2. Publikationen im Teilprojekt Z3:

1. Geoffrey J. Topping, Irina Heid, Marija Trajkovic-Arsic, Lukas Kritzner, Martin Grashei, Christian Hundshammer, Maximilian Aigner, Jason G. Skinner, Rickmer Braren, Franz Schilling; '*Hyperpolarized 13C Spectroscopy with Simple Slice-and-Frequency-Selective Excitation',* Biomedicines (2021), 9 (2), pp. 121

2. Elisabeth Bliemsrieder, Georgios Kaissis, Martin Grashei, Geoffrey J. Topping, Jennifer Altomonte, Christian Hundshammer, Fabian Lohöfer, Irina Heid, Dominik Keim, Selamawit Gebrekidan, Marija Trajkovic-Arsic, Aline Winkelkotte, Katja Steiger, Roman Nawroth, Jens Siveke, Markus Schwaiger, Marcus Makowski, Franz Schilling, Rickmer Braren, *'Hyperpolarized 13 C pyruvate magnetic resonance spectroscopy for in vivo metabolic phenotyping of rat HCC',* Scientific reports (2021), 11 (1), pp. 1–9, 2021

3. Christoph A. Müller, Christian Hundshammer, Miriam Braeuer, Jason G. Skinner, Stephan Berner, Jochen Leupold, Stephan Düwel, Stephan G. Nekolla, Sven Månsson, Adam E Hansen, Dominik von Elverfeldt, Jan H. Ardenkjaer-Larsen, Franz Schilling, Markus Schwaiger, Jürgen Hennig, Jan-Bernd Hövener; '*Dynamic 2D and 3D mapping of hyperpolarized pyruvate to lactate conversion in vivo with efficient multi-echo balanced steady-state free precession at 3 T',* NMR in Biomedicine (2020); 33(6):e4291

4. Geoffrey J. Topping, Christian Hundshammer, Luca Nagel, Martin Grashei, Maximilian Aigner, Jason G. Skinner, Rolf F. Schulte, Franz Schilling§; '*Acquisition strategies for spatially resolved magnetic resonance detection of hyperpolarized nuclei*', Magnetic Resonance Materials in Physics, Biology and Medicine (2020); 33:221-256

5. Mathias Schillmaier, Athanasia Kaika, Franz Schilling§; ‚*Disentangling intercompartment exchange from restricted diffusion'*, in: ‚*Advanced Diffusion Encoding Methods in MRI'*, Royal Society of Chemistry (2020); 154-185

6. Christian Hundshammer, Miriam Braeuer, Christoph Müller, Adam Hansen, Mathias Schillmaier, Stephan Düwel, Benedikt Feuerecker, Steffen Glaser, Axel Haase, Wilko Weichert, Katja Steiger, Jorge Cabello, Franz Schilling, Jan-Bernd Hövener, Andreas Kjaer, Stephan Nekolla, Markus Schwaiger; '*Simultaneous characterization of tumor cellularity and the Warburg effect with PET, MRI and hyperpolarized 13C-MRSI*', Theranostics (2018); 8(17):4765 (cover page)

7. Benedikt Feuerecker, Markus Durst, Michael Michalik, Günter Schneider, Dieter Saur, Marion Menzel, Markus Schwaiger, Franz Schilling; *´Hyperpolarized ^{13}C Diffusion MRS of Co-Polarized Pyruvate and Fumarate to Measure Lactate Export and Necrosis´*; Journal of Cancer (2017); 8(15):3078

