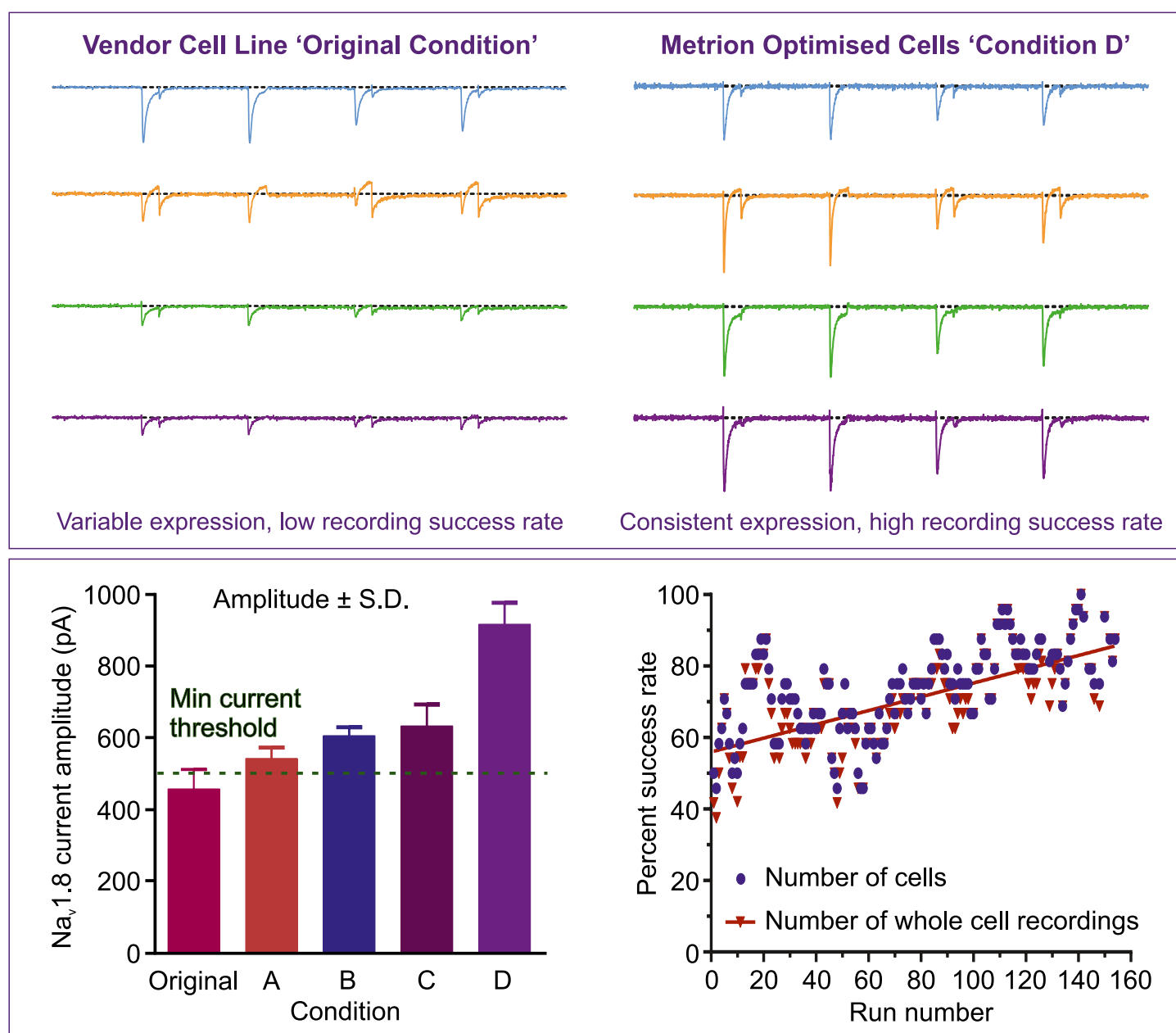


Assay Development Services

Reliable and efficient screening assays are a key requirement for successful drug discovery projects. At Metrion we optimise assay performance at all stages of the screening cascade, from hit finding and medium throughput structure-activity relationship (SAR) profiling, to biophysical and mechanism-of-action studies for hit series or lead compounds. Assay development involves optimising a wide range of parameters, including the cell line and cell culture requirements, recording solutions and voltage protocols.

