

## CURRICULUM VITAE

**Name:** Paolo Ettore                      **Surname:** Porporato

**Birth:** Pinerolo (Italy), 27/08/1980

**Professional address:** Department of Medical Biotechnologies and health sciences.  
Molecular Biotechnology Center.  
Via Nizza 52.  
Torino, Italy  
Tel: +39-011-670-6335  
email: paolo.porporato@unito.it

## EDUCATION AND TRAINING

- **2004-2009/06/29:** PhD in Molecular Medicine at the Dept. of Medical Sciences of University of Piemonte Orientale, Novara, Italy.
- **2004:** Master Degree in Medical Biotechnologies ("laurea specialistica", 5 years program equivalent to master degree) at the University of Torino, Italy, 110/110 cum laude.
- **2001-2004/07/23:** Thesis in the laboratory of "Medicina e Oncologia Molecolare" (Azienda Ospedaliera San Luigi Gonzaga di Orbassano) Dept. Of Medical Sciences and Biology, University of Torino, under the supervision of the Prof. Clara Camaschella
- **1999:** high school diploma (classical/humanities lyceum)

## SCIENTIFIC ACTIVITY

- **2020 - :** Associate Professor in Experimental Biology at the Molecular Biotechnology Center, Research group "Cancer Metabolism and Cachexia", University of Torino (UniTO) Torino, Italy.
- **2016-2019:** as Assistant Professor in Experimental Biology at the Molecular Biotechnology Center, Research group "Cancer and Cachexia", University of Torino (UniTO) Torino, Italy.
- **2013- 2016:** *Chargé de Recherche* at the Unit of Pharmacology & Therapeutics, Research group 'Cancer and Metabolism, University of Louvain (UCL) Medical School, Brussels, Belgium.
- **2010- 2013:** as *post-doctoral fellow* at the Unit of Pharmacology & Therapeutics, Research group 'Cancer and Metabolism, University of Louvain (UCL) Medical School, Brussels, Belgium.
  - (i) Identification of lactate signaling as a main mediator of angiogenesis, wound healing and tumor growth
  - (ii) Characterization of metabolic mediators of EMT and metastasis
- **2004-2009:** as *doctoral at the* Dept. of Medical Sciences of University of Piemonte Orientale, Novara, Italy
  - (i) Role of Diacylglycerol Kinase alpha activities in the transduction of oncogenic and differentiative signaling. Signal transduction mechanisms in the regulation of tumoral and metastatic phenotype, of inflammation, differentiation and cell migration.
  - (ii) Role of the novel hormones, ghrelin and des-acyl ghrelin, in the mechanisms of skeletal muscle differentiation, repair and atrophy protection.
- **2000-2004:** as thesis student in the laboratory of "Medicina e Oncologia Molecolare" (Azienda Ospedaliera San Luigi Gonzaga di Orbassano) Dept. Of Medical Sciences and Biology, University of Torino (Prof. Clara Camaschella)  
Study of the molecular determinants of iron overload-related pathologies such hemochromatosis.

## TEACHING EXPERIENCE

- **2015:** visiting Professor at the Faculty of Medicine of the University of Piemonte Orientale "A.Avogadro" of Novara, Italy.
- **2008-2009:** teaching contract in Structural Biochemistry (24 hours) at the faculty of -Medicine of the University of Piemonte Orientale "A.Avogadro" of Novara, Italy.
- **2006-2008:** tutor during the practical exercitation of Biochemical Methods at the Faculty of Biotechnology of the University of Piemonte Orientale "A.Avogadro" of Novara, Italy.
- **2006-2008:** Scientific lecturer activity for high school students at the Biotechnologies Foundation of Torino (Fobiotech)

## COMMISSIONS OF TRUST AND MEMBERSHIPS

**Treasurer and Board Member** (2016) of the International Society for Cancer Metabolism (ISCAM). **Selected reviewer** for different international scientific journals (i.e. PNAS, Oncogene, Oncotarget, Trends in Cancer, Journal of Translational Medicine, Frontiers in Oncology, Autophagy). **Editorial Board member** As Associate Editor at Frontiers in Oncology and as Review Editor at Frontiers in Cell and Developmental Biology and Oncology. **Scientific organizer** of the ISCAM congress (Bruxelles 2016, Bertinoro 2017, Bratislava 2018), Jury Member at the Institute PhD Day Congress (IREC PhD day) and Panel discussion member on “Future perspectives on cancer metabolism” at the CRUK CI Annual International Symposium, 8-9 November 2013.

## PATENTS

19-May-2016 **WO2016075161A1**

ANTIMETASTATIC COMPOSITION COMPRISING AT LEAST ONE FLAVANOL-TYPE COMPOUND  
WO2016075161A1

## SUPERVISING RESPONSIBILITIES

### Thesis supervisor:

- **2018-** : Myriam Hsu, PhD Student in Biomedical Sciences and Oncology, University of Torino, Italy
- **2017-** : Elisabeth Wyart, PhD Student in Biomedical Sciences and Oncology, University of Torino, Italy
- **2013-2017:** Payen Valery, PhD Student in Pharmaceutical and Biomedical Sciences, University of Louvain (UCL) Medical School, Unit of Pharmacology & Therapeutics, Brussels, Belgium. *Co-supervision with Prof. Pierre Sonveaux.*

