

FIORENZO CONTI



1. PERSONAL HISTORY

Birth Date and Place

August 13, 1955 Villerupt (France)

Current position

Professor of Physiology, Università Politecnica delle Marche
Scientific Director, EBRI

Education

1980	M.D. Degree
1974-1980	University of Ancona School of Medicine
1969-1974	Liceo Classico G. Perticari, Senigallia, Italy; (Advanced School of Humanistic and Liberal Arts).

2. EMPLOYMENT HISTORY

2025 -	Scientific Director, European Brain Research Institute (EBRI) Rita Levi-Montalcini, Rome
2012 - 2025	Director, Center for Neurobiology of Aging, National Institute of Health and Science on Aging (IRCCS), Ancona
2010 - 2018	Lecturer on Physiology; School of Medicine, Vita-Salute University/San Raffaele Hospital (HSR), Milan

1998	Visiting Professor; Department of Cell Biology and Anatomy, University of North Carolina at Chapel Hill, Chapel Hill, N.C. 27514 (USA)
1994 - 2025	Professor, Human Physiology, University of Ancona School of Medicine, Ancona, Italy
1992	Visiting Professor; Department of Anatomy and Cell Biology, University of California at Los Angeles; Los Angeles, CA 90024 (USA)
1988	Visiting Professor; Department of Cell Biology and Anatomy, University of North Carolina at Chapel Hill, Chapel Hill, N.C. 27514 (USA)
1986-1993	Senior Assistant Professor; Institute of Human Physiology, University of Ancona School of Medicine, Ancona (Italy)
1985-1986	Post-doctoral fellow; Department of Anatomy, University of North Carolina at Chapel Hill, Chapel Hill, N.C., 27514 (USA)
1983-1986	Assistant Professor, Institute of Human Physiology, University of Ancona School of Medicine, Ancona (Italy)

3. PROFESSIONAL ACTIVITIES

Research Interests

Cerebral cortex; anatomical and molecular organization of glutamatergic and GABAergic synapses; plasma membrane and vesicular transporters; cortical plasticity; neuropsychiatric diseases; brain aging.

Committees and Panels (selected)

- Member, Scientific Council, Festival della Scienza, Genoa, 2024-present
- President, Italian Physiological Society, 2020-2023
- Chairman, Department of Experimental and Clinical Medicine, Università Politecnica delle Marche, 2018-2021
- President, Italian Society for Neuroscience, 2016-2017
- Chairman, Department of Experimental and Clinical Medicine, Università Politecnica delle Marche, 2015-2018
- Member, International Scientific Council (EBRI), 2014-2025
- Member, History of Neuroscience Committee of the International Brain Research Organization (IBRO), 2005-present.
- Chairman, Department of Neuroscience, Università Politecnica delle Marche, 2003-2007.
- Coordinator, PhD Program in Neuroscience of the Università Politecnica delle Marche, 2003-2012.
- Member, National Committee for Neurosciences, Ministry of the University and Scientific Research, 2000.

Honors and Awards

Member of Academia Europaea, 2022

Civic Merit Award, Municipality of Ancona (Civica benemerenzia del Comune di Ancona), 2021

Member, Accademia Marchigiana di Scienze, Lettere e Arti, 2014-present

Member, Centro Nazionale di Studi Leopardiani, 2013-present

Selected publications

Petroccione M, Melone M, Rathwell T, Dwivedi N, Grienberger C, Conti F, Scimemi A (2025) An unsuspected physiological role for mGluRIII glutamate receptors in hippocampal area CA1. *BioRxiv*, doi.org/10.1101/2025.03.31.646479, (Cell Rep, *Under revision*).

