

**PERSONAL INFORMATION**

Giulio Alfredo Sancini



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-  Skype: giulio.sancini1

Sex Male | Date of birth 08/06/1968 | Nationality Italian

**ACADEMIC POSITION**

October 2018 - present  
December 2004-September 2018

Associate Professor - School of Medicine and Surgery - University of Milano-Bicocca  
Assistant Professor of Physiology - Dept of Health Sciences - University of Milano-Bicocca  
Qualified as full professor in the Italian higher education system, in the call 2021/2023 (Ministerial Decree n. 553/2021 and 589/2021) for the disciplinary field of 05/D1 - Physiology

PREVIOUS POSITION:  
1993-december 2004:

Permanent position - Laboratory Technician at the Dept. of Neurophysiology, National Neurological Institute IRCCS "C. Besta", Milan

- 1993: Scholarship at the Dept. of Neurophysiology, National Neurological Institute "C. Besta", within the following research program: "neurophysiological and immunocytochemical characterization of receptors and voltage-gated channels in GAERS model of genetic epilepsy " for the year 1993.
- 1992: Scholarship at the Dept. of Neurophysiology, National Neurological Institute "C. Besta", within the following research program: " Electrophysiological analysis of the morphofunctional organization of the prosencephalon " for the year 1992
- 1991: Internal student at the Dept. of Neurophysiology, National Neurological Institute "C. Besta", tutor: Prof. G. Avanzini.

Teaching and preclinical research activities: Physiology, Pharmacology, Nanomedicine, Nanotoxicology

**EDUCATION AND TRAINING**

Degree in Pharmacy, Faculty of Pharmacy, University of Milan, Italy  
Specialist in Pharmacology, Dept. of Therapy and Clinical Medicine, Univ. of Pavia, Italy

**PERSONAL SKILLS**

Mother tongue(s) Italian

Other language(s) English

Communication skills

- good communication skills gained through my experience as senior scientist before and later as laboratory chief at the Physiology Unit of the Dept. Of Medicine and Surgery of the University of Milano-Bicocca and as Major of Gessate with an urban area population of 9,000

Organisational / managerial skills

- Head of the Physiology Unit, School of Medicine and Surgery, University of Milano-Bicocca - leadership, currently responsible for a research team
- Scientific member of the Animal Care and Use Committee of the University of Milano-Bicocca
- may 2014- 2019: Major of Gessate (Milan), Italy

**PROFESSIONAL SKILLS**

Teaching and preclinical research activities: Physiology, Pharmacology, Nanomedicine, Nanotoxicology

G. Sancini, has a long experience in electrophysiological measures of synaptic currents. He has an established know how and equipment in neurophysiology, cellular electrophysiology and pharmacology. G. Sancini's Unit is equipped with cell culture facilities, set up of electro-physiological investigations (patched slice full setup with wide field fluorescence time lapse microscopy, Calcium Imaging, advanced microscopy and full access to animal facility.

Cell biology - Cell Culture Techniques - transport studies - permeability studies

- In vitro models of blood-brain barrier and alveolar-capillary barrier: (1) Test of functional integrity, measurement of the electrical transendothelial / epithelial resistance (TEER), (2) Test of permeability, analytical techniques and radiolabeling, (3) Test of biocompatibility of nanoparticles in cellular models in vitro and in vivo.

- In vivo models to study the (1) impact of anthropogenic nanoparticles on the respiratory system and to evaluate their potential for translocation to the systemic level, (2) the biodistribution and biocompatibility of engineered nanoparticles for targeted drug delivery

- Neurophysiological techniques: the patch-clamp technique applied to the studies of (1) voltage-gated currents in acutely isolated neurons from the central nervous system and to (2) the voltage-gated currents in neurons in submerged slices of neocortex and hippocampus.

- Current clamp technique (sharp-electrode) applied to: (1) characterization of synaptic potentials and intrinsic electrophysiological properties of neurons in the somatosensory cortex and hippocampus.

- Field potentials recording: (1) characterization of synaptic events in physiological and pathological conditions (epilepsy) in hippocampus and sensorimotor cortex

- Techniques of confocal microscopy to study the uptake, the intracellular trafficking and the fate of functionalized nanoparticles for brain targeting.

- Imaging Ca<sup>2+</sup> signals in cells in culture and tissue slices

- Sound knowledge of anatomical techniques and procedures using conventional histological tissue sections fixed, paraffin-embedded (1) basic histochemistry (2) immunocytochemistry, (3) techniques of intracellular marking with dyes applied to SNC tissues incubated in vitro.

- Wide-field microscopy and confocal microscopy fluorescence techniques

Computer techniques: good knowledge of software for (1) graphics processing, (2) for the acquisition and processing of data and statistical analysis (CLAMPEX, Clampfit, Origin, SPSS), (3) for image analysis (Metamorph & Autodeblur softwares)

**Grants**

- FP7 - Nad - European Community research project - grant agreement no 212043: "Nanoparticles for therapy and diagnosis of Alzheimer's Disease – WP leader and lead beneficiary of the "delivery d 8.1, 9.3, assessment of the nanoparticles' biocompatibility. Tasks leader for the experimental work packages devoted to the study of the permeability of the nanoparticles in in vitro BBB models (wp4, wp5) and in the biocompatibility and biodistribution studies in vitro (wp8) and in vivo (wp10). This project aimed at developing nanoparticles (nps) suitably functionalized for the combined therapy and diagnosis (theragnostic) of Alzheimer's Disease.

