

Advancing the cell culture landscape

Citation for published version (APA):

Vermeulen, S. A. (2020). *Advancing the cell culture landscape: the instructive potential of artificial and natural geometries*. Maastricht University. <https://doi.org/10.26481/dis.20200904sv>

Document status and date:

Published: 01/01/2020

DOI:

[10.26481/dis.20200904sv](https://doi.org/10.26481/dis.20200904sv)

Document Version:

Publisher's PDF, also known as Version of record

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

www.umlib.nl/taverne-license

Take down policy

If you believe that this document breaches copyright please contact us at:

repository@maastrichtuniversity.nl

providing details and we will investigate your claim.

Propositions

Accompanying the dissertation

Advancing the cell culture landscape: the instructive potential of artificial and natural geometries

by

Steven Vermeulen

Maastricht, 4th September 2020

1. High-throughput platforms offer the strongest biological relevance when multiple environmental perturbation types are utilized (Chapter 3).
2. Static biomaterials influence cell behavior dynamically (Chapter 4-5).
3. Cell seeding is a biomechanical event (Chapter 4-5-6).
4. Small molecules that mimic mechanobiology might have the potential to be excellent gym replacements (Chapter 5).
5. Biomaterials provide context to cells.
6. Tissue engineering works best at the interplay of biology, materials, and computational science.
7. MSCs are a critical raw material for tissue engineering (Jon Rowley, RoosterBio)
8. Supplementing commercial cell culture kits with topographical surfaces can greatly enhance their value (Valorization).