



Port-a-Patch mini: The next piece in the APC puzzle

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Patch clamp electrophysiology remains the gold-standard for ion channel research because of the information rich content of the data produced. However, the required skills and complexity of equipment can make this technique intimidating and time consuming for inexperienced scientists. The advances in automated planar patch clamp (APC) electrophysiology have made the technique accessible to a wider audience. Since the introduction of the Port-a-Patch (a single channel semi-automated patch clamp system) over a decade ago, the device has been well accepted in the pharma industry, CROs and academia alike and data produced on the device have been published in various high-ranking journals. The Port-a-Patch mini, it's younger and smaller brother, is an affordable, plug-and-play patch clamp instrument with an extremely small footprint which, enables every lab to perform high-quality, giga-seal whole-cell voltage clamp recordings with minimal training in a very short amount of time. Operating the Port-a-Patch mini is straightforward and simple – cells and solutions are added onto the disposable NPC-1 chip by the user, where capture and seal formation are automated by a computer-controlled pump. Example recordings of heterologous expressed ion channels, such as Nav1.5 and according pharmacological drug effects, will be shown.