

---

Article

# Establishment of a Human Immunocompetent 3D Tissue Model to enable Long-term Examination of Biofilm-Tissue Interaction

Rasika Murkar<sup>1,†</sup>, Charlotte von Heckel<sup>1,†</sup>, Heike Walles<sup>1</sup>, Theresia Moch<sup>1</sup>, Christoph Arens<sup>2</sup>, Nikolaos Davaris<sup>2</sup>, Andre Weber<sup>3</sup>, Werner Zuschratter<sup>3</sup>, Sönke Baumann<sup>4</sup>, Joerg Reinhardt<sup>5</sup>, Sascha Kopp<sup>1,\*</sup>

<sup>1</sup> Otto-von-Guericke University Magdeburg, Core Facility Tissue Engineering, Universitätsplatz 2, 39106 Magdeburg, Germany

<sup>2</sup> University Clinic Giessen, Department of Otorhinolaryngology, Head and Neck Surgery, 35392, Giessen, Germany, christoph.arens@hno.med.uni-giessen.de (C.A.)

<sup>3</sup> Leibniz Institute for Neurobiology, 39120 Magdeburg, Germany

<sup>4</sup> Omicron-Laserage® Laserprodukte GmbH Raiffeisenstr. 5e, D-63110 Rodgau, Germany

<sup>5</sup> MedFact Engineering GmbH Hammerstrasse 3, D-79540 Lörrach / Germany

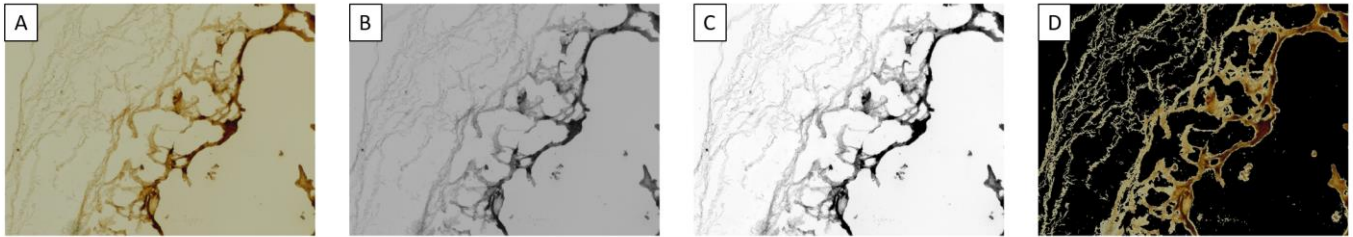
† Authors contributed equally to this manuscript

\* Correspondence: sascha.kopp@ovgu.de; +49 3916757488

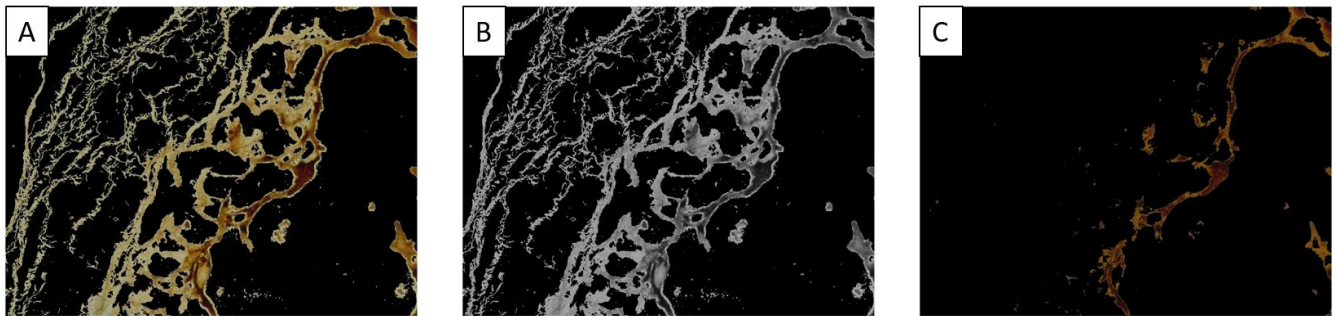
---

### 1. Supplementary

The quantification of the IHC images was done according to the description in methods part. The following images are representatives showing how the process was executed.



**Suppl. Figure S1:** Segmentation of the area corresponding to the tissue. (A) Raw RGB image. (B) Grayscale image. (C) Enhanced grayscale image. (D) Segmented tissue from the image.



**Suppl. Figure S2:** Segmentation of the IHC positive area within the tissue. (A) Segmented RGB image. (B) Segmented grayscale image. (C) Segmented IHC positive area within the tissue.