

CURRICULUM VITAE: MASSIMILIANO MAZZONE

PERSONAL DETAILS

First name, LAST NAME: Massimiliano, MAZZONE
Place and Date of Birth: Torino, March 5th, 1979
Nationality: Italian
Family status: w/ Melanie Guyot; child: Chloé Mazzone Guyot (22.04.2023)
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PERSONAL STATEMENT

I obtained my PhD in 2007 at the Cancer Research Institute (IRCCS), University of Torino, where I studied the **anti-tumor functions of c-MET/HGF-targeted strategies** (Michieli, Mazzone, shared contribution, et al, *Cancer Cell* 2004; Mazzone et al, *J Clin Invest* 2005). I continued working on c-MET inhibition during my career, uncovering its broader effects in the **tumor microenvironment (TME)**, including **neutrophils** (Finisguerra et al, *Nature* 2015). These findings supported collaborations with J&J, Octimet, and Merus, the latter progressing into **Phase I/II clinical trials** of an EGFR-c-MET bispecific antibody for advanced non-small cell lung cancer (manuscript in preparation for submission to *Nature Medicine*, co-corresponding/senior author). Supported by an **EMBO Long-Term Fellowship**, I pursued a postdoc with Prof. Carmeliet in Belgium, leading to the **discovery of phalanx endothelial cells** essential for hypoxia adaptation (Mazzone et al, *Cell* 2009), followed by key studies conducted with my own team on the **mechanistic regulation of the oxygen-sensing machinery** and **response of tumor endothelial cells to oxygen fluctuations** (Leite de Oliveira et al, *Cancer Cell* 2012; 2x Di Conza et al, *Cell Rep* 2017; Ehling et al, *Circ Res* 2019). During my postdoc, I became interested in **tumour-associated macrophages (TAMs)** and their activation in response to angionenic receptor signalling (Rolny, Mazzone, shared contribution, et al, *Cancer Cell* 2011). Since 2009, as an independent PI at VIB/KU Leuven, I have investigated **macrophage responses to hypoxia, inflammation, and metabolic stress**. Our first discovery in the field showed the essential role of perivascular macrophages in the post-natal formation and maintenance of arterioles in case of ischemic damage (Takeda et al, *Nature* 2011; Hamm et al, *EMBO Mol Med* 2013). With the support of an **ERC Starting Grant**, my lab revealed that the **localization and metabolism of TAMs** dictate their immunosuppressive and pro-angiogenic roles (Casazza et al, *Cancer Cell* 2013; Wenes et al, *Cell Metab* 2016; Palmieri et al, *Cell Rep* 2017; Bieniasz-Krzywiec et al, *Cell Metab* 2019; Menga et al, *EMBO Mol Med* 2020; Menga et al, *EMBO Rep* 2021) and contributed to understanding the composition of the **(pre)metastatic niche** (Celus et al, *Cell Rep* 2017; Riera-Domingo et al, *Sci Adv* 2023). We delivered a **monocyte-based diagnostic signature “Monomark”** for colorectal cancer detection (Hamm et al, *Gut*, 2016). With an **ERC Consolidator Grant**, I explored how **activation of T cells drives the metabolic reprogramming of TAMs**, thereby fostering an immune-permissive TME (Trotta et al, *Cancer Discov* 2025) and **how T cell function depends on organ-specific metabolic features** (Pinioti et al, *Cancer Immunol Res* 2023; Pretto et al, *Nat Metab* 2025). Our recent studies uncovered how **tumor metabolism** and the **metabolic crosstalk between cancer cells and TAMs drive T cell exclusion and immunotherapy resistance** (Cappellesso et al, *Nat Cancer* 2022; Scolaro et al, *Nat Cancer* 2024; Celus et al, *Cancer Immunol Res* 2021), leading to the development of a first-in-class anti-SLC4A4 antibody, which is now advancing into IND-enabling studies. Beyond cancer, my research has translated core mechanistic insights into other pathophysiological settings such as **inflammation, infections, and tissue damage**, where immune cell dynamics are crucial for restoring tissue homeostasis (Takeda et al, *Nature* 2011, Shang et al 2020; Hamm et al, *EMBO Mol Med* 2013; Palmieri et al, *Antioxid Redox Signal* 2017; Virga et al, *Sci Adv* 2021; Pereira-Nunes et al, *Am J Pathol* 2025). In the effort to **translate and valorize our discoveries**, I engaged in multiple clinical and industrial collaborations, and drug-screening initiatives, resulting in the filing of **20 patents (3 of which have been licensed)**. I also have co-founded **three spin-offs** (Oncurious, from 2017 to 2022; Montis Biosciences, 2019 to present; LeverBio, 2025 to present). Montis Biosciences investigates the role of perivascular macrophages in cancer. LeverBio develops antibody-based strategies targeting key immunometabolic interactions we have uncovered in the past decade.

PERSONAL EDUCATION AND KEY QUALIFICATIONS

11/2002-02/2007	PhD in Cell Science and Technology, Faculty of Medicine, University of Torino, Torino, Italy. PhD supervisors: P. Comoglio, P. Michieli
09/1997-07/2002	Master in Medical Biotechnology (Summa Cum Laude and Honors), School of Medicine, University of Torino, Torino, Italy
09/1999-07/2002	Lab intern, supervisors: L. Naldini, P. Comoglio, IRCCS, Candiolo, Italy
06/1998-11/1998	Lab intern, supervisor: G. Tarone, Molecular Biotechnology Center, Torino, Italy

CURRENT POSITIONS

09/2018-present	Full Professor, Department of Oncology, KU Leuven, Leuven, Belgium
01/2023-present	Full Professor (20% appointment), Faculty of Medicine, Hunimed, Humanitas University, Humanitas Research Institute, Milano, Italy
09/2009-present	Group Leader, Laboratory of Tumor Inflammation and Angiogenesis, Center for Cancer Biology (CCB), VIB, Leuven, Belgium

PREVIOUS POSITIONS

09/2019-09/2022	Full Professor (20% appointment), Dpt. of Molecular Biotechnology and Health Sciences, Molecular Biotechnology Center, University of Torino, Italy
06/2019-08/2019	Visiting Professor, Dpt. of Biosciences, Biotechnologies & Biopharmaceutics, University of Bari, Bari, Italy
09/2014-09/2018	Associate Professor, Department of Oncology, KU Leuven, Leuven, Belgium
09/2009-09/2014	Assistant Professor, Department of Oncology, KU Leuven, Leuven, Belgium
11/2006-09/2009	EMBO Postdoctoral Fellow, P. Carmeliet Lab, VIB, Leuven, Belgium

ACADEMIC ACTIVITY

Supervisor experience: training of 14 graduated and 6 enrolled PhD students (of which 4 obtained their Master Diploma at KU Leuven and 16 at different international Universities); co-promoter of 7 enrolled PhD students (of which 5 at KU Leuven, 1 from the University of Torino and 1 from the University of San Raffaele Milano); 23 completed and 6 enrolled post-docs (1 KU Leuven and 22 international); 66 bachelor and master thesis students (of which 20 from KU Leuven and 46 from 25 different international Universities); 16 visiting PhD students, 9 visiting post-docs, 3 visiting Professors. Serving on the thesis committee of 35 PhD students at KU Leuven (national and international) and twice as a President of the committee (chosen by the Rector of KU Leuven). External Jury Member and Advisor of 4 students from the University of Milano; 2 students from the University of Vienna; 1 student from the University of Basel; 1 student from the University of Nice; 3 students from the VUB (Flemish University in Brussels); 2 students from ULB (Université Libre de Bruxelles, GIGA Institute and Gosselies Campus) and 1 from UCL (Université Catholique Louvain – Louvain-la-Neuve).

