Publications

International Journal of *Molecular Sciences*

MDPI

Article

Modeling of Blood–Brain Barrier (BBB) Dysfunction and Immune Cell Migration Using Human BBB-on-a-Chip for Drug Discovery Research

Masato Ohbuchi [1,*], Mayu Shibuta [1], Kazuhiro Tetsuka [1], Haruna Sasaki-Iwaoka [1], Masayo Oishi [1], Fumitaka Shimizu [2] and Yasuhisa Nagasaka [1]

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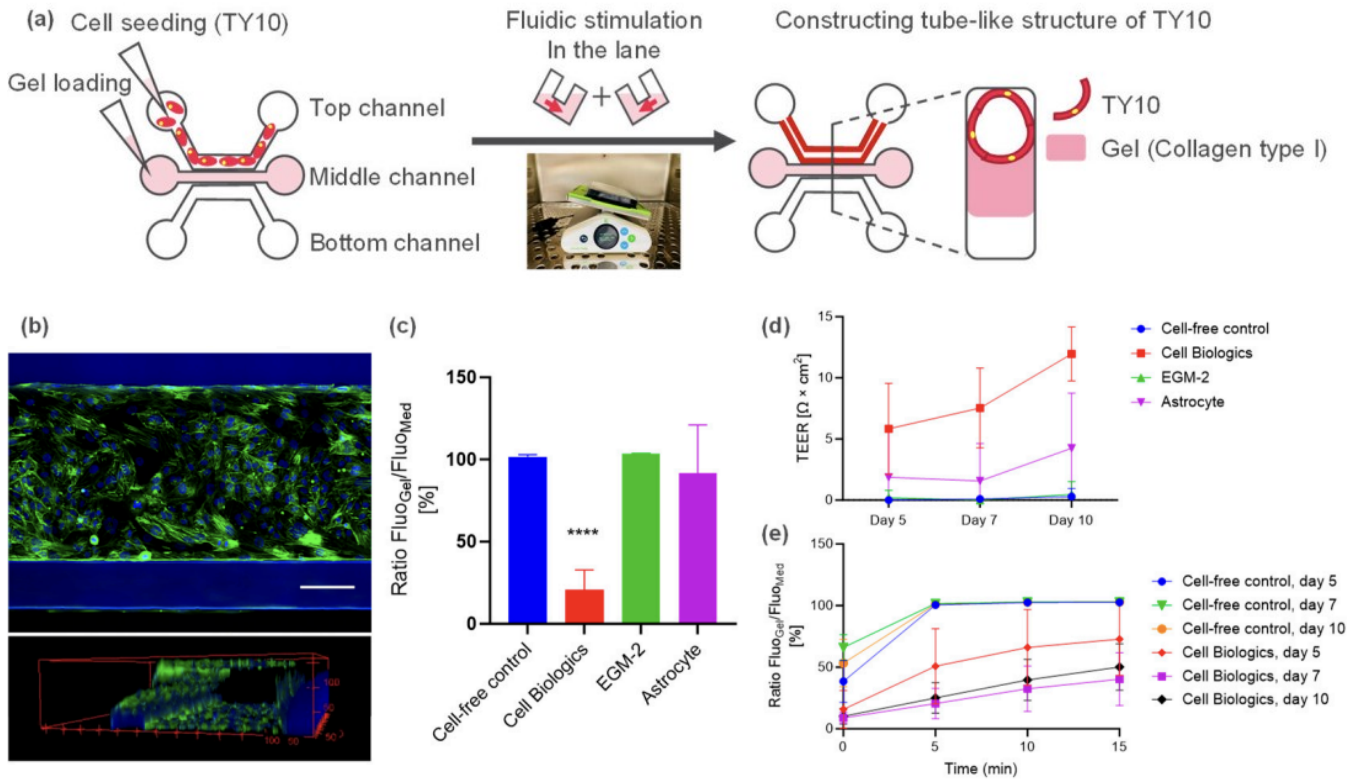
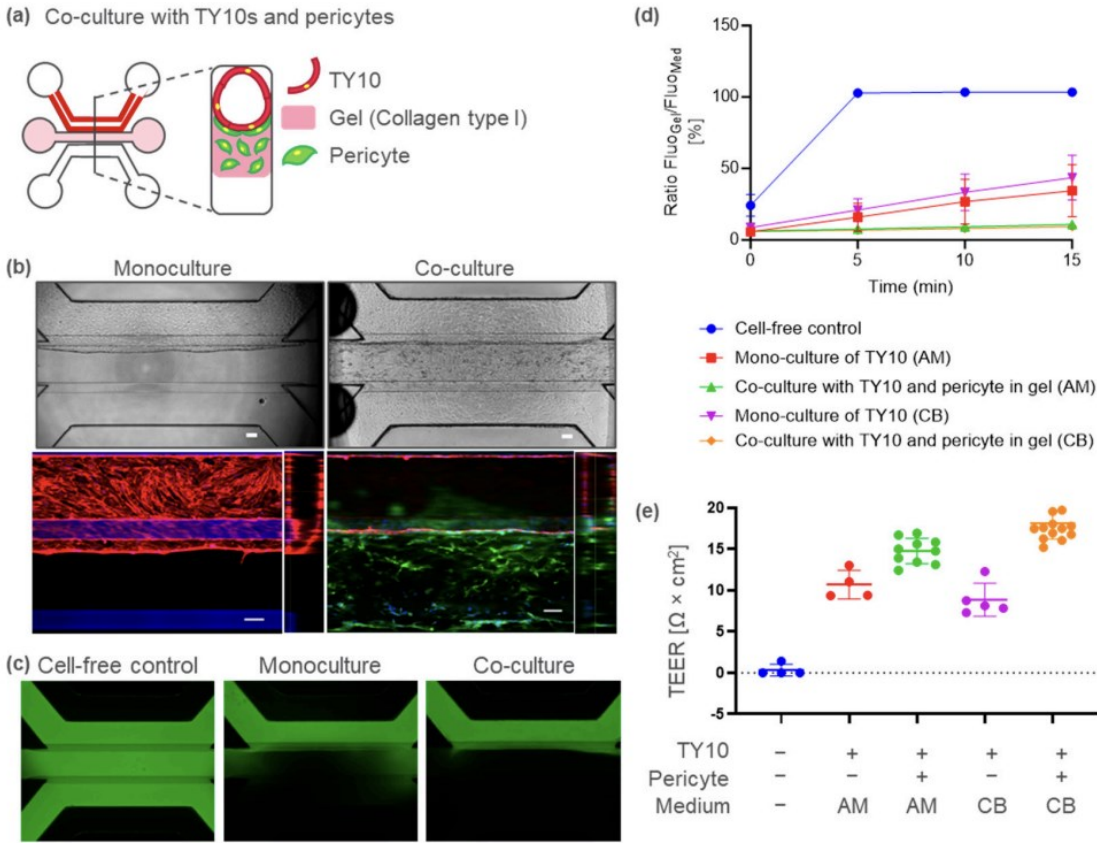
人類腦內皮細胞微流控培養（TY10）

