CURRICULUM VITAE CANOBBIO ILARIA

Curriculum Vitae Ilaria Canobbio

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- **EDUCATION**

1997 **Erasmus** Student. Department of Cellular Culture, University of Greenwich, UK;
1998 **Graduation** in Biology, full marks, Department of Biochemistry, University of Pavia, Italy: "Studies on the mechanisms of association of GTP-binding protein rap1b and rap2b with cytoskeleton in von Willebrand factor-activated platelets"
1998-2001 **PhD in Biochemistry and Molecular Physiology of Membrane Systems**: "Analysis of platelet activation mediated by von Willebrand factor" Department of Physiology and Biochemistry, University of Pavia, Italy
2010-2012 **Master in Communication of Science and Sustainable Innovation,** University Milano Bicocca, Italy

- **CURRENT POSITION(S)**

2015 ------ Assistant Professor (RTDB), Department of Biology and Biotechnology, University of Pavia, Italy [05/F1, BIO13]

- **PREVIOUS POSITIONS**

2001 – 2003 Fellowship, Centre for Applied Biology, University of Pavia, Italy
2003 – 2006 Fellowship, Department of Biochemistry, University of Pavia, Italy
2007 – 2009 Post Doc, Regione Lombardia & Department of Biochemistry, University of Pavia, Italy
2009 – 2012 Post Doc, Department of Biochemistry, University of Pavia, Italy
2012 – 2015 Post Doc, Department of Biology and Biotechnology, University of Pavia, Italy
2013 – 2015 Visiting Research Fellow, Department of Pharmacy and Pharmacology, University of Bath, UK

- **FELLOWSHIPS AND AWARDS**

1998 – 2001 Scholarships from SAFI (Advanced school of integrated formation), Istituto Universitario di Studi Superiori, IUSS, University of Pavia, Italy
1999 Young investigator award with the project "Comparative analysis of platelet adhesion and activation induced by fibrillar collagen", University of Pavia, Italy
2006 – 2007 Young research Fellow, Centre for research and communicaton, Collegio Ghislieri, Pavia

2011 Award received from SIB (Italian Society of Biochemistry) for the participation at 36th congress FEBS

- **SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS**

2002 – 2016 Supervisor for Bachelor Degree (9 students); Degree (7); co-supervisor for PhD (4), University of Pavia, Italy

- **TEACHING ACTIVITIES**

2002-2005 Tutor in Biochemistry courses in Biology and Biotechnology
2006 -2009 Teaching position – Molecular mechanism of intra- and inter-cellular communications, course: Metabolic Biochemistry, Biology, University of Pavia, Italy
2010- 2015 Teaching position –Mechanism of Hormone action, course: Medical Biochemistry, Biology, University of Pavia, Italy
2015-2016 Teaching position in Biochemistry II and laboratory, University of Pavia
2015 Visiting lecturer, Dept Pharmacy and Pharmacology, University of Bath, UK
2016-2017 Teaching position in Medical Biochemistry (3CFU) (500717) and Laboratory of Biomolecular methodology (3CFU) (502269), University of Pavia
2017 Erasmus teaching in "Cellular Signalling", Dept Pharmacy and Pharmacology, University of Bath, UK

- **INSTITUTIONAL RESPONSIBILITIES**

2011 – 2016 Member of GAP (PostGraduate Association); executive secretary, Pavia, Italy
2012 – 2016 Member of Department Committee, Delegate for Research Fellow, University of Pavia
2009 Organiser and chairman of the seminar "Searching for hidden energy" with Dr. Di Leonardo, Università La Sapienza, Roma. In collaboration with Collegio Ghislieri & Regione Lombardia.

- **COMMISSIONS OF TRUST**

2013 Scientific Committee, 15th UK platelet Group meeting, University of Birmingham
2004-2016 Peer-Reviewer for the international journals: Journal of Thrombosis and Haemostasis, Thrombosis and Haemostasis, Thrombosis Research, Biochimie, Planta Medica, Scientific Report

- **MEMBERSHIPS OF SCIENTIFIC SOCIETIES**

2011 –2017 SIB, Italian Society of Biochemistry, Member
2013 scientific committee of 15th UK platelet Group meeting, University of Birmingham, UK
2015-2017 scientific committee National meeting of PhD in Biochemistry, Brallo di Pregola (PV), Italy
2017 abstract reviewer for International Society of Thrombosis and Hemostasis ISTH 2017
2017 organizer and scientific committee of 17th UK platelet Group meeting, University of Bath, UK

