controlled cell hotel
- Integrated barcode scanner
- Integrated plate-gripper
- 384 pipette tips

### Data examples:

#### hNav1.7-channels expressed in CHO-cells

- Two control washes applied before increasing concentrations of Tetracaine (5, 50 and 500  $\mu\text{M}$ )
- Success rate for completed recordings: 86.2%
- Experiment duration, including everything: 16 minutes
- Tetracaine  $\text{IC}_{50}$  = 49.6  $\mu\text{M}$
- One mouse click and the corresponding pharmacology plots are shown

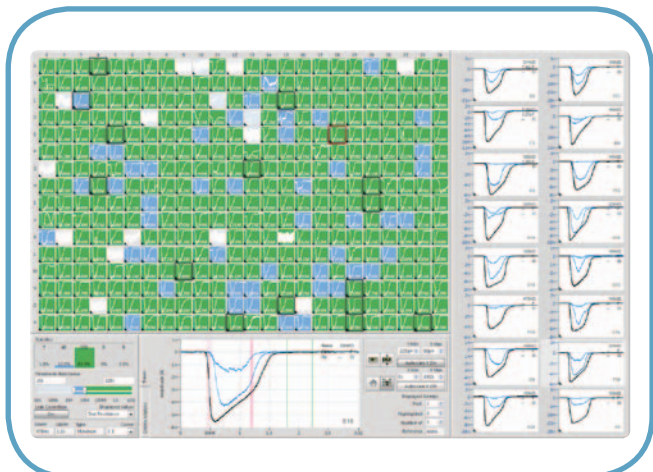
Cells were kindly provided by Anaxon



#### $\alpha 1$ Glycine receptors expressed in LTK-cells:

- Fast solution exchange rate: <50 ms
- One wash-step before compound application
- Stacked applications of glycine and wash buffer
- Three concentration of glycine: 100, 300 and 1000  $\mu\text{M}$
- Experiment duration, including everything: 15 minutes
- Success rate completed experiment: 83.3%
- Multi-hole recording well substrate

Cells were kindly provided by AstraZeneca



For more data and information, join us on:  
[www.patchclamprevolution.com](http://www.patchclamprevolution.com)

SyncroPatch 384PE – Patch clamp goes HTS!