- FP6 - Bonsai - European Community research project - Grant agreement no 037639: "Bio-imaging with smart nanoparticles" - principal investigator for evaluation of biocompatibility, uptake, intracellular trafficking and impact of "engineered nanoparticles" in cells, tissues and in in vitro models of blood-brain barrier and alveolar-capillary barrier. The project had as its main objective the development of advanced bio-imaging techniques based on the use of new multifunctional nanoparticles

- Cariplo Foundation (Unimib project Tosca), Toxicity of particulate matter and molecular markers of risk. principal investigator for the in vivo studies designed to identify the effects of particulate air pollution in the lungs and in the circulatory system for the identification of new markers of exposure.

- Cariplo Foundation (Unimib project Mispan), "Innovative methods of synthesis and functionalization of nano-and microparticles for biomedical use". Principal investigator for the evaluation of biocompatibility, uptake, intracellular trafficking and impact of "engineered nanoparticles" in cells, tissues and in in vitro models of blood-brain barrier.

- Italian Ministry Research Program – MIUR- PRIN 2012, prot. 20128xwktx "A molecular and functional study of adam10 at the Huntington's disease synapse"). Principal investigator at the Unimib Physiology unit to investigate metalloprotease Adam10 as a new potential target of htt in the hd brain (in vitro electrophysiological investigations)

**Main Research Activities**

- Assessment of functional alterations of the blood-brain barrier (BBB) related to Alzheimer's disease and related to the ischemic and hypoxic events

- Interaction of engineered nanoparticles and air pollutants at the Neurovascular Unit and CNS

- Assessment of the permeability and biodistribution of engineered nanoparticles for targeting the central nervous system in in vitro BBB models and in vivo

- Assessment of pulmonary and systemic response to particulate air pollution (PM) exposure in in vivo models: study of the mechanisms related to the translocation of PM through the alveolar-capillary barrier, identification of new markers of risk.

- Respiratory bio-mechanics related to fluid dynamic alterations during pulmonary interstitial edema

- Transmembrane voltage-gated currents and postsynaptic potentials in cultured neurons and in cerebral slices incubated in vitro.

**ADDITIONAL INFORMATION**

**Publications** Overall publications: 65, total citations: 2625, h-index: 31, Total IF = 314,948

**Ongoing Research Projects:**

- 1) Molecular and functional study at the Huntington's Disease synapse
- 2) Nanoparticles for therapy and diagnosis of CNS disease
- 3) Development of a nanoparticles-based drug delivery system for lung disease therapy.
- 4) Disclose the inner relationship between ischemia/vascular damage and Amyloid Precursor Protein (APP) processing in brain microvascular endothelial cells and neurons
- 5) Health risk assessment for nanoparticles and airborne pollutants

**INTERNATIONAL PATENT**

Re F.; Masserini M.; Sancini G.; Salmona M.; Forloni G. (Univ. Milano Bicocca) " Liposomes containing acid lipids and functionalized with a peptide eliciting an efficient removal of beta-amyloid peptide burden from the brain of animal models (transgenic mice) of Alzheimer disease. Patent Number 20120001; Key Words: liposomes —beta-amyloid —brain  
International Patent Application n. PCT/EP2013/001660 of June 05, 2013  
US Patent n. US8,877,236 of 04.11.2014  
US patent application for "Continuation" n. US 2015/0017235 of January 15, 2015

**Memberships**

Member of the Nanomedicine Center of University of Milano-Bicocca, "NanoMib"  
Member of the Milan Center for Neuroscience of University of Milano-Bicocca, NeuroMI"  
Deputy director of the Research Center "POLARIS" (Dust in Environment and Health Risks) of the University of Milan-Bicocca,  
Member of the PhD Program in Neuroscience, currently tutor of 3 PhD students (Cycle 35 and 36)

Member of Editorial Board of "World Journal of Respiriology, of "Insight in clinical Pharmacology"; and of "Jacob Journal of Headache"  
Editorial Board member of "Insights in Clinical Pharmacology" <http://oprscience.com/department/insights-in-clinical-pharmacology/> OPR Science  
Editorial board member of the Heighpubs Journal of Biology and Medicine  
[http://www.heighpubs.com/searchdet.php?q=Sancini&c=Editors\\_hjbm@heighpubs.com](http://www.heighpubs.com/searchdet.php?q=Sancini&c=Editors_hjbm@heighpubs.com) \_ Heighthen Science Publications Corporation  
Editorial board member of "Current Advances in Neurology and Neurological Disorders"  
Editorial board member of "The Journal of Nanomedicine and Nanotechnology Research"  
Editorial board member of "Brain and Neuroscience Research"  
Editorial board member of "The Journal Pharmacology and Toxicology"

Member of the spin off "Amypopharma" for the technological industrial transfert of the international patent "Liposomes active in-vivo on degenerative diseases" CA2877765A1, EP2866790A1, US8877236, US20140004172, WO2014000857A1

