

Vortragsprogramm:

Organoide und ihre Anwendungsmöglichkeiten in der Medizin

Freitag, 18.10.2018, 14:00 – 18:00 Uhr

I. Hirn und Auge (14:15 –15:00)

Myriam Raith

Human brain organoid-on-a-chip to model prenatal nicotine exposure. Wang Y, Wang L, Zhu Y, Qin J. Lab on a chip. 2018;18(6):851-60.

Fabian Titz

An in vivo model of functional and vascularized human brain organoids. 2018, Mansour AA, Goncalves JT, Bloyd CW, Li H, Fernandes S, Quang D, et al. Nature biotechnology. Jun;36(5):432-41.

Samantha Kaltenbrunner

Modeling Retinitis Pigmentosa: Retinal Organoids Generated From the iPSCs of a Patient With the USH2A Mutation Show Early Developmental Abnormalities. 2019, Guo Y, Wang P, Ma JH, Cui Z, Yu Q, Liu S, et al. Front Cell Neurosci.;13(August):1–17.

15 Minuten Pause

II. Zahn und Herz (15:15 – 15:45)

Lukas Bayyigit

Practical whole tooth restoration utilizing autologous bioengineered tooth germ transplantation in a postnatal canine model. 2017, Ono M, Oshima M, Ogawa M, Sonoyama W, Hara ES, Oida Y, et al. Sci Rep. Mar;7:44522.

Armin Jochen Braun

Dissecting hiPSC-CM pacemaker function in a cardiac organoid model. Biomaterials. 2019, Schulze ML, Lemoine MD, Fischer AW, Scherschel K, David R, Riecken K, et al.; Biomaterials. 206:133-45.

10 Minuten Pause

III. Lunge und Darm (15:55 – 16:25)

Christoph Schaller

Modeling of Human Respiratory Virus Infection in Human Pluripotent Stem Cell-Derived Lung Organoids. 2019, Porotto M, Ferren M, Chen YW, Siu Y, Makhsous N, Rima B, et al. Authentic mBio.;10(3).

Lukas Schmolz

Long-term flow through human intestinal organoids with the gut organoid flow chip (GOFlowChip). 2019, Sidar B, Jenkins BR, Huang S, Spence JR, Walk ST, Wilking JN. Lab on a chip.;19(20):3552- 62.

Montag, 21.10.2018, 14:00 – 18:00 Uhr

IV. Brustdrüse, Pankreas, Magern (14:00 – 14:45)

Sertac Kacar

A Living Biobank of Breast Cancer Organoids Captures Disease Heterogeneity. 2018, Sachs N, de Ligt J, Kopper O, Gogola E, Bounova G, Weeber F, et al. Cell.;172(1-2):373-86.e10.

Corinna Henninger

Successful creation of pancreatic cancer organoids by means of EUS-guided fine-needle biopsy sampling for personalized cancer treatment. Gastrointestinal endoscopy. 2018, Tiriach H, Bucobo JC, Tzimas D, Grewel S, Lacombe JF, Rowehl LM, et al. Kidney Int.;87(6):1474-80.

Annabelle Müller

Human gastric cancer modelling using organoids. 2019, Seidlitz T, Merker SR, Rothe A, Zakrzewski F, von Neubeck C, Grutzmann K, et al. Gut.;68(2):207-17.

10 Minuten Pause

V. Leber (14:55 – 15:25)

Jakob Klotz

Human primary liver cancer-derived organoid cultures for disease modeling and drug screening. 2017, Broutier L, Mastrogianni G, Verstegen MM, Francies HE, Gavarro LM, Bradshaw CR, et al. Nature medicine.;23(12):1424-35.

Fabian Heinreichsberger

Human liver organoids generated with single donor-derived multiple cells rescue mice from acute liver failure. 2018, Nie YZ, Zheng YW, Ogawa M, Miyagi E, Taniguchi H. Stem cell research & therapy.;9(1):5.

10 Minuten Pause

VI. Niere (15:35 – 16:05)

Nouhan Makled

A Simple Bioreactor-Based Method to Generate Kidney Organoids from Pluripotent Stem Cells. 2018, Przepiorski A, Sander V, Tran T, Hollywood JA, Sorrenson B, Shih JH, et al. Stem cell reports.;11(2):470-84.

Anna Aster

A CRISP(e)R view on kidney organoids allows generation of an induced pluripotent stem cell-derived kidney model for drug discovery. 2018, Boreström C, Jonebring A, Guo J, Palmgren H, Cederblad L, Forslow A, et al. 94(6):1099-1110.

15 Minuten Pause

VI. Diskussion der medizinischen Relevanz der vorgestellten Publikationen (16:20 – 16:30)

VII. Erstellen einer gemeinsamen Presseaussendung (16:30– ca. 17:00)