

May 08, 2024 Version 2

Nebuloni, F. & Do, Q. B. et al. (2024) A fluid-walled microfluidic platform for human neuron microcircuits and directed axotomy V.2



DOI

dx.doi.org/10.17504/protocols.io.36wgqjwwxvk5/v2

Federico Nebuloni^{1,2}, Quyen Do^{3,4,5}, Richard Wade-Martins^{3,4,5}

¹Osney Thermofluids Institute, Department of Engineering Science, University of Oxford, Osney Mead, Oxford OX2 0ES, United Kingdom;

²The Sir William Dunn School of Pathology, University of Oxford, South Parks Road, Oxford OX1 3RE, United Kingdom.; ³Oxford Parkinson's Disease Centre and Department of Physiology, Anatomy and Genetics, University of Oxford, South Park Road, Oxford OX1 3QU, United Kingdom;

⁴Kavli Institute for Neuroscience Discovery, University of Oxford, Dorothy Crowfoot Hodgkin Building, South Park Road, Oxford OX1 3QU, United Kingdom;

⁵Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA

Team Cragg



Cláudia C. Mendes

University of Oxford

OPEN ACCESS



DOI: dx.doi.org/10.17504/protocols.io.36wgqjwwxvk5/v2

Collection Citation: Federico Nebuloni, Quyen Do, Richard Wade-Martins 2024. Nebuloni, F. & Do, Q. B. et al. (2024) A fluid-walled microfluidic platform for human neuron microcircuits and directed axotomy. **protocols.io**

https://dx.doi.org/10.17504/protocols.io.36wgqjwwxvk5/v2 Version created by Cláudia C. Mendes

License: This is an open access collection distributed under the terms of the <u>Creative Commons Attribution License</u>, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

Protocol status: Working
We use this collection and it's
working



Created: May 11, 2023

Last Modified: May 08, 2024

Collection Integer ID: 99444

Funders Acknowledgement: Aligning Science Across Parkinson's (ASAP)

Grant ID: Grant ID: ASAP-

020370

Abstract

This collection contains six protocols detailing methods used in Nebuloni, F. & Do, Q. B.et al. (2024) A fluid-walled microfluidic platform for human neuron microcircuits and directed axotomy.



Files



SEARCH

Protocol



P Differentiation of human cortical neurons (CNs) from induced pluripotent stem cells (iPSCs)

VERSION 1

CREATED BY



Cláudia C. Mendes ിപ്പ് University of Oxford

OPEN \rightarrow

Protocol



NAME

Differentiation of human medium spiny neurons (MSNs) from induced pluripotent stem cells (iPSCs)

VERSION 1

CREATED BY



Quyen Do

OPEN

Protocol



Fabrication of fluid-walled dumbbells and generation of the human corticostriatal pathway

VERSION 1

CREATED BY



Cláudia C. Mendes ിമ് University of Oxford

OPEN →

Protocol



Automatic flow in fluid-walled dumbbells driven by Laplace pressure

VERSION 1

CREATED BY





Cláudia C. Mendes University of Oxford

Protocol



NAME

Localised axotomy of human Cortical Neurons (CNs) from induced pluripotent stem cells (iPSCs)

VERSION 1

CREATED BY



Cláudia C. Mendes ിപ്പ് University of Oxford

OPEN →

Protocol



Immunostaining of corticostriatal culture on fluid-walled dumbbells

VERSION 1

CREATED BY



Cláudia C. Mendes Clái, University of Oxford

OPEN →