→ **Lab Alumni:** Leite de Oliveira R, Wenes M, Veschini L, Debackere E are Assistant Professors; Palmieri E, Menga A, Shang M are Associate Professors; Takeda Y is Full Professor and Chief in Cardiology; Ehling M is Project Manager; Di Matteo M, Rouhi P are Associate Directors at GSK; Martin-Perez R is Associate Director at Janssen Pharmaceutical; Benkheil M is Director at Montis Biosciences; Casazza A is Head of Biology at Flindr Therapeutics; Di Conza G is Head of Research at iOnctura; Hamm A is Senior Abdominal Surgeon; Flerin N is Clinical Affairs Manager; Bieniasz-Krzywiec P is Patent Attorney; Henze A-T, Oliveira A are Lead Scientific Writers.

Mentoring committees for tenure tracks:

- Dr. Ping-Chih Ho, Ludwig Cancer Center, University of Lausanne, CH
- Dr. Saverio Tardito, Beatson Institute, University of Glasgow, UK

Visiting Professorships:

- Dpt. of Biosciences, Biotechnologies & Biopharmaceutics, Bari University, IT (June-July 2019)

Board Memberships of Doctoral Schools:

- Doctoral School in Cancer, University of Leuven, BE (from 2009 till present)
- Doctoral School in Cardiovascular Medicine, University of Leuven, BE (from 2009 till 2017)
- Doctoral School in Molecular Medicine, University of Torino, IT (from 2020 till present)

- Doctoral School in Pharmacology, University of Padua, IT (from 2017 till present)
- Doctoral School in Biochemistry and Molecular Biology - Pegaso PhD of Tuscany, joining the three Universities of Florence, Siena and Pisa, IT (from 2019 to 2020)

Teaching duties in Summer schools:

- CBCS International Summer School on Cardiovascular Sciences, Nice, FR (June 16th-June 20th, 2013)
- CBCS International Summer School on Cardiovascular Sciences, Nice, FR (June 12th- June 16th, 2011)
- ESHRE International Summer School on Cancer, Leuven, BE (September 25th- September 26th, 2009)

Teaching duties in Doctoral schools:

- Anti-angiogenic Immunotherapy, PhD program in Oncology, KU Leuven (from 2025 to present)
- Immunometabolism, Braga and Porto joined PhD program (May 26th, 2022)
- Cancer Immunity and Inflammation, PhD program in Human Genetics, University of Maastricht (May 13th, 2022)
- Biomedical Congress, KU Leuven, BE (April 23rd, 2013)
- SEMM PhD Course on "Cancer-associated inflammation" at IFOM-IEO, University of Milano, IT (April 2012)
- PhD Course at the School in Cardiovascular Medicine, KU Leuven, BE (March 2012)
- SEMM PhD Course on "Cancer-associated inflammation" at IFOM-IEO, University of Milano, IT (March 2011)
- Molecular and Developmental Genetics PhD Course at KU Leuven, BE (December 2010)
- DIMET PhD Course on "Tumor Microenvironment" at Milano-Bicocca University, Milano, IT (November 2010)
- Oncoforum PhD Course at the School in Cancer, Cancer Institute of Leuven (LKI), BE (May 2010)
- Interuniversity course on Angiogenesis to graduate students (MD) at the University of Brussels, BE (October 2008)

Teaching duties for undergraduate students:

- Course in Lab Technologies, master's in lab technologies, Hunimed, Humanitas Research Institute, Milano, IT (from 2024 to present)
- Course in Genome editing, stem cells, and tissue regeneration, master's in medical biotechnology, University of Torino, IT (from 2020 to 2021)
- Course in Oncology, master's in biomedical science, KU Leuven, BE (from January 2007 to present)
- Course Cardiovascular Biology, Master Biomedical Science, KU Leuven, BE (from October 2011 to September 2017)
- Course in Cell Biology and Human Histology to nursing and physiotherapy undergraduate students, University of Torino, IT (from October 2004 to November 2006)

AWARDS & HONORS

April 2025: Lustgarten Foundation Award

January 2025: ERC Proof-of-Concept

September 2024: EACR's Highlight in Cancer Research

November 2023: ERC Proof-of-Concept

September 2023: FEBS Lecture Award

June 2022: EMBO Keynote Lecture Award

February 2022: ERC Proof-of-Concept

June 2021: EMBO Member

November 2017: ERC Consolidator Grant

August 2016: ERC Proof-of-Concept

December 2015: Foundation AstraZeneca Award

July 2015: Chiara D'Onofrio Award (Senior category) from the Foundation Chiara D'Onofrio and the Italian Association for Biophysics and Molecular Biology (Torino, July 1st)

November 2014: EMBO Young Investigator Award 2014

November 2014: André Vander Stricht-Emile Carpentier Prize, King Baudouin Foundation (Brussels, November 11th)

August 2012: ERC Starting Grant

May 2012: Foundation Andrea and Libi Lorini Award 2011

September 2010: Prof. Karel-Lodewijk Verleysen Award, Belgian Royal Academy of Medicine

May 2010: Research Council Award 2010, KU Leuven

April 2010: Burgen Award, Academy of Europe

November 2009: Rimaux-Bartier Schenking Award

May 2008: Science Award for the best abstract, 8th ESH conference on angiogenesis (Paris, May 9th-12th)

January 2007: Selected for the FEBS Long-Term Fellowship

December 2006: EMBO Long-Term Fellowship

May 2005: Giulia Colletta Award, Italian Association for Cancer Research (AIRC)

LECTURES

INVITED SPEAKER AT INSTITUTIONAL SEMINAR SERIES

April 2026: Seminar Series, IPBS, Paris, FR (April 28th)

September 2025: Lecture Series in Cancer Research, Luxemburg Institute of Health, Luxemburg, LU (September 25th)

May 2025: Istituto di Genetica e Biofisica "Adriano Buzzati-Traverso" – CNR, Napoli, Italy

May 2025: Cancer Seminar Series; Liverpool University, Liverpool, UK (June 20th) (online)

November 2024: Keynote Speaker, Institut Hospitalo Universitaire, Montpellier, France (November 28th-29th)

September 2024: Annual meeting, GIGA Institute, Liège, BE (September 13th)

October 2023: Dana-Farber Cancer Immunology Seminar Series, Boston, Massachusetts, US (October 2nd) (online)