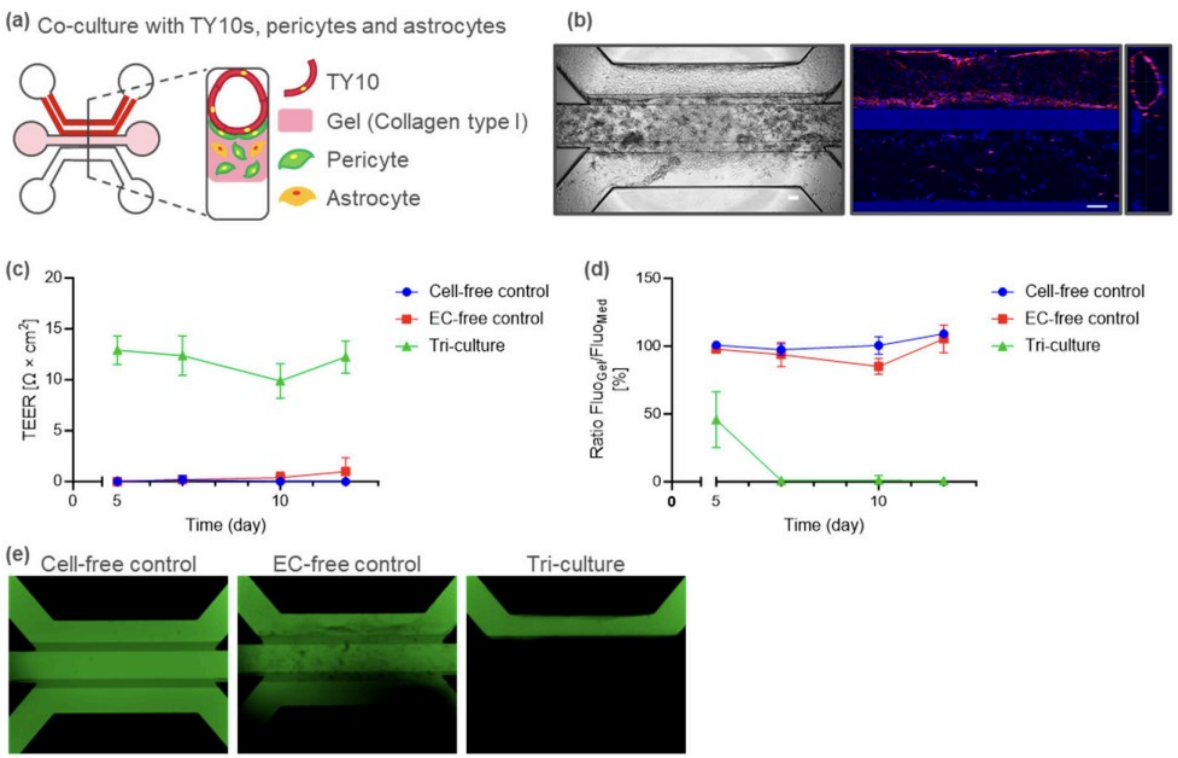


https://www.mdpi.com/1422-0067/25/12/6496

模擬BBB屏障晶片 (TY10、pericyte)



模擬BBB屏障晶片 (TY10、pericyte) 進行Astrocyte細胞遷移檢測



frontiers | Frontiers in Toxicology

TYPE Original Research
PUBLISHED 13 June 2024
DOI 10.3389/ftox.2024.1395670

Optimisation of an *in vitro* human cardiovascular model on-a-chip for toxicological assessment of nicotine delivery products

Fiona Chapman[1*†], Luuk de Haan[2†], Linda Gijzen[2], Wouter Strijker[2], Edgar Trelles Sticken[3], Sarah Jean Pour[3], Roman Wieczorek[3], Florian Haberstroh[3], Sandra Otte[3], Thomas Nahde[3], Liam Simms[1] and Matthew Stevenson[1]

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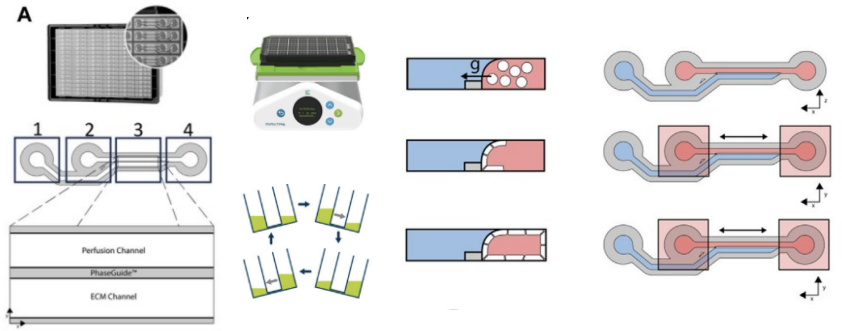
2-lane 96

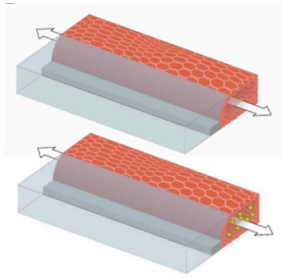
人類冠狀動脈內皮細胞 (HCAEC) 微流控培養



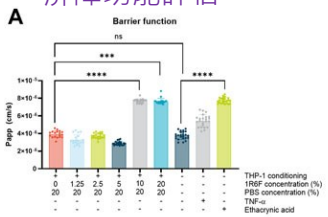
白色: HCAEC細胞
紅色: 灌注通道
藍色: 細胞外基質 (ECM)
灰色: PhaseGuide 板
箭頭:培養基/懸浮細胞流動方向

人類HCAEC細胞血管模型中THP-1細胞的遷移

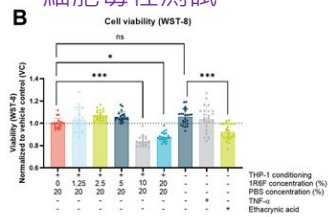
紅色: HCAEC細胞血管
藍色: 細胞外基質 (ECM)
綠色圓圈: THP-1細胞



