Publication List

A) Research Articles

1. N. Schmitz, M. Timmen, K. Kostka, **V. Hoerr**, C. Schwarz, C. Faber, U. Hansen, R. Matthys, M.J. Raschke, R. Stange. A novel MRI compatible mouse fracture model to characterize and monitor bone regeneration and tissue composition. Sci Rep. 10(1):16238, 2020.
2. C. Schwarz, **V. Hoerr**, Y. Töre, V. Hösker, U. Hansen, H. Van de Vyver, S. Niemann, M.T. Kuhlmann, A. Jeibmann, M. Wildgruber, C. Faber. Isolating Crucial Steps in Induction of Infective Endocarditis With Preclinical Modeling of Host Pathogen Interaction. Front Microbiol. 11:1325, 2020.
3. B. Blankenhaus, F. Braza, R. Martins, P. Bastos-Amador, I. González-García, A.R. Carlos, I. Mahu, P. Faisca, J.M. Nunes, P. Ventura, **V. Hoerr**, S. Weis, J. Guerra, S. Cardoso, A. Domingos, M. López, M.P. Soares. Ferritin regulates organismal energy balance and thermogenesis. Mol Metab. 24:64-79, 2019.
4. L. Tuchscherr, C. Pöllath, A. Siegmund, S. Deinhardt-Emmer, **V. Hoerr**, C.M. Svensson, T.M. Figge, S. Monecke, B. Löffler. Clinical *S. aureus* isolates vary in their virulence to promote adaptation to the host. Toxins (Basel). 11(3), 2019.
5. I. Gallitz, N. Lofruthe, L. Traeger, N. Bäumer, **V. Hoerr**, C. Faber, T. Kuhlmann, C. Müller-Tidow, A.U. Steinbicker. Deficiency of the BMP Type I receptor ALK3 partly protects mice from anemia of inflammation. BMC Physiol. 18(1):3, 2018.
6. D. Kentrup, P. Bovenkamp, A. Busch, K. Schuette-Nuetgen, H. Pawelski, H. Pavenstädt, E. Schlatter, K.H. Herrmann, J.R. Reichenbach, B. Löffler, B. Heitplatz, V. Van Marck, N.N. Yadav, G. Liu, P.C.M. van Zijl, S. Reuter, **V. Hoerr**. GlucoCEST magnetic resonance imaging in vivo may be diagnostic of acute renal allograft rejection. Kidney Int. 92:757-764, 2017.
7. D. Abdurrachim, M. Nabben, **V. Hoerr**, M.T. Kuhlmann, P. Bovenkamp, J. Ciapaite, I.M.E. Geraets, W. Coumans, J.J.F.P. Luiken, J.F.C. Glatz, M. Schäfers, K. Nicolay, C. Faber, S. Hermann, J.J. Prompers. Diabetic db/db mice do not develop heart failure upon pressure overload: a longitudinal in vivo PET, MRI, and MRS study on cardiac metabolic, structural, and functional adaptations. Cardiovasc Res. 113:1148-1160, 2017.
8. M. Krämer, A.G. Motaal, K.H. Herrmann, B. Löffler, J.R. Reichenbach, G.J. Strijkers, **V. Hoerr**. Cardiac 4D phase-contrast CMR at 9.4 T using self-gated ultra-short echo time (UTE) imaging. J Cardiovasc Magn Reson. 19:39-52, 2017.
9. H. Van de Vyver, P.R. Bovenkamp, **V. Hoerr**, K. Schwegmann, L. Tuchscherr, S. Niemann, L. Kursawe, C. Grosse, A. Moter, U. Hansen, U. Neugebauer, M.T. Kuhlmann, G. Peters, S. Hermann, B. Löffler. A Novel Mouse Model of Staphylococcus aureus Vascular Graft Infection: Noninvasive Imaging of Biofilm Development in Vivo. Am J Pathol. 187:268-279, 2017.
10. **V. Hoerr**, G.E. Duggan, L. Zbytnuik, K.H. Poon, C. Große, U. Neugebauer, K. Methling, B. Löffler, H.J. Vogel. Characterization and prediction of the mechanism of action of antibiotics through NMR metabolomics. BMC Microbiol. 16:82-96, 2016.
11. D. Tang, S. Tao, Z. Chen., L. Koliesnik, P.G. Calmes, **V. Hoerr**, B. Han, N. Gebert, M. Zörnig, B. Löffler, Y. Morita, K.L. Rudolph. Dietary restriction improves repopulation but impairs lymphoid differentiation capacity of hematopoietic stem cells in early aging. J Exp Med. 213:535-553, 2016.
12. L. Tuchscherr*, C.A. Kreis*, **V. Hoerr***, L. Flint, M. Hachmeister, J. Geraci, S. Bremer-Streck, M. Kiehntopf, E. Medina, M. Kribus, M. Raschke, M. Pletz, G. Peters, B. Löffler. Staphylococcus aureus develops increased resistance to antibiotics by forming dynamic small colony variants during chronic osteomyelitis. J Antimicrob Chemother. 71:438-448, 2016. *equally contributed.

