

SENIOR POSTDOC/PRINCIPAL INVESTIGATOR POSITION IN 7 TESLA MRI RESEARCH (H/F/X)

DOMAIN: NEUROIMAGING – 7 TESLA MRI

GIGA-CRC Human Imaging – University of Liège |

PREFERRED STARTING DATE: AS SOON AS POSSIBLE OR OCTOBER 2026 AT LATEST

DEADLINE: JUNE 15TH, 2026

The University of Liège (ULiège) is the largest French-speaking public university in Belgium. It brings together more than 5,700 staff members across four campuses, including 3,600 teachers and researchers active in all fields of human and social sciences, science and engineering, and health sciences. It welcomes nearly 27,000 students of 123 nationalities in one of Europe's most multicultural and dynamic cities—less than one hour from Brussels and Cologne, two hours from Paris, and three hours from London and Amsterdam.

As a committed actor in social and environmental transition, ULiège supports students in becoming responsible citizens (training in sustainable development, Green Office...) and promotes ethical, interdisciplinary, and open research. Deeply rooted in its region, it contributes to socio-economic development and maintains strong partnerships, notably with the University Hospital of Liège. Internationally, ULiège is part of the UNIC [European alliance](#) and maintains one of the world's most extensive collaboration networks.

ULiège offers attractive career paths in a [high-quality working environment](#) that promotes well-being, diversity, and equal opportunities. Since 2011, it has held the European HRS4R label ([Human Resources Strategy for Researchers](#)), reflecting its commitment to open, transparent, and merit-based recruitment procedures. It also recognizes the diversity of research practices in line with the recommendations of the [Coalition for Advancing Research Assessment](#) (CoARA). ULiège actively supports the internationalization of academic staff, notably through EURAXESS services for foreign researchers.

RESEARCH PROJECT INFORMATION

The GIGA-CRC Human Imaging is seeking a Senior Postdoctoral Researcher or Principal Investigator to develop an ambitious and innovative research program leveraging 7 Tesla MRI.

The position is a 2-year contract (renewable) and includes a startup package: 1-year PhD student contract, more than €20,000 worth of equipment access (including 7T MRI), and full methodological support.

While personal **career development support** is provided, it is mandatory to apply to a **permanent position** ([FNRS](#)) and to an [ERC grant](#) within 18 months.¹

PROFILE: WHO ARE WE LOOKING FOR?

- ▶ Early-career talented researcher (between 5 and 10 y. from PhD award¹)
- ▶ Demonstrated expertise with (**7 Tesla**) **MRI** (acquisition, analysis, or sequence development)
- ▶ Strong motivation to obtain a **permanent research position** via FNRS application ([FNRS Belgium](#) – with our support).
- ▶ Planning ambitious and innovative 7T MRI studies (and with any other techniques).
- ▶ Bottom-up project in any disciplines that could contribute to collaborative projects within GIGA-CRC Human Imaging,
- ▶ Good autonomy and capacity to write papers and grants; Clear potential for obtaining competitive grants
- ▶ Excellent communication skills in English (spoken and written)
- ▶ Experience in mentoring students or leading small teams is an asset

OUR TERMS OF EMPLOYMENT

- ▶ Type of contract: postdoctoral scientist
- ▶ Employment statuts : full time
- ▶ Contract duration: 2 y. (potentially renewable)
- ▶ Starting date: October 2026 or as soon as possible

WHAT DO WE OFFER

The salary and grade depend on the level of experience. Based on a complete application file, the Human Resources Department of ULiège can estimate the gross monthly remuneration.

Full reimbursement of home–work travel by public transport is available, as well as access to a range of training courses specifically designed for researchers.

▶ WORK ENVIRONMENT

The [GIGA-CRC Human Imaging](#) unit is a **highly collaborative** group of research teams including biologists, psychologists, neurologists, chemists, physicists and engineers, with **diverse expertise** in sleep, cognition, aging, brain disorders and neuroimaging with the aim to better characterise the structure and function of the human brain.

- **TOP OF THE RANGE EQUIPMENT**: 3T and 7T MRI (Prisma/Terra Siemens), PET scan (Siemens), electrophysiology labs (High-density EEG, EEG-TMS, EEG-fMRI, sleep unit), radiochemistry lab and cyclotron (IBA). All within the same building.

¹ Application to permanent FNRS position is < 10y (+1y per child) from PhD award ; to ERC starting grant < 10y (+ 1.5y per child); to ERC consolidator grant < 15y (+ 1.5y per child).

