Koen M.C.M. VANDENBROECK

EDUCATION & ACCREDITATION

1977 – 1983	Classical education (Latin-Greek) at Sint-Jozef-Klein-Seminarie, Sint-Niklaas, Belgium.
1984 – 1988	Master Degree in Zoology, division: Molecular Biology and Physiology, Zoological Institute, University of Leuven, Belgium. Master thesis: *"Role of interferon-γ in Semliki Forest Virus-induced inflammatory reactions of the CNS in mice"*
1989 – 1993	Ph.D. in the Molecular Biology, Rega Institute for Medical Research & Zoological Institute, University of Leuven, Belgium: *Summa cum laude*. Doctoral thesis: *"Porcine interferon-γ and interleukin-1β: gene sequence, cDNA synthesis, expression in Escherichia coli and purification of the recombinant proteins"*
2000 – 2001	Postgraduate Certificate in Higher Education Teaching (PGCHET), Queen's University of Belfast, Northern Ireland.
05/2004	Acreditación de Investigación (Agencia de la Calidad del Sistema Universitario de Cataluña – AQU).

CURRENT APPOINTMENT & ADMINISTRATIVE RESPONSIBILITY

10/2019 – now	**Ikerbasque Research Professor** and **Director of Inflammation & Biomarkers Group,** Biocruces Bizkaia Health Research Institute, Barakaldo & University of the Basque Country (UPV/EHU), Leioa, Spain**.**

RESEARCH EXPERIENCE, FELLOWSHIPS AND PREVIOUS APPOINTMENTS

11/2007–09/2019	**Ikerbasque Research Professor** and **Director of Neurogenomiks Group**, University of the Basque Country (UPV/EHU) & Achucarro Basque Center for Neuroscience, Leioa, Spain
06/2004–10/2007	**Chair in Applied Genomics**, School of Pharmacy, QUB, Belfast, UK.
10/2005–09/2006	**Visiting Professor in Genomics (sabbatical leave),** Centro de Investigación Cooperativa en Biociencias (CIC bioGUNE), Bilbao, Spain, funded by BIOEF (Basque Council for Health Research and Innovation).
10/2002–05/2004	**Senior Lecturer** in Biomolecular Sciences (tenured), Group Leader Cytokine Biology and Genetics Program, School of Pharmacy, Queen's University Belfast, UK.
09/1999–09/2002	**Allen J. McClay Lecturer** in Biomolecular Sciences (tenured), Group Leader Cytokine Biology and Genetics Program, School of Pharmacy, Queen's University Belfast, UK.
04/1996–08/1999	**Principal Investigator / Group Leader**, Rega Institute for Medical Research, Laboratory of Immunobiology, Leuven, Belgium.
02/1996–03/1996	**Postdoctoral research fellow** of the *Associazione Italiana Sclerosi Multipla* (AISM; elected by the AISM & financed by the national press action 'Trenta Ore per la Vita '95'), San Raffaele Scientific Institute – Department of Biotechnology (DIBIT), Milan, Italy.
06/1994–01/1996	**Postdoctoral research fellow** of the Commission of the European Communities, Human Capital and Mobility Program (Brussels, Belgium), San Raffaele Scientific Institute – DIBIT, Milan, Italy.
02/1994–05/1994	**Postdoctoral research fellow** of the *Istituto Superiore di Sanità* (Finanzamento Sclerosi Multipla '94), San Raffaele Scientific Institute –DIBIT, Milan, Italy.
10/1993–01/1994	**Postdoctoral research attaché** of the *Geconcerteerde Onderzoeksacties* (GOA), Rega Institute for Medical Research, University of Leuven, Belgium.
02/1989–09/1993	**Research assistant** of the Institute for Support of Scientific Research in Industry and Agriculture (IWONL, Brussels, Belgium), Rega Institute for Medical Research, University of Leuven, Belgium.

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INVITED BOOK EDITOR

'***Cytokine Gene Polymorphisms in Multifactorial Conditions***', ISBN**:** 0849336198, Taylor and Francis CRC Press, Boca Raton, Florida, USA. Published: 28 June 2006.

GUEST REVIEWS, COMMISSIONED & INVITED ARTICLES, EDITORIALS & CONTRIBUTED BOOK CHAPTERS

1. Jebari-Benslaiman S., Galicia-García U., Larrea-Sebal A., Olaetxea J.R., Alloza I., **Vandenbroeck K.**, Benito-Vicente A. and Martín, C: Pathophysiology of Atherosclerosis. *Int. J. Mol. Sci. 23*(6), 3346, **2022**. https://doi.org/10.3390/ijms23063346