**Scientific Affiliation**

SIF Italian Society of Physiology - American Physiological Society - Italian Society of Nanotoxicology

Reviewer of international journals: JNBM, JBMT, PlosOne, FEBS open BIO, JZUSB, JERPH  
Referee for the Elsevier Editorial System (EES) accounted for Biomaterials, Environmental Research, FEBS Open Bio, Nanomedicine Nanotechnology Biology and Medicine, Journal of Nanomaterials  
Referee World Journal of Respiriology (WJR)  
Editorial Board member of the World Journal of Respiriology (WJR) \_  
<http://www.wjgnet.com/2218-6255/SearchMembers?siteName=2218-6255&pageNumber=1&type=4&text=Sancini%20>

**ANNEXES**

List of publications

**List of Publications:**

- Talpo F, Spaiardi P, Castagno AN, Maniezzi C, Raffin F, Terribile G, Sancini G, Pisani A, Biella GR. Neuromodulatory functions exerted by oxytocin on different populations of hippocampal neurons in rodents. *Front Cell Neurosci.* 2023 Feb 2;17:1082010. doi: 10.3389/fncel.2023.1082010. PMID: 36816855; PMCID: PMC9932910. IF= 6.147
- Negri S, Scolari F, Vismara M, Brunetti V, Faris P, Terribile G, Sancini G, Berra-Romani R, Moccia F. GABAA and GABAB Receptors Mediate GABA-Induced Intracellular Ca<sup>2+</sup> Signals in Human Brain Microvascular Endothelial Cells. *Cells.* 2022 Nov 30;11(23):3860. doi: 10.3390/cells11233860. PMID: 36497118; PMCID: PMC9739010. IF= 7.666
- Tonoli E, Verduci I, Gabrielli M, Prada I, Forcaia G, Coveney C, Savoca MP, Boocock DJ, Sancini G, Mazzanti M, Verderio C, Verderio EAM Extracellular transglutaminase-2, nude or associated with astrocytic extracellular vesicles, modulates neuronal calcium homeostasis. *Prog Neurobiol.* 2022 Sep;216:102313. doi: 10.1016/j.pneurobio.2022.102313. Epub 2022 Jun 26. PMID: 35760142, IF= 10.885
- Beretta E, Romanò F, Sancini G, Grotberg JB, Nieman GF, Miserocchi G. Pulmonary Interstitial Matrix and Lung Fluid Balance From Normal to the Acutely Injured Lung. *Front Physiol.* 2021 Dec 20;12:781874. doi: 10.3389/fphys.2021.781874. PMID: 34987415; PMCID: PMC8720972. IF= 4.566 5665
- Forcaia G, Fomicola B, Terribile G, Negri S, Lim D, Biella G, Re F, Moccia F, Sancini G. Multifunctional Liposomes Modulate Purinergic Receptor-Induced Calcium Wave in Cerebral Microvascular Endothelial Cells and Astrocytes: New Insights for Alzheimer's disease.. *Mol Neurobiol.* 2021 Jun;58(6):2824-2835. doi: 10.1007/s12035-021-02299-9. Epub 2021 Jan 29. PMID: 33511502, IF= 5.682
- Hassanzadeh K, Perez Pena H, Dragotto J, Buccarello L, Iorio F, Pieraccini S, Sancini G, Feligioni M. Considerations around the SARS-CoV-2 Spike Protein with Particular Attention to COVID-19 Brain Infection and Neurological Symptoms. *ACS Chem Neurosci.* 2020 Aug 5;11(15):2361-2369. doi: 10.1021/acchemneuro.0c00373. Epub 2020 Jul 21. PMID: 32627524, IF= 5.780
- Farhangrazi ZS, Sancini G, Hunter AC, Moghimi SM. Airborne Particulate Matter and SARS-CoV-2 Partnership: Virus Hitchhiking, Stabilization and Immune Cell Targeting - A Hypothesis. *Front Immunol.* 2020 Sep 24;11:579352. doi: 10.3389/fimmu.2020.579352. eCollection 2020. PMID: 33072124, IF= 8.786
- Alberti P, Canta A, Chiorazzi A, Fumagalli G, Meregalli C, Monza L, Pozzi E, Ballarini E, Rodriguez-Menendez V, Oggioni N, Sancini G, Marmioli P, Cavaletti G. Topiramate prevents oxaliplatin-related axonal hyperexcitability and oxaliplatin induced peripheral neurotoxicity. *Neuropharmacology.* 2020;164:107905. doi:10.1016/j.neuropharm.2019.107905, IF= 5.273
- Negri S, Faris P, Pellavio G, Botta L, Orgiu M, Forcaia G, Sancini G, Laforenza U, Moccia F. Group 1 metabotropic glutamate receptors trigger glutamate-induced intracellular Ca<sup>2+</sup> signals and nitric oxide release in human brain microvascular endothelial cells. *Cell Mol Life Sci.* 2020;77(11):2235-2253. doi:10.1007/s00018-019-03284-1, IF= 9.207
