

## Curriculum Vitae of Manolo SAMBUCCI

### Personal information

Name Manolo SAMBUCCI  
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Languages Italian, English, French  
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### Education and training

2015. Felasa Certification (Laboratory Animal Science Cat. B N.023/09) 2<sup>nd</sup> Dec. Practice results: 9.7/10 ; Theory, Results: 8.7/10. European Center for Brain Research, Rome, Italy.
- 2007-2011 PhD in Immunology and Applied Biotechnology, University of Rome Tor Vergata, School of Medicine and Surgery & School of Science, Rome, Italy.  
  
PhD thesis defense May 3, 2011. « *Role of poly (ADP-ribose) polymerase-1 in the balance between regulatory and effector T cell differentiation.* »  
Advisor : Dr Claudio Pioli
- 2000-2007 BSc and MSc degree in Molecular and Cellular Biology, University of Rome Tor Vergata, School of Science (grade 110 / 110, *cum laude*)  
  
MSc thesis on « *Role of CD152 in T helper 2 cell differentiation* »  
Advisor : Dr Claudio Pioli & Prof. Vittorio Colizzi.
- 1995-2000 Scientific high school (Liceo scientifico) Velletri, RM, grade 94/100.

### Work experience

- 1<sup>st</sup> Oct 2018 – Present Research Contract (*Ricerca Finalizzata*) for Italian Ministry of Health at Fondazione Santa Lucia, European Centre for Brain Research, Neuroimmunology Unit. Rome, Italy. Title « Immune Tolerance, Metabolism and Multiple Sclerosis: Novel Molecular Tools to Monitor Disease Pathogenesis and Progression »
- 24<sup>th</sup> May 2017 – 30<sup>th</sup> Sept 2018 Research Fellow (*Assegno di Ricerca*) at National Research Council (CNR) IEOS Research fellow, at « Treg cell lab », Naples, Italy.(P.I. Giuseppe Matarese)

- 1<sup>st</sup> March 2015 – May 2017      FISM (Italian Multiple Sclerosis Society) Research grant at Fondazione Santa Lucia, European Center for Brain Research, Neuroimmunology Unit. Rome, Italy (P.I. Luca Battistini)
- 2<sup>nd</sup> Jan. 2013 – 28<sup>th</sup> Feb 2014      Research Fellow at Fondazione Santa Lucia, European Centre for Brain Research, Neuroimmunology Unit. Rome, Italy. (P.I. Luca Battistini)
- 1<sup>st</sup> Sept. 2011 – 31 Dec 2012.      Research Fellow (*Pasteurien*) at Pasteur Institute, Unit of Signalisation des Cytokines, Department of Immunology. Paris, France. (P.I. Sandra Pellegrini).
- Nov. 2007 - May 2011      Research activity as PhD student, Research Center Casaccia of ENEA (Italian National Agency for New Technologies, Energy and Sustainable Economic Development), Laboratory of Radiation Biology and Biomedicine, Unit of Radiation Biology and Human Health, Rome, Italy. (P.I. Claudio Pioli).

### Awards

Selected as young immunologist to join Faculty members of Italian Society of Immunology, Clinical Immunology and Allergology (SIICA), as SIICA Junior Faculty.

Selected, as PhD student, for the tutoring and academic support fellowship to support in the form of tutor the undergraduates. University of Rome Tor Vergata, School of Medicine and Surgery, 2010. Supervised by Prof. Paolo Di Francesco.

### Publications (May 2021) h-index (Scopus) : 10

1. Kunkl M, Amormino C, Frasca S, Sambucci M, De Bardi M, Caristi S, Arcieri S, Battistini L, Tuosto L. CD28 Autonomous Signaling Orchestrates IL-22 Expression and IL-22-Regulated Epithelial Barrier Functions in Human T Lymphocytes. **Front Immunol.** 2020 Oct 14;11:590964.
2. Pinto R, Sambucci M, Laudisi F, Nasta F, Lodato R, Altavista P, Lovisolo GA, Marino C, Pioli C. Re to Wi-Fi is an important threat to human health, *Environ. Research* 164: 405, 2018. **Environ Res.** 2020 Dec;191:110138.
3. Schober K, Sambucci M, Patzer GE, Laudisi F. Young immunologists of Europe, unite! **Eur J Immunol.** 2020 Apr;50(4):480-483.
4. Di Magno L, Manni S, Di Pastena F, Coni S, Macone A, Cairoli S, Sambucci M, Infante P, Moretti M, Petroni M, Nicoletti C, Capalbo C, De Smaele E, Di Marcotullio L, Giannini G, Battistini L, Goffredo BM, Iorio E, Agostinelli E, Maroder M, Canettieri G. Phenformin Inhibits Hedgehog-Dependent Tumor Growth through a Complex I-Independent Redox/Corepressor Module. **Cell Rep.** 2020 Feb 11;30(6):1735-1752.e7.
5. Sambucci M, Gargano F, Guerrera G, Battistini L, Borsellino G. One, No One, and One Hundred Thousand: T Regulatory Cells' Multiple Identities in Neuroimmunity. **Front Immunol.** 2019 Dec 20;10:2947.

