



UNIVERSITÀ
DEGLI STUDI
DELL'AQUILA



DISCAB
Dipartimento di Scienze
Cliniche Applicate
e Biotecnologiche

CURRICULUM VITAE

PERSONAL INFORMATION	MAURO MACCARRONE Department of Biotechnological and Applied Clinical Sciences University of L'Aquila Via Vetoio snc L'Aquila, 67100, Italy mauro.maccarrone@univaq.it
CURRENT POSITION	Professor and Chair of Biochemistry Head of the Laboratory of Lipid Neurochemistry at the European Center for Brain Research (CERC)/IRCCS Santa Lucia Foundation, 00179 Rome, Italy
EDUCATION OTHER QUALIFICATIONS	MS in Biological Sciences (Biochemistry) at University of L'Aquila (I) PhD in Enzymology Applied to Medical Sciences at Universities of L'Aquila, of Chieti and of Rome Tor Vergata (I) PhD in Bio-Organic Chemistry at University of Utrecht (NL)
ACADEMIC APPOINTMENTS	2020-present: Professor and Chair of Biochemistry at University of L'Aquila. 2012-2020: Professor and Chair of Biochemistry at Campus Bio-Medico University of Rome. 2006-present: Director of the Laboratory of Neurochemistry of Lipids of the European Center for Brain Research (CERC)/IRCCS Santa Lucia Foundation, Rome, Italy. 2004-2006: Chief of the Laboratory of Neuropharmacology and then of the Laboratory of Neurochemistry of the IRCCS C. Mondino, Mondino-Tor Vergata Center for Experimental Neuropharmacology, Rome (Italy). 2002-2012: Professor and Chair of Biochemistry at University of Teramo. 1996-2002: Assistant Professor of Biochemistry at Tor Vergata University of Rome. 1992-1996: Consultant of Biochemistry at IRCCS Istituto Dermopatico dell'Immacolata, Rome. 1992-1994: Researcher at the Department of Bio-Organic Chemistry of the Utrecht University



<p>TEACHING EXPERIENCE</p>	<p>Since 1996 has been in charge of many courses of Biochemistry, Applied Biochemistry and Molecular Biology at Tor Vergata University of Rome (1996-2001), University of Teramo (2002-2012), and Campus Bio-Medico University of Rome (2013-2020). Moreover, has been Faculty member of the 2011 Neuroscience School of Advanced Studies (NSAS) on “Endocannabinoids” (16-21 May 2011, San Quirico d’Orcia, Siena), and of the 2015 IBRO-Kemali School in Neuroscience on “Cannabinoid function in synapses, circuits and brain: from molecules to dis-ease mechanisms” (28 September - 3 October 2015, Pozzuoli). Plenary lecturer at Master degree courses (I and II levels), PhD schools and CME courses of several Italian Universities (e.g., Catania, Genova, Humanitas, Messina, Milano, Padova, Pavia, Roma Sapienza, Roma Tor Vergata, Roma Campus Bio-Medico, Scuola Superiore Sant’Anna di Pisa, Siena, Teramo). Scientific director of the educational programme for medical doctors PERSEO on “Cannabinoids in Multiple Sclerosis” (2017-2018, Milan). Member of the Honorary Academic Committee of the international Diploma of Advanced Studies in Endocannabinology, Cannabis and Cannabinoids (2021-2022, National University of Rosario, Argentina).</p>
<p>RESEARCH ACTIVITIES</p>	<p>Published 580 full papers, of which 75 with I.F. ≥ 9, 20 with I.F. ≥ 15, and 70 with 100 - 480 citations (total I.F. = 3000; citations = 24702; h-index = 83 according to Scopus), including more than 60 review articles in international refereed journals, besides more than 110 mini-papers and more than 370 Congress communications. Among others, he published 14 papers in J. Biol. Chem., 10 in J. Neurosci., 9 in Cell. Mol. Life Sci., 8 in Cell Death Differ., 6 in Trends Pharmacol. Sci., 4 in Blood, Neuropsychopharmacol. and FASEB J., 3 in Prog. Lipid Res., Biol. Psych. and J. Immu-nol., 2 in Prog. Neurobiol., Nature Commun., PNAS, Ann. Neurol. and Brain, 1 in NEJM, Nature Rev. Neurosci., Science, Science Trans. Med., Lancet, Lancet Neurol., JAMA, Endocr. Rev., Nature Neurosci., Trends Biochem. Sci., Annu. Rev. Nutr., Gastroenterology, Pharmacol. Rev., J. Hepatol. and Cell Chem. Biology. Due to his scientific activity and impact, is included by Stanford University in the “World Top 2% Scientists' List”, and among the “Top Italian Scientists”.</p> <p>Awarded the “4th Royan International Research Award for Reproductive Biomedicine” (2003) by the Royan Institute of Tehran (Iran), under the patronage of the ESHRE (European Society of Human Reproduction and Embryology); the “2007 IACM Award for Basic Research” by the International Association for Cannabinoid Medicines; the “BIO#4 Mission Team Achievement Award” by the European Space Agency, for the ROALD experiment flown on the International Space Station (2008); the “2016 Mechoulam Award” by the International Cannabis Research Society; the “2020 Tu Youyou Award” for Medicinal Chemistry by the journal Molecules; and the “2020 International Space Station Research and Development Award” by the American Astronautical Society with NASA and CASIS. Moreover, in 1994 was awarded the “Onore al Merito Prize for Scientific Research Performed Abroad” by the Ministry of Foreign Affairs and Regione Abruzzo; in 2004 was awarded the “Gold Medal for International Cooperation” by Mansura University (Egypt); in 2009 was elected “Person of the</p>