- Berra-Romani R, Faris P, Pellavio G, Orgiu M, Negri S, Forcaia G, Var-Gaz-Guadarrama V, Garcia-Carrasco M, Botta L, Sancini G, Laforenza U, Moccia F. Histamine induces intracellular Ca<sup>2+</sup> oscillations and nitric oxide release in endothelial cells from brain microvascular circulation. *J Cell Physiol.* 2020;235(2):1515-1530. doi:10.1002/jcp.29071, IF= 6.515
- Beretta E, Grasso GS, Forcaia G, Sancini G, Miserocchi G. Differences in alveolo-capillary equilibration in healthy subjects on facing O<sub>2</sub> demand. *Sci Rep.* 2019 Nov 13;9(1):16693. doi: 10.1038/s41598-019-52679-4. PubMed PMID: 31723148; PubMed Central PMCID: PMC6854051. IF= 4.996
- Farina F, Lonati E, Milani C, Massimino L, Ballarini E, Donzelli E, Crippa L, Marmioli P, Botto L, Corsetto PA, Sancini G, Bulbarelli A, Palestini P. In Vivo Comparative Study on Acute and Sub-acute Biological Effects Induced by Ultrafine Particles of Different Anthropogenic Sources in BALB/c Mice. *Int J Mol Sci.* 2019 Jun 8;20(11). pii: E2805. doi: 10.3390/ijms20112805. PubMed PMID: 31181746; PubMed Central PMCID: PMC6600162, IF= 6.208
- Vezzoli E, Caron I, Talpo F, Besusso D, Conforti P, Battaglia E, Sogne E, Falqui A, Petricca L, Verani M, Martufi P, Caricasole A, Bresciani A, Cecchetti O, Rivetti di Val Cervo P, Sancini G, Riess O, Nguyen H, Seipold L, Saftig P, Biella G, Cattaneo E, Zuccato C. Inhibiting pathologically active ADAM10 rescues synaptic and cognitive decline in Huntington's disease. *J Clin Invest.* 2019 May 6;129(6):2390-2403. doi: 10.1172/JCI120616. eCollection 2019 May 6. PubMed PMID: 31063986; PubMed Central PMCID: PMC6546448. IF= 19.456
- Zuccolo E, Kheder DA, Lim D, Perna A, Nezza FD, Botta L, Scarpellino G, Negri S, Martinotti S, Soda T, Forcaia G, Riboni L, Ranzato E, Sancini G, Ambrosone L, D'Angelo E, Guerra G, Moccia F. Glutamate triggers intracellular Ca<sup>2+</sup> oscillations and nitric oxide release by inducing NAADP- and InsP<sub>3</sub> -dependent Ca<sup>2+</sup> release in mouse brain endothelial cells. *J Cell Physiol.* 2019 Apr;234(4):3538-3554. doi: 10.1002/jcp.26953. Epub 2018 Nov 19. PubMed PMID:30451297; Scopus: 2-s2.0-85056774238, IF= 6.513
- Musumeci T, Serapide MF, Pellitteri R, Dalpiaz A, Ferraro L, Dal Magro R, Bonaccorso A, Carbone C, Veiga F, Sancini G, Puglisi G. Oxcarbazepine free or loaded PLGA nanoparticles as effective intranasal approach to control epileptic seizures in rodents. *Eur J Pharm Biopharm.* 2018 Dec;133:309-320. doi:10.1016/j.ejpb.2018.11.002. Epub 2018 Nov 3. PubMed PMID: 30399400; Scopus: 2-s2.0-85056220345, IF= 5.589
- Zuccolo E, Laforenza U, Negri S, Botta L, Berra-Romani R, Faris P, Scarpellino G, Forcaia G, Pellavio G, Sancini G, Moccia F. Muscarinic M5 receptors trigger acetylcholine-induced Ca<sup>2+</sup> signals and nitric oxide release in human brain microvascular endothelial cells. *J Cell Physiol.* 2019 Apr;234(4):4540-4562. doi: 10.1002/jcp.27234. Epub 2018 Sep 7. PubMed PMID: 30191989; Scopus: 2-s2.0-85052915925, IF= 6.513
- Dal Magro, R, Albertini, B, Beretta, S, Rigolio, R, Donzelli, E, Chiorazzi, A, Ricci, M, Blasi, P, Sancini, G. (2017). Artificial Apolipoprotein Corona Enables Nanoparticle Brain Targeting. *NANOMEDICINE, NANO* 1693, ISSN: 1549-9634, doi: 10.1016/j.nano.2017.11.008, PubMed: 29157979; Scopus :2-s2.0-85038832955, IF= 6.096
- Binini N, Sancini G, Villa C, Magro RD, Sansoni V, Rusconi R, Mantegazza M, Grioni D, Talpo F, Toselli M, Combi R. Identification of two mutations in cis in the SCN1A gene in a family showing genetic epilepsy with febrile seizures plus (GEFS+) and idiopathic generalized epilepsy (IGE). *Brain Res.* 2017 Sep 23. pii:

S0006-8993(17)30420-1. doi: 10.1016/j.brainres.2017.09.023. Scopus: 2-s2.085029915634, IF= 3.610

