

Goodbye Flat Biology: Advancing 3D-based Models for Cancer Biology and Drug Discovery Programme

Berlin, Germany

10 - 13 November 2019



Scientific Programme

Sunday 10th November 2019

- 15:30 **REGISTRATION**
Tea/coffee available
- 17:00 **CONFERENCE WELCOME**
Scientific Programme Committee
- 17:15 **OPENING KEYNOTE LECTURE**
Dave Mooney
Harvard University, USA
"Cells and viscoelasticity"
- 18:15 **ICEBREAKER INTRODUCTIONS**
An opportunity to make new connections over a drink.
- 19:00 **WELCOME BUFFET & TRADE EXHIBITION**
Meitner Hall & Goethe Hall

Monday 11th November 2019

- 08:30 **POSTER VIEWING & TRADE**
Tea/coffee available
- 09:00 **SESSION 1: 3D MODELS AND DRUG DEVELOPMENT**
Chair: Ellen Van Obberghen-Schilling
- 09:00 **Neil Carragher**
University of Edinburgh, UK
"Advancing phenotypic drug discovery strategies through new cell-based assay technologies"
- 09:30 **Henriette Lanz**
Mimetas, Netherlands
"Modelling the tumor microenvironment on-a-chip"
- 10:00 **Georgios Giamas**
University of Sussex, UK
Proffered Paper 1: "3D co-culture invasion screening identifies fibroblast-expressed PIK3C β as a novel therapeutic target for TNBC"
- 10:15 **EXHIBITOR INTRODUCTIONS**
Short intro pitches by each company
- 10:30 **COFFEE BREAK & TRADE**
- 11:00 **Kendelle Murphy**
Garvan Institute, Australia

Proffered Paper 2: "Personalised medicine approach in pancreatic cancer reveals fine-tuned stromal versus epithelial FAK manipulation to improve systematic response to Gemcitabine and Abraxane"

- 11:15 **Hugo Snippert**
UMC Utrecht, Netherlands
"Real-time quantification of cellular drug response in patient-derived tumor organoids reveals heterogeneity in space and time"
- 11:45 **POSTER SPOTLIGHTS**
Abstracts 1-3 will be presented in short 'flash talks' of 3 minutes each.
- 11:55 **INDUSTRY SYMPOSIUM - GREINER BIO-ONE**
Glauco R. Souza
Greiner Bio-One
"Magnetic 3D Cell Culture, 3D Cell Culture made as simple as 2D"
- 12:25 **BUFFET LUNCH & TRADE**
- 13:00 **POSTER DISCUSSION SESSION 1**
Posters 1-55 will be presented. Tea/coffee available.
- 14:30 **SESSION 2: CELL ADHESION & MECHANOBIOLOGY**
Chair: Cathrin Briskin
- 14:30 **Valerie Weaver**
UCSF, USA
"Deconstructing the third dimension"
- 15:00 **Sara Wickström**
University of Helsinki, Finland
"Regulation of stem cell fate by niche-derived signals and forces"
- 15:30 **Jessica Morgner**
NKI, Netherlands
Proffered Paper 3: "Lamb1Dendra2 – A new mouse model to study basement membrane dynamics in vivo"
- 15:45 **Viola Vogel**
ETH Zürich, Switzerland
"Unraveling the mechanobiology of extracellular matrix and of macrophages"
- 16:15 **INDUSTRY SPOTLIGHT - QUANTUM DESIGN**
Sumeer Dhar
Screen GP Europe
"Novel Optical Coherence Tomography (OCT) technology for non-invasive 3D ex vivo imaging"
- 16:30 **TECHNOLOGIES FORUM**
Sign-up required. Invited speakers will host tables, each covering a different topic.

Tuesday 12th November 2019

- 08:30 **POSTER VIEWING & TRADE**
Tea/coffee available
- 09:00 **MEET THE EXPERT TALK**
Neil Carragher
University of Edinburgh, UK

An interactive session where our expert will share from their personal and professional perspectives on oscillating between academia and industry.

