

PhD Program “Medical Life Science and Technology”

Selection of original articles published by the PhD graduates 2015-2020

List updated on 22.06.2020

2020:

Pushing the boundaries of optoacoustic microscopy by total impulse response characterization.

Seeger M, Soliman D, Aguirre J, Diot G, Wierzbowski J, Ntziachristos V.

Nat Commun. 2020 Jun 9;11(1):2910. doi: 10.1038/s41467-020-16565-2.

Frontoparietal and salience network alterations in obsessive–compulsive disorder: insights from independent component and sliding time window analyses.

Gürsel DA, Reinholz L, Bremer B, Schmitz-Koep B, Franzmeier N, Avram M, Koch K.

J Psychiatry Neurosci. 2020 May 1;45(3):214-221. doi: 10.1503/jpn.190038.

Quantitation of norovirus-specific IgG before and after infection in immunocompromised patients.

Afridi SQ, Moeini H, Kalali B, Wettengel JM, Quitt O, Semper R, Gerhard M, Protzer U, Hoffmann D.

Braz J Microbiol. 2020 Mar;51(1):183-187. doi: 10.1007/s42770-019-00176-1.

Hypoxia and the hypoxia inducible factor 1 α activate protein kinase A by repressing RII beta subunit transcription.

Lucia K, Wu Y, Garcia JM, Barlier A, Buchfelder M, Saeger W, Renner U, Stalla GK, Theodoropoulou M.

Oncogene. 2020 Apr;39(16):3367-3380. doi: 10.1038/s41388-020-1223-6.

The physiological effects of noninvasive brain stimulation fundamentally differ across the human cortex.

Castrillon G, Sollmann N, Kurcyus K, Razi A, Krieg SM, Riedl V.

Sci Adv. 2020 Jan 31;6(5):eaay2739. doi: 10.1126/sciadv.aay2739.

2019:

Brain dysfunction in chronic pain patients assessed by resting-state electroencephalography.

Ta Dinh S, Nickel MM, Tiemann L, May ES, Heitmann H, Hohn VD, Edenharter G, Utpadel-Fischler D, Tölle TR, Sauseng P, Gross J, Ploner M.

Pain. 2019 Dec;160(12):2751-2765. doi: 10.1097/j.pain.0000000000001666.

Long-term in vivo microscopy of CAR T cell dynamics during eradication of CNS lymphoma in mice.

Mulazzani M, Fräßle SP, von Mücke-Heim I, Langer S, Zhou X, Ishikawa-Ankerhold H, Leube J, Zhang W, Dötsch S, Svec M, Rudelius M, Dreyling M, von Bergwelt-Baildon M, Straube A, Buchholz VR, Busch DH, von Baumgarten L.

Proc Natl Acad Sci U S A. 2019 Nov 26;116(48):24275-24284. doi: 10.1073/pnas.1903854116.

Cognitive reward control recruits medial and lateral frontal cortices, which are also involved in cognitive emotion regulation: A coordinate-based meta-analysis of fMRI studies.

Brandl F, Le Houcq Corbi Z, Mulej Bratec S, Sorg C.

Neuroimage. 2019 Oct 15;200:659-673. doi: 10.1016/j.neuroimage.2019.07.008.

Qualitative and quantitative neointimal characterization by optical coherence tomography in patients presenting with in-stent restenosis.

Xhepa E, Byrne RA, Rivero F, Rroku A, Cuesta J, Ndrepepa G, Kufner S, Valiente TB, Cassese S, Garcia-Guimaraes M, Lahmann AL, Rai H, Schunkert H, Joner M, Pérez-Vizcayno MJ, Gonzalo N, Alfonso F, Kastrati A.

Clin Res Cardiol. 2019 Sep;108(9):1059-1068. doi: 10.1007/s00392-019-01439-5.

The uric acid crystal receptor Clec12A potentiates type I interferon responses.

Li K, Neumann K, Duhan V, Namineni S, Hansen AL, Wartewig T, Kurgyis Z, Holm CK, Heikenwalder M, Lang KS, Ruland J.

