

Advanced Molecular Imaging Research (AMIR)

The main focus of the Advanced Molecular Imaging Research Center is multimodal imaging for pre-clinical and translational research. Our work is dedicated to the fusion of cellular research and clinical projects in development and implementation of novel and advanced techniques for small animal imaging – in particular in vivo magnetic resonance imaging (MRI), small animal PET, CT and optical imaging. Further goals are to provide cutting edge technology and research tools in cooperation with our partners in the University of Freiburg.

[Group Members](#)

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[Former Employees](#)

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Current highlights

[In Vivo DT-MRI and Fiber Tracking of the Mouse Brain](#)

[Method Development for High field MRI](#)

[Multimodal Imaging of dendritic cells using - MRI based tracking after cell transplantation](#)

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Projects

projects in execution

- [Renal-Cyst-model](#)
- [DWI in Ewingsarcoma](#)
- [Targeted Contrast Agents](#)
- [Phase Contrast and Susceptibility Weighted Imaging in the Rodent Brain](#)
- [Manganese Enhanced Imaging](#)
- [1H and X-nuclei spectroscopy](#)
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- [Hyperpolarized 13C MRI and MRS](#)
- [Vessel Size Imaging \(VSI\)](#)
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- [Development of micro MR coils \(EU-NEST project\)](#)
- [MR Microscopy \(EU-NEST project\)](#)

completed projects

- [Funktionalized nanoparticles for molecular imaging \(Funk MoB\)](#)
- [Funktionalized nanoparticles for plaque imaging \(NanoAG\)](#)

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Publications

2011

- Ta H. T, Prabhu S, Leitner E, Jia F, von Elverfeldt D, Jackson K E, Heidt T, Nair A K, Pearce H, von Zur Muhlen C, Wang X, Peter K, Hagemeyer C E. Enzymatic single-chain antibody tagging: a universal approach to targeted molecular imaging and cell homing in cardiovascular disease *Circ Res* 2011 Aug; 109(4): 365-373
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