Zuccolo E, Lim D, Kheder DA, Perna A, Catarsi P, Botta L, Rosti V, Riboni L, Sancini G, Tanzi F, D'Angelo E, Guerra G, Moccia F. Acetylcholine induces intracellular Ca(2+) oscillations and nitric oxide release in mouse brain endothelial cells. *Cell Calcium*. 2017 Sep;66:33-47. doi:10.1016/j.ceca.2017.06.003. WOS:000409294600005, PMID:28807148, ISSN: 0143-4160, eISSN: 1532-1991, Scopus: 2s2.085033214259, IF= 4.690

Farina F, Lonati E, Brambilla A, Dal Magro R, Milani C, Botto L, Sancini G, Palestini P, Bulbarelli A. Diesel exhaust particles (DEP) pre-exposure contributes to the anti-oxidant response impairment in hCMEC/D3 during post-oxygen and glucose deprivation damage. *Toxicol. Lett.* 2017 May 15;274:1-7. doi: 10.1016/j.toxlet.2017.04.003, IF= 4.271

Dal Magro R, Ornaghi F, Cambianica I, Beretta S, Re F, Musicanti C, Rigolio R, Donzelli E, Canta A, Ballarini E, Cavaletti G, Gasco P, Sancini G. ApoE-modified solid lipid nanoparticles: A feasible strategy to cross the blood-brain barrier. *J Control Release*. 2017 Mar 10;249:103-110. doi: 10.1016/j.jconrel.2017.01.039, IF= 11.467

Sancini, G, Dal Magro, R, Ornaghi, F, Balducci, C, Forloni, G, Gobbi, M, Salmona, M, Re, F. Pulmonary administration of functionalized nanoparticles significantly reduces beta-amyloid in the brain of an Alzheimer's disease murine model. *Nano Research*, Volume 9, Issue 7, 1 July 2016, Pages 2190-2201. doi: 10.1007/s12274-016-1108-8, IF= 10.269

Mancini S, Minniti S, Gregori M, Sancini G, Cagnotto A, Couraud PO, Ordóñez-Gutiérrez L, Wandosell F, Salmona M, Re F. The hunt for brain A $\beta$  oligomers by peripherally circulating multi-functional nanoparticles: Potential therapeutic approach for Alzheimer disease. *Nanomedicine*. 2016 Jan;12(1):43-52. doi: 10.1016/j.nano.2015.09.003, IF= 6.096

Balducci C, Mancini S, Minniti S, La Vitola P, Zotti M, Sancini G, Mauri M, Cagnotto A, Colombo L, Fiordaliso F, Grigoli E, Salmona M, Snellman A, Haaparanta-Solin M, Forloni G, Masserini M, Re F. Multifunctional liposomes reduce brain  $\beta$ -amyloid burden and ameliorate memory impairment in Alzheimer's disease mouse models. *J Neurosci*. 2014 Oct 15;34(42):14022-31. doi:10.1523/JNEUROSCI.0284-14.2014., IF= 6.709

Sancini, G, Farina, F., Battaglia, C., Cifola, I., Mangano, E., Mantecca, P., Camatini, M., Palestini, P. Health risk assessment for air pollutants: Alterations in lung and cardiac gene expression in mice exposed to milano winter fine particulate matter (PM2.5) (2014) *PLoS ONE*, 9 (10), art. no. e109685, DOI: 10.1371/journal.pone.0109685, IF= 3.752

Rizzo, A.M., Corsetto, P.A., Farina, F., Montorfano, G., Pani, G., Battaglia, C., Sancini, G., Palestini, P. Repeated intratracheal instillation of PM10 induces lipid reshaping in lung parenchyma and in extra-pulmonary tissues (2014) *PLoS ONE*, 9 (9), art. no. e106855, DOI: 10.1371/journal.pone.0106855, IF= 3.752

Dellacà, R.L., Zannin, E., Ventura, M.L., Sancini, G., Pedotti, A., Tagliabue, P., Miserocchi, G. Assessment of dynamic mechanical properties of the respiratory system during high-frequency oscillatory ventilation (2013) *Critical Care Medicine*, 41 (11), pp. 2502-2511. DOI: 10.1097/CCM.0b013e31828cf3ea, IF= 9.296

Airoldi, C., Cardona, F., Sironi, E., Colombo, L., Salmona, M., Cambianica, I., Ornaghi, F., Sancini, G., Nicotra, F., La Ferla, B. Fluorescent amyloid  $\beta$ -peptide ligand derivatives as potential diagnostic tools for Alzheimer's disease (2013) *Pure and Applied Chemistry*, 85 (9), pp. 1813-1823. DOI: 10.1351/PAC-CON-12-11-07, IF= 2.320

Sancini, G., Gregori, M., Salvati, E., Cambianica, I., Re, F., Ornaghi, F., Canovi, M., Fracasso, C., Cagnotto, A., Colombo, M., Zona, C., Gobbi, M., Salmona, M., La Ferla, B., Nicotra, F., Masserini, M. Functionalization with TAT-peptide enhances blood-brain barrier crossing in vitro of nanoliposomes carrying a curcumin-derivative to bind amyloid- $\beta$  peptide (2013) *Journal of Nanomedicine and Nanotechnology*, 4 (3), DOI: 10.4172/2157-7439.1000171, IF= 0.252

