Philip Van Damme

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Career:

1999	MD, University of Leuven (KU Leuven)
2004	PhD, University of Leuven (KU Leuven)
2006	Neurologist, University of Leuven (KU Leuven)
2006	Member of Staff of the Neurology Department, University Hospital Leuven
2008	Associate professor, University of Leuven (KU Leuven)
2008	Staff Scientist, Vesalius Research Center, VIB
2013	Director Neuromuscular Reference Center, University Hospital Leuven

Keywords
Neurodegeneration - amyotrophic lateral sclerosis - frontotemporal lobar degeneration – progranulin - C9orf72 – TDP-43 – FUS – VEGF - iPSC

Science

My main focus is on the diagnosis and multidisciplinary care for ALS and ALS/FTLD patients in combination with clinical and basic research activities. Clinical research activities include genetic, imaging, electrophysiological and biomarker studies, as well as phase I-III clinical trials. Basic research activities include generation of small animal models, rodent models and stem cell models for ALS and FTLD, and use them to attempt to identify and validate molecular targets for the treatment of these diseases.

Selected publications

Philip Van Damme and Wim Robberecht. Clinical implications of recent breakthroughs in amyotrophic lateral sclerosis. *Current Opinion in Neurology* 2013, 26(5):466-72.

Sarah Debray, Valérie Race, Veerle Crabbé, Sarah Herdewyn, Gert Matthijs, An Goris, Bénédicte Dubois, Vincent Thijs, Wim Robberecht and **Philip Van Damme**. Frequency of C9orf72 repeat expansions in ALS: a Belgian cohort study. *Neurobiology of aging* 2013, 34(12):2890.e7-2890.e12.

Louis De Muynck, Sarah Herdewyn, Sander Beel, Wendy Scheveneels, Ludo Van Den Bosch, Wim Robberecht and **Philip Van Damme**. The neurotrophic properties of progranulin depend on the granulin E domain but do not require sortilin binding. *Neurobiology of aging* 2013, 34(11):2541-2547.

Thomas Philips, Andre Bento-Abreu, Annelies Nonneman, Wanda Haeck, Kim Staats, Veerle Geelen, Nicole Hersmus, Benno Küsters, Ludo Van Den Bosch, **Philip Van Damme**, William D. Richardson and Wim Robberecht. Oligodendrocyte dysfunction in the pathogenesis of amyotrophic lateral sclerosis. *Brain* 2013, 136:471-82.

Annelies Van Hoecke, Lies Schoonaert, Robin Lemmens, Mieke Timmers, Kim A Staats, Angela S Laird, Elke Peeters, Thomas Philips, An Goris, Benedicte Dubois, Peter Andersen, Ammar Al-Chalabi, Vincent Thijs, Ann M Turnley, Paul W van Vught, Jan H Veldink, Ludo Van Den Bosch, Paloma Gonzalez-Perez, **Philip Van Damme**, Robert H Brown Jr, Leonard H van den Berg, Wim Robberecht. EPHA4 is a disease modifier of amyotrophic lateral sclerosis in animal models and in humans. *Nature Medicine* 2012, 18(9):1418-22.

Sarah Herdewyn, Hui Zhao, Mathieu Moisse, Valérie Race, Gert Matthijs, Joke Reumers, Benno Kusters, Helenius J. Schelhaas, Leonard H. van den Berg, An Goris, Wim Robberecht, Diether Lambrechts and **Philip Van Damme**. Whole-genome sequencing reveals a coding non-pathogenic variant tagging a non-coding pathogenic hexanucleotide repeat expansion in *C9orf72* as cause of amyotrophic lateral sclerosis. *Human Molecular Genetics* 2012, 21(11):2412-2419.

Constantin d'Ydewalle, Jyothsna Krishnan, Driss M. Chiheb, **Philip Van Damme**, Joy Irobi, Pieter Vanden Berghe, Vincent Timmerman, Wim Robberecht and Ludo Van Den Bosch. HDAC6 inhibitors reverse axonal loss in a mouse model of mutant HSPB1-induced Charcot-Marie-Tooth disease. *Nature Medicine* 2011, 17(8):968-74.

Philip Van Damme, Jan Herman Veldink, Marka van Blitterwijk, Anniek Corveleyn, Paul van Vught, Vincent N. Thijs, Bénédicte Dubois, Gert Matthijs, Leonard H. van den Berg, and Wim Robberecht. Expanded *ATXN2* CAG repeat size in ALS identifies genetic overlap between ALS and SCA2. *Neurology* 2011, 76:2066-2072.

Maarten Schrooten, Charlotte Smetcoren, Wim Robberecht, and **Philip Van Damme**. Benefit of the Awaji diagnostic algorithm for ALS, a prospective study. *Annals of Neurology* 2011, 70(1):79-83.

Kristel Sleegers, Nathalie Brouwers, **Philip Van Damme**, Sebastiaan Engelborghs, Ilse Gijselinck, Julie van der Zee, Karin Peeters, Maria Mattheijssens, Marc Cruts, Rik Vandenberghe, Peter P De Deyn, Wim Robberecht and Christine Van Broeckhoven. A serum biomarker for progranulin-associated frontotemporal lobar degeneration. *Annals of Neurology* 2009, 65(5):603-9.

Philip Van Damme, Annelies Van Hoecke, Diether Lambrechts, Peter Vanacker, Elke Bogaert, John van Swieten, Peter Carmeliet, Ludo Van Den Bosch and Wim Robberecht. Progranulin functions as a neurotrophic factor to regulate neurite outgrowth and enhance neuronal survival. *The Journal of Cell Biology* 2008, 181(1):37-41.

Philip Van Damme, Elke Bogaert, Maarten Dewil, Nicole Hersmus, Dora Kiraly, Wendy Scheveneels, Ilse Bockx, Dries Braeken, Nathalie Verpoorten, Kristien Verhoeven, Vincent Timmerman, Paul Herijgers, Geert Callewaert, Peter Carmeliet, Ludo Van Den Bosch, Wim Robberecht. From the cover: Astrocytes

regulate GluR2 expression in motor neurons and their vulnerability to excitotoxicity. *Proceedings of the National Academy of Sciences USA* 2007, 104(37):14825-14830.

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