

Institut für klinische molekulare MR Bildgebung im Muskel-Skelettbereich

Institutsleitung: Univ.-Prof. Dr. Siegfried Trattnig

Wissenschaftliche Referate 2022:

1. **Zaric, O.**, Beiglböck, H., Janacova, V., **Szomolanyi, P.**, Wolf, P., Krebs, M., **Trattnig, S.**, Krššák, M., Juras, V., Repeatability assessment of sodium (²³Na) MRI at 7.0 T in healthy human calf muscle and preliminary results on tissue sodium concentrations in subjects with Addison's disease, (2022) BMC Musculoskeletal Disorders, 23 (1), art. no. 925, DOI: 10.1186/s12891-022-05879-5
2. Janacova, V., **Szomolanyi, P.**, Kirner, A., **Trattnig, S.**, Juras, V., Adjacent cartilage tissue structure after successful transplantation: a quantitative MRI study using T2 mapping and texture analysis, (2022) European Radiology, 32 (12), pp. 8364-8375, DOI: 10.1007/s00330-022-08897-y
3. Hager, B., Schreiner, M.M., Walzer, S.M., Hirtler, L., **Mlynarik, V.**, Berg, A., Deligianni, X., Bieri, O., Windhager, R., **Trattnig, S.**, Juras, V., Transverse Relaxation Anisotropy of the Achilles and Patellar Tendon Studied by MR Microscopy, (2022) Journal of Magnetic Resonance Imaging, 56 (4), pp. 1091-1103. Cited 2 times., DOI: 10.1002/jmri.28095
4. **Bachrata, B.**, **Trattnig, S.**, Robinson, S.D., Quantitative susceptibility mapping of the head-and-neck using SMURF fat-water imaging with chemical shift and relaxation rate corrections, (2022) Magnetic Resonance in Medicine, 87 (3), pp. 1461-1479. Cited 3 times., DOI: 10.1002/mrm.29069
5. Bencikova, D., Han, F., Kannengieser, S., Raudner, M., Poetter-Lang, S., Bastati, N., Reiter, G., Ambros, R., Ba-Ssalamah, A., **Trattnig, S.**, Krššák, M., Evaluation of a single-breath-hold radial turbo-spin-echo sequence for T2 mapping of the liver at 3T, (2022) European Radiology, 32 (5), pp. 3388-3397. Cited 1 time., DOI: 10.1007/s00330-021-08439-y
6. Heckova, E., Dal-Bianco, A., Strasser, B., Hangel, G.J., Lipka, A., Motyka, S., Hingerl, L., Rommer, P.S., Berger, T., Hnilicová, P., Kantorová, E., Leutmezer, F., Kurča, E., Gruber, S., **Trattnig, S.**, Bogner, W., Extensive Brain Pathologic Alterations Detected with 7.0-T MR Spectroscopic Imaging Associated with Disability in Multiple Sclerosis, (2022) Radiology, 303 (1), pp. 141-150. Cited 7 times., DOI: 10.1148/RADIOL.210614
7. Pfleger, L., Halilbasic, E., Gajdošík, M., Benčíková, D., Chmelík, M., Scherer, T., **Trattnig, S.**, Krebs, M., Trauner, M., Krššák, M., Concentration of Gallbladder Phosphatidylcholine in Cholangiopathies: A Phosphorus-31 Magnetic Resonance Spectroscopy Pilot Study, (2022) Journal of Magnetic Resonance Imaging, 55 (2), pp. 530-540. , DOI: 10.1002/jmri.27817
8. Hangel, G., Lazen, P., Sharma, S., Hristoska, B., Cadrien, C., Furtner, J., Rausch, I., Lipka, A., Niess, E., Hingerl, L., Motyka, S., Gruber, S., Strasser, B., Kiesel, B., Preusser, M., Roetzer-Pejrimovsky, T., Wöhrer, A., Bogner, W., Widhalm, G., Rössler, K., Traub-Weidinger, T., **Trattnig, S.**, 7T HR FID-MRSI Compared to Amino Acid PET: Glutamine and Glycine as Promising Biomarkers in Brain Tumors, (2022) Cancers, 14 (9), art. no. 2163, . Cited 1 time., DOI: 10.3390/cancers14092163