### Undergraduated students:

- **2018-** : David Revuelta, biotechnology Student, Erasmus Student (Spain) at the university of Torino
- **2017-** : Erica Mina, biotechnology Student at the university of Torino
- **2011-2012:** Payen Valery, Pharmacy student at the University of Louvain Medical School, Unit of Pharmacology & Therapeutics, Brussels, Belgium. *Mentoring as Post-Doc of the group of Prof. Pierre sonveaux.*
- **2006-2009:** Reano Simone, Pharmaceutical Biotechnology Student at the University of Piemonte Orientale, Novara, Italy. *Mentoring as PhD student of the group of Prof. Andrea Graziani.*
- **2006-2009:** Locatelli Irene, Medical Biotechnology Student at the University of Piemonte Orientale, Novara, Italy. *Mentoring as PhD student of the group of Prof. Andrea Graziani.*
- **2005-2008:** Rinaldo Gabriella, Medical Biotechnology Student at the University of Piemonte Orientale, Novara, Italy. *Mentoring as PhD student of the group of Prof. Andrea Graziani.*

## GRANTS AND AWARD

- **Eliezer Rachmilewitz Prize Recipient, (2019)**
- **Bando MFAG-AIRC My First AIRC Grant (2019),**
- **Bando Cariplo Starting Grant (2016)**
- **Fondo Rita Levi-Montalcini (2016)**
- **Prix d'Alvarenga, de Piauhy (2015)**
- **Fond Joseph Maisin (2014)**
- **FNRS-FRS Fond National Recherche Scientifique (2014)**
- **FEBS-EMBO travel (2013)**
- **Seahorse travel award (2013)**
- **Best scientific poster at the Biowin day (2012).**
- **Aegean Conference Trainee Award (2012).**

## SELECTED PUBLICATIONS

**Total #: 61; Google Scholar: H-Index: 30; Citations: 3700;**

Payen VL, Mina E, Van Hée VF, Porporato PE, Sonveaux P. Monocarboxylate transporters in cancer. **Mol Metab.** 2019 Jul 27

Porporato PE, Filigheddu N, Pedro JMB, Kroemer G, Galluzzi L. Mitochondrial metabolism and cancer. **Cell Res.** 2018 Mar;28(3):265-280

Wyart E, Reano S, Longo D, Ghigo A, Riganti C, Porporato PE. Metabolic characterization of a new model of PDAC-induced cancer cachexia, **Oxid Med Cell Longev.** 2018 Feb 26;2018:6419805.

Danhier P, Bański P, Payen VL, Grasso D, Ippolito L, Sonveaux P, Porporato PE. Cancer metabolism in space and time: Beyond the Warburg effect. **BBA** 2017

Porporato PE. Understanding cachexia as a cancer metabolism syndrome. **Oncogenesis.** 2016

Brisson L, Bański P, Sboarina M, Dethier C, Danhier P, Fontenille MJ, Van Hée VF, Vazeille T, Tardy M, Falces J, Bouzin C, Porporato PE, Frédérick R, Michiels C, Copetti T, Sonveaux P. Lactate Dehydrogenase B Controls Lysosome Activity and Autophagy in Cancer. **Cancer Cell** 2016

Porporato PE, Payen VL, Pérez-Escuredo J, De Saedeleer CJ, Danhier P, Copetti T, Dhup S, Tardy M, Vazeille T, Bouzin C, Feron O, Michiels C, Gallez B, Sonveaux P. A mitochondrial switch promotes tumor metastasis. **Cell Reports.** 2014 Aug 7;8(3):754-66.

De Saedeleer CJ, Porporato PE, Copetti T, Pérez-Escuredo J, Payen VL, Brisson L, Feron O, Sonveaux P. Glucose deprivation increases monocarboxylate transporter 1 (MCT1) expression and MCT1-dependent tumor cell migration. **Oncogene.** 2014 Jul 31;33(31):4060-8.

Porporato PE, Filigheddu N, Reano S, Ferrara M, Angelino E, Gnocchi V, Prodam F, Ronchi G, Fagoone S, Fornaro M, Chianale F, Chianale F, Baldanzi G, Sinigaglia F, Surico N, Perroteau I, Smith R, Sun Y, Geuna S, Graziani A. Acylated and UnAcylated Ghrelin impair skeletal muscle atrophy in Mice. **J Clin Invest.** 2013 Jan 2;123(2):611-22.

Porporato PE, Payen VL, De Saedeleer CJ, Prétat V, Thissen JP, Feron O, Sonveaux P. Lactate stimulates angiogenesis and accelerates the healing of superficial and ischemic wounds in mice. **Angiogenesis.** 2012 Jun 3;15(4):581-92.

Bindels LB, Porporato P, Dewulf EM, Verrax J, Neyrinck AM, Martin JC, Scott KP, Buc Calderon P, Feron O, Muccioli GG, Sonveaux P, Cani PD, Delzenne NM. Gut microbiota-derived propionate reduces cancer cell proliferation in the liver. **Br J Cancer.** 2012 Oct 9;107(8):1337-44.

Porporato PE, Dhup S, Dadhich RK, Copetti T, Sonveaux P. Anticancer targets in the glycolytic metabolism of tumors: a comprehensive review. **Front Pharmacol.** 2011;2:49.

Moon EJ, Sonveaux P, Porporato PE, Danhier P, Gallez B, Batinic-Haberle I, Nien YC, Schroeder T, Dewhirst MW. NADPH oxidase-mediated reactive oxygen species production activates hypoxia-inducible factor-1 (HIF-1) via the ERK pathway after hyperthermia treatment. **Proc Natl Acad Sci U S A.** 2010 Nov 23;107(47):20477-82.