6. Kunkl M, Sambucci M, Ruggieri S, Amormino C, Tortorella C, Gasperini C, Battistini L, Tuosto L. CD28 Autonomous Signaling Up-Regulates C-Myc Expression and Promotes Glycolysis Enabling Inflammatory T Cell Responses in Multiple Sclerosis. **Cells**. 2019 Jun 11;8(6). pii: E575. doi: 10.3390/cells8060575.
7. Sambucci M, Gargano F, De Rosa V, De Bardi M, Picozza M, Placido R, Ruggieri S, Capone A, Gasperini C, Matarese G, Battistini L, Borsellino G. FoxP3 isoforms and PD-1 expression by T regulatory cells in multiple sclerosis. **Sci Rep**. 2018 Feb 27;8(1):3674.
8. Antonelli M, Strappazon F, Arisi I, Brandi R, D'Onofrio M, Sambucci M, Manic G, Vitale I, Barilà D, Stagni V. ATM kinase sustains breast cancer stem-like cells by promoting ATG4C expression and autophagy. **Oncotarget**. 2017 Mar 28; 8(13) :21692-21709
9. Ponzo V, Di Lorenzo F, Brusa L, Schirinzi T, Battistini S, Ricci C, Sambucci M, Caltagirone C, Koch G. Impaired intracortical transmission in G2019S leucine rich-repeat kinase Parkinson patients. **Mov Disord**. 2017 May;32(5):750-756
10. Volpe E, Sambucci M, Battistini L, Borsellino G. FAS-FAS Ligand : Checkpoint of T cell functions in multiple sclerosis. **Front Immunol**. 2016 Sep 27;7:382.
11. Di Mitri D, Sambucci M, Loiarro M, De Bardi M, Volpe E, Cencioni MT, Gasperini C, Centonze D, Sette C, Akbar AN, Borsellino G, Battistini L. The p38 mitogen-activated protein kinase cascade modulates T helper type 17 differentiation and functionality in multiple sclerosis. **Immunology**. 2015 Jun 12. doi: 10.1111/imm.12497.
12. Sambucci M, Laudisi F, Novelli F, Bennici E, Rosado M.M, Pioli C. Effects of PARP-1 deficiency on Th1 and Th2 cell differentiation. **The Scientific World Journal** 2013. Nov 5;2013:375024. doi: 10.1155/2013/375024
13. Laudisi F, Sambucci M, Nasta F, Pinto R, Lodato R, Altavista P, Lovisolo G.A., Marino C and Pioli C. 2012 "Prenatal Exposure to Radiofrequencies: Effects of WiFi Signals on Thymocyte Development and Peripheral T Cell Compartment in an Animal Model". **Bioelectromagnetics**. 2012 May 3. doi: 10.1002/bem.21733
14. Sambucci M, Laudisi F, Nasta F, Pinto R, Lodato R, Lopresto V, Altavista P, Marino C, Pioli C. 2011. "Early life exposure to 2.45GHz WiFi-like signals: Effects on development and maturation of the immune system". **Prog Biophys Mol Biol**. 107(3) :393-8.
15. Laudisi F, Sambucci M, and Pioli C. 2011. "Poly (ADP-ribose) Polymerase-1 (PARP-1) as immune regulator". **Endocr Metab Immune Disord Drug Targets**. 2011 ; 11(4) :326-33.
16. Sambucci M, Laudisi F, Nasta F, Pinto R, Lodato R, Altavista P, Lovisolo GA, Marino C, Pioli C. 2010. "Prenatal exposure to non-ionizing radiation: effects of WIFI signals on peripheral B cell compartment and antibody production". **Radiation Research**. 2010 Dec;174(6):732-40.
17. Nasta F, Laudisi F, Sambucci M, Rosado MM, Pioli C. 2010. "Increased Foxp3+ regulatory T cells in Poly(ADP-Ribose)-Polymerase-1 deficiency". **J. Immunology**. 2010 Apr 1;184(7):3470-7

### Research activities and others

Studies on immune-regulation and Multiple Sclerosis

Studies on T regulatory cells in Parkinson Disease, Myasthenis Gravis, Leukemia, Multiple

Sclerosis.

Studies on the development of human T cell subsets

Authorship and co-authorship to writing original research articles

Technical supervision of undergraduates students

### Main technical skills

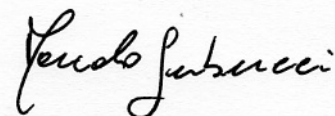
- Mouse handling
- Murine and Human cells preparation
- Cell cultures
- Immune cell subsets purification
- Immune cell subsets identification through Flow Cytometry
- Cytofluorimetry
- ELISA
- mRNA analysis, qRT-PCR
- protein analysis, Western Blot
- Co-immunoprecipitation
- Metabolism studies (Cellular Glycolytic Activity, and Mitochondrial Respiration) through Agilent Seahorse technology
- Use of PC and Mac softwares.

### Additional informations

- Italian Red Cross member (CRI)
- National Biologist Certification (Esame di Stato, 1<sup>st</sup> session of 2011, School of Science, University of Rome "Tor Vergata", Rome, Italy)
- Member of AINI (Italian Association for Neuroimmunology) since 2013.
- Member of the European Academy of Allergy and Clinical Immunology (EAACI), since 2010
- Member of the Bioelectromagnetics Society (BEMS), since 2010
- Member of the European Bioelectromagnetics Association (EBEA), since 2010
- Member of the Italian Society for Immunology, Clinical Immunology and Allergy (SIICA), since 2008
- Anti-doping delegate at the 13<sup>th</sup> FINA World Championship, Rome, 17 July-2 August, 2009
- Technical assistant (volunteer) at the Eye Bank of Rome. March 2005-August 2006, San Giovanni Addolorata Hospital, Rome, Italy

Participation as oral presentation/poster in many national/international meetings

Manolo Sambucci, PhD.



In agreement with the Italian Law (Personal Data Protection Code), Legislative Decree no. 196 dated 30 June 2003, I authorize the use of my personal data.