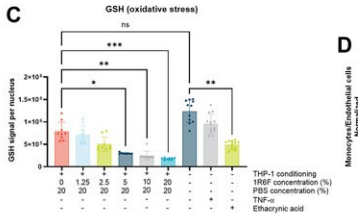
屏障功能評估



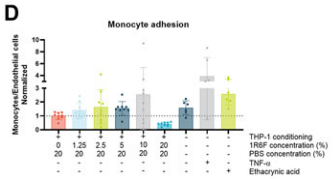
細胞毒性測試



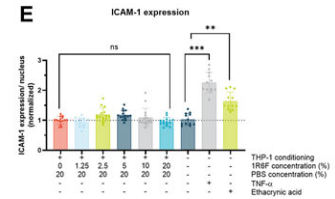
GSH量檢測



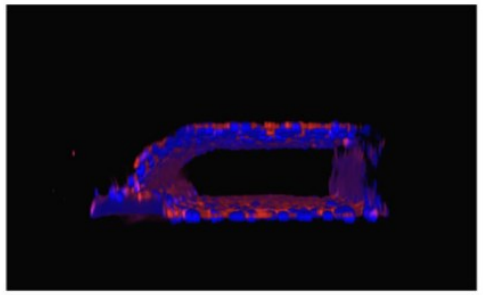
單核細胞黏附試驗



ICAM-1表現量

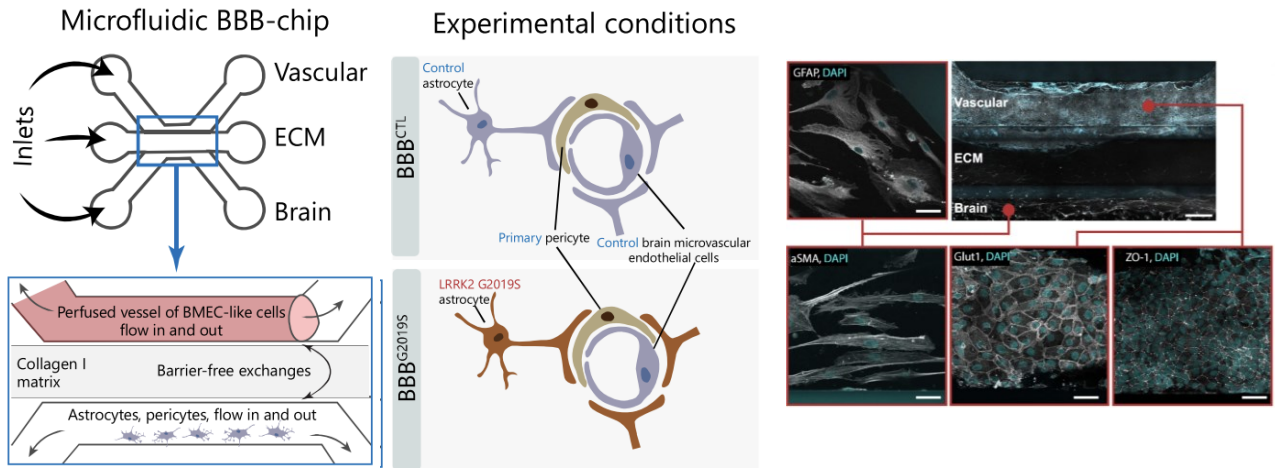


CD31 染色HCAEC血管3D影像



https://www.frontiersin.org/journals/toxicology/articles/10.3389/ftox.2024.1395670/full?utm_source=Email_to_authors_&utm_medium=Email&utm_content=T1_11.5e1_author&utm_campaign=Email_publication&field&journalName=Frontiers_in_Toxicology&id=1395670

使用 iPSC 和微流體技術建立 BBB 人體模型



nature communications

Article

https://doi.org/10.1038/s41467-023-39038-8

The contribution of inflammatory astrocytes to BBB impairments in a brain-chip model of Parkinson's disease

Received: 23 October 2021

Accepted: 26 May 2023

A. de Rus Jacquet[1,2,3,10], M. Alpaugh[1,2,4,10], H. L. Denis[1,2], J. L. Tancredi[3,5], M. Boutin[1], J. Decaestecker[6], C. Beauparlant[6], L. Herrmann[6], M. Saint-Pierre[1], M. Parent[2,7], A. Droit[6], S. Breton[8,9] & F. Cicchetti[1,2]

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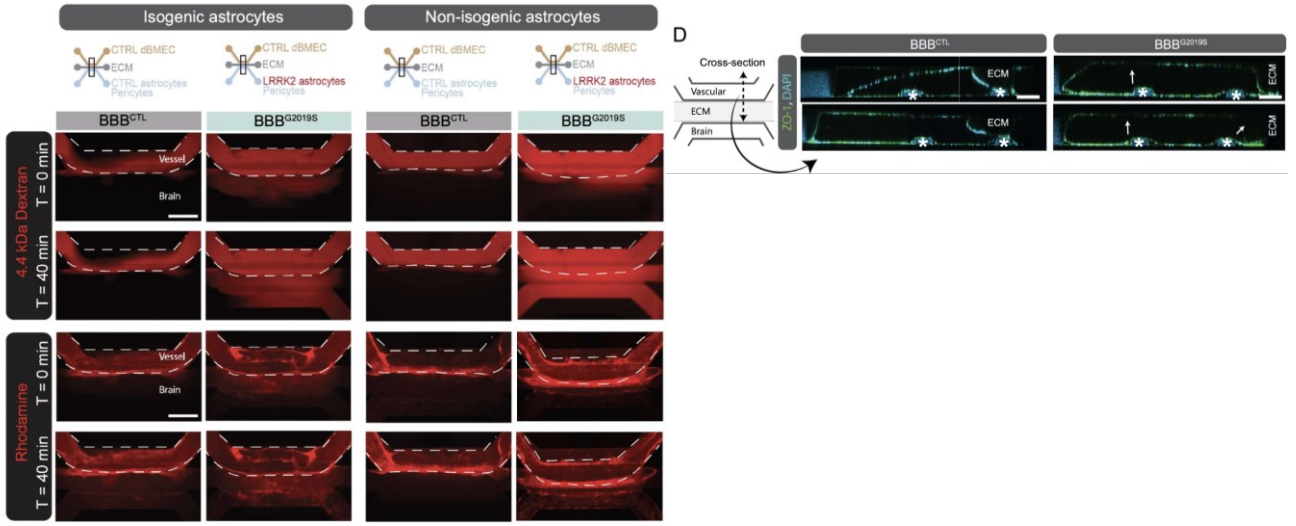
https://www.nature.com/articles/s41467-023-39038-8