- **MAJOR COLLABORATIONS**

- Telethon Project GP 0019Y01: collaboration with Prof. C.L. Balduini, Dr. A. Pecci, Clinica Medica, Hospital San Matteo, Pavia; participant in the project "Non muscle myosin IIA: from genes mutations to illness"
- Telethon Project GGP06177B: collaboration with Prof. A. Savoia, University of Trieste; participant in the project: "Role of non muscle myosin IIA in MYH9 related disease"
- Telethon Project GGP 10089: collaboration with Prof. C.L. Balduini, Clinica Medica, Hospital San Matteo, Pavia; participant in the project "A new gene for inherited thrombocytopenias: clinical, pathogenetic and pharmacological studies"
- Collaboration with Prof. P. Gresele, Dr. S. Momi, University of Perugia, in the CARIPLO Project "Tyrosine kinases in cardiovascular diseases: unravelling the role of the focal adhesion kinase Pyk2 in platelet function, arterial thrombosis, and abdominal aortic aneurysm"

- Telethon Project GGP10089: collaboration with Prof. C.L. Balduini, Dr. A. Pecci, Clinica Medica, Hospital San Matteo, Pavia; participant in the project "A new gene for inherited thrombocytopenias: clinical, pathogenetic and pharmacological studies"
- Collaboration with Dr. Minetti, University of Pavia, in the CARIPLO project "Toxicology of engineered nanoparticles: analysis of their potential thrombotic, inflammatory and hemolytic effects"
- **Co-investigator** with Dr. Giordano Pula in the granted ARUK project PPG2013B-8: "Analysis of the role of amyloidogenic peptides in vascular inflammation and thrombotic complications of Alzheimer disease"

- **COMUNICATION OF SCIENCE**

2001 Diploma of SAFI (Advanced school of integrated formation), Istituto Universitario di Studi Superiori, IUSS, Università degli Studi di Pavia. Tutor to the following courses of IUSS: "Language and evolution" (Prof. Luca Cavalli-Sforza, 2002); "The interface between Art and Science in history and now" (Prof. Marina Wallace, Prof Martin Kemp University College of London, Oxford University), 2004 and "Biotechnology: new perspective" (Prof. Milanesi, Università Milano, 2007)

2005 Translation of the second edition of "Biochemistry for medical application" J.W. Baynes, M.H. Dominiczak, ed. Zanichelli

2011 Collaboration with the scientific format Moebius (Radio24), Science writer for on line scientific journal scienzainrete and scienzaearte, and with the WebTV Triwu.

2012 Collaboration to the book "Pannocchie da Nobel", author Cristiana Pulcinelli, collana Donne nella Scienza, Editoriale Scienza, 2012

Author or co-author of 34 peer review papers, H index 14, 692 citation (Scopus)

Marconi C, **Canobbio I**, Bozzi V, Pippucci T, Simonetti G, Melazzini F, Angori S, Martinelli G, Saglio G, Torti M, Pastan I, Seri M, Pecci A.
5'UTR point substitutions and N-terminal truncating mutations of ANKRD26 in acute myeloid leukemia.
J Hematol Oncol. 2017 Jan 18;10(1):18. doi: 10.1186/s13045-016-0382-y.

Guidetti G, Zarà M, **Canobbio I,** Visconte C, Di Nunzio G, Torti M
Novel pharmacological inhibitors demonstrate the role of the tyrosine kinase Pyk2 in adhesion and aggregation of human platelets.
Thromb Haemost. 2016 Jul 14;116. [Epub ahead of print]

Canobbio I, Visconte C, Oliviero B, Guidetti G, Zarà M, Pula G, Torti M
Increased platelet adhesion and thrombus formation in a mouse model of Alzheimer's disease
Cell Signalling 2016; 28; 1863-1871

Posner MG, Upadhyay A, Abubaker AA, Fortunato T, Vara D, **Canobbio I**, Bagby S, Pula G.
Extracellular Fibrinogen Binding Protein (Efb) from Staphylococcus aureus Inhibits the Formation of Platelet-Leukocyte Complexes.
J Biol Chem. 2015 Dec 1. pii: jbc.M115.678359. [Epub ahead of print] PubMed PMID: 26627825.

Guidetti GF, **Canobbio I**, Torti M.
PI3K/Akt in platelet integrin signaling and implications in thrombosis.
Adv Biol Regul. 2015 Jun 19. pii:S2212-4926(15)30005-1. doi: 10.1016/j.jbior.2015.06.001.