2. Goikuria H., **Vandenbroeck K.** and Alloza I.: Inflammation in human carotid atheroma plaques. *Cytokine & Growth Factor Rev*. 39:62–70, **2018**. doi: 10.1016/j.cytogfr.2018.01.006.
3. **Vandenbroeck K.**: Controversies in Multiple Sclerosis: The era of GWAS is over – YES. *Mult. Scler. J.* 24(3):256–257, **2018** (Invited Opinion Article). doi: 10.1177/1352458517738059.
4. Alloza I., Goikuria H., Freijo M.M. y **Vandenbroeck K.**: Un estudio del transcriptoma de las células de músculo liso de placa de ateroma de la carótida identifica a BMP2 e IDs como reguladores cruciales de estabilidad de la placa de ateroma*. Genética Médica News*, 4 (81):27-29, **2017**.
5. Alloza I., Goikuria H., Freijo M.d.M. and **Vandenbroeck K.**: A role for autophagy in carotid atherosclerosis. *Eur. Stroke J.* 1(4):255–263, **2016**. doi: 10.1177/2396987316674085.
6. **Vandenbroeck K.**: Cytokine gene polymorphisms and human autoimmune disease in the era of genome-wide association studies. *J Interferon Cytokine Res.* 32:139–151, **2012**. doi: 10.1089/jir.2011.0103.
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8. McLaughlin M. and **Vandenbroeck K.**: The endoplasmic reticulum protein folding factory and its chaperones: new targets for drug discovery? *Br. J. Pharmacol*. 162:328–345, **2011**.
9. **Vandenbroeck K.** and Alloza I.: Capítulo 13: Farmacogenómica. In: *Tradado de Esclerosis Múltiple* (Ed. P. Villoslada), Marge Médica Books, Barcelona, pp. 319–327, **2010**.
10. **Vandenbroeck K.** and Comabella M.: Single nucleotide polymorphisms in response to interferon-β therapy in multiple sclerosis. *J. Interferon Cytokine Res. – Special Issue "Immunotherapy of Multiple Sclerosis"*, 30(10):727-732, **2010**.
11. **Vandenbroeck K.**, Urcelay E. and Comabella M.: IFN-β pharmacogenomics in multiple sclerosis. *Pharmacogenomics* 11(8):1137–1148, **2010**.
12. **Vandenbroeck K.**, Comabella M., Tolosa E., Goertsches R., Brassat D., Hintzen R., Infante–Duarte C., Favorov A., Escorza S., Palacios R., Oksenberg J.R. and Villoslada P.: Special Report – United Europeans for development of pharmacogenomics in multiple sclerosis network. *Pharmacogenomics* 10(5):885–894, **2009***.*
13. **Vandenbroeck K.** and Matute C.: Pharmacogenomics of the response to IFN-β in multiple sclerosis: ramifications from the first genome-wide screen. *Pharmacogenomics* 9(5):639–645, **2008** (Invited Opinion Article).
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16. **Vandenbroeck K.** and Goris A.: The *IFNG–IL26–IL22* gene cluster of cytokines. In: *Cytokine Gene Polymorphisms in Multifactorial Conditions* (Ed. K. Vandenbroeck), CRC Press, pp. 157–174, **2006**.
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24. Alcina A., Fedetz M., Vidal-Cobo I., Andrés-León E., García-Sánchez M.I., Barroso-del-Jesus A., Echau S., Gil-Varea E., Villar L.M., Saiz A., Leyva L., **Vandenbroeck K.**, Otaegui D., Izquierdo G., Comabella M., Urcelay E. and Matesanz F.: Identification of the genetic mechanism that associates L3MBTL3 to multiple sclerosis. *Hum. Mol. Genet.* 31(13):2155-2163, **2022**. doi: 10.1093/hmg/ddac009.

25. Jebari-Benslaiman S., Uribe K.B., Benito-Vicente A., Galicia-Garcia U., Larrea-Sebal A., Santin I., Alloza I., **Vandenbroeck K.**, Ostolaza H. and Martin C.: Boosting cholesterol efflux from foam cells by sequential administration of rHDL to deliver microRNA and to remove cholesterol in a triple-cell two-dimensional atherosclerosis model. *Small* 18(3):e2105915, **2022**. doi: 10.1002/smll.202106567.
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29. Jebari-Benslaiman S., Uribe K.B., Benito-Vicente A., Galicia-Garcia U., Larrea-Sebal A., Alloza I., **Vandenbroeck K.**, Ostolaza H. and Martin C.: Cholesterol efflux efficiency of reconstituted HDL is affected by nanoparticle lipid composition. *Biomedicines* 8(10):373, **2020**. doi: 10.3390/biomedicines8100373.
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35. Gómez-Fernández P., Urtasun A., Astobiza I., Mena J., Alloza I. and **Vandenbroeck K.**: Pharmacological targeting of the ER-resident chaperones GRP94 or cyclophilin B induces secretion of IL-22 binding protein isoform-1 (IL-22BPi1). *Int. J. Mol. Sci*. 20(10):2440, **2019**. doi: 10.3390/ijms20102440. Published in Special Issue *"Endoplasmic Reticulum Stress and Unfolded Protein Response"*.
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Zealand Multiple Sclerosis Genetics Consortium (ANZgene), and King C.: Response to interferon-beta treatment in multiple sclerosis patients: a genome-wide association study. *Pharmacogenomics J.* 17:312–318, **2017**. doi: 10.1038/tpj.2016.20.

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