

# CURRICULUM VITAE

Prof. Dr. Adriano Aguzzi, MD, PhD hc, DVM hc, FRCP, FRCPATH

## 1. Personal information

Family name, First name: **AGUZZI, Adriano**  
Researcher unique identifier(s): **ORCID 0000-0002-0344-6708**  
Nationality: Italian and Swiss Date of birth: 01 December 1960  
URL for web site: <http://www.en.neuropathologie.usz.ch/Pages/default.aspx>

## 2. Education

1986 University of Freiburg Medical School (D): M.D. degree and German state license  
1985 Foreign medical graduates Exam in Medical Sciences USA: ECFMG  
1993 University of Zurich: Venia legendi in Neuropathology

## 3. Employment history

1993 Attending physician (Oberarzt) and Lecturer (Privat-Dozent) in Pathology and Neuropathology, University of Zürich  
1995 Director of the Swiss National Reference Center for Prion Diseases  
1997 Ordinarius (Full Professor, tenured) of Neuropathology and Director of the Institute of Neuropathology, University of Zürich (current)  
1998 Joint Professor of the Medical Faculty and Faculty of Natural Sciences, University of Zurich (current)

## 4. Institutional responsibilities

2002-present Interfaculty MD-PhD Committee; Chairman/Program Director, University of Zurich  
2003-2007 Board of Governors (ETH-Rat), Swiss Federal School of Technology (ETH)  
2000-2002 Associate Dean for Research, University of Zurich Medical School

## 5. Approved research projects (selection)

ERC Advanced Grant PRIONS: 2010-2015  
ERC Advanced Grant PRION2020: 2015-2020  
Swiss National Science Foundation: <http://p3.snf.ch/person-17343-Aguzzi-Adriano>  
Bundesamt für Gesundheit BAG: National Reference Center for Prion Diseases, 1998-present  
Clinical Research Priority Programs, UZH (<http://www.uzh.ch/en/research/medicine/clinic.html>):

- Small RNAs (coordinator): 2012-2018
- Human Hemato-lymphatic Diseases (partner), 2012-2018

EU projects (last 10 years):

- TSEUR (coordinator): 2005-2008
- LUPAS: 2009-2012
- PRIORITY: 2009-2013
- NEURINOX: 2012-2016

## 6. Supervision of junior researchers

Former students and postdocs who were awarded tenured professorships include S. Brandner (London), A. Behrens (London), M. Glatzel (Hamburg), M. Prinz (Freiburg), F. Heppner (Berlin), M. Heikenwälder (Munich), C. Sigurdson (UCSD), M. Zabel (Colorado State Univ).

## 7. Teaching activities

- Lectures and courses in neuropathology and virology at the Medical Faculty of UZH.
- Supervision of Master and doctoral students of the Medical and Science Faculties of UZH.
- Clinical training of resident physicians.

## 8. Memberships in panels and boards, scientific reviewing

- President, Board of Trustees, The Neuropath Foundation (since 2006)
- Director, Board of the European Brain Research Institute (2003-2010)
- Program Director, MD-PhD program, University of Zürich (since 2004)
- Member of the following Scientific Advisory Boards:
  - Italian Institute of Technology (since 2009)
  - Interdisciplinary Center for Neurosciences, Heidelberg, D (since 2002)
  - European Mouse Mutant Archive, Monterotondo, I (since 2000)

- Vienna Fund for Science and Technology, WWTF (since 2003)
- Patronage committees:
  - Postgraduate Program of the Universities of Zürich and Basel
  - Gen-Suisse Foundation, Berne
  - Sonnweid Alzheimer Foundation, Wetzikon CH
- Board of Trustees, International Forum for TSE and Food Safety, Berne CH
- Member of the Editorial Board of the following journals: *Science* (Board of Reviewing Editors since 2009), *Brain Pathology* (Deputy editor 1994-95). *Nature*, *Nature Medicine*, *Lancet*, *J. Neurosci.*: referee on a regular basis, *Swiss Medical Weekly* (Editor-in-Chief).

## 9. Active memberships and fellowships in scientific societies and academies

- 1996 Royal College of Pathology (MRCPath) and German Society of Neuropathology
- 1998 Swiss Society of Neuropathology (President: 1998-2002)
- 1998 EMBO Member (European Molecular Biology Organization)
- 1997 International Society of Neuropathology (Councilor 1997-99)
- 1997 SEAC (Spongiform Encephalopathy Advisory Committee, UK)
- 1999 International Society of Neurovirology
- 2000 Swiss Academy of the Medical Sciences (SAMW): individual member
- 2000 Verein Forschung für Leben (President 1999-2009)
- 2000 Italian Society of Virology: Honorary Member
- 2001 Austrian Academy of Sciences: Corresponding Member
- 2001 German Academy of Natural Sciences Leopoldina: Member
- 2014 Distinguished visiting professor, Technical University Munich.

## 10. Organisation of conferences

- Ernst Klenk Symposium, Center for Molecular Medicine Cologne, 2008
- Prion Diseases, Keystone Symposia, Snowbird, USA, 2005
- International Neuropathology Winter Meeting, St. Moritz, CH, every 2nd year 1994-2008
- Course in Neurodegenerative Diseases, Cold Spring Harbor, USA, 1998
- Prion biology and biochemistry in vitro and in vivo, EMBO Practical Course, 2003
- The Salvisberg Symposium, Bludenz 2017

