

# Mechano-Dynamic Brain-on-Chip for Studying Human Stem Cell-Derived Neuronal Networks

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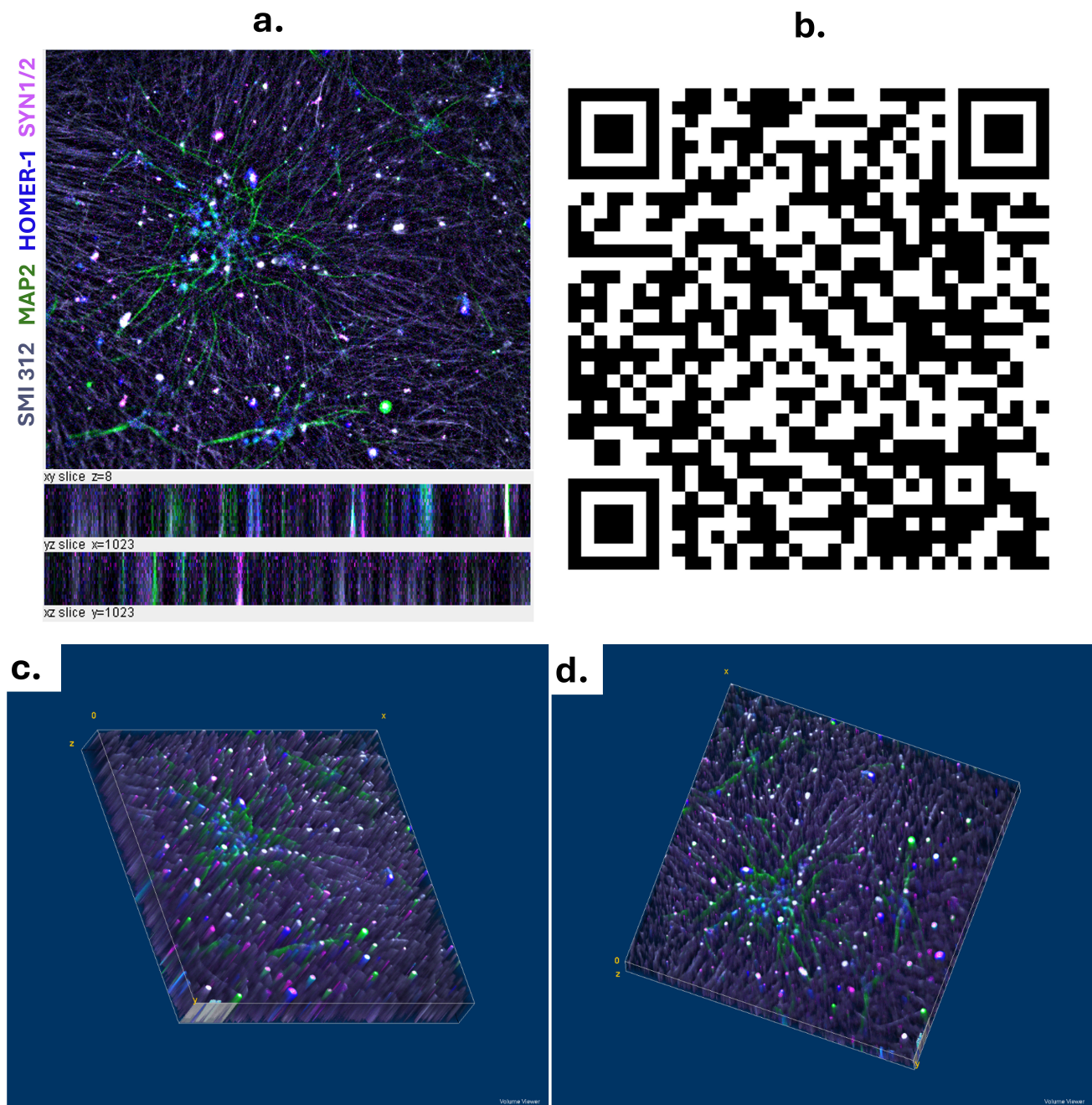
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## ABSTRACT

## Supplementary Material



**Figure 1. 3D visualization of 3D BoC cultures using Image J's Volume Viewer plug-in.** The images were constructed from z-stacks captured with a DMI8 microscope. **(a)** Top and orthogonal views of a z=8 stack. **(b)** A QR code links to the full movie of the 3D view, providing a dynamic exploration of the cultures. **(c, d)** 3D renderings shown from different angles, highlighting the structure. MAP2: Green, SMI312: Gray, Homer-1: Blue, SYN1/2: Red.

**Table 1.** Material List

<b>Materials</b>	<b>Suppliers</b>	<b>Identific</b>
Matrigel (Growth Factor Reduced (GFR) Basement Membrane Matrix)	Corning	354230
Poly-L-Ornithine (PLO)	Merck	P4957
Biolaminin	Biolamina	LN521
6-well plate	Thermo Scientific Nunc™ Non-Treated Multidishes	150239
Essential 8 Flex Medium	Thermofisher	A28585
E8 flex supplement	Thermofisher	A28585
Primocin	Invivogen	ant-pm-
Puromycin	Sigma	P9620
G 418 disulfate salt solution	Sigma	G8168
Doxycycline (Dox)	Sigma	D9891
RevitaCell	Thermofisher	A26445
N-2	Thermofisher	1750204
Non-essential amino acids	Sigma	M7145
NT-3	Sigma	SRP312
BDNF	Sigma	B3795
DMEM/F12	Thermofisher	11320-0
B-27 plus	Thermofisher	A35828
GlutaMax	Gibco	35-050-0
cytosine $\beta$ -D-arabinofuranoside (Ara-C)	Sigma	C1768
Neurobasal Plus medium	Thermofisher	A35829
Astrocyte Conditioned Medium (ACM)	ScienCell	1811
DPBS, calcium, magnesium	Thermofisher	1404013
DPBS, no calcium, no magnesium	Thermofisher	1419014
Accutase	Sigma	A6964
Fluo-4 Calcium Imaging Kit	Invitrogen	F10489
Paraformaldehyde	Alfa Aesar	043368
Sucrose	Thermofisher	J65148.3
Triton X-100	Sigma	9036-19
Normal goat serum	Invitrogen	31873
SMI-312	Biologend	837904
MAP2	Abcam	ab32454
Synapsin 1/2	Synaptic systems	106 004
Homer-1	Synaptic systems	160 006
Goat anti-Rabbit IgG Alexa Fluor 488	Thermofisher	1023688
Goat anti-Guinea pig IgG Alexa Fluor 647	Thermofisher	1062477
Goat anti-Chicken IgG Alexa Fluor 405	Thermofisher	1712183
Goat anti-Mouse IgG Alexa Fluor 555	Thermofisher	1043398
Mowiol 4-88	Polysciences	25213-2