具有 LRRK2 G2019S 突變的星狀細胞無法形成功能性 BBB模型



原代人類臍靜脈內皮細胞 (HUVEC)建立血管新生篩藥模型

Angiogenesis (2024) 27:37–49
https://doi.org/10.1007/s10456-023-09888-3

ORIGINAL PAPER

Check for updates

Phenotypic screening in Organ-on-a-Chip systems: a 1537 kinase inhibitor library screen on a 3D angiogenesis assay

Camilla Soragni[1,2] · Karla Queiroz[1] · Chee Ping Ng[1] · Arthur Stok[1] · Thomas Olivier[1] · Dora Tzagkaraki[1] · Jeroen Heijmans[1] · Johnny Suijker[1] · Sander P. M. de Ruiter[1] · Aleksandra Olczyk[1] · Marleen Bokkers[1] · Frederik Schavemaker[1] · Sebastian J. Trietsch[1] · Henriëtte L. Lanz[1] · Paul Vulto[1] · Jos Joore[1]

Received: 27 February 2023 / Accepted: 13 July 2023 / Published online: 26 July 2023

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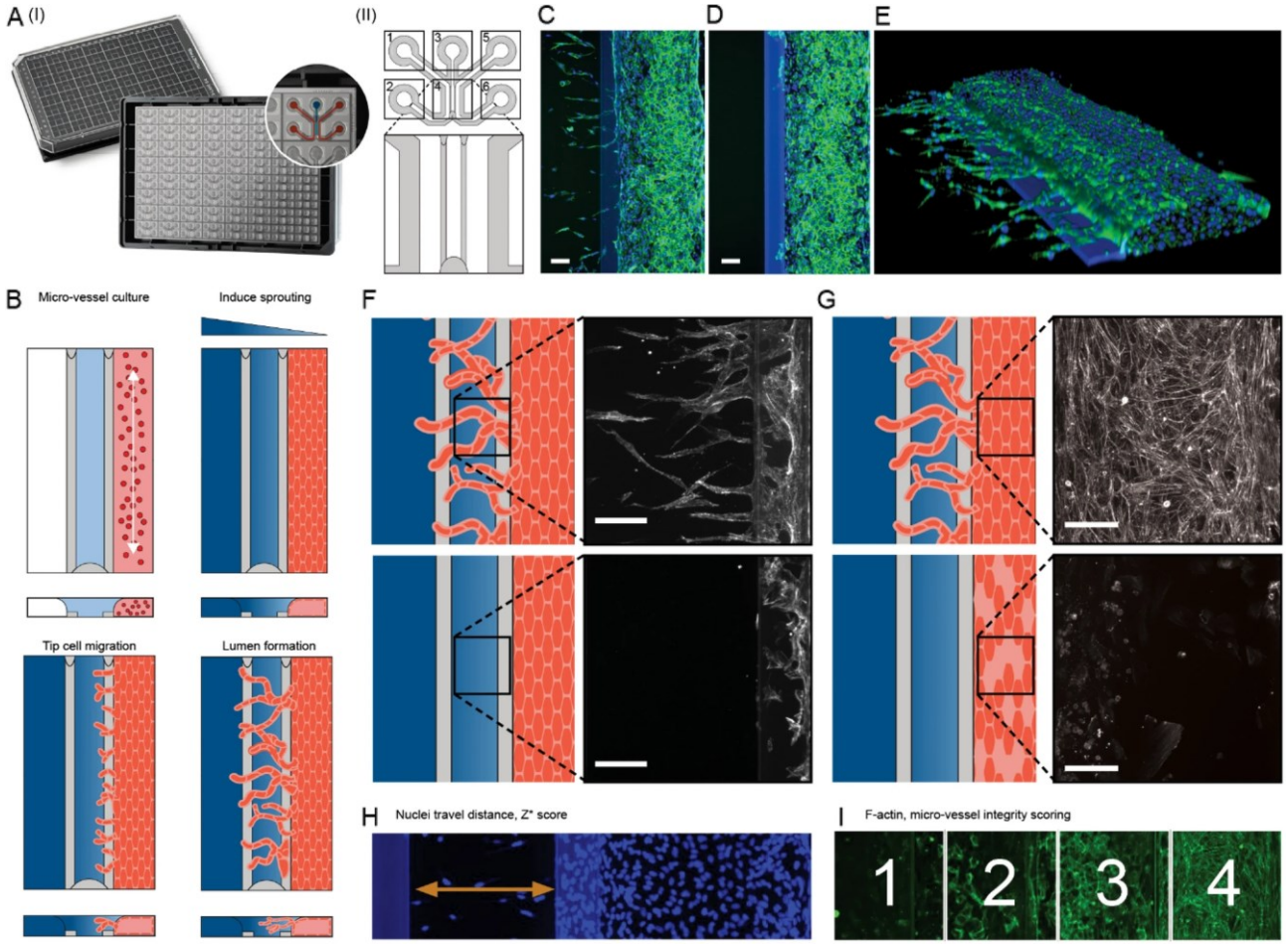
https://link.springer.com/article/10.1007/s10456-023-09888-3#Sec9



ChiPS4 分化成滋養層細胞模擬管狀結構胎盤屏障模型

iScience

CellPress
OPEN ACCESS

Article

Development of a human iPSC-derived placental barrier-on-chip model

Agathe Lermant,[1] Gwenaëlle Rabussier,[2] Henriëtte L. Lanz,[2] Lindsay Davidson,[3] Iain M. Porter,[4] and Colin E. Murdoch[1,5,*]