UNIVERSITÀ
DEGLI STUDI
DELL'AQUILA



DISCAB
Dipartimento di Scienze
Cliniche Applicate
e Biotecnologiche

Year in Science” by “La Città” (main newspaper of Teramo, Italy), and in 2018 was awarded the “Premio L’Aquila – Zirè d’Oro as Person of the Year”, by the Istituto di Abruzzesistica e Dialettologia of L’Aquila (Italy).

Invited speaker at 112 international congresses, including: six Gordon Research Conferences on “Cannabinoid function in the CNS” (30 September – 5 October 2007, Les Diablerets, Switzerland; 2-7 August 2009, New England, USA, as Discussion Leader; 22-27 May 2011, Les Diablerets, Switzerland; 20-25 August 2017, Waterville Valley, USA, as Discussion Leader; 21-26 July 2019 and 16-23 July 2023, Castelldefels, Spain, as Discussion Leader); Banff Conference on “CB2 cannabinoid receptors: new vistas” (May 31 – June 3 2007, Banff, Canada); ELSO-EMBO Meeting 2008 on “Frontiers of cellular, developmental and molecular biology” (30 August – 2 September 2008, Nice, France); Canadian College for Neuropharmacology-Canadian Association for Neuroscience (14-17 May 2010, Ottawa, Canada); 4th ISN Special Neurochemistry Conference on “Membrane domains in CNS physiology and pathology” (22-26 May 2010, Erice, Italy); 36th FEBS Congress on “Biochemistry for Tomorrow’s Medicine” (25-30 June 2011, Torino, Italy); First Joint Spanish-Italian Meeting on Cannabinoid Research (November 29th- December 1st 2012, Madrid, Spain), as Plenary Lecturer; Gordon Research Seminar on “Cannabinoid Function in the CNS” (23-24 May 2015, Lucca (Barga), Italy), as Discussion Leader; 12th World Congress of Biological Psychiatry (14-18 June 2015, Athens, Greece); 2nd Swiss Endocannabinoid Pharmacology Meeting (29-30 October 2015, Bern, Switzerland), as Plenary Lecturer; Annual European Congress of Rheumatology (EULAR) 2016 (8-11 June 2016, London, U.K.); Joint Annual Meeting of Hungarian Pharmacological and Physiological Societies - EFM (13-16 June 2017, Debrecen, Hungary), as Plenary Lecturer; 1st International Conference on Medical Grade Cannabis - CANNAAN (23-26 April 2018, Tel Aviv, Israel), as Key-note Speaker; 23rd European Society of Neurochemistry Biennial Meeting (1-4 September 2019, Milan, Italy); 11th Congress of the European Pain Federation EFIC (4-7 September 2019, Valencia, Spain); Canadian Fertility and Andrology Society (CFAS) 65th Annual Meeting (19-21 September 2019, Ottawa, Canada); “Cannabis and Cannabinoids” - Accademia Nazionale dei Lincei (20 December 2019, Rome, Italy); 10th World Congress on Chemistry & Medicinal Chemistry (28-29 February 2020, Rome, Italy), as Keynote Speaker; Global Summit on Cell Science and Molecular Biology (9-11 September 2021, Lisbon, Portugal), as Plenary Speaker; 3rd Molecules Medicinal Chemistry Symposium (27–29 July 2022, Rome, Italy) as Keynote Speaker; 62nd International Conference on the Bioscience of Lipids (4-7 September 2022, Montréal, Canada); Royal Society of Chemistry (RSC) Chemical Biology Symposium 2023 (15 May 2023, London). Has been session chairman at 15 international congresses. Referee for several journals of science, including Science, Nature Medicine, Nature Reviews Neuroscience, Nature Reviews Urology, JAMA, PNAS, Blood, Brain, Journal of Neuroscience, Journal of Biological Chemistry, FASEB Journal, Biological Psychiatry, and Cell Death and Differentiation. Referee for The Israel Science Foundation, The Science Foundation Ireland, the German Research Foundation (DFG), the Austrian Science



