

CURRICULUM VITAE

- 1. FULL NAME** HARI, Riitta Kyllikki
- 2. DATE AND PLACE OF BIRTH** 16 January 1948, Mikkeli, Finland
- 3. CURRENT POSITION**
- **Academy Professor, Academy of Finland** 2010–2014
 - Professor (at Low Temperature Lab), Helsinki University of Technology 1996–
 - Head of Brain Research Unit (BRU), Low Temp Lab, Helsinki Univ Technol (TKK) 1982–
 - **Director of the Centre of Excellence on “Systems Neuroscience and Neuroimaging”** 2006–2011
 - Director of Aalto University’s research project “aivoAALTO – Bringing complex social interaction, decision-making, and cinematics into the brain imaging laboratory” 2009–
 - Coordinator of the national infrastructure “NEUROIMAGING” 2008–
 - Chief physician, Dept Clinical Neurophysiol/HUSLAB, HUCH (part-time) 2005–
- 4. EDUCATION AND TRAINING**
- Docent (Senior Lecturer) of Neurophysiology, University of Helsinki 1983
 - Specialist in Clinical Neurophysiology, University of Helsinki 1981
 - Doctor of Medical Sciences (PhD), University of Helsinki 1980
 - Licentiate of Medicine (MD), University of Helsinki 1974
- 5. PREVIOUS PROFESSIONAL APPOINTMENTS**
- Director of Advanced Magnetic Imaging Centre at TKK 2003–2009
 - Adjunct Professor, Neuroscience Center, University of Helsinki 2004–2007
 - Academy Professor (Academy of Finland); two periods 1991–1996 & 1999–2004
 - Consultant/Chief, Section of Neuromagnetism, Dept Clin Neurosci, HUCH (part-time) 1997–2004
 - Kyoto Univ Guest Professor (Faculty of Medicine, Dept Brain Pathophysiol) 1 mo 1994
 - Junior and Senior Research Fellow (Academy of Finland) 1982–1991
 - Visiting scientist, INSERM, starting up MEG at Ambroise Paré Hospital, Paris, 1 mo 1982
 - Specialist of Clinical Neurophysiology (HUCH, Depts Neurol & Neurosurg); tenure 1981–1982
 - Research Associate (Univ. Helsinki, Dept. Physiology), total 3 yrs 8 mo 1974–1978
- 6. RESEARCH AWARDS, HONOURS AND MAJOR STIPENDIARY SUPPORT**
- **National Academy of Sciences of the USA, Foreign Associate (by election only)** 2004–
 - Rodin Remediation Academy, corresponding/acting member (by election only) 1997–
 - Finnish Academy of Science and Letters (by election only) 1994–
 - Academia Europaea (by election only) 1993–
 - Doctor Honoris Causa, Faculty of Medicine, University of Kuopio, Finland 2005
 - Doctor Honoris Causa, Faculty of Sciences, University of Lisbon, Portugal 2003
 - Knight, First Class, of the Order of the White Rose of Finland 2002
 - **ERC Advanced Investigator Grant “Towards Two-Person Neuroscience”** 2009–2012
 - **Finnish Science Prize 2009** 2009
 - **Louis-Jeantet Prize for Medicine 2003 [& research grant] (Switzerland)** 2003
 - Justine and Yves Sergent Prize for Cognitive Neuroscience (Canada) 2002
 - 1st Curt-von-Euler Honorary Lecture [& Award] in Cognitive and Neurobiological Aspects of Reading and Language Development (Rodin Remediation Academy) 1999
 - Award for the Advancement of European Science (Körber Foundation, Germany) 1987
 - Writer Prize, Finnish Medical Association Duodecim, Finland 2007
 - Erkki Kivalo Prize and lecture (by Neurology Foundation, Finland) 2006
 - Physiologist of the Year (by Society for Physiology in Finland) 2003
 - ALVAR Prize by Finnish dyslexia societies 2001
 - **Matti Äyräpää Prize by the Finnish Medical Association Duodecim** 2001
 - EU's Research Infrastructure Neuro-BIRCH I–III, contractor/coordinator; 3 periods 1994–2003

- Human Frontier Science grant for Action Representation System; partner 1998–2001
- EU BioTech grant for Computerized Human Brain Atlas; partner 1997–2000

7. EDITORIAL BOARD MEMBERSHIPS etc.

- Editorial Board Member
 - Brain Topography: A Journal of Functional Neurophysiology 1987–
 - Psychiatry Research, section 'Neuroimaging' 1990–1996
 - Human Brain Mapping (assoc editor in 1999–2002) 1992–2003
 - Electroenceph and Clinical Neurophysiology (Clinical Neurophysiology 1999–) 1994–2005
 - NeuroImage 1995–2007
 - Neuroscience Research (Cognitive/Computational Neuroscience) 2000–
 - Cerebral Cortex 2005–
- Visiting Editor: Proc Natl Acad Sci USA (several times per year) 2004–
- International reviewer, Neuroscience Research 1994–2000
- Ad-hoc referee in (47 different) scientific journals, including Science, Nature, Nature Neuroscience, Proc Natl Acad Sci, Trends in Cogn Science