- Tropea MR, Melone M, Li Puma DD, Vacanti V, Aceto G, Bandiera B, Trovato RC, Torrisi SA, Leggio GM, Palmeri A, D'Ascenzo M, Conti F, Grassi C, Puzzo D (2024) Blockade of dopamine D3 receptors improves hippocampal synaptic function and rescues age-related cognitive phenotype. *Aging Cell*, 23:e14291.
- Rinaldi A, Balialetti M*, Principi E, De Luca M, De Felice E, Narcisi FM, Vilardo L, Rosito M, D'Agnano I, Maggi L, Conti F, Limatola C, Catalano M (2024) Microglia-derived extracellular vesicles modulate microglia inflammatory profile, neuronal plasticity, and behavioural performances in late adult mice. *Brain Behavior and Immunity*, 122:58-74.
- Requie LM, Gómez-Gonzalo M, Managò M, Congiu M, Melone M, Chiavegato A, Pugliese Pacinelli G, Marsicano G, Papaleo F, Muntoni A, Conti F, Carmignoto G (2022) Long lasting synaptic regulation of dopamine neurons by astrocytes in the ventral tegmental area. *Nature Neuroscience*, 12:1639-1650.
- La Barbera L, Nobili A, Cauzzi E, Paoletti I, Federici M, Saba L, Giacomet C, Marino R, Krashia P, Melone M, Keller F, Mercuri NB, Conti F, D'Amelio M (2022) VTA dopamine neurons escape cell death by upregulation of Ca²⁺-binding proteins in the Tg2576 mouse model of Alzheimer's Disease. *Molecular Neurodegeneration*, 17:76.
- Balialetti M, Conti F (2022) Environmental enrichment and the aging brain. *Neuroscience and Biobehavioral Reviews*, 139:104728.
- Tropea MR, Li Puma DD, Melone M, Gulisano W, Arancio O, Grassi C, Conti F, Puzzo D (2021) A failure of β -amyloid physiological function onto $\alpha 7$ nicotinic acetylcholine receptors recapitulates Alzheimer's disease features. *Progress in Neurobiology*, 206:102154;
- La Barbera L, Vedele F, Nobili A, Krashia P, Spoleti E, Latagliata EC, Cutuli D, Marino D, Viscomi MT, Petrosini L, Puglisi-Allegra S, Melone M, Keller F, Mercuri NB, Conti F, D'Amelio M (2021) Nilotinib restores memory function by preventing dopamine neuron degeneration in a mouse model of Alzheimer's disease. *Progress in Neurobiology*, 202:10203.
- Conti F (2021) When ancient wisdom precedes modern neuroscience. *Nature Aging* 1:235-236,
- Parker PD, Suryavanshi P, Melone M, Reinhart KM, Sawant-Pokam PM, Kaufmann D, Theriot JT, Pugliese A, Conti F, Shuttleworth CW, Pietrobon D, K.C. Brennan (2021) Non-canonical glutamate signaling in a genetic model of migraine with aura. *Neuron* 109:611-628 (Preview by K Eikermann-Haerter, Neuronal plumes initiate spreading depolarization, the electrophysiologic event driving migraine and stroke, pp 563-565).
- Gulisano W, Melone M, Ripoli C, Tropea MR, Li Puma DD, Giunta S, Cocco S, Marcotulli D, Origlia N, Palmeri A, Arancio O, Conti F, Grassi C, Puzzo D (2019) Neuromodulatory role of picomolar extracellular A β 42 oligomers on pre- and postsynaptic mechanisms underlying synaptic function and memory. *Journal of Neuroscience*, 39:5986-6000.
- Balialetti M, Giuli C, Papa R, Fabbietti P, Conti F (2018) Peripheral blood brain-derived neurotrophic factor as biomarker of Alzheimer's disease: are there methodological biases? *Molecular Neurobiology*, 55: 6661-6672.
- Mariotti L, Losi G, Lia A, Melone M, Chiavegato A, Gomez-Gonzalo M, Sessolo M, Bovetti S, Forli A, Zonta M, Requie Marcon I, Pugliese A, Viollet C, Bettler B, Fellin T, Conti F, Carmignoto G (2018) Interneuron-specific signalling evokes distinctive somatostatin mediated responses in adult cortical astrocytes. *Nature Communications*, 9:82.
- Capuani C, Melone M, Tottene A, Bragina L, Crivellaro G, Santello M, Casari G, Conti F, Pietrobon D (2016) Defective glutamate and K⁺ clearance by cortical astrocytes in a mouse model of 1 familial hemiplegic migraine type 2. *EMBO Molecular Medicine*, 8:967-986.
- Fattorini G, Antonucci F, Menna E, Matteoli M, Conti F (2015) VGLUT1/VGAT co-expression sustains glutamate-GABA co-release and is regulated by activity. *Journal of Cell Science* 128:1669-1673.
- Omrani A, Melone M, Bellesi M, Cherubini E, and Conti F (2009) Loss of LTD at MF-CA3 synapses overexpressing GLT-1. *Journal of Physiology* 587:4575-4587. (Perspective by A Contractor: Transporters: a cure for synaptic depression, pp 4561-4562).