UNIVERSITÀ
DEGLI STUDI
DELL'AQUILA



DISCAB
Dipartimento di Scienze
Cliniche Applicate
e Biotecnologiche

Fund (FWF), the Swiss National Science Foundation (SNSF), The Wellcome Trust, the Medical Research Council, the Gordon Research Conferences, the Fondazione Italiana Sclerosi Multipla (AISM-FISM), and the NASA Postdoctoral Program (NPP).

Organizer of the German-Italian Villa Vigoni Conferences (Lovenio di Menaggio, Como) on "Redox Regulation in Disease and Ageing" (24-27 March 2004), "Redox-regulation by ischemia/reperfusion" (29 March-1 April 2006), "Redox regulation in acute and chronic inflammation" (11-14 March 2009), and "Redox regulation and the metabolic syndrome" (23-26 March 2011). Member of the Organizing Committee of the 56th National Meeting of the Italian Society of Biochemistry and Molecular Biology (26-29 September 2012, Chieti). Organizer of the Session "Developing novel tools for endocannabinoid research" at the 6th Mediterranean Neuroscience Society Conference 2017 (12-15 June 2017, Malta).

Faculty member of the 2011 Neuroscience School of Advanced Studies (NSAS) on "Endocannabinoids" (16-21 May 2011, San Quirico d'Orcia, Siena), and of the 2015 IBRO-Kemali School in Neuroscience on "Cannabinoid function in synapses, circuits and brain: from molecules to disease mechanisms" (28 September - 3 October 2015, Pozzuoli). Plenary lecturer at Master degree courses (I and II levels), PhD schools and CME courses of several Italian Universities (e.g., Catania, Genova, Humanitas, Messina, Milano, Padova, Pavia, Roma Sapienza, Roma Tor Vergata, Roma Campus Bio-Medico, Scuola Superiore Sant'Anna di Pisa, Siena, Teramo). Scientific director of the educational programme for medical doctors PERSEO on "Cannabinoids in Multiple Sclerosis" (2017-2018, Milan). Member of the "Group of Experts" of the Italian Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR) in 2012. Member of the Honorary Academic Committee of the international Diploma of Advanced Studies in Endocannabinology, Cannabis and Cannabinoids (2021-2022, National University of Rosario, Argentina).

President (2010-2011) of the "International Cannabinoid Research Society (ICRS)".

PI of the LAM project flown on the 28th Parabolic Flight campaign of ESA (in 2000), and of three projects flown on the International Space Station (ISS) after selection by the Italian (ASI), European (ESA) and American (NASA) Space agencies: ROALD (in 2008), ROALD-2/RESLEM (co-PI, in 2012) and SERiSM (in 2017).

Lead PI of the BioStruct-X BAG proposal 3060 "Protein-protein and protein-lipid interactions: structural triggering of cellular functions", selected by the European Union under the FP7 programme 2012 (BioStruct-X proposal 3060); and of the BioStruct-X BAG proposal 9643 "A new player in the modulation of protein function: the biological membrane", selected by the European Union under the FP7 programme 2007-2013.