Proc Natl Acad Sci U S A. 2019 Sep 10;116(37):18544-18549. doi: 10.1073/pnas.1821351116.

A vicious cycle of β amyloid-dependent neuronal hyperactivation.

Zott B, Simon MM, Hong W, Unger F, Chen-Engerer HJ, Frosch MP, Sakmann B, Walsh DM, Konnerth A.

Science. 2019 Aug 9;365(6453):559-565. doi: 10.1126/science.aay0198.

Two types of functionally distinct Ca²⁺ stores in hippocampal neurons.

Chen-Engerer HJ, Hartmann J, Karl RM, Yang J, Feske S, Konnerth A.

Nat Commun. 2019 Jul 19;10(1):3223. doi: 10.1038/s41467-019-11207-8.

Concomitant Infection of *S. mansoni* and *H. pylori* Promotes Promiscuity of Antigen-Experienced Cells and Primes the Liver for a Lower Fibrotic Response.

Bhattacharjee S, Mejías-Luque R, Loffredo-Verde E, Toska A, Flossdorf M, Gerhard M, Prazeres da Costa C.

Cell Rep. 2019 Jul 2;28(1):231-244.e5. doi: 10.1016/j.celrep.2019.05.108.

Frequency-Dependent Spatial Distribution of Functional Hubs in the Human Brain and Alterations in Major Depressive Disorder.

Ries A, Hollander M, Glim S, Meng C, Sorg C, Wohlschläger A.

Front Hum Neurosci. 2019 May 14;13:146. doi: 10.3389/fnhum.2019.00146.

Evaluation of a Fully Human, Hepatitis B Virus-Specific Chimeric Antigen Receptor in an Immunocompetent Mouse Model.

Festag MM, Festag J, Fräßle SP, Asen T, Sacherl J, Schreiber S, Mück-Häusl MA, Busch DH, Wisskirchen K, Protzer U.

Mol Ther. 2019 May 8;27(5):947-959. doi: 10.1016/j.ymthe.2019.02.001.

What Makes a pDC: Recent Advances in Understanding Plasmacytoid DC Development and Heterogeneity.

Musumeci A, Lutz K, Winheim E, Krug AB.

Front Immunol. 2019 May 29;10:1222. doi: 10.3389/fimmu.2019.01222.

An Improved, Chemically Modified RNA Encoding BMP-2 Enhances Osteogenesis In Vitro and In Vivo.

Zhang W, De La Vega RE, Coenen MJ, Müller SA, Peniche Silva CJ, Aneja MK, Plank C, van Griensven M, Evans CH, Balmayor ER.

Tissue Eng Part A. 2019 Jan;25(1-2):131-144. doi: 10.1089/ten.

Levels of the Autophagy-Related 5 Protein Affect Progression and Metastasis of Pancreatic Tumors in Mice.

Görgülü K, Diakopoulos KN, Ai J, Schoeps B, Kabacaoglu D, Karpathaki AF, Ciecieski KJ, Kaya-Aksoy E, Ruess DA, Berninger A, Kowalska M, Stevanovic M, Wörmann SM, Wartmann T, Zhao Y, Halangk W, Voronina S, Tepikin A, Schlitter AM, Steiger K, Artati A, Adamski J, Aichler M, Walch A, Jastroch M, Hartleben G, Mantzoros CS, Weichert W, Schmid RM, Herzig S, Krüger A, Sainz B Jr, Lesina M, Algül H.

Gastroenterology. 2019 Jan;156(1):203-217.e20. doi: 10.1053/j.gastro.2018.09.053.

2018:

Opposite Dynamics of GABA and Glutamate Levels in the Occipital Cortex during Visual Processing.

Kurcyus K, Annac E, Hanning NM, Harris AD, Oeltzschner G, Edden R, Riedl V.

J Neurosci. 2018 Nov 14;38(46):9967-9976. doi: 10.1523/JNEUROSCI.1214-18.2018.

Mononuclear phagocytes locally specify and adapt their phenotype in a multiple sclerosis model.