- Fattorini G, Verderio C, Melone M, Giovedì S, Benfenati F, Matteoli M, and Conti F (2009) VGLUT1 and VGAT are sorted to the same populations of synaptic vesicles in subsets of cortical axon terminals. *Journal of Neurochemistry* 110:1538-1546.
- Conti F, and Corbellini G (2008) Italian neuroscientists are ready to start the debate. *Nature* 451:627.
- Bragina L, Melone M, Fattorini G, and Conti F (2007) Clozapine up-regulates the expression of the vesicular GABA transporter (VGAT) in rat frontal cortex. *Molecular Psychiatry* 12:612613.
- Safiulina V, Fattorini G, Conti F, and Cherubini E (2006) GABAergic signaling at mossy fiber synapses in neonatal rat hippocampus. *Journal of Neuroscience* 26:597-608.
- Conti F (2002) Claude Bernard's *Des Fonctions du Cerveau*: An *ante litteram* manifesto of the neurosciences? *Nature Reviews Neuroscience* 3: 79-985.
- Conti F (2001) Claude Bernard: primer of the second biomedical revolution. *Nature Reviews Molecular Cell Biology* 2:703-710.
- Melone M, Vitellaro Zuccarello L, A Vallejo-Illarramendi, A Perez-Samartin, C Matute, A Cozzi, DE Pellegrini-Giampietro, JD Rothstein, and Conti F (2001) The expression of glutamate transporter GLT-1 in the cerebral cortex is down-regulated by the antipsychotic clozapine. *Molecular Psychiatry* 6:380-386.
- Cherubini E, and Conti F (2001) Generating diversity at GABAergic synapses. *Trends in Neurosciences* 24:155-162.
- Conti F, and Weinberg RJ (1999) Shaping excitatory responses at central glutamatergic synapses. *Trends in Neurosciences* 22:451-458.
- Minelli A, DeBiasi S, Brecha NC, and Conti F (1996) GAT-3, a high affinity GABA plasma membrane transporter, is localized exclusively to astrocytic processes in the cerebral cortex. *Journal of Neuroscience* 16:6255-6264.
- Minelli A, Brecha NC, Karschin C, DeBiasi S, and Conti F (1995) GAT-1, a high-affinity GABA plasma membrane transporter, is localized to neurons and astroglia in the cerebral cortex. *Journal of Neuroscience* 15:7734-7746.
- Conti F, DeFelipe J, Farinas I, and Manzoni T (1989) Glutamate-positive neurons and axon terminals in cat sensory cortex. A correlative light and electron microscopic study. *Journal of Comparative Neurology* 290:141-153.
- Conti F, Fabri M, and Manzoni T (1988) Glutamate-positive, cortico-cortical neurons in the somatic sensory areas I and II of cats. *Journal of Neuroscience* 8:2948-2960.
- Conti F, Rustioni A, Petrusz P, and Towle AC (1987) Glutamate-positive neurons in the somatic sensory cortex of rats and monkeys. *Journal of Neuroscience* 7:1887-1901.
- Manzoni T, Conti F, and Fabri M (1986) Callosal projections from area SII to SI in monkeys. Anatomical organization and comparison with association projections. *Journal of Comparative Neurology* 252:245-263.

Complete List of Published Work in My Bibliography:
<https://www.ncbi.nlm.nih.gov/myncbi/fiorenzo.conti.1/bibliography/public/>

Books

- Conti F (2025) *Fisiologia Medica*. Milan, Edi-Ermes, 4th edition, 2 voll.
- Conti F (2020) *Fisiologia Medica*. Milan, Edi-Ermes, 3rd edition, 2 voll.
- Conti F (2013) *Claude Bernard e la nascita della biomedicina*. Milan, Raffaello Cortina.
- Conti F (ed) (2010) *Fisiologia Medica*. Milan, Edi-Ermes, 2nd edition, 2 voll.
- Conti F (ed) (2005) *Fisiologia Medica*. Milan, Edi-Ermes, 1st edition, 2 voll. (Translated in spanish in 2010: *Fisiología Medica, McGraw Hill InterAmericana*).
- Conti F, Hicks TP (eds) (1996) *Excitatory Amino Acids & the Cerebral Cortex*. Cambridge, MA, MIT Press, xiii-492.

Other publications (newspapers, popular press, media etc..)