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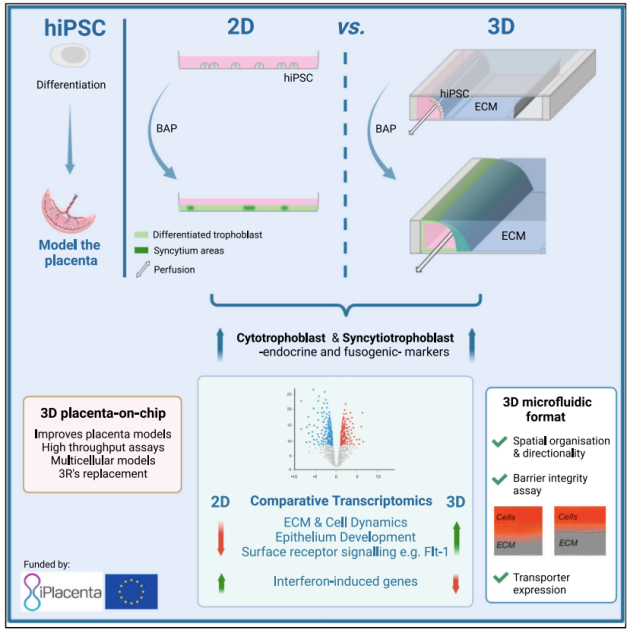
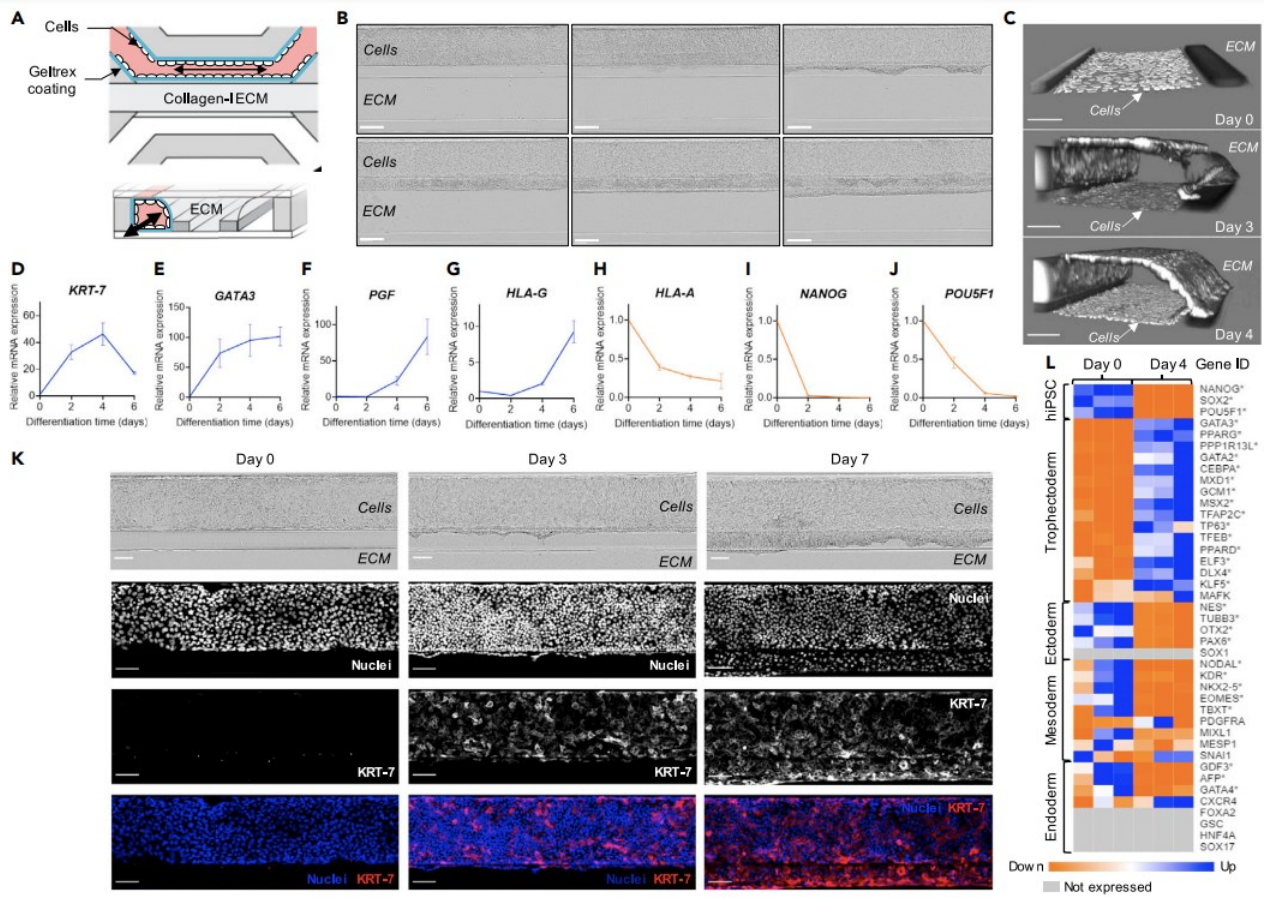
https://www.ncbi.nlm.nih.gov/les/PMC10392097/





REGULAR ARTICLE

blood VTH vessels, thrombosis & hemostasis

Check for updates

A multicellular vessel-on-a-chip model reveals context-dependent roles for platelets in inflammation and inflammatory hemostasis

Rebecca B. Riddle,[1] Karin Jennbacken,[2] Kenny M. Hansson,[2] and Matthew T. Harper[1]

[1]Department of Pharmacology, University of Cambridge, Cambridge, United Kingdom; and [2]Research and Early Development, Cardiovascular, Renal and Metabolism, R&D BioPharmaceuticals, AstraZeneca, Gothenburg, Sweden

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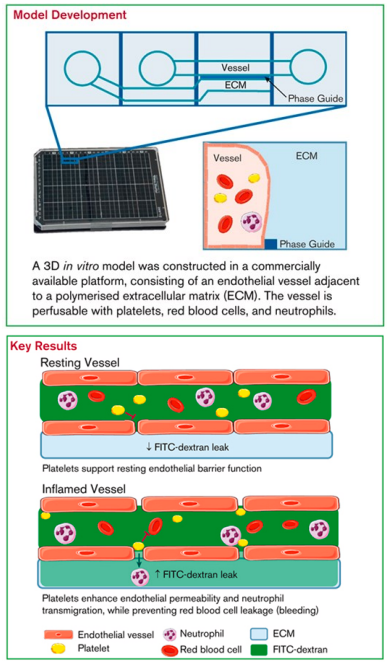
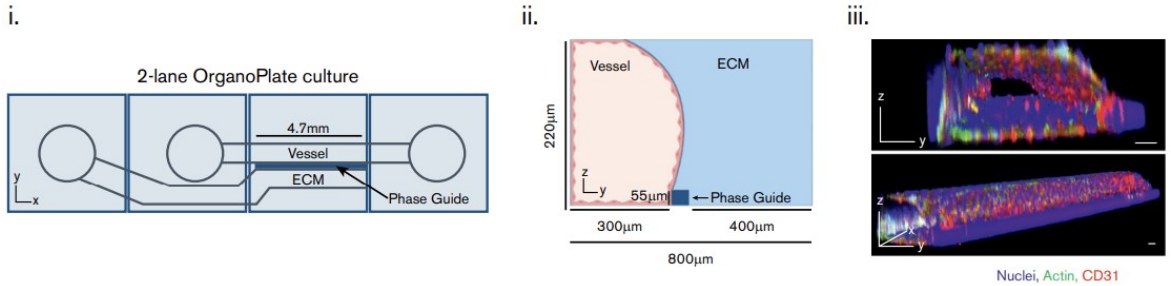
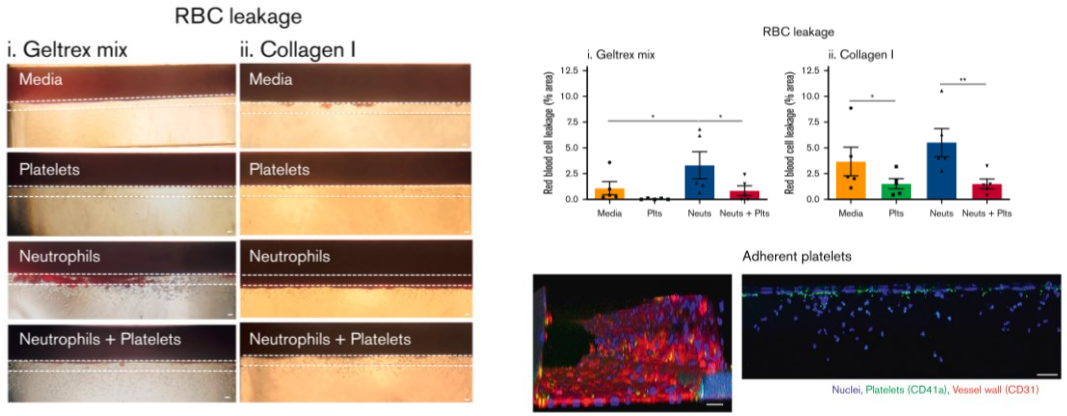
https://ashpublications.org/bloodvth/article/1/2/100007/515973/A-multicellular-vessel-on-a-chip-model-reveals



