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(54) Title: SYSTEM AND METHOD OF ELECTROPORATION PROTOCOL OPTIMIZATION

(57) Abstract: The present disclosure provides systems and methods of electroporation protocol optimization. Embodiments include electroporation machines capable of carrying out test protocols including multiple user-designated parameters. The protocols and parameters can be carried out on samples comprising cells, including portions of a sample, to determine optimum parameters for electroporation for different samples. The systems and methods of optimization preferably use electroporation cartridges, electroporation instruments and systems and methods of electroporation using these devices and systems. In some embodiments, electroporation cartridges comprise an electroporation chamber and electrodes.

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