

## Anställning

### Projektassistent

Medicinsk strålningsfysik, Lund  
Lunds universitet  
Lund, Sverige  
2021 aug. 26 → present

### Forskningsprojektdeltagare

MR Physics  
Lunds universitet  
Lund, Sverige  
2023 aug. 24 → present

### Visiting researcher

King's College London  
London, Storbritannien  
2021 sep. 1 → present

## Forskningsoutput

### Quantification of the in vivo brain ultrashort- $T_2^*$ component in healthy volunteers

Deveshwar, N., Yao, J., Han, M., Dwork, N., Shen, X., Ljungberg, E., Caverzasi, E., Cao, P., Henry, R., Green, A. & Larson, P. E. Z., 2024, (E-pub ahead of print) I: Magnetic Resonance in Medicine.

System and method for performing motion-insensitive and quiet three-dimensional magnetic resonance imaging  
Wiesinger, F., Solana Sanchez, A. B., Menini, A., Ljungberg, E., Wood, T. C., Barker, G. J. & Williams, S. C. R., 2022 mars 15, Patentnr. US11275142B1, Prioritetsdatum 2020 nov. 5, Prioritetsnummer US17/090,557

### Motion corrected silent ZTE neuroimaging

Ljungberg, E., Wood, T. C., Solana, A. B., Williams, S. C. R., Barker, G. J. & Wiesinger, F., 2022, I: Magnetic Resonance in Medicine. 88, 1, s. 195-210 16 s.

### Simultaneous high-resolution $T_2$ -weighted imaging and quantitative $T_2$ mapping at low magnetic field strengths using a multiple TE and multi-orientation acquisition approach

Deoni, S. C. L., O'Muirheartaigh, J., Ljungberg, E., Huentelman, M. & Williams, S. C. R., 2022, I: Magnetic Resonance in Medicine. 88, 3, s. 1273-1281 9 s.

### Radial Interstices Enable Speedy Low-volume Imaging

Wood, T., Ljungberg, E. & Wiesinger, F., 2021 okt. 7, I: Journal of Open Source Software. 6, 66, s. 1-2 3500.

### Silent zero TE MR neuroimaging: Current state-of-the-art and future directions

Ljungberg, E., Damestani, N. L., Wood, T. C., Lythgoe, D. J., Zelaya, F., Williams, S. C. R., Solana, A. B., Barker, G. J. & Wiesinger, F., 2021 apr. 1, I: Progress in Nuclear Magnetic Resonance Spectroscopy. 123, s. 73-93

Comparison of multi echo  $T_2$  relaxation and steady state approaches for myelin imaging in the central nervous system  
Dvorak, A. V., Ljungberg, E., Vavasour, I. M., Lee, L. E., Abel, S., Li, D. K. B., Traboulsee, A., Mackay, A. L. & Kolind, S. H., 2021 jan. 14, I: Scientific Reports. 11, s. 1-12 1369.

### Silent $T_1$ mapping using the variable flip angle method with $B_1$ correction

Ljungberg, E., Wood, T., Solana, A. B., Kolind, S., Williams, S. C. R., Wiesinger, F. & Barker, G. J., 2020 aug. 1, I: Magnetic Resonance in Medicine. 84, 2, s. 813-824

The Evaluation of Optic Nerves Using 7 Tesla "Silent" Zero Echo Time Imaging in Patients with Leber's Hereditary Optic Neuropathy with or without Idebenone Treatment  
Grochowski, C., Symms, M., Jonak, K., Krukow, P., Wood, T. C., Ljungberg, E., Enseñat, J., Nowomiejska, K., Rejdak, R., Maciejewski, R. & Barker, G. J., 2020 apr. 13, I: Journal of Clinical Medicine. 9, 4, 1112.

Myelin Water Fraction and Intra/Extracellular Water Geometric Mean T2 Normative Atlases for the Cervical Spinal Cord from 3T MRI

Liu, H., Ljungberg, E., Dvorak, A. V., Lee, L. E., Yik, J. T., Macmillan, E. L., Barlow, L., Li, D. K. B., Traboulsee, A., Kolind, S. H., Kramer, J. L. K. & Laule, C., 2020 jan. 1, I: Journal of Neuroimaging. 30, s. 50-57

Silent myelin-weighted magnetic resonance imaging

Wood, T. C., Damestani, N. L., Lawrence, A. J., Ljungberg, E., Barker, G. J., Solana, A. B., Wiesinger, F. & Williams, S. C. R., 2020, I: Wellcome Open Research. 5, 74.