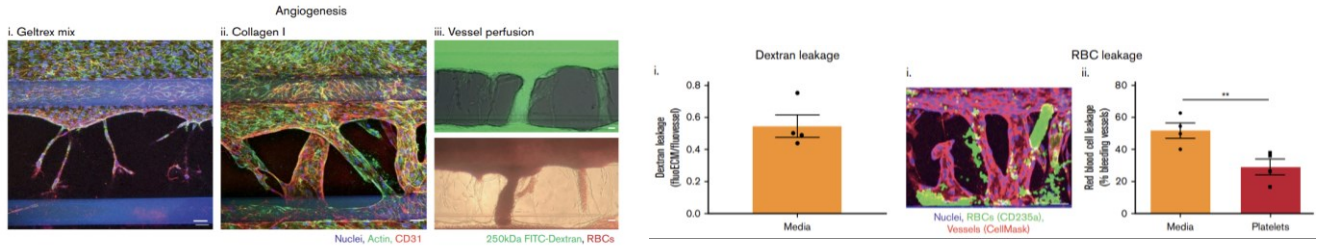
原代人類臍靜脈內皮細胞 (HUVEC)建立血管3發炎模型



血小板保持血管生成血管的完整性



血小板可防止紅血球在發炎血管中滲漏



原代人類臍靜脈內皮細胞 (HUVEC)及人類絨毛膜癌細胞株BeWo b30建立胎盤屏障模型

Acta Biomaterialia 164 (2023) 363–376

Contents lists available at ScienceDirect

Acta Biomaterialia

journal homepage: www.elsevier.com/locate/actbio

Full length article

Healthy and diseased placental barrier on-a-chip models suitable for standardized studies

Gwenaëlle Rabussier[a,b], Ivan Bünter[a], Josse Bouwhuis[a], Camilla Soragni[a,b], Torben van Zijp[a], Chee Ping Ng[a], Karel Domansky[a], Leon J. de Windt[b], Paul Vulto[a], Colin E. Murdoch[c], Kristin M. Bircsak[a], Henriëtte L. Lanz[a,*]

[a] MIMETAS BV, Oegstgeest, 2342 DH, the Netherlands
[b] Department of Cardiology, Maastricht University, Maastricht, 6226 ER, the Netherlands
[c] Systems Medicine, School of Medicine, University of Dundee, Dundee, DD1 9SY, Scotland, UK

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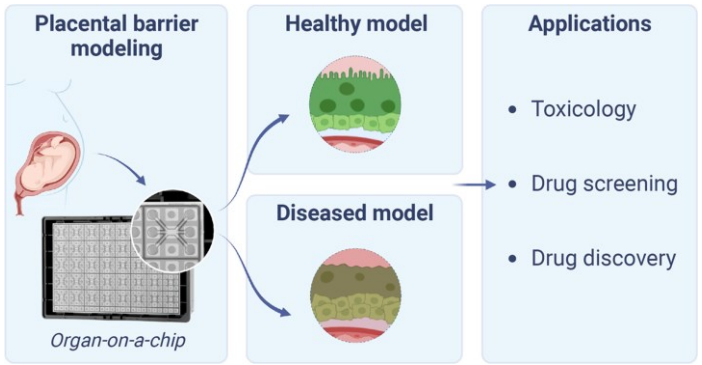
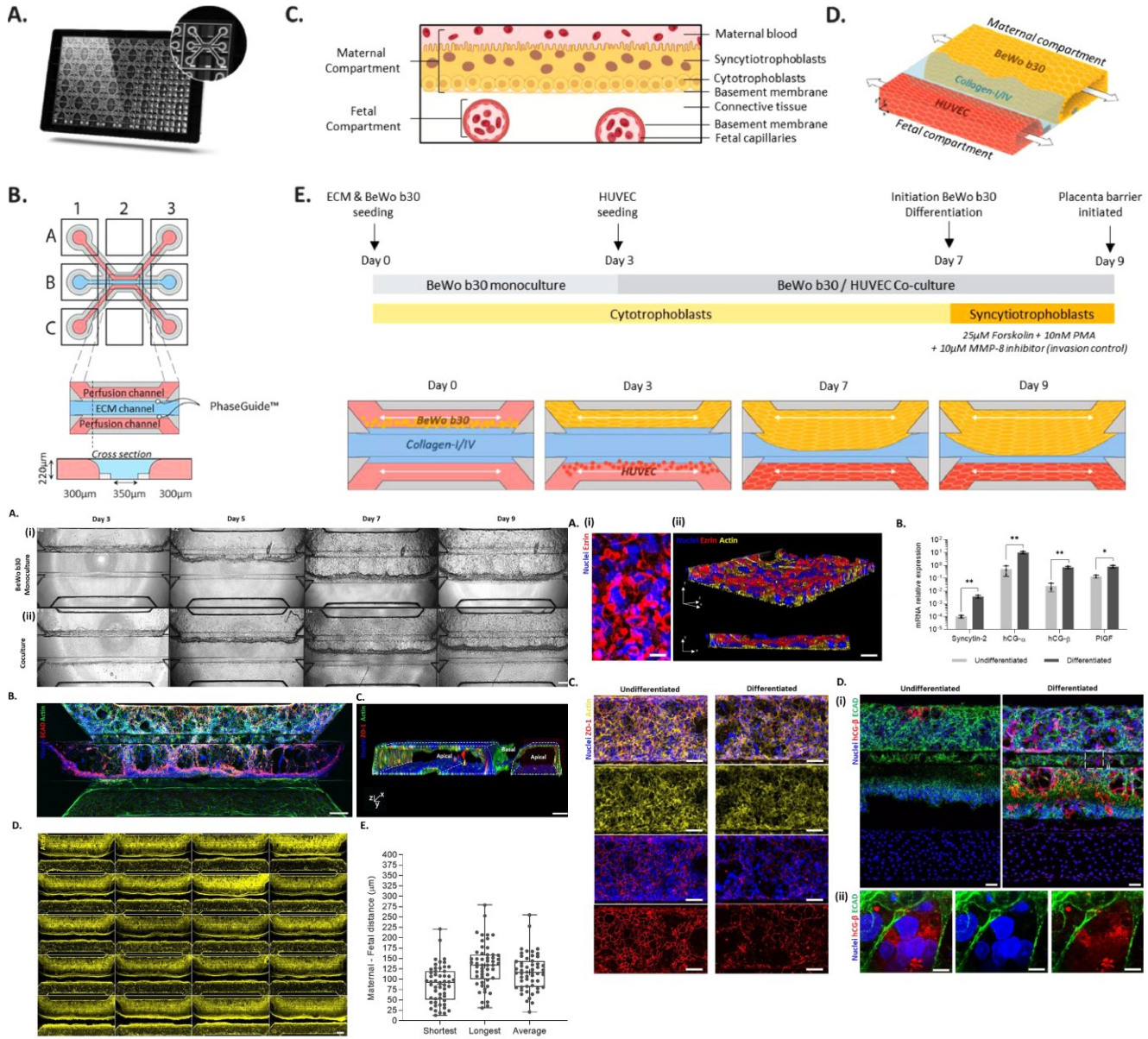
https://www.sciencedirect.com/science/article/pii/S1742706123002325#fig0006