Registered Investigator of the Italian Ministry of Health (ID: 018570), EU



UNIVERSITÀ
DEGLI STUDI
DELL'AQUILA



DISCAB
Dipartimento di Scienze
Cliniche Applicate
e Biotecnologiche

	<p>Expert (ID: EX2006C196475), COST Expert, and registered member of the “Elenco Nazionale degli Organismi Indipendenti di Valutazione (OIV)” (ID: 3441).</p> <p>Visiting Professor at Leiden University (Leiden Institute of Chemistry, The Netherlands) with a competitive Erasmus+ mobility grant (April 2017). Member of the Scientific Committee of the “Accademia dei Meccanismi Molecolari” (Consiglio Nazionale delle Ricerche, Bologna, Italy), since 2018. Faculty member of The Lambert Center for the Study of Medicinal Cannabis and Hemp at Thomas Jefferson University in Philadelphia, since 2019. Visiting Professor at Cambridge University (Department of Psychology, U.K.), where he gave a Zangwill Lecture, with a competitive intramural mobility grant (October 2019).</p> <p>Member of the Advanced Course Committee of the Federation of the European Biochemical Societies (2020 – 2023).</p> <p>Member of the Professional Council of the International Association for Cannabinoid Medicines (IACM), since 2020.</p> <p>Member of the Advisory Board on Integrated Physiology (Life Sciences) of the Italian Space Agency (ASI), since 2020.</p> <p>Member of the Governing Council of the Italian Society of Biochemistry and Molecular Biology (SIB), since 2021.</p> <p>Elected Secretary of SIB and Fellow of the Royal Society of Chemistry (2023). Elected Chair of the Advanced Course Committee and member of the Executive Committee (hence, Director and Trustee) of FEBS in 2023, starting his 3-year service in 2024.</p>
<p>RESPONSIBILITY IN ACADEMIC ACTIVITIES</p>	<p>2004-2012: Coordinator of the Bachelor’s Degree in Biotechnology of the University of Teramo.</p> <p>2007-2012: Director of the Department of Biomedical Sciences of the University of Teramo.</p> <p>2011-2012: Senator of the University of Teramo.</p> <p>2013-2019: Coordinator of the Bachelor’s Degree in Food Science and Human Nutrition at the School of Medicine, Campus Bio-Medico University of Rome.</p> <p>2021-2023: Person in charge for Quality Assurance of the Department of Biotechnological and Applied Clinical Sciences – University of L’Aquila.</p> <p>2024 - : Chair of the Committee for Internationalization of the Department of Biotechnological and Applied Clinical Sciences – University of L’Aquila.</p>



UNIVERSITÀ
DEGLI STUDI
DELL'AQUILA



DISCAB
Dipartimento di Scienze
Cliniche Applicate
e Biotecnologiche

EDITORIAL BOARD,
EDITORIAL ACTIVITIES,
SOCIETY MEMBERSHIP

Member of the Editorial Board of the journals *Lipids in Health and Disease* (since 2002), *Anti-Allergy and Anti-Inflammatory Agents in Medicinal Chemistry* (since 2005), *Current Neurovascular Research* (since 2006), *The Open Journal of Neuroscience* (since 2006), *Current Medicinal Chemistry* (since 2008), *Cardiovascular Psychiatry and Neurology* (since 2009), *Cannabinoids* (since 2009), *Frontiers in Molecular Neuroscience* (since 2010), *BioFactors* (2016-2020), *Molecules* (since 2019), *Frontiers in Neuroscience and Frontiers in Endocrinology* (since 2020). Member of the *Biochemistry Editorial Advisory Board* (since 2010), and then Editor of *Biochemistry* (since 2017), for the *Encyclopedia of Life Sciences (ELS)*, published by Wiley-Blackwell. Associate Editor of *Frontiers in Membrane Physiology and Biophysics* (since 2010), of the *Journal of Alzheimer's Disease* (2013-2015), of *Cannabis and Cannabinoid Research* (since 2015), and of *Frontiers in Molecular Neuroscience* (since 2016).