8. MEMBERSHIPS IN SCIENTIFIC SOCIETIES

- Councillor, Organization for Human Brain Mapping 1997–2000
- European Dana Alliance for the Brain, Founding Member 1996–
- Brain Research Society of Finland (Secretary 1980–1983 & President 1994–1997)
- Society for Clinical Neurophysiology in Finland (steering committee & secretary)
- Society for Physiol in Finland; Eur Neurosci Ass (ENA); Internat Brain Res Org (IBRO); Soc for Neurosci (USA); The Am Physiol Soc (USA)

9. OTHER ACADEMIC AND PROFESSIONAL ACTIVITIES

- Finnish Graduate School of Neuroscience, Founding member & Member of Board 1995–
- **Supervisor of 34 doctoral dissertations** (15 females, 19 males): 20 in medicine (neurology, psychiatry, clinical neurophysiology, neurosurgery, neuropediatrics, radiology, audiology), 9 in physics, 5 in psychology/cognitive science.
 [Elina Kaukoranta 1985 (*psychology*), Juha Huttunen 1987 (*clinical neurophysiology*), Jyrki Mäkelä 1988 (*neurology*), Jari Tiihonen 1989 (*psychiatry*), Sirkka-Liisa Joutsiniemi 1990 (*clinical neurophysiology*), Jari Karhu 1993 (*clinical neurophysiology*), Ritva Paetau 1994 (*neuropediatrics*), Nina Forss 1995 (*neurology*), Juha-Pekka Vasama 1995 (*audiology*), Sari Levänen 1996 (*neuropsychology*), Mikko Uusitalo 1997 (*physics*), Stephan Salenius 1997 (*psychiatry*), Karin Portin 1998 (*physics*), Simo Vanni 1998 (*neurology*), Veikko Jousmäki 1998 (*medical physics*), Päivi Helenius 1999 (*psychology*), Jussi Numminen 1999 (*neurosurgery*), Tommi Raij 2000 (*neurology*), Cristina Simoes 2002 (*physics*), Teija Silén 2003 (*neurology*), Sari Avikainen 2003 (*neurology*), Hanna Renvall 2003 (*radiology*), Juha Järveläinen 2005 (*radiology*), Tuukka Raij 2005 (*psychiatry*), Marjatta Pohja 2005 (*neurology*), Yevhen Hlushchuk 2007 (*radiology*), Mika Seppä 2007 (*physics*), Gina Caetano 2007 (*physics*), Topi Tanskanen 2008 (*psychology*), Lauri Parkkonen Jun 2009 (*physics*), Nuutti Vartiainen 2009 (*neurology*), Ville Renvall 2010 (*physics*), Sanna Malinen 2010 (*physics*), Miiu Kujala 2010 (*cognitive science*)]
- Partial (*ex officio*) supervision of 6 additional doctoral theses
- 6 PhD students currently under training
- **Supervisor of 31 long-term postdoctoral students** (physics 6, psychology 6, neurology 3, clin neurophysiol 2, neuroscience 4, bioengineering 3, otorhinoloryngol 3, optometry 1, physiology 1, biology 1; Canada 3, Denmark 1, Finland 5, France 2, Germany 5, Japan 8, Portugal 2, Taiwan 1, Ukraine 1, USA 2)
- Of all supervised and mentored graduate and post-doc students, 15 are currently professors (5 in Finland, 5 in USA, 3 in Japan, 1 in Taiwan, 1 in UK)
- Reviewer for 8 doctoral dissertations, official opponent for 5 doctoral dissertations (3 in Finland, 1 in UK, 1 in Sweden), reviewer for competence for 4 docentships (senior lecturers)
- **Reviewer for competence for professorships 28 times** (Canada 2, Check Republik 1, Finland 1, Germany 2, Israel 2, Italy 1, Sweden 1, Switzerland 1, UK 9, USA 8)
- Evaluation for competence for election to Royal Society Fellow (UK) x 2

