

## Dr. Geert Verheyden PT PhD FESO



**Appointments:** Professor, Stroke Rehabilitation Research Lead,  
KU Leuven – University of Leuven, Belgium  
Program Lead BSc and MSc programs Rehabilitation Sciences and  
Physiotherapy

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### Education:

2006 PhD Rehabilitation Sciences and Physiotherapy, KU Leuven  
1998 MSc Advanced Neurological Rehabilitation, KU Leuven (great distinction)  
1997 MSc Rehabilitation Sciences and Physiotherapy, KU Leuven (distinction)

### Previous appointments:

2016-2021 Associate Professor, KU Leuven, Belgium  
2011-2016 Assistant Professor, KU Leuven, Belgium  
2010-2011 Professor of Neurorehabilitation, University of Applied Sciences, Bochum, Germany  
2006-2010 Roberts Fellow Neurosciences, Faculty of Health Sciences, Univ. of Southampton, UK  
2000-2006 Research Assistant, Department of Rehabilitation Sciences, KU Leuven, Belgium  
1998-2000 Physiotherapist, Kiliani-Klinik, Bad Windsheim, Germany

### Academic profile:

Verheyden holds a PhD in Rehabilitation Sciences and Physiotherapy (KU Leuven 2006) and is since 2011 Stroke Rehabilitation Research Lead (Professor since 2021) investigating sensorimotor assessment, recovery and rehabilitation. His work is funded through KU Leuven, FWO, Belgian Health Ministry, EU Horizon 2020 and international grants, with >130 publications and an h-index of 38. He currently (co-)supervises 1 postdoc and 9 PhD researchers (6 as lead promotor) and (co-)supervised 5 postdoc and 10 PhD researchers to date.

Verheyden was Belgian PI for the international phase III RCT VIRTUES, evaluating additional virtual reality therapy for the upper limb, leading to class I evidence published in *Neurology* (Brunner et al. 2017). He was co-PI on an EU Horizon 2020 Eurostars project that developed novel rehabilitation technology for trunk training after stroke through a collaboration between academia and industry (Thijs et al. 2021). Currently, he leads 3 significant projects as lead PI: (1) the provision of a 90-hour intensive motor therapy program combining therapy and technology for people with stroke and spinal cord injury in the chronic phase (funded by the Belgian Health Ministry – 1,2M euro – 2022-2025); (2) the provision of a specific upper limb rehabilitation package in the early subacute phase after stroke (funded by research fund Flanders (FWO) – 1M euro – 2023-2027); and (3) the provision of a sensorimotor upper limb program combined with a transfer-to-ADL package for people in the chronic phase after stroke (funded by KU Leuven – 335k euro – 2023-2027).

Verheyden is executive committee member of the International Stroke Rehabilitation and Recovery Alliance (lead: Julie Bernhardt), chair of the Neurorehabilitation committee of the European Stroke Organisation (ESO) and he leads the first ESO guidelines on motor rehabilitation after stroke.

Verheyden is also an enthusiastic educator and currently program lead for the 3-year BSc and 2-year MSc programs rehabilitation sciences and physiotherapy, including in total around 1500 national and 50 international students. His responsibility lies in curriculum optimization and alignment with university and faculty educational policy, as well as quality control.