Wissenschaftliche Publikationen 2022:

1. Hametner, S., Silvaieh, S., Thurnher, M., Dal-Bianco, A., Cetin, H., Ponleitner, M., Zebeholzer, K., Pemp, B., Trattnig, S., Rössler, K., Berger, T., Lassmann, H., Hainfellner, J.A., Bsteh, G., A case of primary optic pathway demyelination caused by oncocytic oligodendrogliopathy of unknown origin, (2022) *Acta Neuropathologica Communications*, 10 (1), art. no. 160, DOI: 10.1186/s40478-022-01462-0
2. Zaric, O., Beiglböck, H., Janacova, V., Szomolanyi, P., Wolf, P., Krebs, M., Trattnig, S., Krššák, M., Juras, V., Repeatability assessment of sodium (²³Na) MRI at 7.0 T in healthy human calf muscle and preliminary results on tissue sodium concentrations in subjects with Addison's disease, (2022) *BMC Musculoskeletal Disorders*, 23 (1), art. no. 925, . DOI: 10.1186/s12891-022-05879-5
3. Janacova, V., Szomolanyi, P., Kirner, A., Trattnig, S., Juras, V., Adjacent cartilage tissue structure after successful transplantation: a quantitative MRI study using T2 mapping and texture analysis, (2022) *European Radiology*, 32 (12), pp. 8364-8375. , DOI: 10.1007/s00330-022-08897-y
4. Muhlbauer, M.K., Tomasch, E., Sinz, W., Trattnig, S., Steffan, H., Cervical disc prostheses need a variable center of rotation for flexion / extension below disc level, plus a separate COR for lateral bending above disc level to more closely replicate in-vivo motion: MRI-based biomechanical in-vivo study, (2022) *BMC Musculoskeletal Disorders*, 23 (1), art. no. 227, DOI: 10.1186/s12891-022-05121-2
5. Hager, B., Schreiner, M.M., Walzer, S.M., Hirtler, L., Mlynarik, V., Berg, A., Deligianni, X., Bieri, O., Windhager, R., Trattnig, S., Juras, V., Transverse Relaxation Anisotropy of the Achilles and Patellar Tendon Studied by MR Microscopy, (2022) *Journal of Magnetic Resonance Imaging*, 56 (4), pp. 1091-1103. Cited 2 times., DOI: 10.1002/jmri.28095
6. Hangel, G., Lazen, P., Sharma, S., Hristoska, B., Cadrien, C., Furtner, J., Rausch, I., Lipka, A., Niess, E., Hingerl, L., Motyka, S., Gruber, S., Strasser, B., Kiesel, B., Preusser, M., Roetzer-Pejrimovsky, T., Wöhrer, A., Bogner, W., Widhalm, G., Rössler, K., Traub-Weidinger, T., Trattnig, S., 7T HR FID-MRSI Compared to Amino Acid PET: Glutamine and Glycine as Promising Biomarkers in Brain Tumors, (2022) *Cancers*, 14 (9), art. no. 2163, . Cited 1 time., DOI: 10.3390/cancers14092163
7. Bencikova, D., Han, F., Kannengieser, S., Raudner, M., Poetter-Lang, S., Bastati, N., Reiter, G., Ambros, R., Ba-Ssalamah, A., Trattnig, S., Krššák, M., Evaluation of a single-breath-hold radial turbo-spin-echo sequence for T2 mapping of the liver at 3T (2022) *European Radiology*, 32 (5), pp. 3388-3397. Cited 1 time., DOI: 10.1007/s00330-021-08439-y
8. Heckova, E., Dal-Bianco, A., Strasser, B., Hangel, G.J., Lipka, A., Motyka, S., Hingerl, L., Rommer, P.S., Berger, T., Hnilicová, P., Kantorová, E., Leutmezer, F., Kurča, E., Gruber, S., Trattnig, S., Bogner, W., Extensive Brain Pathologic Alterations Detected with 7.0-T MR Spectroscopic Imaging Associated with Disability in Multiple Sclerosis, (2022) *Radiology*, 303 (1), pp. 141-150. Cited 7 times., DOI: 10.1148/RADIOL.210614
9. Wegener, L.C., Werner, F., Kleyer, A., Simon, D., Uder, M., Janka, R., Trattnig, S., Welsch, G.H., Pachowsky, M.L., Changes in T2 Relaxation Time Mapping of Intervertebral Discs Adjacent to Vertebrae after Kyphoplasty Correlate with the Physical Clinical Outcome of Patients, (2022) *Diagnostics*, 12 (3), art. no. 605, . DOI: 10.3390/diagnostics12030605