## 11. Prizes, awards, fellowships

- 1995 Ernst Th. Jucker Prize, Zurich
- 1996 Royal College of Pathologists (London): FRCPath
- 1998 EMBO Gold Medal of the European Molecular Biology Organization, Lisbon
- 1998 Cloëtta Award, Zurich
- 1999 Ernst-Jung Prize for Medicine, Hamburg
- 1999 Tibor Greenwalt Lecturer, San Francisco
- 2000 Royal College of Physicians (London): FRCP
- 2000 Aschoff Medal, Freiburg
- 2000 Cameron Lecturer, Birmingham
- 2001 German Academy of Science (Leopoldina) Prize, Halle
- 2001 Medal of the Royal Swedish Academy of Medicine, Stockholm
- 2001 ICAAC Award and Lecture, Chicago
- 2003 Robert-Koch-Prize, Berlin
- 2004 Marcel-Benoist-Prize, Zurich
- 2004 Sheikh Hamdan Bin Rashid Al Maktoum Award for Medical Sciences, Dubai
- 2009 Premio A. Feltrinelli, Accademia Nazionale dei Lincei, Rome
- 2013 Hartwig Piepenbrock-DZNE Prize, Berlin
- 2014 Coopted by the Accademia di Scienze e Lettere (Istituto Lombardo)
- 2017 InBev-Baillet Latour Health Prize, Leuven
- 2019 NOMIS Distinguished Scientist Award

## Major scientific achievements (last 5 years)

- Aguzzi invented the first in vivo model of microglia depletion (*Nature Medicine*, 2005), which helped establishing that microglia possess a vigorous antiprion activity (*Nature Neuroscience*, 2008, *Journal of Experimental Medicine*, 2016).
- BSE and variant Creutzfeldt-Jakob disease start outside the brain, but eventually lead to a brain disease. In a series of groundbreaking papers between 1997 and 2005, Aguzzi identified the cell types and molecules that enable invasion of the brain by prions (*Nature*, 1997, *Nature Medicine*, 2001; *Neuron*, 2001, *Nature*, 1997, *Nature Medicine*, 1998; *Science*, 2000, *Nature*, 2003, *Nature Medicine*, 2001). The discovery that follicular dendritic cells are the “prion factories” in extracerebral tissue led him to identify their function as providers of the “eat-me” factor Mfge8 (*Journal of Experimental Medicine*, 2008). He found that FDCs are derived from ubiquitous perivascular cells (*Cell*, 2012).
- Aguzzi identified plasminogen as a prion carrier in blood (*Nature*, 2000, *Lancet* 2001). Also, Aguzzi improved the process for the differentiation of prion strains by fluorescence spectroscopy with polythiophenes (*Nature methods*, 2007). The affinity of polythiophenes for prions was the basis for preclinical therapeutic efforts, which proved that structural design can help finding anti-aggregation compounds (*Science Translational Medicine*, 2015).
- The Aguzzi lab found that PrP made by neurons prevents Schwann cells from developing chronic demyelination (*Nature Neuroscience*, 2010) by activating the G protein-coupled receptor Gpr126 (*Nature*, 2016). In addition to clarifying a question that had remained open for 30 years (“What is the normal function of PrPC?”), this finding could be important for the therapies of chronic neuropathies, common debilitating diseases with limited treatment options.
- Impact of research: Aguzzi published >400 scientific articles, >30 of which appeared in *Nature/Science/Cell*. These papers were referenced >47’000 times. Aguzzi’s “h-index” (Google Scholar) is 114. *Labor-Journal* reported twice that Aguzzi was the most cited neuropathologist and third-most cited neuroscientist in German speaking countries.

## Top publications as a senior author:

- Krautler, Nike Julia; Kana, Veronika; Kranich, Jan; Tian, Yinghua; Perera, Dushan; Lemm, Doreen; Schwarz, Petra; Armulik, Annika; Browning, Jeffrey L; Tallquist, Michelle; Buch, Thorsten; Oliveira-Martins, José B; Zhu, Caihong; Hermann, Mario; Wagner, Ulrich; Brink, Robert; Heikenwalder, Mathias; Aguzzi, Adriano (2012). Follicular dendritic cells emerge from ubiquitous perivascular precursors. **Cell**, 150(1):194-206.
- Aguzzi, Adriano; Gitler, Aaron D (2013). A template for new drugs against Alzheimer's Disease. **Cell**, 154(6):1182-1184.
- Aguzzi, Adriano; Barres, Ben A; Bennett, Mariko L (2013). Microglia: scapegoat, saboteur, or something else? **Science**, 339(6116):156-161.
- Sonati, Tiziana; Reimann, Regina R; Falsig, Jeppe; Baral, Pravas Kumar; O'Connor, Tracy; Hornemann, Simone; Yaganoglu, Sine; Li, Bei; Herrmann, Uli S; Wieland, Barbara; Swayampakula, Mridula; Rahman, Muhammad Hafizur; Das, Dipankar; Kav, Nat; Riek, Roland; Liberski, Pawel P; James, Michael N G; Aguzzi, Adriano (2013). The toxicity of antiprion antibodies is mediated by the flexible tail of the prion protein. **Nature**, 501(7465):102-106.
- Aguzzi, Adriano (2014). Neurodegeneration: Alzheimer's disease under strain. **Nature**, 512(7512):32-34.
- Küffer, Alexander; Lakkaraju, Asvin K. K; Mogha, Amit; Petersen, Sarah C; Airich, Kristina; Doucerain, Cédric; Marpakwar, Rajlakshmi; Bakirci, Pamela; Senatore, Assunta; Monnard, Arnaud; Schiavi, Carmen; Nuvolone, Mario; Grosshans, Bianka; Hornemann, Simone; Bassilana, Frederic; Monk, Kelly R; Aguzzi, Adriano (2016). The prion protein is an agonistic ligand of the G protein-coupled receptor Adrg6. **Nature**, 536(7617):464-468.

All publications are available via the ZORA Repertory of UZH:

<https://www.zora.uzh.ch/view/authorsnew/Aguzzi=3AA=3A=3A.html>