Locatelli G, **Theodorou D**, Kendirli A, Jordão MJC, Staszewski O, Phulphagar K, Cantuti-Castelvetri L, Dagkalis A, Bessis A, Simons M, Meissner F, Prinz M, Kerschensteiner M.

Nat Neurosci. 2018 Sep;21(9):1196-1208. doi: 10.1038/s41593-018-0212-3.

Type I Immune Response Induces Keratinocyte Necroptosis and Is Associated with Interface Dermatitis.

Lauffer F, Jargosch M, Krause L, Garzorz-Stark N, Franz R, Roenneberg S, Böhner A, Mueller NS, Theis FJ, Schmidt-Weber CB, Biedermann T, Eyerich S, Eyerich K.

J Invest Dermatol. 2018 Aug;138(8):1785-1794. doi: 10.1016/j.jid.2018.02.034.

IL-22 sustains epithelial integrity in progressive kidney remodeling and fibrosis.

Weidenbusch M, Song S, Iwakura T, Shi C, Rodler S, Kobold S, Mulay SR, Honarpisheh MM, Anders HJ.

Physiol Rep. 2018 Aug;6(16):e13817. doi: 10.14814/phy2.13817.

Clinical, biochemical and genetic spectrum of 70 patients with ACAD9 deficiency: is riboflavin supplementation effective?

Repp BM, **Mastantuono E**, Alston CL, Schiff M, Haack TB, Rötig A, Ardissone A, Lombès A, Catarino CB, Diodato D, Schottmann G, Poulton J, Burlina A, Jonckheere A, Munnich A, Rolinski B, Ghezzi D, Rokicki D, Wellesley D, Martinelli D, Wenhong D, Lamantea E,

Ostergaard E, Pronicka E, Pierre G, Smeets HJM, Wittig I, Scurr I, de Coo IFM, Moroni I, Smet

J, Mayr JA, Dai L, de Meirleir L, Schuelke M, Zeviani M, Morscher RJ, McFarland R, Seneca S, Klopstock T, Meitinger T, Wieland T, Strom TM, Herberg U, Ahting U, Sperl W, Nassogne MC, Ling H, Fang F, Freisinger P, Van Coster R, Strecker V, Taylor RW, Häberle J, Vockley J, Prokisch H, Wortmann S.
Orphanet J Rare Dis. 2018 Jul 19;13(1):120. doi: 10.1186/s13023-018-0784-8.

Impact of generalized anxiety disorder (GAD) on prehospital delay of acute myocardial infarction patients. Findings from the multicenter MEDEA study.

Fang XY, Spieler D, Albarqouni L, Ronel J, Ladwig KH.
Clin Res Cardiol. 2018 Jun;107(6):471-478. doi: 10.1007/s00392-018-1208-4.

Mitophagy in Intestinal Epithelial Cells Triggers Adaptive Immunity during Tumorigenesis.

Ziegler PK, Bollrath J, Pallangyo CK, Matsutani T, Canli Ö, De Oliveira T, Diamanti MA, Müller N, Gamrekashvili J, Putoczki T, Horst D, Mankan AK, Öner MG, Müller S, Müller-Höcker J, Kirchner T, Slotta-Huspenina J, Taketo MM, Reinheckel T, Dröse S, Larner AC, Wels WS, Ernst M, Greten TF, Arkan MC, Korn T, Wirth D, Greten FR.
Cell. 2018 Jun 28;174(1):88-101.e16. doi: 10.1016/j.cell.2018.05.028.

Aldehyde dehydrogenase 1A3 (ALDH1A3) is regulated by autophagy in human glioblastoma cells.

Wu W, Schecker J, Würstle S, Schneider F, Schönfelder M, Schlegel J.
Cancer Lett. 2018 Mar 28;417:112-123. doi: 10.1016/j.canlet.2017.12.036. Epub 2018 Jan 3.

Calcium Sensor for Photoacoustic Imaging.