Myelin Water Atlas: A Template for Myelin Distribution in the Brain

Liu, H., Rubino, C., Dvorak, A. V., Jarrett, M., Ljungberg, E., Vavasour, I. M., Lee, L. E., Kolind, S. H., Macmillan, E. L., Traboulsee, A., Lang, D. J., Rauscher, A., Li, D. K. B., Mackay, A. L., Boyd, L. A., Kramer, J. L. K. & Laule, C., 2019 nov. 1, I: Journal of Neuroimaging. 29, 6, s. 699-706

Quantitative neuroimaging measures of myelin in the healthy brain and in multiple sclerosis

O'Muircheartaigh, J., Vavasour, I., Ljungberg, E., Li, D. K. B., Rauscher, A., Levesque, V., Garren, H., Clayton, D., Tam, R., Traboulsee, A. & Kolind, S., 2019 maj 1, I: Human Brain Mapping. 40, 7, s. 2104-2116

Rapid myelin water imaging for the assessment of cervical spinal cord myelin damage

Dvorak, A. V., Ljungberg, E., Vavasour, I. M., Liu, H., Johnson, P., Rauscher, A., Kramer, J. L. K., Tam, R., Li, D. K. B., Laule, C., Barlow, L., Briemberg, H., Mackay, A. L., Traboulsee, A., Kozlowski, P., Cashman, N. & Kolind, S. H., 2019 jan. 1, I: NeuroImage: Clinical. 23, 101896.

Inter-Vendor Reproducibility of Myelin Water Imaging Using a 3D Gradient and Spin Echo Sequence

Lee, L. E., Ljungberg, E., Shin, D., Figley, C. R., Vavasour, I. M., Rauscher, A., Cohen-Adad, J., Li, D. K. B., Traboulsee, A. L., Mackay, A. L., Lee, J. & Kolind, S. H., 2018 nov. 21, I: Frontiers in Neuroscience. 12, 854.

Rapid myelin water imaging in human cervical spinal cord: Myelin Water Imaging in the Cervical Spinal Cord

Ljungberg, E., Vavasour, I., Tam, R., Yoo, Y., Rauscher, A., Li, D. K. B., Traboulsee, A., Mackay, A. & Kolind, S., 2017 okt. 1, I: Magnetic Resonance in Medicine. 78, 4, s. 1482-1487

Grey Matter Segmentation in Spinal Cord MRIs via 3D Convolutional Encoder Networks with Shortcut Connections

Porisky, A., Brosch, T., Ljungberg, E., Tang, L. Y. W., Yoo, Y., De Leener, B., Traboulsee, A., Cohen-Adad, J. & Tam, R., 2017 sep. 9, *Deep Learning in Medical Image Analysis and Multimodal Learning for Clinical Decision Support: Third International Workshop, DLMIA 2017, and 7th International Workshop, ML-CDS 2017 held in Conjunction with MICCAI 2017, Proceedings*. Springer, s. 330-337 (Deep Learning in Medical Image Analysis and Multimodal Learning for Clinical Decision Support; vol. 10553).

Assessing structure and function of myelin in cervical spondylotic myelopathy: Evidence of demyelination

Liu, H., Macmillan, E. L., Jutzeler, C. R., Ljungberg, E., Mackay, A. L., Kolind, S. H., Mädler, B., Li, D. K. B., Dvorak, M. F., Curt, A., Laule, C. & Kramer, J. L. K., 2017 aug. 8, I: Neurology. 89, 6, s. 602-610

Spinal cord grey matter segmentation challenge

Prados, F., Ashburner, J., Blaiotta, C., Brosch, T., Carballido-Gamio, J., Cardoso, M. J., Conrad, B. N., Datta, E., Dávid, G., Leener, B. D., Dupont, S. M., Freund, P., Wheeler-Kingshott, C. A. M. G., Grussu, F., Henry, R., Landman, B. A., Ljungberg, E., Lyttle, B., Ourselin, S., Papinutto, N., & 8 andraSaporito, S., Schlaeger, R., Smith, S. A., Summers, P., Tam, R., Yiannakas, M. C., Zhu, A. & Cohen-Adad, J., 2017, I: NeuroImage. 152, s. 312-329

**Forskningsmedel**

**Advanced Low Field MRI physics and Sequence Development**

Ljungberg, E.

Bill & Melinda Gates Foundation: 2 561 000,00 kr

2023/05/11 → 2025/12/31