Publication List Vasilis Ntziachristos Z3		
	Title	**Authors**
	A protease-activated, near-infrared fluorescent probe for early endoscopic detection of premalignant gastrointestinal lesions	Joshua J. Yim, Stefan Harmsen, Krzysztof Flisikowski, Tatiana Flisikowska, Hong Namkoong, Megan Garland, Nynke S. van den Berg, José G. Vilches-Moure, Angelika Schnieke, Dieter Saur, Sarah Glasl, Dimitris Gorpas, Aida Habtezion, Vasilis Ntziachristos, Christopher H. Contag, Sanjiv S. Gambhir, Matthew Bogyo, and Stephan Rogalla
	Biodegradable Fluorescent Nanoparticles for Endoscopic Detection of Colorectal Carcinogenesis	Rogalla S., Flisikowski K., Gorpas D., Mayer A.T., Flisikowska T., Mandella M.J., Ma X., Casey K.M., Felt S.A., Saur D., Ntziachristos V., Schnieke A., Contag C.H., Gambhir S.S., Harmsen S.
	Skin Surface Detection in 3D Optoacoustic Mesoscopy Based on Dynamic Programming	Nitkunanantharajah S., Zahnd G., Olivo M., Navab N., Mohajerani P., Ntziachristos V.

	A dual Ucp1 reporter mouse model for imaging and quantitation of brown and brite fat recruitment	Wang H., Willershäuser M., Karlas A., Gorpas D., Reber J., Ntziachristos V., Maurer S., Fromme T., Li Y., Klingenspor M.
	Synthesis and preclinical characterization of the PSMA-targeted hybrid tracer PSMA-I&F for nuclear and fluorescence imaging of prostate cancer	Schottelius M., Wurzer A., Wissmiller K., Beck R., Koch M., Gorpas D., Notni J., Buckle T., Van Oosterom M.N., Steiger K., Ntziachristos V., Schwaiger M., Van Leeuwen F.W.B., Wester H.-J.
	Therapeutic fluorescent hybrid nanoparticles for traceable delivery of glucocorticoids to inflammatory sites	Napp J., Andrea Markus M., Heck J.G., Dullin C., Möbius W., Gorpas D., Feldmann C., Alves F.
Conference paper	Uniqueness in multispectral constant-wave epi-illumination imaging	Garcia-Allende P.B., Radrich K., Symvoulidis P., Glatz J., Koch M., Jentoft K.M., Ripoll J., Ntziachristos V.
Review	Advances in real-time multispectral optoacoustic imaging and its applications	Taruttis A., Ntziachristos V.
	Multispectral optoacoustic tomography of myocardial infarction	Taruttis A., Wildgruber M., Kosanke K., Beziere N., Licha K., Haag R., Aichler M., Walch A., Rummeny E., Ntziachristos V.

	Detection of irradiation-induced, membrane heat shock protein 70 (Hsp70) in mouse tumors using Hsp70 Fab fragment	Stangl S., Themelis G., Friedrich L., Ntziachristos V., Sarantopoulos A., Molls M., Skerra A., Multhoff G.

Journal	**Publication year**	**DOI**
Proceedings of the National Academy of Sciences of the United States of America	2020	10.1073/pnas.2008072118
Advanced Functional Materials	2019	10.1002/adfm.201904992
IEEE Transactions on Medical Imaging	2019	10.1109/TMI.2019.2928393

Molecular Metabolism	2018	10.1016/j.molmet.2018.11.009
Journal of Nuclear Medicine	2018	10.2967/jnumed.118.212720
Theranostics	2018	10.7150/thno.28324
Optics Letters	2016	10.1364/OL.41.003098
Nature Photonics	2015	10.1038/nphoton.2015.29
Photoacoustics	2013	10.1016/j.pacs.2012.11.001

Radiotherapy and Oncology	2011	10.1016/j.radonc.2011.05.051

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https://doi.org/10.1073/pnas.2008072118
https://doi.org/10.1002/adfm.201904992
https://ieeexplore.ieee.org/document/8760559

https://doi.org/10.1016/j.molmet.2018.11.009

https://doi.org/10.2967/jnumed.118.212720

https://doi.org/10.7150/thno.28324

https://doi.org/10.1364/OL.41.003098

https://doi.org/10.1038/nphoton.2015.29

https://doi.org/10.1016/j.pacs.2012.11.001

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