July 2023: IPMM lecture series in Molecular Medicine, University of Cologne, Germany (July 13th)

February 2023: MRC Weatherall Institute for Molecular Medicine (WIMM), University of Oxford, UK (February 27th)

February 2023: Biomedical Research Institute (BRI) Ioannina, GR (February 17th) (online)

January 2023: GIGA Institute, Liège, BE (January 19th)

January 2023: Louvain Drug Research Institute, Louvain-la-Neuve, BE (January 16th)

May 2022: Post-graduation course on immunometabolism, School of Medicine, University of Minho, PT (May 19th)

April 2022: Beatson Institute, Glasgow, UK (April 14th)

March 2021: Humanitas Research Hospital, Milan, IT (March 25th)

February 2021: Department of Pharmaceutical and Pharmacological Sciences, University of Padova, IT (February 24th)

November 2020: Keynote Speaker, Symposium on Monocytes & Macrophages, Bordeaux, FR (November 27th)

May 2020: Symposium "Inflammation and Immunity", University of Vienna, AT (May 11th-13th)

March 2020: ICGEB, Trieste, IT (March 23rd)

October 2019: INSERM, Nice, FR (October 28th)

June 2019: CNIO, Madrid, ES (June 14th)

January 2019: First speaker by CRUK MI STAY committee, opening lecture, jointly at Cancer Research UK Manchester Institute and MRC, Manchester, UK (January 17th). Aim of this seminar series is to expose junior scientists in helping them to become exposed to world-class research and to share with them successful career development stories.

December 2018: RCC, Institute for Cancer Research, Candiolo, Torino, IT (December 20th)

December 2018: ReTuBi Final Scientific Symposia, IMM, Lisbon, PT (December 5th-7th)

November 2018: Barts Cancer Institute, London, UK (November 6th)

September 2018: INSERM, University of Bordeaux, FR (September 24th)

July 2018: Dpt. of Research, Diagnosis and Innovative Technologies, Regina Elena Cancer Institute, Rome, IT (July 18th)

May 2018: Lola and John Grace Distinguished Lecture in Cancer Research, ISREC-EPFL, Lausanne, CH (May 24th)

March 2018: iTeos Therapeutics, Gosselies, BE (March 21st)

March 2018: San Raffaele Institute, Milano, IT (March 12th)

February 2018: Stem Cell Institute, KU Leuven, BE (February 19th)

February 2018: Cancer Center Amsterdam (joint AMC and VUmc), Noordwijkerhout, NL (February 15th-16th)

January 2018: University of Padova, Department of Pharmacology, Padova, IT (January 19th)

December 2017: ULB, Campus de Charleroi, Gosselies, BE (December 22nd)

November 2017: GIGA Institute, Cancer Seminars, Liege, BE (November 24th)

July 2017: Keynote lecturer, Mini-Symposium, University of Nantes, FR (July 6th)

February 2017: Novartis, Basel, CH (February 28th)

December 2016: Cancer Research Centre of Lyon, FR (December 9th)

July 2016: University Lausanne, CH (July 29th)

June 2016: Instituto Oncologico Veneto, IRCCS, Padova, IT (June 6th)

May 2016: Master Class Series, PARCC, INSERM, Paris, FR (May 27th)

March 2016: MRC University of Edinburgh, Centre for Inflammation Research, Edinburgh, UK (March 18th)

April 2015: ICVS 2015 Spring Seminar Series, Minho University, Braga, PT (April 16th)

April 2015: IMM (Instituto de Medicina Molecular), Lisbon, PT (April 13th)

December 2014: University of Utrecht, NL (December 12th)

November 2014: University of Groningen, Groningen, NL (November 6th)

October 2014: DFKZ, Heidelberg, DE (October 22nd)

September 2014: PhD Symposium, VUB, Brussels, BE (September 11th-12th)

May 2014: Biocenter, University of Oulu, Oulu, FI (May 27th)

February 2014: University of Sheffield Medical School, Sheffield, UK (February 14th)

January 2014: Netherlands Cancer Institute, NKI, Amsterdam, NL (January 17th)

August 2013: Regeneron Pharmaceuticals, Tarrytown, New York, USA (August 2nd)

May 2013: MRC Research Centre, University of Cambridge, UK (May 7th)

April 2013: Cancer Research Institute IRCC, Candiolo, Torino, IT (April 22nd)

May 2012: "Vascular Differentiation" Lecture series, DKFZ, Heidelberg, DE (May 29th)

April 2012: San Donato Institute, Milano, IT (April 17th)

December 2011: IFOM-FIRC Institute of Molecular Oncology, Milano, IT (December 16th)

June 2011: DMBR Seminars, University of Ghent, Ghent, BE (June 16th)
March 2011: Center for Molecular Biotechnology, Torino, IT (March 28th)
December 2010: Cancer Research UK, Lincoln's Inn Fields, London, UK (December 7th)
November 2010: San Raffaele Scientific Institute, Milano, IT (November 19th)
October 2010: Institute of Molecular Medicine, CNR, Rome, IT (October 27th)
October 2010: IFOM-FIRC Institute of Molecular Oncology, Milano, IT (October 26th)
October 2010: Cancer Research Institute IRCC, Candiolo, Torino, IT (October 25th)
April 2010: Institute of Genetics and Biophysics, CNR, Naples, IT (April 19th)
November 2009: Lecture on "Angiogenesis: from the bench side perspective", Bordet Institute, Brussels, BE
September 2009: Lecture on "Invasion and metastasis" at the ESHRE School, Leuven, BE
February 2009: Cornell University, New York, USA
September 2008: Erasmus Medical Center, Dpt. of Neurology, Rotterdam, NL
October 2008: Lecture on 'Angiogenesis and inhibitors', University of Brussels, Brussels, BE
April 2006: PhD thesis dissertation, Dpt. for Transgene Technology and Gene Therapy, VIB, KU Leuven, B
April 2006: PhD thesis dissertation, Vesalius Research Center, KU Leuven, BE
April 2006: PhD thesis dissertation, Dpt. of Molecular Genetics, NKI, Amsterdam, NL
April 2006: PhD thesis dissertation, Dpt. of Dev. Biol. and Stem Cell Res., Hubrecht Institute, Utrecht, NL

NATIONAL CONFERENCES

November 2022: Invited Speaker, Annual Meeting Oncode Institute, Amsterdam, NL (November 3rd-4th)
July 2019: Invited Speaker, Metabolism meets function – MBC, Torino, IT (July 19th)
September 2014: Invited speaker, Interuniversity PhD Symposium, VUB, Brussels, BE (September 11th-12th)
April 2013: Invited speaker, Biomedical Conference, KU Leuven, BE (April 23rd)
February 2013: Invited speaker, VIB seminars annual meeting, Blankenberge, BE (February 7th)
September 2012: Invited speaker, SCIL Seminars, Stem Cell Institute, KU Leuven, BE (September 19th)
May 2011: Invited speaker, VIB Science Club, Leuven, BE (May 2nd)
February 2011: Invited speaker, Belgian Association for Cancer Research Annual Meeting, Liège, BE
May 2010: Keynote lecture at the Oncoforum, Doctoral School Cancer, Cancer Institute of Leuven, BE (May 27th)
January 2010: Invited speaker, Belgian Association for Cancer Research Annual meeting, Leuven, BE (January 21st)