13. L. Frohwein, **V. Hoerr**, C. Faber, K. Schäfers. Correction of MRI-induced Geometrics Distortions in Whole-Body Small Animal PET-MRI. Med Phys. 42:3848-3858, 2015.
14. A. Motaal, N. Noorman, W.L. De Graaf, **V. Hoerr**, L.J. Florack, K. Nicolay, G.J. Strijkers. Imaging myocardial infarction using accelerated self-gated UTE cine MRI. Int J Cardiovasc Imaging. 31:83-94, 2015.
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16. J. Ring, **V. Hoerr**, L. Tuchscherr, M.T. Kuhlmann, B. Löffler, C. Faber. MRI visualization of *Staphyloccocus aureus*-induced infective endocarditis in mice. PLoS One. 9:e107179, 2014.
17. D.Z. Balla, S. Gottschalk, G. Shajan, S. Ueberberg, S. Schneider, M. Hardtke-Wolenski, E. Jaeckel, **V. Hoerr**, C. Faber, K. Scheffler, R. Pohmann, J. Engelmann. In vivo visualization of single native pancreatic islets in the mouse. Contrast Media Mol Imaging. 8:495-504, 2013.
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19. **V. Hoerr**, N. Nagelmann, A. Nauerth, M.T. Kuhlmann, J. Stypmann, C. Faber. Cardiac-respiratory self-gated cine UTE MRI for assessment of functional cardiac parameters at high magnetic fields. J Cardiovasc Magn Reson. 15:59-67, 2013.
20. **V. Hoerr**, L. Zbytnuik, C. Leger, P. Tam, P. Kubes, H.J. Vogel. Gram-negative and gram-positive bacterial infections give rise to a different metabolic response in a mouse model. J Proteome Res. 11:3231-3245, 2012.
21. K. Strobel, **V. Hoerr**, F. Schmid, L. Wachsmuth, B. Löffler, C. Faber. Early detection of lung inflammation: Exploiting T1-effects of iron oxide particles using UTE MRI. Magn Reson Med. 68:1924-1931, 2012.
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23. **V. Hoerr**, A. Purea, C. Faber. NMR separation of intra- and extracellular compounds based on intermolecular coherences. Biophys J. 99:2336-2343, 2010.
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25. M. Muth, **V. Hoerr**, M. Glaser, A. Ponte-Sucre, H. Moll, A. Stich, U. Holzgrabe. Antitrypanosomal activity of quaternary naphthalimide derivatives. Bioorg. Med Chem Lett. 17:1590-1593, 2007.
26. **V. Hoerr**, W. Ziebuhr, S. Kozitskaya, E. Katzowitsch, U. Holzgrabe. Laser-induced fluorescence capillary electrophoresis (LIF-CE) and fluorescence microplate reader (FMR) measurement: Two novel methods to quantify the effect of antibiotics. Anal Chem. 79:7510-7518, 2007.

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29. **V. Hoerr**, A. Stich, U. Holzgrabe. Critical aspects of analysis of *Micrococcus luteus*, *Neisseria cinerea* and *Pseudomonas fluorescens* by means of capillary electrophoresis. Electrophoresis 25:3132-3138, 2004.
30. G. Bringmann, **V. Hoerr**, U. Holzgrabe, A. Stich. Antitrypanosomal naphthylisoquinoline alkaloids and related compounds. Pharmazie 58:343-346, 2003.

B) Review Articles

1. R. Köhnke, D. Kentrup, K. Schütte-Nütgen, M. Schäfers, U. Schnöckel, **V. Hoerr**, S. Reuter. Update on imaging-based diagnosis of acute renal allograft rejection. Am J Nucl Med Mol Imaging. 9(2):110-126, 2019.
2. U. Jehn, K. Schuette-Nuetgen, D. Kentrup, **V. Hoerr**, S. Reuter. Renal Allograft Rejection: Noninvasive Ultrasound- and MRI-Based Diagnostics. Contrast Media Mol Imaging. 2019 Apr 10;2019:3568067.
3. **V. Hoerr**, M. Franz, M.W. Pletz, M. Diab, S. Niemann, C. Faber, T. Doenst, P.C. Schulze, S. Deinhardt-Emmer, B. Löffler. S. aureus endocarditis: Clinical aspects and experimental approaches. Int J Med Microbiol. 308(6):640-652, 2018.
4. S. Deinhardt-Emmer, **V. Hoerr**, B. Löffler. Vascular graft infection: a new model for treatment management? Future Microbiol. 12:651-654, 2017.
5. **V. Hoerr**, C. Faber. Magnetic resonance imaging characterization of microbial infections. J Pharm Biomed Anal. 93:136-146, 2014.

C) Other Publications

Book Chapters and Monographs

1. W. Hafezi, **V. Hoerr**. In vivo visualization of encephalitic lesions in herpes simplex virus type 1 (HSV-1) infected mice by MRI. Methods in Molecular Biology, Springer Protocols, 1064:253-265, 2013.
2. **V. Hoerr**, H.J. Vogel. Metabolomics. Encyclopedia of Biophysics, Springer-Verlag, Berlin, Heidelberg, Editor: Gordon C. K. Roberts, 2012.

Theses

1. **V. Hörr**. Methoden zur Evaluation von Zytotoxizität und Struktur-Wirkungs-Beziehungen an Trypanosoma brucei brucei. Dissertation in Pharmazeutischer Chemie, Würzburg, Mai 2008.
2. **V. Hörr**. In-vivo-MR-Spektroskopie an Oozyten des *Xenopus laevis*. Diplomarbeit im Fach Physik, Würzburg, April 2008.
3. **V. Hörr**. Magnetresonanz in der Diagnostik und präklinischen Forschung bakterieller Infektionen. Habilitationsschrift im Fach Experimentelle Radiologie, Jena, November 2016.

Patent

- WO 2004/067514 Bringmann G, Rummey C, Neumann S, Brun R, Stich A, **Hoerr V**, Müller W. 3,3-Dimethyl-8-0xoisoquinolines for medical purposes, methods for the production thereof, medicaments containing said compounds and the use of the same.