Salvati, E., Re, F., Sesana, S., Cambianica, I., Sancini, G., Masserini, M., Gregori, M. Liposomes functionalized to overcome the blood-brain barrier and to target amyloid- $\beta$  peptide: The chemical design affects the permeability across an in vitro model (2013) *International Journal of Nanomedicine*, 8, pp. 1749-1758. DOI: 10.2147/IJN.S42783, IF= 7.033

Farina, F., Sancini, G., Longhin, E., Mantecca, P., Camatini, M., Palestini, P. Milan PM1 induces adverse effects on mice lungs and cardiovascular system (2013) *BioMed Research International*, 2013, art. no. 583513, DOI: 10.1155/2013/583513, IF= 3.246

Farina, F., Sancini, G., Battaglia, C., Tinaglia, V., Mantecca, P., Camatini, M., Palestini, P. Milano Summer Particulate Matter (PM10) Triggers Lung Inflammation and Extra Pulmonary Adverse Events in Mice (2013) *PLoS ONE*, 8 (2), art. no. e56636, DOI: 10.1371/journal.pone.0056636, IF= 3.752

Bulbarelli, A., Lonati, E., Brambilla, A., Orlando, A., Cazzaniga, E., Piazza, F., Ferrarese, C., Masserini, M., Sancini, G. A $\beta$ 42 production in brain capillary endothelial cells after oxygen and glucose deprivation (2012) *Molecular and Cellular Neuroscience*, 49 (4), pp. 415-422. DOI: 10.1016/j.mcn.2012.01.007, IF= 4.626

Cazzaniga, E., Masserini, M., Mantegazza, F., Ziano, R., Rivolta, I., Rivolta, I., Panariti, A., Sancini, G., Cambianica, I., Manfredi, A., Ranucci, E. Preparation of new PLGA/PAA nanoparticles for biomedical applications (2011) 24th European Conference on Biomaterials - Annual Conference of the European Society for Biomaterials, 1 p.

Re, F., Cambianica, I., Cagnotto, A., Salmona, M., Masserini, M., Sancini, G. Nano-liposomes targeting Abeta peptide and functionalized to interact with the blood-brain barrier (2011) 24th European Conference on Biomaterials - Annual Conference of the European Society for Biomaterials, 1 p.

Re, F., Cambianica, I., Zona, C., Sesana, S., Gregori, M., Rigolio, R., La Ferla, B., Nicotra, F., Forloni, G., Cagnotto, A., Salmona, M., Masserini, M., Sancini, G. Functionalization of liposomes with ApoE-derived peptides at different density affects cellular uptake and drug transport across a blood-brain barrier model (2011) *Nanomedicine: Nanotechnology, Biology, and Medicine*, 7 (5), pp. 551-559. DOI: 10.1016/j.nano.2011.05.004, IF= 6.458

Farina, F., Sancini, G., Mantecca, P., Gallinotti, D., Camatini, M., Palestini, P. The acute toxic effects of particulate matter in mouse lung are related to size and season of collection (2011) *Toxicology Letters*, 202 (3), pp. 209-217. DOI: 10.1016/j.toxlet.2011.01.031, IF= 4.271

Re, F., Cambianica, I., Sesana, S., Salvati, E., Cagnotto, A., Salmona, M., Couraud, P.-O., Moghimi, S.M., Masserini, M., Sancini, G. Functionalization with ApoE-derived peptides enhances the interaction with brain capillary endothelial cells of nanoliposomes binding amyloid-beta peptide



(2010) *Journal of Biotechnology*, 156 (4), pp. 341-346. DOI: 10.1016/j.jbiotec.2011.06.037, IF= 3.595

Cambianica, I., Bossi, M., Gasco, P., Gonzalez, W., Idee, J.M., Miserocchi, G., Rigolio, R., Chanana, M., Morjan, I., Wang, D., Sancini, G. Targeting cells with MR imaging probes: Cellular interaction and intracellular magnetic iron oxide nanoparticles uptake in brain capillary endothelial and choroidal plexus epithelial cells (2010) *AIP Conference Proceedings*, 1275, pp. 145-149. DOI: 10.1063/1.3505065

Mantecca, P., Farina, F., Moschini, E., Gallinotti, D., Gualtieri, M., Rohr, A., Sancini, G., Palestini, P., Camatini, M. Comparative acute lung inflammation induced by atmospheric PM and size-fractionated tire particles (2010) *Toxicology Letters*, 198 (2), pp. 244-254. DOI: 10.1016/j.toxlet.2010.07.002, IF= 4.271

Farina, F., Sancini, G., Palestini, P. Seasonality effects on lung and systemic markers following intratracheal instillation of PM10 and PM1 (2010) *Chemical Engineering Transactions*, 22, pp. 15-22 DOI: 10.3303/CET1022002

Rivolta, I., D'Amato, R., Alexandrescu, R., Falconieri, M., Morjan, I., Chanana, M., Bouzas, V., Costo, R., Fabbri, F., Fleacé, C., Garcia, M.A., Gasco, P., Gonzalez, W., Morales, M.P., Nie, Y., Riccio, G., Robic, C., Sancini, G., Vivenza, N., Xu, H., Bello, V., Maurice, V., Sublemontier, O., Mattei, G., Herlin, N., Wang, D., Idee, J.M., Trave, E., Port, M., Veintemillas-Verdaguer, S., Borsella, E., Miserocchi, G. Cellular interaction with Si- and Iron-based nanoparticles for bioimaging. A study of biocompatibility (2009) 2009 9th IEEE Conference on Nanotechnology, IEEE NANO 2009, art. no. 5394763, pp. 593-596.