- 09:30 **SESSION 3: TUMOUR PROGRESSION AND MECHANISMS OF INVASION**
Chair: Valerie Weaver
- 09:30 **Peter Friedl**
Radboud UMC, Netherlands
"3D models to understand tissue remodeling and anti-cancer therapy in bone"
- 10:00 **Cathrin Briskén**
EPFL, Switzerland
"Hormones and breast cancer: how models matter"
- 10:30 **COFFEE BREAK & TRADE**
- 11:00 **Olivier De Wever**
Ghent University, Belgium
Proffered Paper 4: "Tumor engineered scaffolds to model peritoneal metastasis of serous ovarian carcinoma"
- 11:15 **Tariq Haddad**
Radboud UMC, Netherlands
Proffered Paper 5: "A Colorectal Carcinoma in 3D: Merging Knife-Edge Scanning Microscopy and Deep Learning"
- 11:30 **Ellen Van Obberghen-Schilling**
Institut de Biologie Valrose, France
"Shaping tumors and their microenvironment"
- 12:00 **POSTER SPOTLIGHTS**
Abstracts 56-58 will be presented in short 'flash talks' of 3 minutes each.
- 12:10 **INDUSTRY SYMPOSIUM - NEXCELOM**
Gillian Farnie
NDORMS, UK
"Breast Cancer Stem Cells – utilising in vitro assays to explore targets of tumour initiating cells"
- 12:40 **BUFFET LUNCH & TRADE**
- 13:15 **POSTER DISCUSSION SESSION 2**
Posters 56-111 will be presented. Tea/coffee available.
- 14:45 **SESSION 4: REGULATING AND REMODELING THE IMMUNE MICROENVIRONMENT**
Chair: Peter Friedl
- 14:45 **KEYNOTE LECTURE**
Melody Swartz
The University of Chicago, USA
"Modeling the tumor-immune microenvironment in vitro"
- 15:30 **Eduard Batlle**
IRB Barcelona, Spain
"Immune evasion and metastasis in colorectal cancer"
- 16:00 **COFFEE BREAK & TRADE**
- 16:30 **Mikala Egeblad**
Cold Spring Harbor Laboratory, USA
"Control of metastatic seeding and colonization by the microenvironment"

- 17:00 **CONFERENCE DEBATE**
Sara Wickström (for) and Senthil Muthuswamy (against)
 "Smart 2D will be the new 3D" Invited speakers will discuss one of the key topics of the field. Participants will have a chance to vote on the debate, and to contribute to the conversation.
- 18:00 **FREE TIME**
 Conference Dinner ticket holders not staying at Harnack House are welcome to relax in the Planck Lobby. Drinks may be purchased from Reception
- 19:30 **CONFERENCE DINNER**
 Optional ticketed dinner

Wednesday 13th November 2019

- 08:30 **POSTER VIEWING & TRADE**
 Tea/coffee available
- 09:00 **SESSION 5: MULTIPLEX IMAGING OF CELLS**
 Chair: Neil Carragher
- 09:00 **Emmanuel Donnadieu**
 Institut Cochin, France
 "Dynamic imaging of T cell antitumoral activities in human tumor biopsies"
- 09:30 **Christian Conrad**
 Berlin Institute of Health, Germany
 "Spheroid imaging and sequencing"
- 10:00 **INDUSTRY SYMPOSIUM - 10X GENOMICS**
Marlon Stoeckius
 10x Genomics
 "A Multidimensional View of Biology using 10x Visium Spatial Gene Expression Solution"
- 10:30 **COFFEE BREAK & TRADE CLOSES**
- 11:00 **Maria Alieva**
 Prinses Maxima Centrum, Netherlands
 Proffered Paper 6: "3D imaging and multivariate dynamics analysis reveal behavioral signatures that enable engineered T cells to target breast cancer organoids"
- 11:15 **David Bryant**
 Beatson Institute, UK
 "Finding the order in chaos: understanding the heterogeneity of tumour cell invasion mechanisms"
- 11:45 **CLOSING KEYNOTE LECTURE**
Senthil Muthuswamy
 Harvard Medical School, USA
 "From a road less traveled to a worn path: 3D culture and organoids for cancer biology and therapeutics"
- 12:30 **SUMMARY & AWARDS**
- 12:45 **LUNCH & DEPART**