LUXEMBOURG INSTITUTE OF HEALTH

BIO SKETCH FORM & Abstract

First Name: Jens

Last Name: Puschhof

Please send us a picture in a Jpeg format

Title: Dr.

Organization German Cancer Research Center (DKFZ)

Address of the organization: Im Neuenheimer Feld 280

Phone: 0049-6221-42-4953 / Fax:

e-mail: jens.puschhof@dkfz-heidelberg.de

Curent position:
Junior Group Leader

Past positions:

2021	*Hubrecht Institute* **Postdoctoral fellow** in the Clevers group, Utrecht
2017—2021	*Universiteit Utrecht/Hubrecht Institute* **PhD candidate** in Cancer, Stem Cells and Developmental Biology in the Clevers group at the Hubrecht Institute (*cum laude,* highest honor awarded to ~5% of PhDs)
2015—2016	*University of Oxford* Oncology (**Master of Science** by research)
2014—2015	*Harvard Medical School/Dana-Farber Cancer Institute* **Visiting Researcher** (Adam Bass group)
2011—2014	*Ruprecht-Karls-Universität Heidelberg* Molecular Biotechnology (**Bachelor of Science**)

Titles and affiliation

Tenure Track Junior Group Leader of the Epithelium Microbiome Interaction Laboratory, German Cancer Research Center; Faculty of the Molecular Biosciences (Cancer Biology Major) programme at German Cancer Research Center/Heidelberg University

Grants / Awards

2024-2028 **ERC Starting Grant METABAC** – *PI*
2025-2027 DKTK Joint Funding Consortium **BACTORG** *Overall Consortium Lead*
2023 **German Cancer Prevention Research Prize (Young Investigator Category)**
2023-2025 Hector Foundation **Dream Team Grant "BACPLAS"** – *PI*
2023-2027 EU Horizon **THRIVE consortium** – *PI*
2022-2024 Hector Foundation **Seed Grant "COMPAS"** – *PI*
2023 Heidelberg/Mannheim Life Science **Grant for Organizing a summer school** – *Co-Applicant*
2021-2023 Emulate **Colon Chip Grant program** – *PI*
2019 ISSCR Global Summit, Los Angeles **travel award and merit award**
2019 IST World Congress, Buenos Aires **best academic presentation**
2017 CSND summer school 2017, Utrecht **Poster prize**
2015-2016 Studienstiftung des deutschen Volkes **scholarship** for studies at the University of Oxford
2014-2015 **Otto Bayer fellowship** for research at the Dana Farber Cancer Institute
2014-2015 Studienstiftung des deutschen Volkes **abroad fellowship** (Dana Farber Cancer Institute)
2013 **DAAD RISE scholarship** for a research project at UTEP, Texas
2011-2016 Studienstiftung des deutschen Volkes **full scholarship**

Abstract

Title of your presentation:

Modelling Cancer-Microbe Interactions with Organoids and Organs-on-Chips

Summary of your presentation:

In the last decade, adult stem cell-derived organoids have become versatile tools in disease modelling and bioengineering. The possibilities to expand healthy human tissue of almost every organ and control its differentiation states makes these 3D tissue models a suitable platform for studies in diverse research areas. Among these are host-microbiome interactions, where numerous clinical associations await functional validation. Here, I highlight our recent advances in modelling cancer-microbiome interactions using organoids and organs-on-chips. I discuss approaches to expose human intestinal organoids to cancer-associated bacteria and the various read-outs which can provide mechanistic insights into their crosstalk. A particular focus is laid on genotoxic bacteria that can induce mutations in cancer genomes and on intracellular bacteria and their roles in colorectal cancer disease progression and metastasis.