D'Amato, R., Alexandrescu, R., Bello, V., Bouzas, V., Carmona, N., Chanana, M., Costo, R., Dumitrache, F., Fabbri, F., Falconieri, M., Garcia, M.A., Gasco, P., Gonzalez, W., Herlin, N., Maurice, V., Huisken, F., Idee, J.M., Loschenov, V., Mattei, G., Miserocchi, G., Morales, M.P., Morjan, I., Nie, Y., Port, M., Pustovoy, V., Riccio, G., Rivolta, I., Ryabova, A., Robic, C., Sancini, G., Sublemontier, O., Trave, E., Veintemillas-Verdaguer, S., Vivenza, N., Wang, D., Xu, H., Borsella, E. Advances in the preparation of novel functionalized nanoparticles for bioimaging (2009) 2009 9th IEEE Conference on Nanotechnology, IEEE NANO 2009, art. no. 5394760, pp. 597-600.

Mantecca, P., Sancini, G., Moschini, E., Farina, F., Gualtieri, M., Rohr, A., Miserocchi, G., Palestini, P., Camatini, M. Lung toxicity induced by intratracheal instillation of size-fractionated tire particles (2009) *Toxicology Letters*, 189 (3), pp. 206-214. DOI: 10.1016/j.toxlet.2009.05.023, IF= 4.271

Bulbarelli, A., Lonati, E., Cazzaniga, E., Re, F., Sesana, S., Barisani, D., Sancini, G., Mutoh, T., Masserini, M. TrkA pathway activation induced by amyloid-beta (Abeta) (2009) *Molecular and Cellular Neuroscience*, 40 (3), pp. 365-373. Cited 26 times. DOI: 10.1016/j.mcn.2008.12.006, IF= 4.626

Dellacà, R.L., Zannin, E., Sancini, G., Rivolta, I., Leone, B.E., Pedotti, A., Miserocchi, G. Changes in the mechanical properties of the respiratory system during the development of interstitial lung edema (2008) *Respiratory Research*, 9, art. no. 51, DOI: 10.1186/1465-9921-9-51, IF= 7.162

Miserocchi, G., Sancini, G., Mantegazza, F., Chiappino, G. Translocation pathways for inhaled asbestos fibers (2008) *Environmental Health: A Global Access Science Source*, 7, art. no. 4, Cited 56 times. DOI: 10.1186/1476-069X-7-4, IF= 7.123

Franceschetti, S., Sancini, G., Buzzi, A., Zucchini, S., Paradiso, B., Magnaghi, G., Frassoni, C., Chikhladze, M., Avanzini, G., Simonato, M. A pathogenetic hypothesis of Unverricht-Lundborg disease onset and progression (2007) *Neurobiology of Disease*, 25 (3), pp. 675-685. DOI: 10.1016/j.nbd.2006.11.006, IF= 7.046

Curia, G., Aracri, P., Sancini, G., Mantegazza, M., Avanzini, G., Franceschetti, S. Protein-kinase C-dependent phosphorylation inhibits the effect of the antiepileptic drug topiramate on the persistent fraction of sodium currents (2004) *Neuroscience*, 127 (1), pp. 63-68. DOI: 10.1016/j.neuroscience.2004.04.040, IF= 3.708

Franceschetti, S., Lavazza, T., Curia, G., Aracri, P., Panzica, F., Sancini, G., Avanzini, G., Magistrett, J. Na<sup>+</sup>-activated K<sup>+</sup> current contributes to postexcitatory hyperpolarization in neocortical intrinsically bursting neurons (2003) *Journal of Neurophysiology*, 89 (4), pp. 2101-2111. DOI: 10.1152/jn.00695.2002, IF= 2.974

Cipelletti, B., Avanzini, G., Vitellaro-Zuccarello, L., Franceschetti, S., Sancini, G., Lavazza, T., Acampora, D., Simeone, A., Spreafico, R., Frassoni, C. Morphological organization of somatosensory cortex in *Otx1*<sup>-/-</sup> mice (2002) *Neuroscience*, 115 (3), pp. 657-667. DOI: 10.1016/S0306-4522(02)00531-6us, IF= 3.708

Bacci, A., Sancini, G., Verderio, C., Armano, S., Pravettoni, E., Fesce, R., Franceschetti, S., Matteoli, M. Block of glutamate-glutamine cycle between astrocytes and neurons inhibits epileptiform activity in hippocampus (2002) *Journal of Neurophysiology*, 88 (5), pp. 2302-2310. IF= 2.974