- ▶ **Human scale:** 4 to 10 people per team within the same building.
- ▶ **Connected:** collaborations with renown imaging centres in Germany (e.g. Max Planck Leipzig, DZNE Bonn) and UK (e.g. FIL, London); former members of OHBM council and of other important scientific societies (e.g. ESRS).
- ▶ **Multimodal local databases available**
- ▶ **Productive:** over the past 5 years: 100 papers / year in Q1 journals, ~10 PhD theses / year (see annex for a selection)
- ▶ **Successful:** over the last 5 years, >30 national/EU grants (see annex for a selection)
- ▶ Part of the [GIGA-Institute](#), Biomedical Research Center of Excellence in a dynamic public university, at the crossroad of engineering, science, psychology and medicine faculties.

○ QUALITY OF LIFE

- ▶ Liège is an **affordable** city, well connected to other major cities.
- ▶ Green & pleasant campus
- ▶ Family friendly & **welcoming** community
- ▶ Administrative support offered to help installation
- ▶ Collaborative mindset between PIs

HOW TO APPLY ?

Applicants are invited to apply **as soon as possible and before June 15th, 2026**. A first round of interviews will be conducted online for shortlisted candidates and onsite visits will be organised for a subset of candidates.

The contract is meant to start upon selection or October 2026 at latest or as soon as possible after that. Please prepare for your application the following documents in one, merged PDF:

- ▶ CV (including a short biosketch);
- ▶ Contact information for three referees that can be contacted;
- ▶ A 3-year research plan (maximum 3 pages), also including your personal qualifications, research interests, and motivations.

The application has to be sent to Gilles Vandewalle (gilles.vandewalle@uliege.be) & Fabienne Collette (f.collette@uliege.be), co-directors of the platform and by specifying the reference of the call (7T-SENIORPOSTDOC-2026).

SELECTION PROCEDURE

Step 1 – Eligibility Screening (until end June 2026)

All applications will be reviewed as they are received to verify eligibility requirements (PhD awarded 5–10 years ago, documented experience in 7T MRI, complete application file). Only complete applications submitted before December 2026 will be considered.

Step 2 – Scientific Pre-evaluation (June 2026 – July 2026)

Eligible applications will be assessed by the selection committee based on scientific excellence, relevance of the research plan, and alignment with the research environment. A shortlist of candidates will be established.

Step 3 – First-round Online Interview (after July 2026)

Shortlisted candidates will be invited to a first interview held online via Microsoft Teams.

This interview focuses on the candidate's scientific profile, research plan, and motivation.

Our institutional policy is based on diversity and equal opportunities. We select candidates based on their qualifications, regardless of their age, sexual orientation, origin, beliefs, disability, or nationality.

SELECTION CRITERIA

Scientific Excellence & Experience

- ▶ Between **5 and 10 years after PhD award**
- ▶ Demonstrated expertise with **7 Tesla MRI** (acquisition, analysis, or sequence development)
- ▶ Strong publication record (Q1 journals, relevant neuroimaging fields)
- ▶ Evidence of autonomy in leading research (first-author or senior-author works)

Research Plan Quality

- ▶ Ambitious and innovative **3-year research plan**
- ▶ Clear justification for using **7T MRI**
- ▶ Originality, methodological rigour, and feasibility within ULiège infrastructure
- ▶ Potential to contribute to collaborative projects within GIGA-CRC Human Imaging

Strategic Fit & Career Development

- ▶ Strong motivation to obtain a **permanent research position** via FNRS or ERC application
- ▶ Clear potential for obtaining competitive grants
- ▶ Alignment or complementarity with the unit's research themes

Collaborative and Communication Skills

- ▶ Ability to work in multidisciplinary teams (biologists, clinicians, physicists, engineers)
- ▶ Excellent communication skills in English (spoken and written)
- ▶ Experience in mentoring students or leading small teams is an asset

Institutional Fit & Engagement

- Motivation to contribute to the research community at ULiège
- Willingness to engage with local facilities and databases

FURTHER INFORMATION

For any further information regarding the nature of the tasks or the procedure, contact Gilles Vandewalle (gilles.vandewalle@uliege.be).

Publication date: 02/04/2026

Information regarding the processing of your personal data

The personal data collected as part of your application will be processed by Gilles Vandewalle and Fabienne Collette at the University of Liège for the purposes of organising the selection and recruitment process.

Data will be processed based on the performance of pre-contractual measures (Art. 6-1(b) of the GDPR).

The data will be retained for the entire duration of the selection procedure and, at most, for 9 months after the publication of the job offer. This data will not be shared with third parties.

