Curriculum Vitae

Ludger JOHANNES
Date of birth: February 17, 1966
Place of birth: Bad Kreuznach, Germany
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Degrees

- 2001 — Habilitation to direct research (Paris XI University, Paris, France)
- 1995 — Ph.D. in Molecular and Cellular Pharmacology (Pierre et Marie Curie University, Paris)
- 1993 — Biochemistry diploma from the University of Bayreuth (Germany)

Positions

- Exceptional class Research Director (DRE) INSERM
- Deputy director of Chemical Biology of Cancer unit (UMR3666 CNRS – U1339 INSERM)

Fellowships and Honors

- 1988-ongoing Studienstiftung des deutschen Volkes (German sponsorship organization for the academically gifted, promoting excellence)
- 1993-ongoing Boehringer Ingelheim Fonds
- 1995-1997 BASF Forschungsprogramm Post-Doc Program
- 2004 Laureate of company creation award ANVAR
- 2012-ongoing Elected member of European Molecular Biology Organization (EMBO)
- 2013-2020 ERC advanced grant (project 340485)
- 2019-ongoing Elected member of the German National Academy of Sciences - Leopoldina

Professional Experience

- 2014-2024 Director of Cellular and Chemical Biology (UMR3666 CNRS – U1143 INSERM)
- 2006 Co-founder of ShigaMedix SAS, STxB Pharma Technologies Inc, ImunoTargets SAS: Cancer immunotherapy products
- Since 2001 Head of Traffic, Signaling and Delivery Laboratory (Curie Institute, Paris)
- 1997-2000 Project leader (Curie Institute, Paris): Shiga toxin as a tool to dissect pathways and mechanisms in membrane trafficking at the endosomes-TGN interface
- 1996-1997 Post-doctoral stay in the laboratory of Bruno Goud (Curie Institute, Paris): Study of the regulation of retrograde Golgi-to-ER transport by the GTPase Rab6
- 1993-1995 Thesis work in the laboratory of Jean-Pierre Henry (Institut de Biologie Physico-Chimique, Paris): Role of the GTPase Rab3a in calcium-dependent exocytosis

Administration of Science and Committee Membership

- Nominated member of the bureau of study sections 23 of CNRS (2008-2012) and CSS3 of INSERM (2012-2016): Recruitment of CNRS and INSERM staff members at research scientist and research director levels, promotion, evaluation of research careers and units
- Review panels for Academy of Finland (2006), Human Frontier Science Program Organization (2008-2011), Science Academy of Ireland (2018), HCERES (2008-ongoing)

Consultancy and Transfer Activities

- Consultant to Select Therapeutics Inc (Boston, USA) 1997-2001, ShigaMediX SAS (Paris, France) 2006-2009, Cenix Bioscience (Dresden, Germany) 2009-2012, STxB Pharma Technologies (Canada) 2012-2014
- Coordinator of translational research programs (PIC) on therapeutic and diagnostic delivery at the Curie Institute (2004-2007 and 2011-2014)
- Co-founder of ShigaMedix SAS (2006), STxB Pharma Technologies Inc and ImmunoTargets SAS (2012)

Mentoring

- 17 PhD students and 25 postdocs, all of whom have found work after leaving the lab; 15 postdocs in stable positions in relation to academic research, 9 as team leaders and/or professors
- Teaching in several Master 2 classes, including the organization of a 1-week practical for the Molecular Biology of the Cell course at the Pasteur Institute (1998-2013)

Editorial Activities

- Academic Editor at PLoS One (since 2010)
- Editorial Board of Traffic (2009-2019), The American Journal of Physiology - Gastrointestinal and Liver Physiology (2003-2014), and Biology of the Cell (since 2004)
- Editor of the review book "Recent Research Developments on Toxins", Research Signpost
- Reviewer for scientific journals including Cell, Science, Nature, Nature Cell Biology…

Publications and Conferences

- 245 peer-reviewed articles published since 1993
- 17 publications (original publications and reviews) as first, last, or co-last author in journals with highest international visibility (Nature 2007 and 2015; Cell 2008, 3x 2010, 2016; NCB 2010, 2014, 2016, 2021, 2025; Nat Chem Biol 2020; Nat Commun 2021 and 2025; Nat Rev Microbiol 2010; Nat Rev Mol Cell Biol 2015)
- 26,164 citations (https://scholar.google.fr/citations?user=8QZVKTEAAAAJ&hl=fr), h-factor 84
- 14 patent applications, 6 of which are delivered, under industrial exploitation
- Invited speaker at 130 international meetings, including EMBO (16x), Gordon (6x), ASCB (4x), Glyco (3x), ETOX (2x), FASEB, Keystone, Annaberg, Naito Foundation, Titisee conferences...
- Organization of *INSERM Workshops n°120* in 2000, and *n°224* in 2013; workshop session at 2004 *ELSO conference*; international meeting of the *French Society for Cell Biology* (SBCF) in 2005; vice-chair of the 13th EMBO endocytosis conference 2013, and chair for the 14th in 2015; *ASCB minisymposium* chair in 2014; *PSL Chemical Biology* at *Institut Curie* in 2015, 2019 and 2023; session chair at *Glycolipid and Sphingolipid Biology Gordon Conference* in 2016 and at *19th GEM Meeting*, Roscoff (France) in 2017; *EMBO Workshop on Galectins* in 2016; international 2019 *BioPhEE meeting*, Mandelieu (France); 4th Molecular basis for membrane remodeling and organization Jacques Monod conference, Roscoff (France) in 2022
- Invited seminars in the US, Canada, Australia, Japan, India, Singapore, China, Argentina, Germany, England, Holland, Switzerland, Sweden, Italy, Poland, Portugal, Denmark, Norway, Sweden, Finland, Spain, and Taiwan

Key Publications in last 5 Years (last author papers)

- Shafaq-Zadah M, (…), Johannes L. 2025. Spatial N-glycan rearrangement on α5β1 integrin nucleates galectin-3 oligomers to determine endocytic fate. *Nat Commun* 16: 9461 (impact factor 17.694)
- MacDonald E, (…), Johannes L. 2025. Growth factor-triggered desialylation controls glycolipid-lectin driven endocytosis. *Nat Cell Biol* 27: 449-463 (impact factor 21.3)
- Billet A, (…), Johannes L. 2023. A synthetic delivery vector for mucosal vaccination. Biomaterials 302: 122298 (impact factor 15.304)
- Arumugam S, (…), Johannes L. 2021. Ceramide structure dictates glycosphingolipid nanodomain assembly and function. *Nat Commun* 12: 3675 (impact factor 17.694)
- Forrester A, (…), Johannes L. 2020. Functional dissection of the retrograde Shiga toxin trafficking inhibitor Retro-2. *Nat Chem Biol* 16: 327–336 (impact factor 16.174)