INTERNATIONAL CONFERENCES

May 2026: 3rd IISIR forum, Vilnius, LT (May 26th)
March 2026: Invited Speaker, 12th ImmunoTherapy of Cancer Conference, Munich, DE (March 12th – 14th)
December 2025: San Antonio Breast Cancer Symposium (SABCS), December 9-12, 2025 (declined)
October 2025: Aseica Congress, Bilbao, ES (October 8th-10th)
September 2025: Keynote speaker, Belgian/Dutch Vascular Biology meeting, Leuven, BE (September 10th-12th)
July 2025: Invited Speaker, Annual Meeting of ISCaM, Brussels, BE (July 2nd-4th)
June 2025: Invited speaker, 21st Meeting of the Purine and Pyrimidine Society, Barcelona, ES (June 24th-27th)
April 2025: Invited Speaker, Metabolic Physiology Meeting, Hilton Head Island, South Carolina, US
March 2025: Speaker and Co-Organizer, Forbeck Forum on "Harnessing stroma-immune interactions for anti-cancer therapy", US (March 27th-31st)
November 2024: Keynote speaker, Institut Hospitalo Universitaire, Montpellier, FR (November 28th-29th)
November 2024: Invited Speaker, 19th ASEICA International Congress, Zaragoza, Spain (November 13th-15th)
October 2024: Invited Speaker, Molecular Analysis for Precision Oncology Congress 2024, ESMO annual conference, London, UK (October 16th-18th)
October 2024: Keynote Speaker, 46th Symposium on Hormones and Cell Regulation, Strasbourg, FR (October 9th-12th)
June 2024: 1st European ImmunoMetabolism Conference: Metabolism Meets Immunology, Comwell Køge Strand, Køge, DE (June 26th-28th).
April 2024: Invited Speaker, 9th International conference of the International Cancer Microenvironment Society (ICMS), Heidelberg, DE (11th-14th April)
December 2023: Invited Speaker, French Dendritic Cell Society Meeting, Bordeaux, FR (December 7th-8th)
November 2023: Invited Speaker, Metabolism and Cancer, Nice, FR (November 22nd-24th)
September 2023: Invited Speaker, 9th International Aegean Conference on Tumor Microenvironment and Cellular Stress, Kalamata, GR (September 17th-22nd)
September 2023: Keynote Speaker, Italian Society of Biochemistry Annual Meeting, Florence, IT (September 7th-9th)
July 2023: Invited Speaker, Metabolism Meets Function 2023, Bari, Italy (July 21st)
July 2023: Invited Speaker, FEBS Conference, Tours, FR (July 8th-12th)

June 2023: Invited Speaker, EACR Annual Congress 2023, Torino, IT (12th-15th June)

April 2023: Invited Speaker, 3rd TRIO conference, Comprehensive Cancer Center, Vienna, AT (April 27th-28th) (online)

April 2023: Invited Speaker, Keystone Conference on Myeloid cells, Snowbird, Utah, USA (April 16th-20th)

November 2022: French Society of Immunology Meeting, Nice, FR (November 22nd-24th)

October 2022: Keynote Speaker – EMBO lecture, Cancer Metabolism, EACR, Bilbao, Spain (October 11th – 13th)

September 2022: Invited Speaker, International Conference on Cancer Vaccination, Torino, IT (Sept 26th-28th)

September 2022: Invited Speaker, 12th Chinese Society of Clinical Oncology, Shanghai PDAC Symposium (Sep 17th)

July 2022: Invited Speaker, Cancer and Metabolism Conference, Francis Crick Institute, London, UK (July 17th-19th)

June 2022: Invited Speaker, Molecular Biotechnology Center (MBC), Torino, IT (June 27th-30th, 2022)

June 2022: Invited Speaker, Gordon Research Conference, Castelldefels, ES (June 27th)

June 2022: Invited Speaker, Society on Sarcopenia, Cachexia and Wasting Disorders (SCWD), Lisbon, PT (June 24th-26th)

June 2022: Invited Speaker, Recent insights into Immuno-Oncology, VIB, Leuven, BE (June 16th-17th)

May 2022: EVBO webinar plenary talk (May 2nd)

February 2022: Invited Speaker, CABIMER International Conference 2022, Seville, ES (February 23rd-25th)

December 2021: Invited Speaker, French Dendritic Cell Society, Paris, FR (December 16th-17th)

December 2021: Invited Speaker, ESMO Immuno-Oncology Congress 2021, Geneva, CH (December 8th-11th)

November 2021: Invited Speaker, EMBO Conference, Sitges, Barcelona, ES (November 29th – December 1st)

November 2021: Keynote Speaker, Symposium on macrophages in physiopathology, Bordeaux, FR (November 26th)

November 2021: Invited Speaker, AICC Annual Conference: Cancer Metabolism, Torino, IT (November 22nd-24th)

November 2021: Invited Speaker, VII International Symposium on Translational Oncology and Clinical Research, Barretos, BR (hybrid event) (November 5th-6th)

October 2021: Invited Speaker, CSHL conference “Biology of Cancer: Microenvironment & Metastasis”, Cold Spring Harbor, USA (virtual) (October 16th-19th)

October 2021: Invited Speaker, XIX Virtual NIBIT Meeting (Italian network for cancer biotherapy and immunotherapy) “Cancer immunity and immunotherapy beyond COVID-19” (virtual) (October 14th-15th)

October 2021: Invited Speaker, 7th MetNet International Annual Meeting: “Multifaceted Metabolism in Human Disease, Barcelona, ES (October 8th)

October 2021: Invited Speaker, ADELIS conference: ‘Metabolism in cancer: from reprogramming to therapeutic vulnerability’, Paris, FR (October 6th-7th)

September 2021: Invited Speaker, Italian Society of Cell Biology (ABCD) 2021, virtual event (September 15th)

July 2021: Keynote Speaker, 6th EU-CardioRNA COST Action Meeting, virtual event (July 5th – 7th)

June 2021: Invited Speaker, ISHR-ES-2021, Torino, IT – virtual event (June 29th – July 1st)

June 2021: Invited Speaker, ‘Metabolism Meets Function: The multifaced role of Metabolism in cancer’ (University of Florence), virtual event (June 14th)

November 2020: Invited Speaker, AICC Annual Conference: Dissecting metabolic circuitries in cancer cells and microenvironment, Torino, IT (November 23rd-24th)

September 2020: Invited Speaker, “Cancer Biology: from Basic to Translational Research”, Lisbon, PT (September 25th)

July 2020: Invited Speaker, 36th ISHR European Section Meeting, University of Torino, IT (June 30th -July 3rd)

July 2020: Invited speaker, third edition on ‘Metabolism meets function’, Florence, IT (July 20th)

June 2020: Invited Speaker, “Endothelial Cell Phenotypes in Health and Disease” Gordon Research Conference (GRC), Castelldefels, ES (June 28th -July 3rd)

January 2020: Invited speaker, Keystone on “Hypoxia: Molecules, Mechanisms and Disease”, Keystone, Colorado, US (January 19th – 24th)

October 2019: Invited Speaker, ISCaM, “Metabolism in cancer”, Braga, PT (October 17th -19th)

September 2019: Invited Speaker, ESMO Annual Conference, Barcelona, ES (September 27th – October 1st)

May 2019: Invited Speaker, EMBO Workshop, “Neural guidance molecules in development and disease”, Baveno, IT (May 25th-28th)

May 2019: Invited speaker, *Nature* Conference on “Tumor adaptation to stress”, Weizmann Institute of Science, Rehovot, IL (May 13th-16th).