In accordance with the provisions of the General Data Protection Regulation (EU 2016/679), you may exercise your rights relating to this personal data (right of access, rectification, erasure, restriction, and data portability) by contacting the Data Protection Officer of ULiège (dpo@uliege.be – Data Protection Officer, Building B9 “GDPR Unit”, Quartier Village 3, Boulevard de Colonster 2, 4000 Liège, Belgium).

You also have the right to lodge a complaint with the Data Protection Authority (<https://www.autoriteprotectiondonnees.be>, contact@apd-gba.be).

SELECTION OF RECENT PUBLICATIONS OF GIGA-CRC-HI

Sleep, Fatigue, Mind Blanking

Talwar P, Mortazavi N, Koshmanova E, Muto V, Gasparello A, Degueldre C, Berthomier C, Collette F, Bastin C, Phillips C, Maquet P, Zubkov M, Vandewalle G. Age-Related Differences in the Association between REM Sleep and the Polygenic Risk for Parkinson's Disease. *Ann Neurol*. 2026 Apr;99(4):922-934. doi: 10.1002/ana.78112.

Campbell I, Balda Aizpurua JF, Sharifpour R, Paparella I, Beckers E, Mortazavi N, Read J, Phillips C, Collette F, Talwar P, Lamalle L, Zubkov M, Vandewalle G. Regional activity within the human amygdala varies with season, mood and illuminance. *Nat Commun*. 2025 Dec 22;16(1):11559. doi: 10.1038/s41467-025-67715-3.

Mortazavi N, Talwar P, Koshmanova E, Sharifpour R, Beckers E, Berger A, Campbell I, Paparella I, Balda F, Dardour Hamzaoui I, Berthomier C, Bastin C, Phillips C, Maquet P, Collette F, Zubkov M, Lamalle L, Vandewalle G. REM sleep quality is associated with balanced tonic activity of the locus coeruleus during wakefulness. *J Biomed Sci*. 2025 Mar 11;32(1):35. doi: 10.1186/s12929-025-01127-9.

Guillemin C, Hammad G, Read J, Requier F, Charonitis M, Delrue G, Vandeleeene N, Lommers E, Maquet P, Collette F. Pupil response speed as a marker of cognitive fatigue in early Multiple Sclerosis. *Mult Scler Relat Disord*. 2022 Sep;65:104001. doi: 10.1016/j.msard.2022.104001.

Mortaheb S, Van Calster L, Raimondo F, Klados MA, Boulakis PA, Georgoula K, Majerus S, Van De Ville D, Demertzi A. Mind blanking is a distinct mental state linked to a recurrent brain profile of globally positive connectivity during ongoing mentation. *Proc Natl Acad Sci U S A*. 2022 Oct 11;119(41):e2200511119. doi: 10.1073/pnas.2200511119.

Healthy & Pathological Aging

Bennis K, Canal-Garcia A, Pereira JB, Volpe G, Eustache F, Phillips C, Bastin C, Collette F, Vandewalle G, Hinault T. Diurnal dynamics of multilayer brain networks predict cognitive trajectories in aging. *Geroscience*. 2025 Dec 4. doi: 10.1007/s11357-025-01974-2.

Gardette J, Besson G, Baillet M, Rizzolo L, Narbutas J, Van Egroo M, Chylinski D, Maquet P, Salmon E, Vandewalle G, Collette F, Bastin C. Individual differences in anterograde memory for details relate to posterior hippocampal volume. *Cortex*. 2025 Apr;185:64-73. doi: 10.1016/j.cortex.2025.01.012.

Salmon E, Collette F, Bastin C. Cerebral glucose metabolism in Alzheimer's disease. *Cortex*. 2024 Oct;179:50-61. doi: 10.1016/j.cortex.2024.07.004.

Delhaye E, Besson G, Bahri MA, Bastin C. Object fine-grained discrimination as a sensitive cognitive marker of transentorhinal integrity. *Commun Biol*. 2025 May 25;8(1):800. doi: 10.1038/s42003-025-08201-w

Servais A, Barbeau EJ, Bastin C. Contextual novelty detection and novelty-related memory enhancement in amnesic mild cognitive impairment. *Cortex*. 2024 Mar;172:72-85. doi: 10.1016/j.cortex.2023.12.005.