使用從人類誘導多能幹細胞分化的滋養層的胎盤晶片模型

STAR Protocols

CellPress
OPEN ACCESS

Protocol

Protocol for a placenta-on-a-chip model using trophoblasts differentiated from human induced pluripotent stem cells

Agathe Lermant,[1,4] Gwenaëlle Rabussier,[2] Lindsey Davidson,[3] Henriëtte L. Lanz,[2] and Colin E. Murdoch[1,4,5,*]

[1]Systems Medicine, School of Medicine, University of Dundee, DD1 9SY Dundee, UK
[2]MIMETAS, 2342 DH, Oegstgeest, the Netherlands
[3]Human Pluripotent Stem Cell Facility, School of Life Sciences, University of Dundee, Dundee, UK
[4]Technical contact
[5]Lead contact
*Correspondence: c.z.murdoch@dundee.ac.uk
https://doi.org/10.1016/j.xpro.2024.102879

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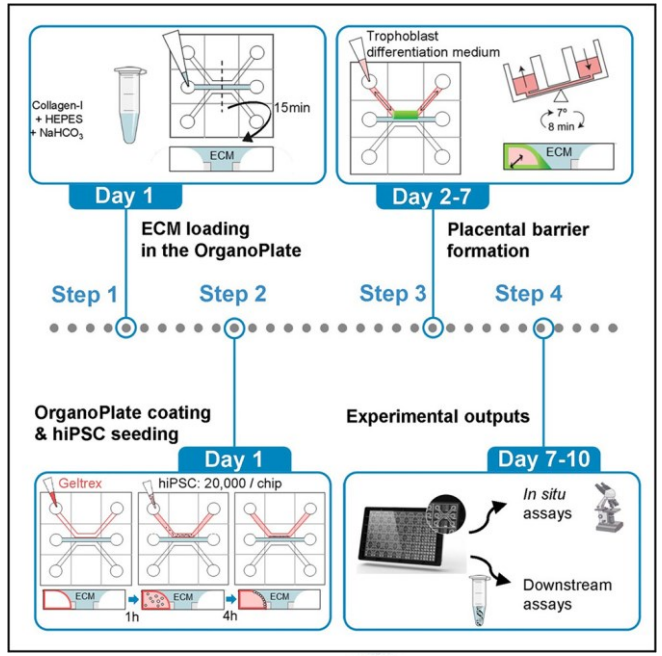
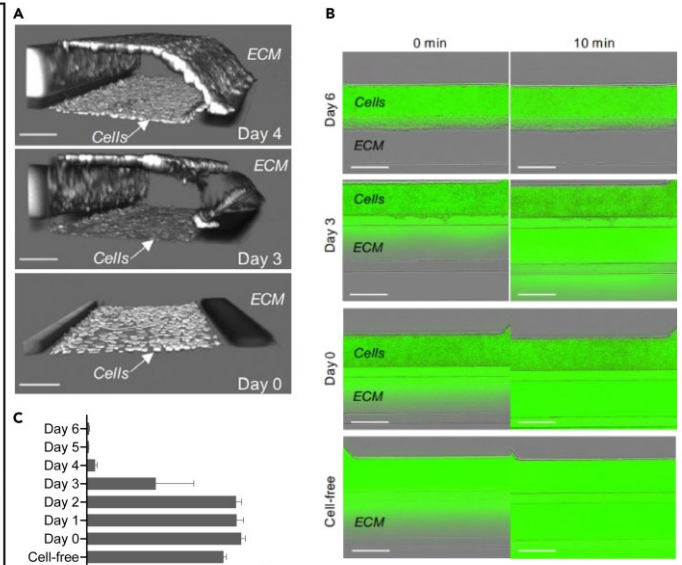
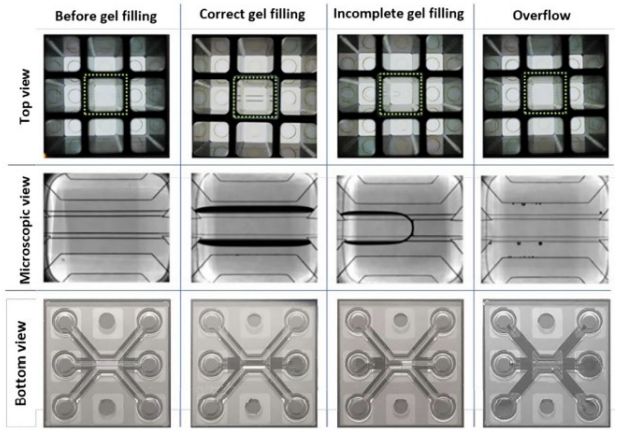
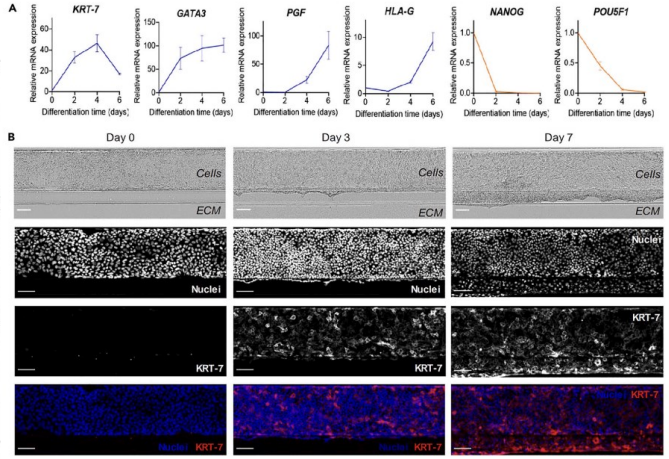
https://www.sciencedirect.com/science/article/pii/S2666166724000443?utm_campaign=STMJ_219742_AUTH_SERV_PA&utm_medium=email&utm_acid=71854193&SIS_ID=&dgcid=STMJ_219742_AUTH_SERV_PA&CMX_ID=&utm_in=DM448660&utm_source=AC_#abs0020