- Conti F (2025) Journey to the Center of Science. In: *Physiology in a changing world. Adapting and transforming; Part 2. Essays in Physiological Sciences. IUPS 2025 Report*, 86-92.
- Conti F (2024) Cucinare quello che trovi in frigo. *L'Indice dei Libri del Mese*, 1:35.
- Conti F (2023) The judge with a flair for gastronomy (who was also a bit of a physiologist). *pH* 2:2-15.
- Verkhatsky A, Conti F (2021) Glial visions of Ernesto Lugaro. *pH*, 2:2-15.
- Puzzo D, Conti F (2021) Malattia di Alzheimer: una nuova prospettiva. www.fisv.org/2021/11/10
- Fassio A, Conti F (2021) Fisiologia: la disciplina capace di svelarci come funzionano la vita e l'uomo. www.fisv.org/2021/06/24
- Conti F (2021) I meccanismi della paura. *L'Indice dei Libri del Mese*, 5:35.
- Conti F (2021) Il caso LightUp tra scienza e magistratura: "Ofelè fa el to mesté!" *Il Foglio*, Thursday, january 28, 8.
- Conti F (2020) Una complessità decifrabile. *L'Indice dei Libri del Mese*, 3:36.
- Conti F (2019) Una nuova antropologia? *L'Indice dei Libri del Mese*, 12:27.
- Conti F (2019) Mappare il cervello. *Corriere della Sera/Style*, Wednesday, june, 48-49.
- Conti F (2019) Sulla Scienza che cambia. La lezione inascoltata di Alvin Weinberg. *Medicina e Cultura*, 2: 47-48.
- Conti F (2019) A partire dai due neuroni di una lumaca. *L'Indice dei Libri del Mese*, 3:15.
- Conti F (2018) La divulgazione è un mestiere serio. *L'Indice dei Libri del Mese*, 6:34.
- Conti F (2018) Le neuroimmagini sono fotografie dei nostri pensieri? *Il Sole-24 Ore/ Sanità* 24, may 30.
- Conti F (2017) Big Science, con cautela. *Il Sole-24 Ore*, Sunday, june 25, 26.
- Conti F (2017) Le fibre neuronali del calamaro. *L'Indice dei Libri del Mese*, 5:37.
- Corbellini G, Conti F (2016) Ma non perdiamo la testa! *Il Sole-24 Ore*, Sunday, october 16, 35.
- Conti F, Linari M (2016) Le soglie esagerate dell'ANVUR. *Il Sole-24 Ore*, Sunday, august 7, 22.
- Conti F (2016) La scienza è servita. *Il Sole-24 Ore*, Sunday, july 10, 40.
- Conti F, Corbellini G (2016) Università a pane secco e champagne per i privati. *L'Espresso* 21 (LXII) 51, may 26.
- Conti F (2016) Le sinapsi riscrivono il "De Senectute". *Il Sole-24 Ore*, Sunday, may 15, 31
- Conti F (2016) Contaminazioni fisiologiche. *L'Indice dei Libri del Mese*, 4:19.
- Conti F (2016) I test con gli animali ci salvano. Negarlo è una leggenda metropolitana. *La Stampa*, march 16, 29.
- Conti F (2015) L'angoscia di una spiegazione. *L'Indice dei Libri del Mese*, 3: 21.
- Conti F (2014) Angelo Mosso, il pioniere. *Il Sole-24 Ore*, Sunday, december 14, 31.
- Conti F (2014) Storia di un amnesico. National public TV Rai Scuola Nautilus, june 17; and *Rai Cultura*, august 5.
- Conti F, Corbellini G, Morange M (2013) *L'héritage scientifique de Claude Bernard*. *Le Monde* (Science & Médecine, Tribune), Wednesday, december 11, 8
- Conti F (2013) Neuroscienziati, fatevi sentire. *Il Sole-24 Ore*, Sunday, august 11, 27
- Conti F, Irrera S (2013) EJ Marey, tra scienza e arte. *pH*, 2:2-12.
- Conti F, Corbellini G (2013) Il padre della fisiologia. *Il Sole-24 Ore*, Sunday, may 5, 30.
- Conti F (2011) At the roots of modern physiology. *pH*, 1:3-13.
- Conti F (2010) Scienza & Arte: il caso di Marey. *EtruriaOggi*, 77:50-55.
- Conti F (2010) Indimenticabile amnesico. *Darwin*, march-april, 64-65
- Conti F, Corbellini G (2010) Il Club dei Monod-teisti. *Il Sole-24 Ore*, Sunday, january 31, 39.
- Conti F (2008) Neuroetica: la prospettiva delle neuroscienze, Radio interview on national broadcast RaiTre Scienza, *RaiTre Scienza* Do the right thing. May 30.
- Conti F (2006) Il cervello sconosciuto. *Darwin*, may-june, 62-63.
- Conti F, Irrera S (2004) I movimenti del fisiologo. *Il Sole-24 Ore*, Sunday, may 9, 35.
- Conti F (2003) Impatto della scoperta del DNA sulle neuroscienze, Radio interview on national public broadcast *RaiTre Scienza* The matter of life: Fifty years of DNA (by G. Corbellini e A. Grignolino). April 28.

Angeleri F, Conti F (2002) La nascita del tempo. *EtruriaOggi* 57: 36-41.

Conti F, Irrera Conti S (2002) Emile Zola, chirurgo del romanzo. *Il Sole-24 ore*, Sunday, january 13, 39.

Organization of conferences and events for the general public etc

Science & Philosophy, Conferences for the general public, Ancona (I), 2000-2018 (for details: http://fiorenzocontigroup.it/main?p=ricerca_fisio_group_conti_scienza)

Franco Angeleri Lectures, Conferences for the general public. Ancona (I), 2010-2017 (for details: http://fiorenzocontigroup.it/main?p=ricerca_fisio_group_conti_miscel_Angeleri)

INRCA Lecture on Brain Aging, Conferences for the general public. Ancona (I), 2013-2017

Il Dolore. Immagini dall'arte, immagini dalla scienza, Exhibition and conferences on pain (with F Benedetti and C Caputi). Ancona (I), February 11-25, 2011.