Sancini, G., Franceschetti, S., Lavazza, T., Panzica, F., Cipelletti, B., Frassoni, C., Spreafico, R., Acampora, D., Avanzini, G. Potentially epileptogenic dysfunction of cortical NMDA- and GABA-mediated neurotransmission in *Otx1*<sup>-/-</sup> mice (2001) *European Journal of Neuroscience*, 14 (7), pp. 1065-1074. DOI: 10.1046/j.0953-816X.2001.01723.x, IF= 3.698

Tonini, R., Franceschetti, S., Parolaro, D., Sala, M., Mancinelli, E., Tinini, S., Brusetti, R., Sancini, G., Brambilla, R., Martegani, E., Sturani, E., Zippel, R. Involvement of CDC25Mm/Ras-GRF1-dependent signaling in the control of neuronal excitability (2001) *Molecular and Cellular Neuroscience*, 18 (6), pp. 691-701. DOI: 10.1006/mcne.2001.1050, IF= 4.626

Avanzini, G., Spreafico, R., Franceschetti, S., Sancini, G., Battaglia, G. Cortical reorganization and seizure generation in dysplastic cortex (2001) *International Review of Neurobiology*, 45, pp. 159-172. IF= 4.280

Franceschetti, S., Taverna, S., Sancini, G., Panzica, F., Lombardi, R., Avanzini, G. Protein kinase C-dependent modulation of Na<sup>+</sup> currents increases the excitability of rat neocortical pyramidal neurones (2000) *Journal of Physiology*, 528 (2), pp. 291-304. IF= 6.228

Avanzini, G., Spreafico, R., Cipelletti, B., Sancini, G., Frassoni, C., Franceschetti, S., Lavazza, T., Panzica, F., Acampora, D., Simeone, A. Synaptic properties of neocortical neurons in epileptic mice lacking the *Otx1* gene (2000) *Epilepsia*, 41 (SUPPL. 6), pp. S200-S205. IF= 6.740

Taverna, S., Sancini, G., Mantegazza, M., Franceschetti, S., Avanzini, G. Inhibition of transient and persistent Na<sup>+</sup> current fractions by the new anticonvulsant topiramate (1999) *Journal of Pharmacology and Experimental Therapeutics*, 288 (3), pp. 960-968. IF= 4.402

Colacitti, C., Sancini, G., DeBiasi, S., Franceschetti, S., Caputi, A., Frassoni, C., Cattabeni, F., Avanzini, G., Spreafico, R., Di Luca, M., Battaglia, G.

Prenatal methylazoxymethanol treatment in rats produces brain abnormalities with morphological similarities to human developmental brain dysgeneses (1999) *Journal of Neuropathology and Experimental Neurology*, 58 (1), pp. 92-106. IF= 3.148

Colacitti, C., Sancini, G., Franceschetti, S., Cattabeni, F., Avanzini, G., Spreafico, R., Di Luca, M., Battaglia, G. Altered connections between neocortical and heterotopic areas in methylazoxymethanol-treated rat (1998) *Epilepsy Research*, 32 (1-2), pp. 49-62. DOI: 10.1016/S0920-1211(98)00039-4, IF= 2.991

Sancini, G., Franceschetti, S., Battaglia, G., Colacitti, C., Di Luca, M., Spreafico, R., Avanzini, G. Dysplastic neocortex and subcortical heterotopias in methylazoxymethanol-treated rats: An intracellular study of identified pyramidal neurones (1998) *Neuroscience Letters*, 246 (3), pp. 181-185. DOI: 10.1016/S0304-3940(98)00258-4, IF= 3.197

Franceschetti, S., Sancini, G., Panzica, F., Radici, C., Avanzini, G. Postnatal differentiation of firing properties and morphological characteristics in layer V pyramidal neurons of the sensorimotor cortex (1998) *Neuroscience*, 83 (4), pp. 1013-1024. DOI: 10.1016/S0306-4522(97)00463-6, IF= 3.708

Avanzini, G., De Curtis, M., Franceschetti, S., Sancini, G., Spreafico, R. Cortical versus thalamic mechanisms underlying spike and wave discharges in GAERS (1996) *Epilepsy Research*, 26 (1), pp. 37-44. DOI: 10.1016/S0920-1211(96)00037-X, IF= 2.991

Avanzini, G., Franceschetti, S., Sancini, G. Physiological properties of immature neocortical neurons relevant to pathophysiology of infantile epileptic encephalopathies. (1996) *Epilepsy research. Supplement*, 12, pp. 53-61. IF= 2.991

Franceschetti, S., Guatteo, E., Panzica, F., Sancini, G., Wanke, E., Avanzini, G. Ionic mechanisms underlying burst firing in pyramidal neurons: intracellular study in rat sensorimotor cortex (1995) *Brain Research*, 696 (1-2), pp. 127-139. DOI: 10.1016/0006-8993(95)00807-3, IF= 3.610

Franceschetti, S., Buzio, S., Sancini, G., Panzica, F., Avanzini, G. Expression of intrinsic bursting properties in neurons of maturing sensorimotor cortex (1993) *Neuroscience Letters*, 162 (1-2), pp. 25-28. DOI: 10.1016/0304-3940(93)90551-U, IF= 3.197

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