nature portfolio

https://doi.org/10.1038/s43586-022-00118-6

Supplementary information

A guide to the organ-on-a-chip

In the format provided by the authors and unedited

Nature Reviews Methods Primers (2022)

SUPPLEMENTARY INFORMATION

A Guide to the Organ-on-a-Chip

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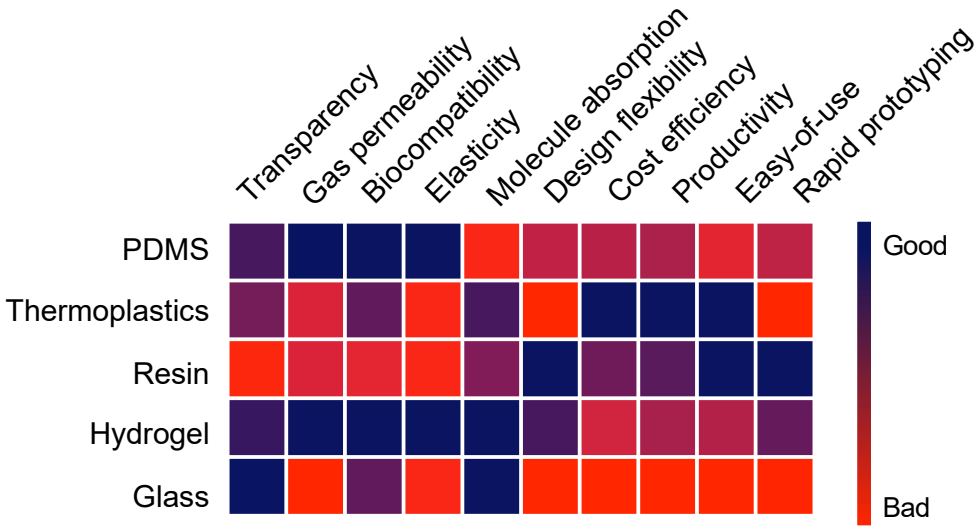
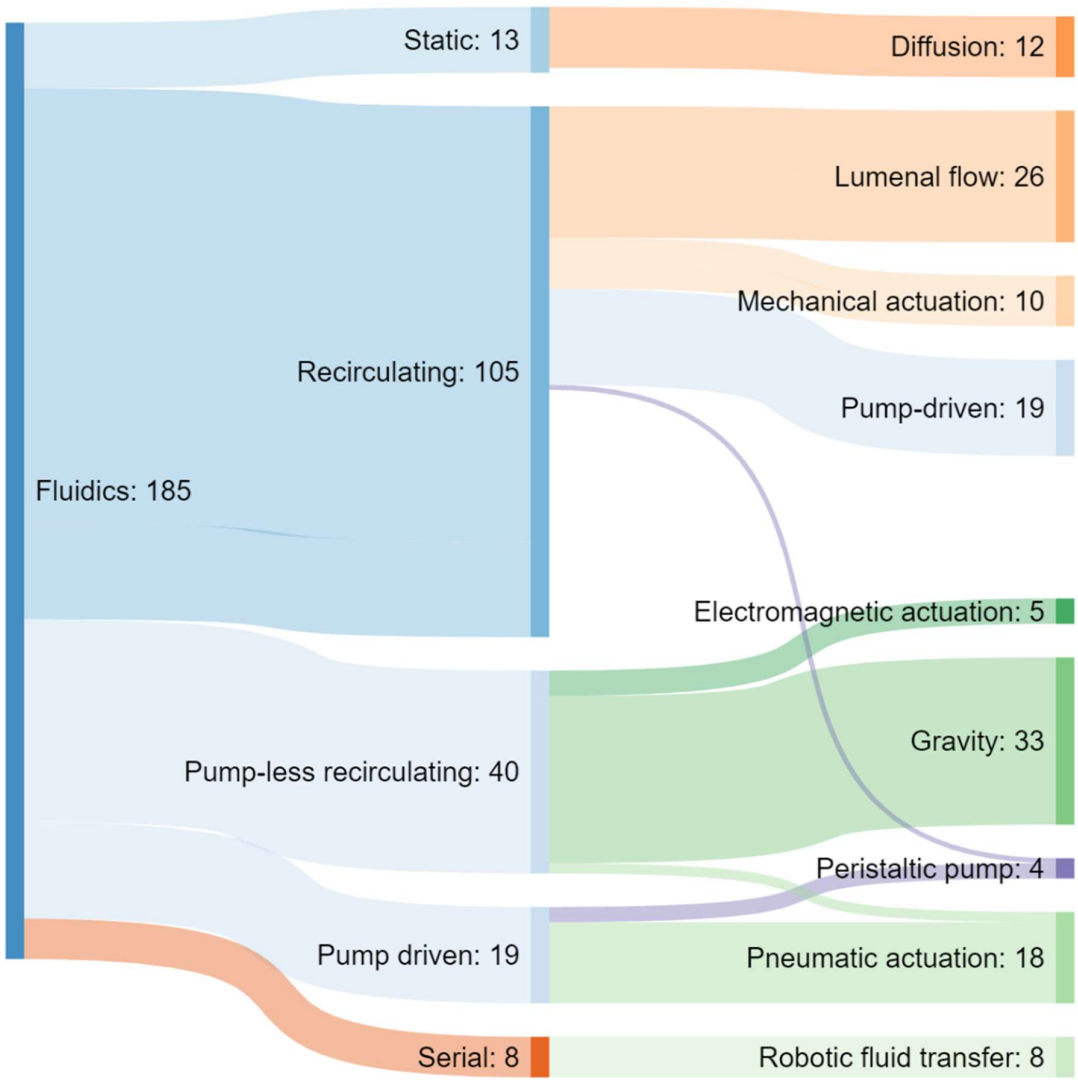


Supplementary Figure 1. Comparison of various materials according to organ-on-a-chip experimental conditions.



Supplementary Figure 2: Organ-on-a-chip literature classified by flow type (left hand panel) and pump type (right hand panel). Various different options exist to generate flows inside the microchannels of the OoC device, all based on pressure-driven flows. The dataset was generated using the most recent 185 out of 248 papers that appeared in a PubMed query for "organ on a chip + microfluidics" within the year 2021. Diffusion was considered the method of mixing in static based systems whereas recirculating and serial flow systems were further defined as follows: luminal flow was characterized by tangential flow through an endothelial lumen, mechanical, electromagnetic and pneumatic actuation describe the valve control of the pumping system used to move fluid forward, pump-driven systems were characterized as either peristaltic or pump-driven when not specified, flow systems driven by gravity were characterized as gravity, and approaches that relied on automated fluid handling to transfer supernatant were characterized as robotic fluid transfer.