#### Key publications from the last 5 years:

- Van Criekinge T, Heremans C, BurrIDGE J, Deutsch JE, Hammerbeck U, Hollands K, Karthikbabu S, Mehrholz J, Moore JL, Salbach NM, Schröder J, Veerbeek JM, Weerdesteyn V, Borschmann K, Churilov L, **Verheyden G**, Kwakkel G. Standardized measurement of balance and mobility post-stroke: Consensus-based core recommendations from the third Stroke Recovery and Rehabilitation Roundtable. *Int J Stroke*. 2023 Oct 12:17474930231205207. doi: 10.1177/17474930231205207. Epub ahead of print.
- Kwakkel G, Stinear C, Essers B, Munoz-Novoa M, Branscheidt M, Cabanas-Valdés R, Lakičević S, Lampropoulou S, Luft AR, Marque P, Moore SA, Solomon JM, Swinnen E, Turolla A, Alt Murphy M, **Verheyden G**. Motor rehabilitation after stroke: European Stroke Organisation (ESO) consensus-based definition and guiding framework. *Eur Stroke J*. 2023 Aug 7:23969873231191304. doi: 10.1177/23969873231191304. Epub ahead of print.
- Bernhardt J, Corbett D, Dukelow S, Savitz S, Solomon JM, Stockley R, Sunnerhagen KS, **Verheyden G**, Walker M, Murphy MA, Bonkhoff AK, Cadilhac D, Carmichael ST, Dalton E, Dancause N, Edwards J, English C, Godecke E, Hayward K, Kamalakannan S, Kim J, Kwakkel G, Lang CE, Lannin N, Levin M, Lynch E, Mead G, Saa JP, Ward N. The International Stroke Recovery and Rehabilitation Alliance. *Lancet Neurol*. 2023 Apr;22(4):295-296.
- Thijs L, Voets E, Denissen S, Mehrholz J, Elsner B, Lemmens R, **Verheyden GS**. Trunk training following stroke. *Cochrane Database Syst Rev*. 2023 Mar 2;3(3):CD013712. doi: 10.1002/14651858.CD013712.pub2.
- Michiels L, Thijs L, Mertens N, Sunaert S, Vandenbulcke M, Bormans G, **Verheyden G**, Koole M, Van Laere K, Lemmens R. In Vivo Detection of Neurofibrillary Tangles by <sup>18</sup>F-MK-6240 PET/MR in Patients With Ischemic Stroke. *Neurology*. 2023 Jan 3;100(1):e62-e71.
- Michiels L, Thijs L, Mertens N, Coremans M, Vandenbulcke M, **Verheyden G**, Koole M, Van Laere K, Lemmens R. Longitudinal Synaptic Density PET with <sup>11</sup>C-UCB-J 6 Months After Ischemic Stroke. *Ann Neurol*. 2022 Dec 31. doi: 10.1002/ana.26593.
- Moore SA, Boyne P, Fulk G, **Verheyden G**, Fini NA. Walk the Talk: Current Evidence for Walking Recovery After Stroke, Future Pathways and a Mission for Research and Clinical Practice. *Stroke*. 2022 Nov;53(11):3494-3505.
- Saenen L, Orban de Xivry JJ, **Verheyden G**. Development and Validation of a Novel Robot-Based Assessment of Upper Limb Sensory Processing in Chronic Stroke. *Brain Sci*. 2022 Jul 29;12(8):1005.
- Wiskerke E, Kool J, Hilfiker R, Sattelmayer KM, **Verheyden G**. Determining the Optimal Virtual Reality Exergame Approach for Balance Therapy in Persons With Neurological Disorders Using a Rasch Analysis: Longitudinal Observational Study. *JMIR Serious Games*. 2022 Mar 22;10(1):e30366.
- Essers B, Coremans M, Veerbeek J, Luft A, **Verheyden G**. Daily Life Upper Limb Activity for Patients with Match and Mismatch between Observed Function and Perceived Activity in the Chronic Phase Post Stroke. *Sensors (Basel)*. 2021 Sep 2;21(17):5917.
- Thijs L, Voets E, Wiskerke E, Nauwelaerts T, Arys Y, Haspelslagh H, Kool J, Bischof P, Bauer C, Lemmens R, Baumgartner D, **Verheyden G**. Technology-supported sitting balance therapy versus usual care in the chronic stage after stroke: a pilot randomized controlled trial. *J Neuroeng Rehabil*. 2021 Jul 28;18(1):120.
- Pohl J, Held JPO, **Verheyden G**, Alt Murphy M, Engelter S, Flöel A, Keller T, Kwakkel G, Nef T, Ward N, Luft AR, Veerbeek JM. Consensus-Based Core Set of Outcome Measures for Clinical Motor Rehabilitation After Stroke-A Delphi Study. *Front Neurol*. 2020 Sep 2;11:875. doi: 10.3389/fneur.2020.00875.
- Denissen S, Staring W, Kunkel D, Pickering RM, Lennon S, Geurts AC, Weerdesteyn V, **Verheyden GS**. Interventions for preventing falls in people after stroke. *Cochrane Database Syst Rev*. 2019 Oct 1;10(10):CD008728.

Full list of publications: <http://lirias.kuleuven.be/cv?Username=u0029759>