Clinical trials

Chételat G, Lutz A, Klimecki O, Frison E, Asselineau J, Schlosser M, Arenaza-Urquijo EM, Mézenge F, Kuhn E, Moulinet I, Touron E, Dautricourt S, André C, Palix C, Ourry V, Felisatti F, Gonneaud J, Landeau B, Rauchs G, Chocat A, Quillard A, Devouge EF, Vuilleumier P, de La Sayette V, Vivien D, Collette F, Poinsel G, Marchant NL; Medit-Ageing Research Group. Effect of an 18-Month Meditation Training on Regional Brain Volume and Perfusion in Older Adults: The Age-Well Randomized Clinical Trial. *JAMA Neurol.* 2022 Nov 1;79(11):1165-1174. doi: 10.1001/jamaneurol.2022.3185

Willems S, Didone V, Cabello Fernandez C, Delrue G, Slama H, Fery P, Goin J, Della Libera C; COVCOG Group; Collette F. COVCOG: Immediate and long-term cognitive improvement after cognitive versus emotion management psychoeducation programs - a randomized trial in covid patients with neuropsychological difficulties. *BMC Neurol.* 2023 Aug 18;23(1):307. doi: 10.1186/s12883-023-03346-9.

Cabello Fernandez C, Didone V, Lesoinne A, Slama H, Fery P, Rousseau AF, Moutschen M; COVCOG group; Collette F, Willems S. Cognitive and affective psychoeducation for Long COVID: a randomized controlled trial. *Brain Commun.* 2025 Nov 11;7(6):fcf447. doi: 10.1093/braincomms/fcf447.

Other - Methods

Tabelow K, Balteau E, Ashburner J, Callaghan MF, Draganski B, Helms G, Kherif F, Leutritz T, Lutti A, Phillips C, Reimer E, Ruthotto L, Seif M, Weiskopf N, Ziegler G, Mohammadi S. hMRI - A toolbox for quantitative MRI in neuroscience and clinical research. *Neuroimage.* 2019 Jul 1;194:191-210. doi: 10.1016/j.neuroimage.2019.01.029.

Campbell I, Sharifpour R, Balda Aizpurua JF, Beckers E, Paparella I, Berger A, Koshmanova E, Mortazavi N, Read J, Zubkov M, Talwar P, Collette F, Sherif S, Phillips C, Lamalle L, Vandewalle G. Regional response to light illuminance across the human hypothalamus. *eLife.* 2024 Oct 28;13:RP96576. doi: 10.7554/eLife.96576.

Paparella I, Cardone P, Zanichelli B, Lamalle L, Collette F, Sherif S, Zubkov M, Clarke WT, Stagg CJ, Maquet P, Vandewalle G. 7 Tesla magnetic resonance spectroscopy estimates of GABA concentration relate to physiological measures of tonic inhibition in the human motor cortex. *J Physiol.* 2025 May;603(9):2821-2838. doi: 10.1113/JP287311.

SELECTION OF INTERNATIONAL GRANTS OF GIGA-CRC-HI

- 2025-2028 “HISTOPARK – MRI-based *in vivo* histology of disease progression in early stage PD **EU Joint Programme Neurodegenerative Disease Research (JPND)**, with Max Planck Institute Leipzig, U. Amsterdam, U. Pécs (Hungary), Sorbonne-Université, Mc Gill University
- 2024-2030 “NEUROINFLAM-ALZ: Neuroimaging of the contribution of neuroinflammation to Alzheimer’s disease” **Fondation Roger De Spoelberch**

- 2022-2025 “IRONSLEEP – Early stage neuroimaging and behavioral biomarkers of PD progression and underlying mechanisms” **EU Joint Programme Neurodegenerative Disease Research (JPND)**, with Max Planck Institute Leipzig, U. Amsterdam and U. Pécs (Hungary)
- 2021-2024 “SCAIFIELD – Spinocerebellar ataxias: Advanced imaging with ultra-high field MRI “ **EU Joint Programme Neurodegenerative Disease Research (JPND)**, with DZNE Bonn, NTNU Trondheim, U Ankara
- 2020-2024 “LIGHTCAP: Light, cognition, attention, perception” **EU Innovative Training Networks (ITN)**, with EPFL, TU Berlin, TU Eindhoven, U. Basel, U. Manchester, U. Sheffield.
- 2018-2022 “COGNAP – To nap or not to Nap? Why napping habits interfere with cognitive fitness in ageing” **ERC-Starting Grant**
- 2016-2021 “MEDIT-AGEING – Investigating the impact of meditation training on mental health and wellbeing in the ageing population”, **Horizon 2020 Grant**, with INSERM, U Geneva, King’s College London, U Cologne, HC Lyon, IDIBAPS, ECRIN, IT, Minerva Health & Care Communications Ltd.