- Mentor for NIH grants for US scientists in Finland x 2 (physics and physiology)
- **Founding member of Mustekala, later to become Neuromag company** **1989**
- Founder of CliniMEG, a research team to develop MEG's clinical applications 1997
- Member of Adv Board, Neuroinformatics Coordin Facil (INCF), Natnl Node Finland 2007–
- Member of the 3-person “Year 2006 Science Book” award evaluation board 2006–2007
- Evaluator of National Functional Brain Imaging Network in Portugal (3-person team) 2005–2006
- Consultation on imaging infrastructure, University of Copenhagen, Denmark 2004
- Evaluator of Centre of Cognitive Neuroscience, Univ of Turku (2-person team) 2003
- Evaluator of Cognitive Brain Science Group, Riken BSI, Japan (6-person team) 2001
- Evaluator of Turku PET Center (3-person team) 2000
- Member of the Selection Panel for the Wiley Young Investigator's Award (USA) 1998–2001
- Evaluation of candidates for the Geschwind-Rodin Prize 1998
- Member of the Advisory Panel ('Human Cognition') of the James S McDonnell Foundation Centennial Fellow Awards Program (USA) 1996–1998
- Member of Advis Council, Internat Assoc for the Study of Attention and Perform 1998–
- Finland–Taiwan Scientific Cooperation, Bilateral Exchange Program, Coordinator of Functional Brain Mapping 1998–2006
- Evaluation report on Medical Registration Data on the Use of 122-channel Neuromagnetometer for the Ministry of Health in Japan 1994
- Ad-hoc referee for national and international grant applications
Academy of Finland; Organization for Scientific Research (MRC-NWO); FWF – Fonds für Forderung der wissenschaftlichen Forschung (Austria); Groupement d'Intérêt Scientifique 'Sciences de la Cognition', CNRS (France); Life Sciences Foundation (The Netherlands); Medical Research Council (United Kingdom); Medical Research Council of Canada; Ministère de l'Éducation Nationale, de la Recherche et de la Technologie (France); National Science Foundation (USA); Netherlands Organization for Scientific Research, NWO; Sigrid Jusélius Foundation (Finland); Swiss National Science Foundation; The Wellcome Trust (Great-Britain); Mid-term evaluation of Neuro-IT Projects (EU)
- Board of Helsinki Collegium for Advanced Study, Vice member 2001–2003
- Vice-member of the STAKES Evaluation Board of Healthcare Methods 1999–2005
- Founding member of “NeuroHUT”, HUT Centrum for Neurosystems 1999
- Member of the Scientific Adv Board of the National PET Center, Turku, Finland 1996–
- Member of the Advisory Board of the BioMag Installation at HUCH 1995–1997
- Member of the Steering Committee of the BioMag Installation at HUCH 1992–1994 & 1997–1998
- Member of the General Committee, Integrated Studies on Physiological Functions, National Institute of Physiological Sciences, Okazaki, Japan 1989–1994
- Organizer of international scientific meetings (13 times)
Panel Biomagnetism in the Study of Human Brain; 5th Internat Confer in Biomagnetism, Vancouver, Canada [1985]; Satellite Symp on Magnetoencephalography; XXXI Internat Congr Physiol Sci, Helsinki [1989]; Symp 'Magnetoencephalography (MEG): Its Basis and Application to Study on Dynamic Functions of the Human Brain'; Fourth IBRO World Congress of Neurosci, Kyoto, Japan (with K. Sasaki) [1995]; NorFa Summer Course on Human Cortical Functions, Finland (with M. Sams) [1995]; Satellite Symp on Magnetoencephalography, X Internat Congress of EMG and Clinical Neurophysiology, Kyoto, Japan (with K. Sasaki & H. Shibasaki) [1995]; Symposium 'Magnetoencephalography'; Europ Congress of Clinical Neurophysiol, Munich, Germany [1996]; Symposium on 'Non-Invasive Study of Higher Brain Functions'; XXXIII Internat Congress of Physiol Sciences, St Petersburg, Russia (with M. Raichle) [1997]; Brain Imaging Symp; XX European Confer on Visual Perception (ECP), Helsinki, Finland [1997]; The 12th Internat Conference on Biomagnetism Biomag2000, Espoo, Finland (with T. Katila, R. Ilmoniemi, and M. Mäkijärvi) & Chair of the Scientific Program Committee (560 conference participants) [2000]; MEG workshop, XV Internat Congress of Clinical Neurophysiol, Buenos Aires, Argentina [2001]; MEG Intensive Course, Espoo, Finland [2003]; MEG and fMRI updates symposium, Nordic Congress of Clin Neurophysiol, Helsinki, Finland [2006]; 1-day Symposium on “Dynamical Somatosensory Receptive Fields”, Espoo, Finland [2006]; PENS Hertie Winter School on “Brain Basis of Social Interaction: From Concepts to Imaging”, Kitzbühel, Austria [2006]; BIOMAG2008, Vice-Chair of Program Committee (Japan)