Manganaro D, Consonni A, Guidetti GF, Canobbio I, Visconte C, Kim S, Okigaki M, Falasca M, Hirsch E, Kunapuli SP, Torti M.
Activation of phosphatidylinositol 3-kinase β by the platelet collagen receptors integrin α2β1 and GPVI: The role of Pyk2 and c-Cbl.
Biochim Biophys Acta. 2015;1850:1879-88.

Canobbio I, Cipolla L, Guidetti GF, Manganaro D, Visconte C, Kim S, Okigaki M, Falasca M, Kunapuli SP, Torti M.
The focal adhesion kinase Pyk2 links Ca2+ signaling to Src family kinase activation and protein tyrosine phosphorylation in thrombin-stimulated platelets.
Biochem J. 2015; 469: 199-210.

Canobbio I, Abubaker AA, Visconte C, Torti M, Pula G.
Role of amyloid peptides in vascular dysfunction and platelet dysregulation in Alzheimer's disease.
Front Cell Neurosci. 2015;9:65.

Canobbio I, Guidetti GF, Oliviero B, Manganaro D, Vara D, Torti M, Pula G.
Amyloid β peptide-dependent activation of human platelets: essential role of Ca2+and ADP in aggregation and thrombus formation.
Biochem J. 2014;462:513-23.

Achilli C, Grandi S, Ciana A, Guidetti GF, Malara A, Abbonante V, Cansolino L, Tomasi C, Balduini A, Fagnoni M, Merli D, Mustarelli P, **Canobbio I**, Balduini C, Minetti G.
Biocompatibility of functionalized boron phosphate (BPO4) nanoparticles for boron neutron capture therapy (BNCT) application. Nanomedicine. 2014;10:589-97.

Canobbio I, Catricalà S, Di Pasqua LG, Guidetti G, Consonni A, Manganaro D, Torti M.
Immobilized amyloid Aβ peptides support platelet adhesion and activation.
FEBS Lett. 2013;587: 2606-11.

Guidetti GF, Manganaro D, Consonni A, **Canobbio I**, Balduini C, Torti M.
Phosphorylation of the guanine-nucleotide-exchange factor CalDAG-GEFI by protein kinase A regulates Ca(2+)-dependent activation of platelet Rap1b GTPase
Biochem J. 2013;453:115-23.

Vara DS, Campanella M, **Canobbio** I, Dunn WB, Pizzorno G, Hirano M, Pula G.Autocrine amplification of integrin αIIbβ3 activation and platelet adhesive responses by deoxyribose-1-phosphate.
Thromb Haemost. 2013;109:1108-19.

Cipolla L, Consonni A, Guidetti G, **Canobbio I**, Okigaki M, Falasca M, Ciraolo E, Hirsch E, Balduini C, Torti M.
The proline-rich tyrosine kinase pyk2 regulates platelet integrin αiibβ3 outside-in signaling.
J Thromb Haemost. 2013,11:345-56.

Canobbio I, Cipolla L, Consonni A, Momi S, Guidetti G, Oliviero B, Falasca M, Okigaki M, Balduini C, Gresele P, Torti M.
Impaired thrombin-induced platelet activation and thrombus formation in mice lacking the Ca2+-dependent tyrosine kinase Pyk2.
Blood. 2013;121:648-57.

Consonni A, Cipolla L, Guidetti G, **Canobbio I**, Ciraolo E, Hirsch E, Falasca M, Okigaki M, Balduini C, Torti M.
Role and regulation of phosphatidylinositol 3-kinase β in platelet integrin α2β1 signaling.
Blood. 2012;119:847-56.

Catricalà S, Guidetti GF, **Canobbio I**, Pecci A, Balduini CL, Balduini C, Torti M.
The irreversibility of platelet aggregation is regulated by myosin IIA, but is not compromised in MYH9-related disease.
Thromb Res. 2011, 127:171-3

Canobbio I, Catricalà S, Balduini C, Torti M.
Calmodulin regulates the non-amyloidogenic metabolism of amyloid precursor protein in platelets.
Biochim Biophys Acta. 2011;1813:500-6

Canobbio I, Catricalà S, Balduini C, Torti M.
Calmodulin regulates the non-amyloidogenic metabolism of amyloid precursor protein in platelets.
Biochim Biophys Acta. 2011;1813:500-6

Lova P, Guidetti GF, **Canobbio I**, Catricalà S, Balduini C, Torti M.
Epinephrine-mediated protein kinase C and RAP1b activation requires the co-stimulation of Gz-, Gq-, and Gi-coupled receptors.
Thromb Haemost. 2010;105(3).