frontiers | Frontiers in Oncology

TYPE Original Research
PUBLISHED 04 January 2024
DOI 10.3389/fonc.2023.1269376

Development of a cancer metastasis-on-chip assay for high throughput drug screening

Lutfiye Yildiz Ozer, Hend Salah Fayed, Johan Ericsson and Ayman Al Haj Zen*

College of Health and Life Sciences, Hamad bin Khalifa University, Doha, Qatar

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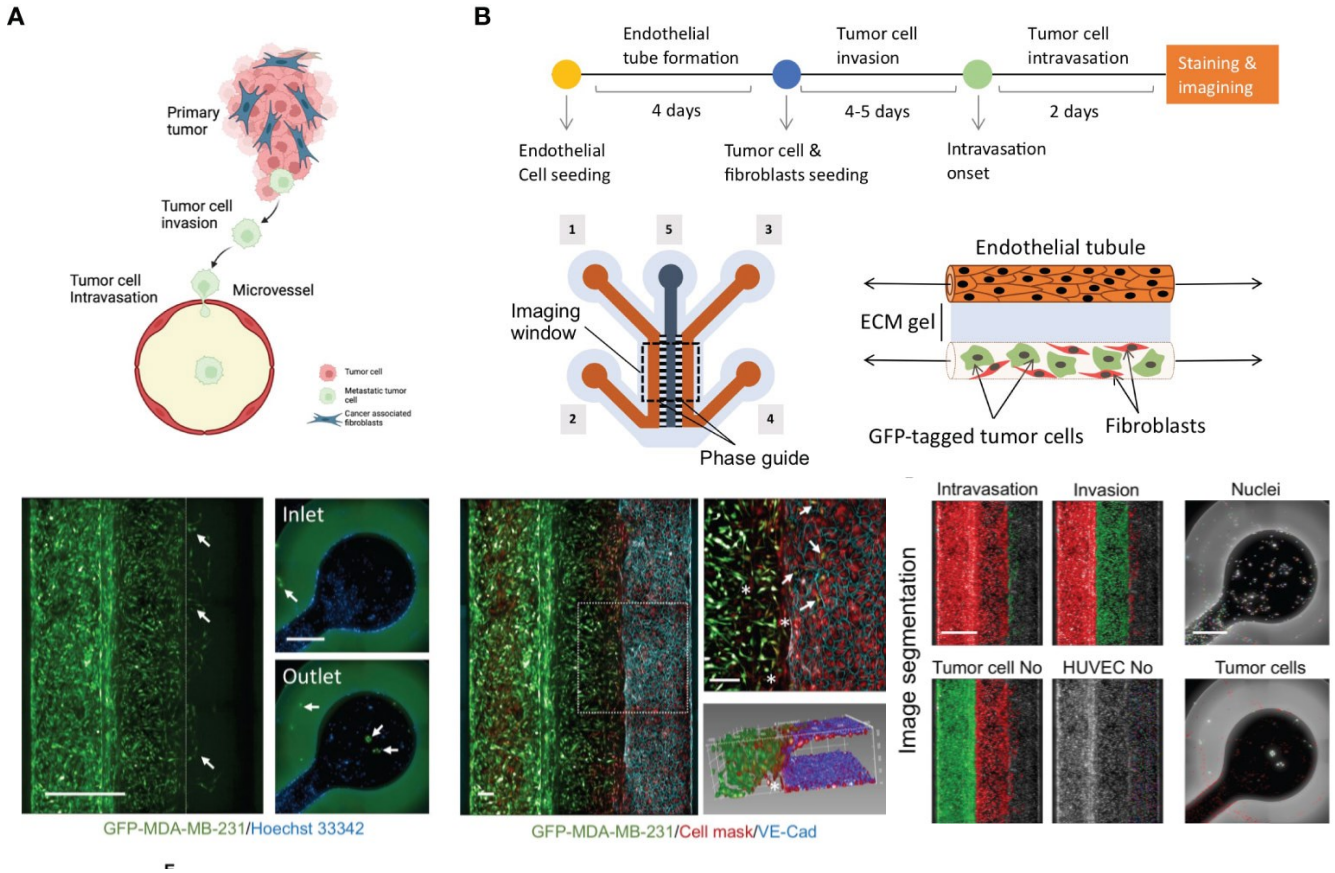
開發用於藥物篩選的癌症轉移模型



開發研究發炎的腸道模型

SLAS TECHNOLOGY: Translating Life Sciences Innovation
Volume 25, Issue 6, December 2020, Pages 585-597
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https://doi.org/10.1177/2472630320924999

Original Research

An Intestine-on-a-Chip Model of Plug-and-Play Modularity to Study Inflammatory Processes

Linda Gijzen[1,*], Diego Marescotti[2,*], Elisa Raineri[1], Arnaud Nicolas[1], Henriette L. Lanz[1], Diego Guerrera[2], Remko van Vught[1], Jos Joore[1], Paul Vulto[1], Manuel C. Peitsch[2], Julia Hoeng[2], Giuseppe Lo Sasso[2], and Dorota Kurek[1]

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