10. Bachrata, B., Trattnig, S., Robinson, S.D., Quantitative susceptibility mapping of the head-and-neck using SMURF fat-water imaging with chemical shift and relaxation rate corrections, (2022) *Magnetic Resonance in Medicine*, 87 (3), pp. 1461-1479. Cited 3 times., DOI: 10.1002/mrm.29069
11. Niess, F., Roat, S., Bogner, W., Krššák, M., Kemp, G.J., Schmid, A.I., Trattnig, S., Moser, E., Zaitsev, M., Meyerspeer, M., 3D localized lactate detection in muscle tissue using double-quantum filtered ¹H MRS with adiabatic refocusing pulses at 7 T, (2022) *Magnetic Resonance in Medicine*, 87 (3), pp. 1174-1183. Cited 2 times., DOI: 10.1002/mrm.29061
12. Springer, E., Cardoso, P.L., Strasser, B., Bogner, W., Preusser, M., Widhalm, G., Nittka, M., Koerzdoerfer, G., Szomolanyi, P., Hangel, G., Hainfellner, J.A., Marik, W., Trattnig, S., MR Fingerprinting—A Radiogenomic Marker for Diffuse Gliomas, (2022) *Cancers*, 14 (3), art. no. 723, . Cited 1 time., DOI: 10.3390/cancers14030723
13. Pflieger, L., Halilbasic, E., Gajdošík, M., Benčíková, D., Chmelík, M., Scherer, T., Trattnig, S., Krebs, M., Trauner, M., Krššák, M., Concentration of Gallbladder Phosphatidylcholine in Cholangiopathies: A Phosphorus-31 Magnetic Resonance Spectroscopy Pilot Study, (2022) *Journal of Magnetic Resonance Imaging*, 55 (2), pp. 530-540. , DOI: 10.1002/jmri.27817
14. Deischinger, C., Slukova, D., Just, I., Kaufmann, U., Harreiter, J., van Trotsenburg, M., Trattnig, S., Krššák, M., Kautzky-Willer, A., Klepochova, R., Kosi-Trebotic, L., Effects of gender-affirming hormone therapy on cardiovascular risk factors focusing on glucose metabolism in an Austrian transgender cohort, (2022) *International Journal of Transgender Health*, DOI: 10.1080/26895269.2022.2123425
15. Dong, S., Hangel, G., Bogner, W., Widhalm, G., Rössler, K., Trattnig, S., You, C., de Graaf, R., Onofrey, J.A., Duncan, J.S., Multi-scale Super-Resolution Magnetic Resonance Spectroscopic Imaging with Adjustable Sharpness, (2022) *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 13436 LNCS, pp. 410-420. , DOI: 10.1007/978-3-031-16446-0_39
16. Niemeyer, P., Hanus, M., Belickas, J., László, T., Gudas, R., Fiodorovas, M., Cebatorius, A., Pastucha, M., Hoza, P., Magos, K., Izadpanah, K., Paša, L., Vásárhelyi, G., Sisák, K., Mohyla, M., Farkas, C., Kessler, O., Kybal, S., Spiro, R., Köhler, A., Kirner, A., Trattnig, S., Gaissmaier, C., Treatment of Large Cartilage Defects in the Knee by Hydrogel-Based Autologous Chondrocyte Implantation: Two-Year Results of a Prospective, Multicenter, Single-Arm Phase III Trial, (2022) *Cartilage*, 13 (1), . Cited 4 times., DOI: 10.1177/19476035221085146