March 2019: Invited speaker and Session Chair, Keystone Symposia on “Cancer Metastasis: The Role of Metabolism, Immunity and the Microenvironment”, Firenze, IT (March 15th-20th)

November 2018: Keynote speaker, ABCD Conference: Signal Transduction in Cancer, MBC, University of Torino, IT (November 22nd -24th)

November 2018: Invited speaker, “The German Society for Microcirculation and Vascular Biology” and “The Netherlands Vascular Biology Organizations”, Amsterdam, NL (November 21st-23rd)

October 2018: Invited Speaker, ISCaM, Metabolic Adaptations & Targets in Cancer, Bratislava, SI (October 17th -20th)

July 2018: Invited speaker, Mini-Symposium on Metabolism (4 international speakers), Bari University, IT (July 20th)

July 2018: Invited speaker, Beatson Conference on Tumor Microenvironment, Glasgow, UK (July 1st-4th)

February 2018: Invited speaker, EMBO sectorial meeting on Immunology, Belem, Lisbon, PT (February 22nd-23rd)

September 2017: Invited speaker, 25th ECDO Euroconference on apoptosis, topic on Cell death and immunity in disease, Leuven, BE (September 27th-29th)

June 2017: Invited speaker, 7th International Conference on Tumor Microenvironment and Angiogenesis, Centro Stefano Franscini, Monte Verità, Ascona, CH (June 25th-28th)

June 2017: Invited speaker, 4th International Congress of Translational Research in Human Nutrition, Clermont-Ferrand, FR (June 22nd-23rd)

June 2017: Invited speaker, BACR Conference on Tumour Microenvironment: from Basic Science to Novel Therapies, Nottingham, UK (June 14th-16th)

May 2017: Invited speaker, European Society for Clinical Investigation, Genova, IT (May 16th-18th)

March 2017: Invited speaker, 4th Meeting of Translational Immunology, Palermo, IT (March 27th-29th)

October 2016: Invited speaker, international society of cancer metabolism, Brussels, BE (October 26th-28th)

October 2016: Invited speaker, 2nd symposium on tumor microenvironment, Frankfurt, DE (October 13th-14th)

September 2016: LKI Symposium on Tumor immunology and Immunotherapy, Leuven, BE (September 12th-14th)

May 2016: Invited speaker, EU Life meeting, Vienna, AT (May 12th -13th)

April 2016: Keynote speaker, Meeting for hematology and oncology, University of Bonn, DE (April 15th-17th)

January 2016: Invited speaker, Symposium on Angiogenesis and Cancer, IDIBELL, Barcelona, ES (January 22nd)

January 2016: Invited speaker, AACR Special Conference on The Function of Tumor Microenvironment in Cancer Progression, San Diego, CA, USA (January 7th-10th)

October 2015: Invited speaker and discussion leader, International Symposium on Metastatic CRC, Heidelberg, DE (October 29th-30th)

September 2015: Invited speaker, DKFZ-ZMBH Alliance meeting, Heidelberg, DE (September 27th-30th)

September 2015: Invited speaker, Fondazione IBSA, Immune Symposium, Lugano, CH (September 26th)

September 2015: Invited speaker and discussion leader, VIB international conference on Metabolism, Leuven, BE (September 8th-10th)

July 2015: Keynote speaker, SIBBM Conference "From Genomes to Functions", Torino, IT (July 1st-3rd)

May 2015: Invited speaker, 12th meeting of the French Neuroscience Society, Montpellier, FR (May 19th-22nd)

May 2015: Invited speaker, 6th Conference on Tumor Microenvironment, Monte Verità, CH (May 17th-20th)

May 2015: Invited speaker, Keystone Symposium on Hypoxia, Dublin, IE (May 12th-17th)

May 2015: Invited speaker, ConsePOC International Meeting, Madrid, ES (May 4th)

April 2015: Co-organizer of the parallel session on tumor microenvironment and discussion leader, AACR Annual Meeting, Philadelphia, PA, USA (April 18th-22nd)

March 2015: Invited speaker, AACR Special Conference on Angiogenesis, Orlando, USA (March 5th-8th)

October 2014: Invited speaker, TIMCC Symposium on Tumor Microenvironment, Bonn, DE (October 22nd)

October 2014: Invited speaker, ETH Symposium on Angiogenesis and Inflammation, Zurich, CH (October 8th)

September 2014: Invited speaker, Biology & Treatment of Metastatic Cancer, El Jadida, MA (September 23rd-26th)

April 2014: Keynote speaker, French Angiogenesis Society Meeting, Chamonix, FR (April 2nd-4th)

March 2014: Invited speaker and discussion leader, Keystone Symposium on Angiogenesis, Whistler, British Columbia, CA (March 16th-21st)

February 2014: Invited speaker, AACR Special Conference on Cellular Heterogeneity in the Tumor Microenvironment, San Diego, CA, USA (February 26th-March 1st)

November 2013: Invited speaker, Symposium KFO 210, Marburg, DE (November 11th-12th)

October 2013: Invited speaker, Louis-Jeantet Symposium, Geneve, CH (October 23rd)

September 2013: Invited speaker, ESC Conference, Amsterdam, NL (August 31st-September 4th)

August 2013: Invited speaker, Gordon Conference (GRC), Newport, Rhode Island, USA (August 4th-9th)

July 2013: Invited speaker, Beatson Conference on Tumor Stroma, Glasgow, UK (June 7th-10th)

June 2013: CBCS International Summer School on Cardiovascular Sciences, Nice, FR (June 16th-20th)

June 2013: Invited speaker and discussion leader, 5th International Conference on Tumor Microenvironment and Angiogenesis, Monte Verità, Ascona, CH (June 2nd-5th)

October 2012: Invited speaker and discussion leader, FEBS meeting on Angiogenesis, Capri, IT (October 14th-17th)

September 2012: Invited speaker, Conference Italian Society of Biochem. Mol. Biol., Chieti, IT (September 26th-29th)

September 2012: Invited speaker, Annual Meeting of the European Macrophage and Dendritic Cell Society, Debrecen, HU (September 1st-3rd)

July 2012: Invited speaker, CELL Symposium on Angiogenesis, Metabolism, Cancer, Leuven, BE (July 6th-8th)

April 2012: Invited speaker, Hypoxianet 2012, Nantes, FR (April 4th)