- Member of Sci Adv Board/Program Committee of Internat Congresses (28 times)
Internat Symp on Advanced Evoked Potentials and Related Techniques in Clinical Neurophysiology: Basic Principles and Special Applications, Rome, Italy [1989]; XXXI Internat Congress of Physiol Sci, Helsinki, Finland [1989]; 5th Internat Confer on Brain Electromagn Topogr, Münster, Germany [1994]; New Directions in Cognitive Science. An Internat Symp, Saariselkä, Finland [1995]; First Internat Confer on Funct Mapping of the Human Brain, Paris, France [1995]; Brains and Illusions. Exhibition at the 'Heureka' Science Museum, Vantaa, Finland [1995–1996]; 8th Meeting of the Internat Organiz of Psychophysiol, Tampere, Finland [1996]; 10th Internat Confer on Biomagnetism, Albuquerque, New Mexico, USA [1996]; 2nd Internat Confer on Funct Mapping of the Human Brain, Boston, USA [1996]; Third Internat Hans Berger Congr 'Quantitative and Topological EEG and MEG Analysis', Jena, Germany [1996]; 3rd Internat Confer on Funct Mapping of the Human Brain, Copenhagen, Denmark [1997]; XX European Confer on Visual Perception (ECVP), Helsinki, Finland [1997]; 9th World Congress of Psychophysiology, Taormina, Sicily, Italy [1998]; Imaging of Normal and Abnormal Brain Functions, Espoo, Finland [1998]; Temporal Aspects of Human Cortical Processing – A Finnish-Japanese Workshop, Espoo, Finland [1998]; 11th Internat Confer on Biomagnetism, Sendai, Japan [1998]; 12th Internat Confer on Biomagnetism, Espoo, Finland [2000]; 10th Europ Congr of Clinical Neurophysiol, Lyon, France [2000]; Neuroscience in the Third Millennium, Casta, Slovenia [2002]; The Art of Reading: Texts, Pictures, Cultures. Rodin Remediation Academy. Munich, Germany [2002]; 2nd Peter Wallenberg Foundation Symp, Stanford, USA [2002]; 6th IBRO World Congress of Neuroscience, Prague, the Czech Republic [2003]; 7th Portugese Conference on Biomedical Engineering – bioeng'2003 [2003]; NFSI 2003, 4th Internat Confer Noninvas Function Imaging, Chieti, Italy [2003]; 3rd Peter Wallenberg Foundation Symp, Helsinki, Finland [2004]; NCCN 2006, Nordic Congr Clin Neurophysiol, Helsinki, Finland [2006]; Developing Brain Emerging Mind, Helsinki, Finland [2007]; Biomag2010 Croatia [2009–2010]
- **Coordinator of the ARGUMENTA Mind Forum** (Mieli-forum), a multidisciplinary series of meetings funded by the Finnish Cultural Foundation 2007–2008
- **Chair of the Neuroscience Panel (L5), ERC Advanced Investigator Grants** 2009–
- Author of > 280 original papers and of > 70 review articles in peer-reviewed journals and books; papers cited > 15 500 times (SCI; Oct 2010), H-index 69 (Oct 2010)
- Invited speaker in international conferences and teaching courses > 160 times (including The *Nobel Centennial Jubilee Symposium* in 2001, the *Nobel Symposium "Genes, Brain, and Behavior"* in 2008, and plenary/keynote talks in Forum of Europ Neurosci Societies (FENS), and in international conferences on Human Brain Mapping, Cognitive Sciences, Visual Cognition, Clinical Neurophysiology, Hearing, Reading and Language Disorders, Biomagnetism, Psychophysiology, Pain, Epilepsy, and Audiology.
- **Main scientific contributions:** Riitta Hari has pioneered the use of MEG to record the spatiotemporal pattern of brain activity, thereby providing fundamental insights into auditory, somatosensory, visual, and pain processing as well as motor control in healthy subjects and patient groups. – Hari and her colleagues were the first to identify generation of long-latency auditory responses in the human auditory cortex (in 1980), the first to record noninvasively activity from the human SII cortex (in 1983), and the first (in 1983) to identify noninvasively human cortical projection areas involved in pain. Other pioneering observations include the neural origin of several evoked potentials and the brain's resting rhythms. The observation in 1997 that rhythmic 20-Hz motor cortex activity is coherent with motor unit firing during isometric contraction, and that the motor cortex leads in time, has led to several follow-up studies. – Hari has demonstrated the existence of a "mirror-neuron system" in the human brain, as well as abnormalities in this system in autistic subjects. – Hari has also described new psychophysical illusions and has suggested the SAS (sluggish attentional shifting) theory to explain the slowness of dyslexic subjects to perceive rapidly presented sensory stimuli. More recently, she has combined MEG and fMRI to obtain a more complete picture of human brain function. Moreover, she has advocated the importance of "two-person neuroscience" in the study of brain basis of social interaction.

10. CIVIL STATUS

Married, two adult children

Helsinki, 9 Oct 2010
Riitta Hari