Guest Editor of the following theme-issues: "Current Drug Targets – CNS & Neurological Disorders" on "The endocannabinoid system in the brain: From biology to therapy" (Vol. 4, 2005); "Current Pharmaceutical Design" on "The endocannabinoid system in neuroinflammatory diseases" (Vol. 14, 2008); "Current Medicinal Chemistry" on "Endocannabinoid-binding receptors: Old friends and new comers" (Vol. 17, 2010); "Experimental Neurology" on "Endocannabinoid signaling in healthy and diseased brain" (Vol. 224, 2010.); "Current Medicinal Chemistry" on "Regulation of GPCRs by the membrane environment" (Vol. 20, 2013); "FEBS Journal" on "Recent advances on the endocannabinoid system and its relevance for human health" (Vol. 280, 2013); "BioFactors" on "Endocannabinoids and nutrition" (Vol. 40, 2014); in 2014 he has prepared with Dr. T. Harkany a virtual theme-issue of "Nature Reviews Neuroscience" on "Endocannabinoids", including 7 articles published in volumes 15 and 16; "Methods in Molecular Biology" on "Endocannabinoid signaling: Methods and protocols" (Vol. 1412, 2016); "Biotechnology and Applied Biochemistry" on "Biochemistry of Protein-Protein and Protein-Lipid Interactions: Applications to Biotechnology" (Vol. 65, 2018); "Frontiers in Neuroscience" on "Molecular clues to food addiction-like behavior" (Vol. 271, 2018); "Antioxidants & Redox Signaling" on "Neurodegenerative Disorders" (Vol. 29, 2018); "Molecules" on "Emerging topics in (endo)cannabinoid signalling" (Vol. 24, 2019); "Cancers" on "Cannabinoids and Cancer" (Vol. 12, 2020, and Vol. 13, 2021); "Drug Discovery" (Royal Society of Chemistry) on "New Tools to Interrogate Endocannabinoid Signalling" (Vol. 76, 2021); "Molecules" on "A Themed Issue in Honor of Professor Raphael Mechoulam: The Father of Cannabinoid and Endocannabinoid Research" (Vol. 26, 2021, and Vol. 27, 2022); "Methods in Molecular Biology" on "Endocannabinoid signaling: Methods and protocols – 2nd Edition" (Vol. 2576, 2023); "Molecules" on "Bioactive Lipids in Inflammatory Diseases" (Vol. 27, 2022, and Vol. 28, 2023).

Member of the following professional associations:
World Federation of Scientists (1986-); Ordine Nazionale dei Biologi (1987-2005); European Low Gravity Research Association (ELGRA, 1989-2002); Italian Society of Biochemistry and Molecular Biology (SIB, 1991-); Royal



	<p>Netherlands Chemical Society (KNCV) and the Netherlands Society for Biochemistry and Molecular Biology (1992-1995); New York Academy of Sciences (NYAS, 1994-1995); International Cannabinoid Research Society (ICRS, 1999-); American Society for Biochemistry and Molecular Biology (2003-); American Association for the Advancement of Science (2004-); American Chemical Society (2007-); Society for Neuroscience (2009); European Society of Human Reproduction and Embryology (2014); Epigenetics Society (2016-); American Society for Gravitational and Space Research (2016-); International Society for Gravitational Physiology (2018-); Sigma Xi, The Scientific Research Honor Society (2021-2023); Mediterranean Neuroscience Society (2022-); Royal Society of Chemistry (2023-).</p>
<p>SCIENTIFIC ACHIEVEMENTS BIBLIOMETRIC INDICATORS</p>	<p>Scopus Author ID: 7004870192 Orcid Author ID: 0000-0002-3990-2963 Bibliometric Indeces: Total I.F = 3000 Total citations = 24702 and Hirsch (H) index = 83 according to Scopus</p>
<p>SELECTED PUBLICATIONS</p>	<p>Leuti, A., Fava, M. and Maccarrone, M. "A game of networks: Do different lipids orchestrate together inflammatory homeostasis?" <i>Cell Chem. Biol.</i> 30 (2023) 1499-1501.</p> <p>Gambacorta, N., Gasperi, V., Guzzo, T., Di Leva, F.S., Ciriaco, F., Sánchez, C., Tullio, V., Rozzi, D., Marinelli, L., Topai, A., Nicolotti, O. and Maccarrone, M. "Exploring the 1,3-benzoxazine chemotype for Cannabinoid receptor 2 as a promising anti-cancer therapeutic". <i>Eur. J. Med. Chem.</i> 259 (2023) 115647.</p> <p>Maccarrone, M., Di Marzo, M., Gertsch, J., Grether, U., Howlett, A.C., Hua, T., Makriyannis, A., Piomelli, D., Ueda, N. and van der Stelt, M. "Goods and bads of endocannabinoid system as a therapeutic target: Lessons learned after 30 years". <i>Pharmacol. Rev.</i> 75 (2023) 885-958.</p> <p>Di Meo, C., Tortolani, D., Standoli, S., Angelucci, C.B., Fanti, F., Leuti, A., Sergi, M., Kadhim, S., Hsu, E., Rapino, C. and Maccarrone, M. "Effects of rare phytocannabinoids on the endocannabinoid system of human keratinocytes". <i>Int. J. Mol. Sci.</i> 23 (2022) 5430.</p> <p>Maccarrone, M., Rapino, C., Francavilla, F. and Barbonetti, A. "Cannabinoid signalling and effects of cannabis on the male reproductive system". <i>Nature Rev. Urol.</i> 18 (2021) 19–32.</p> <p>Maccarrone, M. "Missing pieces to the endocannabinoid puzzle". <i>Trends Mol. Med.</i> 26 (2020) 263-272.</p> <p>Friedman, D., French, J.A. and Maccarrone, M. "Safety, efficacy, and mechanisms of action of cannabinoids in neurological disorders". <i>Lancet Neurol.</i> 18 (2019) 504–512.</p> <p>Chirchiù, V., Leuti, A., Saracini, S., Fontana, D., Finamore, P., Giua, R., Padovini, L., Antonelli Incalzi, R. and Maccarrone, M. "Resolution of inflammation is altered in chronic heart failure and entails a dysfunctional</p>