January 2012: Invited speaker, IV International J Folkman Conference, Rome, IT (January 13th-14th)

August 2011: Invited speaker, Gordon Conference (GRC), Newport, Rhode Island, USA (August 21st-26th)

August 2011: Invited speaker and discussion leader, "Endothelial Heterogeneity in Disease" Gordon-Kenan Research Seminar (GRS), Salve Regina University, Newport, Rhode Island, USA (August 20th-21st)

June 2011: Invited speaker, CBCS Summer School on Cardiovascular Sciences Nice, FR (June 12th-16th)

October 2010: Invited speaker, HypoxiaNet 2010, UCD, Dublin, IE (October 7th-8th)

March 2010: Invited speaker, European Physiological Society Symposium, UCD, Dublin, IE (March 22nd)

March 2010: Invited speaker, AICR Annual Meeting, Galway, IE (March 3rd-6th)

May 2008: Invited speaker, 8th ESH conference on angiogenesis, Paris, FR (May 9th-12th)

February 2008: Invited speaker, 'International Symposium: Advances in Translational Research of Cardiovascular Diseases', Madrid, ES (February 14th-15th)

May 2005: Invited speaker, VI Conference of Molecular Oncology, Positano, IT

PERSONAL RESEARCH GRANTS

NATIONAL GRANTS

June 2025: 4-year grant (€ 620 000) from C2E KU Leuven Research grant on the project C2E/25/041 entitled "Eicosanoid metabolism: uncharted territory in the immunotherapy resistance landscape"

December 2024: 4-year grant (€ 720 000) from the Belgian Foundation against Cancer for the project 2024-164 for the project 'Epigenetic regulation as a main instructor guiding tumor-associated macrophage phenotypes: can we revert the trend?' (first ranked proposal in Belgium, awarded with 20% extra budget)

June 2024: 4-year research grant (€ 519 723) from FWO for the project G011124N: 'Understanding glutamate metabolism in the tumor microenvironment to tackle Immune Checkpoint Blockade (ICB) resistance'

May 2023: King Baudouin Foundation/Funds Maaikje Lars Trees research grant (€ 200 000) for the project 'Targeting the CDA/P2Y6 axis to overcome immunosuppression and favor response to immune checkpoint inhibitors in pancreatic cancer' (2023-J1140800-231586)

December 2022: 4-year research grant (€ 520 000) from FWO for the project G082323N: 'Tackling tumor immunosuppression by reprogramming eicosanoid metabolism and signalling in the tumor microenvironment.'

May 2022: 4-year FWO-SBO/E grant (€ 2 599 689 total), with J. Swinnen (PI), J. Van Ginderachter, C. Scott, J. Hendriks (co-PI's) for the project 'LipoMacs: functional Lipidomics to unlock Macrophage-mediated therapy.' (S001623N)

May 2022: Advanced technology equipment funding from Foundation against Cancer for BD Imaging Cell Sorter – BD Cell View Technology™ - € 885 720 (ATE-2022/1877)

January 2022: EOS grant with J. Van Ginderachter, P. Close, and F. Fuks, where I function as the **spokesperson** (overall budget: € 3 842 105 spread in 4 years to the entire consortium, of which € 1 051 000 for my lab)- 'Unravelling the role of RNA modifications as driver of macrophage phenotype switching in the tumor microenvironment'

October 2021: 5-year Methusalem grant from the Flemish government with the role of co-promoter (€ 45 000 per year)

September 2021: Credit (€ 57 000) from KanGO! Fund (50%) and the Duchenne Parent Project Belgium - 'Hope for Duchenne' – (50%), to study GLUD1 genetic and pharmacologic inhibition in the context of DMD.

September 2021: MIUR Italian Ministry for Research (€ 56 000), together with Prof. Taverna, as promoters in a proposal on miR regulation in monocytes/macrophages in COVID-19 patients

September 2021: Credit (€ 20 000) from the Rondou fund for Duchenne research, for the project 'Genetic targeting and pharmacological inhibition of macrophage-specific GLUD1 as potential treatment option for Duchenne muscular dystrophy (DMD)'.

September 2021: C3 KU Leuven Research grant (€ 337 000) on the role of the metabolite transporter SLC4A4 in pancreatic cancer cells in promoting immune escape and resistance to immunotherapy.

January 2021: 4-year grant (€ 542 000) from the Belgian Foundation against Cancer for the project 2020-1372: 'Arachidonic acid metabolism, a cross point between bad and good macrophages in cancer'.

January 2019: 4-year research grant (€ 400 000) from FWO for the project G0A7419N: 'Harnessing the pyrimidine salvaging pathway to foster anti-tumor immunity and sensitize tumors to immune checkpoint blockade'.

January 2019: 4-year research grant (€ 509 500) from FWO for the project G0A8219: 'Exploring the role of PlexinA4 in cytotoxic T cells: insights for anti-tumor immune response & cancer immunotherapy'.

January 2018: 4-year research grant from FWO-SBO project (ZL3C3602) with a primary economic finality aimed at the transfer to existing companies; total € 1 999 749 of which € 400 583 for my laboratory; project title: Validation and druggability development of macrophage-specific targets in the tumor microenvironment (MATATUM).

January 2017: 4-year research grant (€ 515 000) from FWO for the project GOD1617N: 'Exploring the role of TRAIL pathway in the tumor stroma: implications for cancer progression and drug resistance'.

January 2017: 4-year research grant (€ 305 116) from FWO for the project G0D1717N: 'Metabolism following function or function following metabolism: a study of AMPK in tumor-associated macrophages'

January 2016: 30-month research grant (€ 229 000) from the Flemish Association against Cancer (VLK) for the project 419.052.173: 'PHD1 as potential candidate for drug resistance in colorectal cancer'.

January 2015: 4-year research grant (€ 200 000) from the Belgian Association against Cancer for the project 2014-186: 'A monocyte signature for monitoring disease relapse and response to chemotherapy in colorectal cancer patients.'

January 2015: 4-year grant (€ 354 600) from the Belgian Association against Cancer for the project 2014-197: 'Exploring the metabolic pathways driving tumor-associated macrophage polarization and their influence on tumor progression'.

January 2015: 4-year research grant (€ 292 000) from FWO for the project G066515N: 'Exploring the metabolic pathways driving tumor-associated macrophage polarization and their influence on tumor progression'.

January 2015: 4-year research grant (€ 400 000) from FWO for the project G087615N: 'Podoplanin: the missing link between breast cancer and lymphatic?'.

January 2015: Credit (€ 30 000) from FWO for the project 1501215N: 'Mir-210 at the crossroad of M2 and M1 macrophage polarization: relevance for sepsis and cancer'.

November 2014: André Vander Stricht-Emile Carpentier Prize (€ 40 000).

October 2014: 8-year Methusalem grant from the Flemish government with the role of co-promoter (€ 75 000 per year)

September 2014: 4-year research grant (€ 450 000) from the Vlaamse Liga tegen Kanker for the project: 'A monocyte signature for monitoring disease relapse in colorectal cancer patients.'

