Maskless photolithography for rapid Organ-on-a-Chip prototyping and microvascular engineering

Kasi, D.G.

Maskless photolithography for rapid Organ-on-a-Chip prototyping and microvascular engineering

Dhanesh Gangadharsingh Kasi

2025

Colophon

"Maskless photolithography for rapid Organ-on-a-Chip prototyping and microvascular engineering"

Dhanesh Gangadharsingh Kasi
PhD thesis, Leiden University Medical Center, Leiden, The Netherlands, 2025

The research described in this thesis was conducted at the department of Anatomy & Embryology and the department of Human Genetics of the Leiden University Medical Center, Leiden, The Netherlands.

This work was supported by the following grants: The Netherlands Organ-on-Chip Initiative (NOCI), an NWO Gravitation project (024.003.001), the LymphChip project (NWA-ORC 2019 1292.19.019) and The Novo Nordisk Foundation Center for Stem Cell Medicine (reNEW) which is supported by a Novo Nordisk Foundation grant (NNF21CC0073729).

Financial support from Stichting Proefdiervrij for the publication of this thesis is gratefully acknowledged.

Cover design:	Dhanesh Gangadharsingh Kasi
Layout:	Dhanesh Gangadharsingh Kasi
Printing:	Ridderprint | www.ridderprint.nl
ISBN:	978-94-6522-939-3

Maskless photolithography for rapid Organ-on-a-Chip prototyping and microvascular engineering

Proefschrift

ter verkrijging van

de graad van doctor aan de Universiteit Leiden,

op gezag van rector magnificus prof.dr.ir. H. Bijl,

volgens besluit van het college voor promoties

te verdedigen op donderdag 11 december 2025

klokke 13:00 uur

door

Dhanesh Gangadharsingh Kasi

geboren te Delft
in 1991

Promotor:
Prof.dr. A.M.J.M. van den Maagdenberg

Co-promotor:
Dr. V.V. Orlova

Promotiecommissie:
Prof.dr. S.M. van der Maarel
Prof.dr. M.J.T.H. Goumans
Prof.dr. A.D. van der Meer (University of Twente, Enschede)
Prof.dr. A. Maassen van den Brink (Erasmus University Medical Center, Rotterdam)

Waarheden zoeken tot diep in de nacht...

Table of Contents