responsiveness of T lymphocytes". *FASEB J.* 33 (2019) 909-916.

Van Esbroeck, A.C.M., Janssen, A.P.A., Cagnetta III, A.B., Ogasawara, D., Shpak, G., van der Kroeg, M., Kantae, V., Baggelaar, M.P., de Vrij, F.M.S., Deng, H., Al-larà, M., Fezza, F., Lin, Z., van der Wel, T., Soethoudt, M., Mock, E.D., den Dulk, H., Baak, I.L., Florea, B.I., Hendriks, G., De Petrocellis, L., Overkleeft, H.S., Hankemeier, T., De Zeeuw, C.I., Di Marzo, V., Maccarrone, M., Cravatt, B.F., Kushner, S.A. and Van der Stelt, M. "Activity-based protein profiling reveals off-target proteins of the Fatty Acid Amide Hydrolase inhibitor BIA 10-2474". *Science* 356 (2017) 1084-1087.

Soethoudt, M., Grether, U., Fingerle, J., Grim, T.W., Fezza, F., de Petrocellis, L., Ullmer, C., Rothenhäusler, B., Perret, C., van Gils, N., Finlay, D., MacDonald, C., Chicca, A., Dalghi Gens, M., Stuart, J., de Vries, H., Mastrangelo, N., Xia, L., Alachouzos, G., Baggelaar, M.P., Martella, A., Mock, E.D., Deng, H., Heitman, L.H.*, Connor, M.*, Di Marzo, V.*, Gertsch, J.*, Lichtman, A.H.*, Maccarrone, M.*, Pacher, P.*, Glass, M.* and van der Stelt, M.* "Cannabinoid CB2 receptor ligand profiling reveals biased signaling and off-target activity: Implications for drug discovery". *Nature Commun.* 8 (2017) 13958. *Equally senior authors

Chiurchiù, V., Leuti, A., Dalli, J., Jacobsson, A., Battistini, L., Maccarrone, M.* and Serhan, C.N.* "Pro-resolving lipid mediators Resolvin D1, Re-solvin D2 and Maresin 1 are critical in modulating T cell responses". *Science Trans. Med.* 8 (2016) 353ra111. *Equally senior authors

Maccarrone, M., Bab, I., Bíró, T., Cabral, G.A., Dey, S.K., Di Marzo, V., Konje, J.C., Kunos, G., Mechoulam, R., Pacher, P., Sharkey, K.A. and Zimmer, A. "Endocannabinoid signaling at the periphery: 50 years after THC". *Trends Pharmacol. Sci.* 36 (2015) 277-296.

Maccarrone, M., Guzman, M., Mackie, K., Doherty, P. and Harkany, T. "Programming and reprogramming neural cells by (endo-)cannabinoids: from physiological rules to emerging therapies". *Nature Rev. Neurosci.* 15 (2014) 786-801.

Galve-Roperh, I., Chiurchiù, V., Díaz-Alonso, J., Bari, M., Guzman, M. and Maccarrone, M. "Cannabinoid receptor signaling in progenitor/stem cell proliferation and differentiation". *Prog. Lipid Res.* 52 (2013) 633-650.