January 2013: 4-year research grant (€ 200 000) from FWO for the project G083613N: 'Inhibiting FIH as a potential anti-angiogenic treatment'.

January 2012: 4-year research grant (€ 200 000) from FWO for the project G068612N: 'Unravelling new molecular pathways in the oxygen sensing machinery'.

January 2011: 4-year research grant (€ 200 000) from FWO for the project G079311N10: 'Peripheral blood monocytes as predictive biomarkers in colorectal cancer'.

January 2011: Credit (€ 10 000) from FWO for the project 1505611N00: 'Unravelling new molecular pathways in the oxygen sensing machinery'.

December 2010: 4-year research grant (€ 140 000) from the Belgian Association against Cancer for the project 2010-198: 'Peripheral blood monocytes as predictive biomarkers in colorectal cancer'.

December 2010: 2-year research grant (€ 140 000) from the Belgian Association against Cancer for the project 2010-169: 'Unravelling new molecular pathways in the oxygen sensing machinery'.

January 2010: 4-year research grant (€ 320 000) from FWO for the project G.0726.10N: 'Endothelial phalanx cells in therapeutic angiogenesis'.

January 2010: 4-year research grant (€ 82 000) from FWO for the project G071810N: 'PHD2 oxygen sensor: novel and promising target for the optimization of chemo and radiotherapy'.

January 2010: Credit (€ 20 000) from FWO for the project 1520410N: 'PHD2 oxygen sensor: novel and promising target for the optimization of chemo and radiotherapy'.

INTERNATIONAL GRANTS

December 2025: FIS3, Fondo Italiano per la Scienza – Advanced Grant for the project "MARVEL", Italian national funding program modeled on the European Research Council (ERC) grants. € 1 800 000 for 5 years.

June 2025: 1-year Lustgarten foundation (€ 110 000) for the project "Unravelling the role of P2Y6+ macrophages in pancreatic ductal adenocarcinoma liver metastasis."

January 2025: 1-year ERC Proof-of-Concept (€ 150 000) for the project "Overcoming PAncreatic cancer immunotherapy resistance: developing PYRimidine receptor antagonists". Acronym: PA-PYR-us.(ID: 101213158)

November 2023: 1-year ERC Proof-of-Concept (€ 150 000) for the project "Targeting eicosanoid metabolism to overcome tumor immunosuppression". Acronym: EicoMet. Seal of excellence: the application was recognized as a high-quality project proposal in a highly competitive evaluation process (ID: 101123280)

February 2022: 1-year ERC Proof-of-Concept (€ 150 000) for the project: "Targeting bicarbonate transport as a first-in-class therapeutic strategy to promote CD8⁺ T fitness and enhance cancer immunotherapy". Acronym: BasicFit. Note from the ERC President: "This year's Proof of Concept Grant call had a very large number of applications, and the evaluation panel was impressed with the generally high quality of the proposals received". (ID: 101069459)

July 2020: 3-year AFM-Telethon grant (€ 200 000) for the project: "GLUD1 as a potential target in Muscular Dystrophy". From October 2020 to September 2023.

November 2017: 5-year ERC Consolidator Grant (€ 2 000 000) for the project ImmunoFit (773208): 'Harnessing tumor metabolism to overcome immunosuppression'. From July 1st, 2018, to March 31st 2024 (extension due to COVID).

September 2017: 3-year MSCA-ITN grant, Horizon 2020 (META-CAN) (€ 452.920 as co-PI): "Targeting the metabolism-

immune system connections in Cancer”.

November 2016: 1-year ERC Proof-of-Concept (€ 150 000) for the project: “A comparative clinical study of a stool-based versus a blood-based screening test for early detection of CRC.”

May 2016: 3-year ERANET grant (€ 300 000 per participant) for the project OxyUC: “The impact of hypoxia on inflammation and tumorigenesis in Ulcerative Colitis.” Consortium with Prof. Cormac Taylor (UCD, Dublin, Ireland), Dr. Martin Schneider (University Hospital Heidelberg, Germany), Prof. Jochen Prehn (Royal College of Surgeons, Dublin, Ireland).

June 2013: 3-year research grant (€ 237 000) from the Association for International Cancer Research (AICR) for the project: ‘Podoplanin: the missing link between macrophages and lymphatic metastasis in breast cancer?’.

November 2012: 5-year ERC Starting Grant - Starter Category (€ 1 500 000) for the project OxyMO (308459): ‘Oxygen sensing in macrophages: implications for cancer and ischemia’. From December 2012 to November 2017.

July 2012: Credit (€ 25 000) from the European Society of Cardiology for the project: ‘Regulation of post-ischemic angiogenesis and reperfusion injury by PHD2 and WNT/beta catenin pathways.’

INDUSTRIAL FUNDING AND TECH TRANSFER

April 2025: 15-months funding (€ 2 569 800) from LeverBio for the co-development of 4 biologicals inhibitors aiming to reprogram the solid tumor microenvironment to foster anti-cancer immune responses.

March 2025: Owkin Therapeutics (€ 75 000) for drug validation activities

December 2024: Credit (€ 30 000) from Merus for a preclinical study

November 2024: 12-months fundings (€ 127 000) from Montis Biosciences for in vivo characterization of anti-inflammatory antibodies in mouse models of cancer and inflammatory diseases.

February 2022: iTEOS Therapeutics, 2-year investment on findings from my lab, drug discovery/validation (€ 1 500 000).

September 2021: VLAIO research grant with Montis Biosciences as an academic partner (€ 250 000).

March 2021: Credit (€ 60 000) from Oncurious for a preclinical study.

July 2019: Funds from Droia (€ 540 868) in favor of Montis Biosciences, to evaluate macrophages and endothelial cells interactions in the immunosuppressive tumor environment.

April 2018: Seed capital (€ 150 000) from V-BIO Ventures, 1 year grant for grounding foundation of a new spin-off.

January 2018: VLAIO research grant with CoBioRes, external service fee up to 200 000 €.

January 2018: VLAIO research grant (total € 1 798 992 of which € 541 358 for my laboratory) with J&J Belgium, Janssen Pharmaceutica, grant number HBC.2016.0883: "Targeting immunosuppressive mechanisms in cancer". From February 2018 to February 2020.

June 2017: VLAIO research grant (total € 1 122 754 of which € 168 583 for my laboratory) with Octimet, grant number HBC. 201.03657: "Combination Therapies for treatment of Resistant Tumours". From 1/06/2017 to 31/05/2019.

January 2017: Funds from DNA Lytics (€ 250 000) for the development of the Monomark test (Colonokit™).

December 2016: Funds from Merus (€ 440 000) to evaluate the in vivo effect of MET and EGFR biclonal antibodies.

November 2016: Funds from Octimet (€ 100 000) for the preclinical validation of OMO-1 (MET and OCT-2 inhibitor).

January 2016: 24-month grant (€ 12 500) from AstraZeneca Foundation (EXJ-MMWDVC-O3200).

August 2015: Funds from Droia (€ 84 000) for the pre-clinical evaluation of ITPP on tumor oxygenation and cancer progression in breast cancer mouse models.