Roberts S, Seeger M, Jiang Y, Mishra A, Sigmund F, Stelzl A, Lauri A, Symvoulidis P, Rolbieski H, Preller M, Deán-Ben XL, Razansky D, Orschmann T, Desbordes SC, Vetschera P, Bach T, Ntziachristos V, Westmeyer GG.
J Am Chem Soc. 2018 Feb 28;140(8):2718-2721. doi: 10.1021/jacs.7b03064.

2017:

Influence of pain on motor preparation in the human brain.

Postorino M, May ES, Nickel MM, Tiemann L, Ploner M.
J Neurophysiol. 2017 Oct 1;118(4):2267-2274. doi: 10.1152/jn.00489.2017.

The AMP-Related Kinase (AMPK) Induces Ca²⁺-Independent Dilation of Resistance Arteries by Interfering With Actin Filament Formation.

Schubert KM, Qiu J, Blodow S, Wiedenmann M, Lubomirov LT, Pfitzer G, Pohl U, Schneider H.
Circ Res. 2017 Jul 7;121(2):149-161. doi: 10.1161/CIRCRESAHA.116.309962.

Potential accuracy of navigated K-wire guided supra-acetabular osteotomies in orthopedic surgery: a CT fluoroscopy cadaver study.

Postl LK, Kirchhoff C, Toepfer A, Kirchhoff S, Schmitt-Sody M, von Eisenhart-Rothe R, Burgkart R.
Int J Med Robot. 2017 Jun;13(2). doi: 10.1002/rcs.1752.

Two serines in the distal C-terminus of the human β 1-adrenoceptor determine β -arrestin2 recruitment.

Hinz L, Ahles A, Ruprecht B, Küster B, Engelhardt S.

PLoS One. 2017 May 4;12(5):e0176450. doi: 10.1371/journal.pone.0176450.

Predicting Regional Pattern of Longitudinal β -Amyloid Accumulation by Baseline PET.

Guo T, Brendel M, Grimmer T, Rominger A, Yakushev I; Alzheimer's Disease Neuroimaging Initiative.

J Nucl Med. 2017 Apr;58(4):639-645. doi: 10.2967/jnumed.116.176115.

Interhemispheric connectivity revealed by diffusion tensor imaging fiber tracking derived from navigated transcranial magnetic stimulation maps as a sign of language function at risk in patients with brain tumors.

Sollmann N, Negwer C, Tussis L, Hauck T, Ille S, Maurer S, Giglhuber K, Bauer JS, Ringel F, Meyer B, Krieg SM.

J Neurosurg. 2017 Jan;126(1):222-233. doi: 10.3171/2016.1.JNS152053. Epub 2016 Apr 1.

2016:

Vav Proteins Are Key Regulators of Card9 Signaling for Innate Antifungal Immunity.

Roth S, Bergmann H, Jaeger M, Yeroslaviz A, Neumann K, Koenig PA, Prazeres da Costa C, Vanes L, Kumar V, Johnson M, Menacho-Márquez M, Habermann B, Tybulewicz VL, Netea M, Bustelo XR, Ruland J.

Cell Rep. 2016 Dec 6;17(10):2572-2583. doi: 10.1016/j.celrep.2016.11.018.

Direct identification of clinically relevant neoepitopes presented on native human melanoma tissue by mass spectrometry.

Bassani-Sternberg M, **Bräunlein E**, Klar R, Engleitner T, Sinitcyn P, Audehm S, Straub M, Weber J, Slotta-Huspenina J, Specht K, Martignoni ME, Werner A, Hein R, H Busch D, Peschel C, Rad R, Cox J, Mann M, Krackhardt AM.

Nat Commun. 2016 Nov 21;7:13404. doi: 10.1038/ncomms13404.

2015:

Combining microscopy with mesoscopy using optical and optoacoustic label-free modes.

Soliman D, Tserevelakis GJ, Omar M, Ntziachristos V.

Sci Rep. 2015 Aug 26;5:12902. doi: 10.1038/srep12902.

Hydrogels for Engineering of Perfusable Vascular Networks.

Liu J, Zheng H, Poh PS, Machens HG, Schilling AF.

Int J Mol Sci. 2015 Jul 14;16(7):15997-6016. doi: 10.3390/ijms160715997.