Cell Line Optimisation

Metrion has considerable experience of optimising cell lines to help develop robust screening assays. For example, we developed a $\text{Na}_v1.8$ assay on the Patchliner (Nanion). Initially, one of the major limiting factors was the poor expression associated with the original $\text{Na}_v1.8$ recombinant cell line. Metrion optimised the cell line and tissue culture conditions to increase $\text{Na}_v1.8$ expression, allowing the development of a highly efficient SAR profiling assay.



Assay Development Services

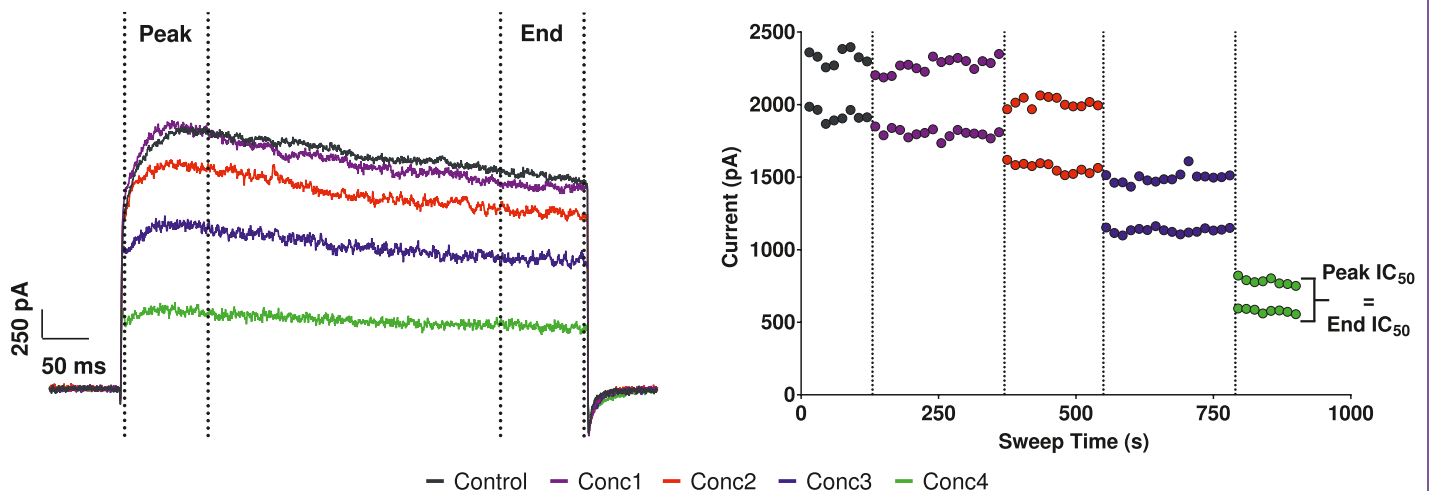
Mechanism-of-Action Assays

Mechanism-of-action assays play a key role in identifying compounds that bind preferentially to a specific ion channel conformation, or state, that could be associated with a disease pathophysiology. Metrion has considerable experience in generating assays capable of accurately identifying state dependent ion channel inhibitors for a wide range of voltage-gated ion channel targets.

$K_v1.1/(1.2)_3$

Metrion developed a $K_v1.1/(1.2)_3$ assay on the QPatch that could accurately identify compounds that bind to different channel states. This assay format has been successfully employed for other voltage gated $K_v1.x$ channels, including $K_v1.3$.

Series A: Compounds show state independent mechanism of action in QPatch assay



Series B: Compounds show state dependent mechanism of action in QPatch assay