Chiurchiù, V., Cencioni, M.T., Bisicchia, E., De Bardi, M., Gasperini, C., Borsellino, G., Centonze, D., Battistini, L. and Maccarrone, M. "Distinct modulation of human myeloid and plasmacytoid dendritic cells by anandamide in multiple sclerosis". *Ann. Neurol.* 73 (2013) 626-636.

D'Addario, C., Dell'Osso, B., Galimberti, D., Palazzo, M.C., Benatti, B., Di Francesco, A., Scarpini, E., Altamura, A.C. and Maccarrone, M. "Epigenetic modulation of BDNF gene in patients with major depressive disorder". *Biol. Psychiat.* 73 (2013) 6-7.

Pucci, M., Pasquariello, N., Finazzi Agrò, A., Breton, L. and Maccarrone, M. "Endocannabinoids stimulate human melanogenesis via type-1 cannabinoid receptor". *J. Biol. Chem.* 287(2012) 15466-15478.

Den Boon, F.S., Chameau, P., Schaafsma-Zhao, Q., Maccarrone, M.*,



	<p>Wadman, W.J.* and Werkman, T.R.* "Excitability of prefrontal cortical pyramidal neurons is modulated by activation of intracellularly located type-2 cannabinoid receptors". Proc. Natl. Acad. Sci. USA 109 (2012) 3534-3539. <i>*Equally senior authors</i></p> <p>Maccarrone, M., Dainese, E. and Oddi, S. "Intracellular trafficking of AEA: new concepts for signaling". Trends Biochem. Sci. 35 (2010) 601-608.</p> <p>Dainese, E., Angelucci, C.B., Sabatucci, A., De Filippis, V., Mei, G. and Maccarrone, M. "A novel role for iron in modulating the activity and membrane binding ability of a trimmed soybean lipoxygenase-1". FASEB J. 24 (2010) 1725-1736.</p> <p>Oddi, S., Fezza, F., Rapino, C., Finazzi Agrò, A. and Maccarrone, M. "Molecular identification of albumin and Hsp70 as cytosolic anandamide-binding proteins". Chem. Biol. 16 (2009) 624-632.</p> <p>Viscomi, M.T., Oddi, S., Latini, L., Pasquariello, N., and Maccarrone, M. "Selective CB2 receptor agonism protects central neurons from remote axotomy-induced apoptosis through the PI3K/Akt pathway". J. Neurosci. 29 (2009) 4564-4570.</p> <p>Maccarrone, M. "Anandamide as a marker of human disease". JAMA 300 (2008) 281-282.</p> <p>Pasquariello, N., Paradisi, A., Barcaroli, D. and Maccarrone, M. "Anandamide regulates keratinocyte differentiation by inducing DNA methylation in a CB1 receptor-dependent manner". J. Biol. Chem. 283 (2008) 6005-6012.</p> <p>Maccarrone, M., Rossi, S., Bari, M., Finazzi Agrò, A., Cravatt, B.F. and Centonze, D. "Anandamide inhibits metabolism and physiological actions of 2-arachidonoylglycerol in the striatum". Nature Neurosci. 11 (2008) 152-159.</p> <p>Taccone-Gallucci, M., Manca di Villahermosa, S. and Maccarrone, M. "Leukotrienes". N. Engl. J. Med. 358 (2008) 746.</p> <p>Centonze, D., Finazzi Agrò, A., Bernardi, G. and Maccarrone, M. "The endocannabinoid system in targeting inflammatory neurodegenerative diseases". Trends Pharmacol. Sci. 28 (2007) 180-187.</p> <p>Wang, H., Dey, S.K. and Maccarrone, M. "Jekyll and Hyde: Two faces of cannabinoid signaling in male and female fertility". Endocr. Rev. 27 (2006) 427-448.</p> <p>Maccarrone, M., Barboni, B., and Mattioli, M. "Characterization of the endocannabinoid system in boar spermatozoa and implications for sperm capacitation and acrosome reaction". J. Cell Sci. 118 (2005) 4393-440.</p> <p>Pisani, A., Fezza, F., Galati, S., Finazzi Agrò, A., and Maccarrone, M. "High endogenous cannabinoid levels in the cerebrospinal fluid of untreated Parkinson's disease patients". Ann. Neurol. 57 (2005) 777-779.</p>
--	--

L'AQUILA, 14 FEBBRAIO 2024