Lova P, **Canobbio I**, Guidetti GF, Balduini C, Torti M.
Thrombin induces platelet activation in the absence of functional protease activated receptors 1 and 4 and glycoprotein Ib-IX-V.
Cell Signal. 2010 22:1681-7

Canobbio I, Stefanini L, Cipolla L, Ciraolo E, Gruppi C, Balduini C, Hirsch E, Torti M.
Genetic evidence for a predominant role of PI3Kbeta catalytic activity in ITAM- and integrin mediated signaling in platelets.
Blood. 2009 114:2193-6.

Canobbio I, Trionfini P, Guidetti GF, Balduini C, Torti M.
Targeting of the small GTPase Rap2b, but not Rap1b, to lipid rafts is promoted by palmitoylation at Cys176 and Cys177 and is required for efficient protein activation in human platelets.
Cell Signal. 2008;20:1662-70.

Reineri S, Bertoni A, Sanna E, Baldassarri S, Sarasso C, Zanfa M, **Canobbio I**, Torti M, Sinigaglia F.
Membrane lipid rafts coordinate estrogen-dependent signaling in human platelets.
Biochim Biophys Acta. 2007;1773:273-8.

Canobbio I, Stefanini L, Guidetti GF, Balduini C, Torti M.
A new role for FcgammaRIIA in the potentiation of human platelet activation induced by weak stimulation.
Cell Signal. 2006;18:861-70.

Pecci A, **Canobbio I**, Balduini A, Stefanini L, Cisterna B, Marseglia C, Noris P, Savoia A, Balduini CL, Torti M.
Pathogenetic mechanisms of hematological abnormalities of patients with MYH9 mutations.
Hum Mol Genet. 2005;14:3169-78**.**

Canobbio I., Noris P., Pecci A., Balduini A., Balduini C.L., Torti M.
Altered cytoskeleton organization in platelets from patients with MYH9-related disease
J Thromb Haemost. 2005;3:1026-35.

L. Moro, S. Reineri, D. Piranda, D. Pietrapiana, P. Lova, A. Bertoni, A. Graziani, P. Defilippi, I. Canobbio, M. Torti, F. Sinigaglia
Non-genomic effects of 17-estradiol in human platelets: potentiation of thrombin-induced aggregation through estrogen receptor and Src kinase
Blood 2005, 105; 115-121

Canobbio I., Balduini C., Torti M.
Signalling through the platelet GPIb-V-IX complex
Cell Signalling 2004; 16: 1329-1344.

Canobbio I., Reineri S, Sinigaglia F, Balduini C, Torti M.
A role for p38 MAP kinase in platelet activation by von Willebrand Factor
Thromb Haemost. 2004; 91: 102-10.

C. Balduini, M. Torti, Canobbio I.
von Willebrand factor and platelet function
Giornale dell'Accademia di Medicina di Torino, 2003; 238-248.

Canobbio I., Lova P., Sinigaglia F., Balduini C., Torti M.
Proline-rich tyrosine kinase 2 and focal adhesion kinase are involved in different phases of platelet activation by von Willebrand factor
Thromb. Haemost. 2002, 87, 509-517

Canobbio I., Bertoni A., Lova P., Paganini S., Sinigaglia F., Hirsch E., Balduini C., Torti M.
Platelet activation by von Willebrand Factor requires coordinated signaling through thromboxane A_2 and Fc?IIA receptor
J. Biol. Chem. 2001, 276, 26022-26029

Torti M., Bertoni A., Canobbio I., Sinigaglia F., Lapetina E.G., Balduini C.
Interaction of the low molecular weight GTP-binding protein rap2B with the cytoskeleton is mediated by direct binding to the actin filaments
J. Cell. Biochem. 1999, 75, 675-685

Torti M., Bertoni A., Canobbio I., Sinigaglia F., Balduini C.
Hydrolysis of NADP by platelet CD38 in the absence of synthesis and degradation of cyclic ADP-ribose 2'-phosphate
FEBS 1999, 455, 359-363

Torti M., Bertoni A., Canobbio I., Sinigaglia F., Lapetina E.G., Balduini C.
Rap1B and Rap2B translocation to the cytoskeleton by von Willebrand factor involves FcII receptor-mediated protein-tyrosine phosphorylation
J. Biol. Chem. 1999, 274, 13690-13697