June 2015: Funds from Merus (€ 107 000) to evaluate the in vitro effect of MET and EGFR biclonal antibodies.

May 2014: Funds from CoBioRes nv (€ 37 500) to evaluate the PhAc-ALGP-technology in breast cancer.

January 2014: Funds from Boehringer Ingelheim (€ 120 000) for a biomarker analysis on plasma samples from CRC patients in relation to antiangiogenic treatments (Folfox + Avastin versus Folfox + Nintedanib; phase I/II study).

August 2013- May 2017: FFMI extensions (€ 300 000) for the development of the Monomark signature.

January 2011: Unique selected 3-year research grant (€ 345 000) from the Foundation Fournier-Majoie for the Innovation (FFMI) for the project: ‘Peripheral blood monocytes as predictive biomarkers in colorectal cancer’.

PATENTS AND SCIENCE TRANSLATION

- "PHD2 inhibition for blood vessel normalization, and uses thereof"; Mazzone M, and Carmeliet P; filed on 20 January 2010; published as WO 2010/084134.
- "Induction/monitoring of arteriogenesis using SDF1 and PDGFB or inhibition of PHD2"; Mazzone M, and Carmeliet P; filed on 30 March 2011; published as WO2011/121036.
- "Monocyte biomarkers for cancer detection"; Mazzone M; filed on 28 January 2013; published as WO2013/110817.

- “Modulating transendothelial migration and recruitment of granulocytes by modulating c-Met pathway”; Mazzone M, and Finisguerra V; filed on 31 August 2012 (US 61/695,952; published as WO 2014/033298).
- “PP2A subunits in DNA repair and implications for cancer”; Sablina A, Mazzone M, and Di Conza G; filed on 18 February 2013; published as WO2013/121042.
- “Means and methods to treat inflammatory diseases”; Mazzone M, and Henze A-T; filed on 4 October 2016 (EP 16192213.3; published as WO 2018/065390).
- “Glutamine dehydrogenase inhibitors for use in muscle regeneration”; Mazzone M, and Shang M; filed on 9 June 2017 and 12 February 2018 (EP 17175210.8; EP 17175210.8; published as WO 2018/224636).
- “Glutamine synthetase inhibitors in cancer” ; Mazzone M, Castegna A, Palmieri E, and Menga A; filed on 20 July 2017 (GB 1711709.4.).
- “Podoplanin-positive macrophages” ; Mazzone M, and Bieniasz-Krzywiec P; filed on 26 October 2017 (EP 17198684.7; published as WO 2019/081714).
- “CD8+ T cells lacking plexins and their application in cancer treatment”; Mazzone M, Oliveira A, and Celus W; filed on 28 May 2019 (EP 19176939.7; published as WO 2020/239934).
- “Cancer treatment by targeting Plexins in the immune compartment”; Mazzone M, Oliveira A, and Celus W; filed on 28 May 2019 (EP 19176944.7; published as WO 2020/239945).
- “PLXA4 – Circulating biomarker for anti-tumor therapy”; Mazzone M, Oliveira A, and Celus W; filed on 24 September 2020 (EP 20198184.2)
- “Combination of P2RY6 inhibitors and immune checkpoint inhibitors”; Mazzone M; filed on 24 September 2020 (GB 2015082.7).
- “A novel activity of Tacrolimus in preventing muscle atrophy and cancer cachexia”; Porporato P, Mina E, Rausch V, Mazzone M; filed by the University of Torino on 11 January 2021.
- “Inhibition of SLC4A4 in the treatment of cancer”; Mazzone M, Cappellesso F, Virga F; filed on 17 February 2021 (EP 21157705.1).
- “Hematopoietic Prostaglandin Synthase (HPGDS) inhibition for treating cancer”; Mazzone M, Trotta R; filed on 16 November 2023 (EP23210278.0)
- “Inhibition of Prostaglandin D2 Receptor 1 as means for treating cancer”; Mazzone M, Trotta R; filed on 16 November 2023 (EP23210284.8)
- “Inhibition of Prostaglandin D2 Receptor 2 as means for treating cancer”; Mazzone M, Trotta R; filed on 16 November 2023 (EP23210290.5)
- “SLC4A4/NBCe1 INHIBITORS”; Mazzone M, Orban M-P, Brunner J, Schenck S, Dombrecht B, Langenberg T, Curcio M, Hassanzadeh Ghassabeh G; filed on 11 May 2023 (EP23172907.0)
- “Therapeutic and diagnostic applications of elongation of very long chain fatty acids protein 1”; Mazzone M, Pretto S; filed on 7 May 2024 (EP24174500.9)
- “Cancer therapy including inhibition of lysine methyltransferase 5A”; Mazzone M, Zhao S; filed on 26 February 2026 (EP26161049.7)
- Outlicense of an anti-phospho-PHD2 S125 (Di Conza et al., Cell Reports, 2017) to Merck Millipore, # MABC1612.
- Outlicense of the Monomark signature (WO2013/110817 and Hamm et al., Gut, 2015) to DNA Lytics (Louvain-la-Neuve, Belgium) as Colonokit™.
- Generation of anti-Neuropilin-1 antibodies with VIB Drug Discovery and Fair Journey Biologics (Porto, Portugal).
- Screening and validation of Glutamine Synthase inhibitors in collaboration with the Korea Research Institute of Chemical Technology (KRICT).
- Screening and validation of GLUD1 small molecule inhibitors with CD3 at KU Leuven.
- Screening and validation of anti-SLC4A4 nanobodies and IP6K3 inhibitors with VIB Drug Discovery Sciences.
- Screening and validation of anti-PlexinA4 nanobodies and antibodies together with Oncurious.
- Preclinical validation of new metabolic drugs in the immune oncology field, in collaboration with iTEOS

SPINOFF BIOTECH COMPANIES

- Scientific Founder of the oncology company **Oncurious** (September 1st, 2017)
- Scientific Founder with **Droia** of **Montis Biosciences**, working on tumor-associated macrophage and endothelial cell interactions (July 19th, 2019)
- Scientific Founder with Claris Ventures and Exor Ventures of the oncology company LeverBio, in the field of immune cell adaptation to the tumor microenvironment (March 1st, 2025)

SCIENTIFIC SERVICE IN A TIMELINE

2026-present	Member of EMBO Installation Grants Selection Committee
2025-present	Scientific co-founder and scientific advisor of LeverBio
2024-present	Associate Editor of Molecular Oncology (a FEBS journal)
2024-present	Founding member and board of the European Immunometabolism Network (EIMM)
2024	Expert Commission Clinical Research Ludwig Boltzmann Gesellschaft Foundation
2022-present	Associate Editor of British Journal of Cancer (Nature group)
2022-2023	LS4 panel board, PRIN 2022, and PRIN 2022 PNRR, Ministry for Research , Italy
2022	Evaluation panel SNSF Consolidator Grants (Swiss National Science Foundation)
2021-present	Elected EMBO Member (and active AACR, EACR, ESMO member)
2020-present	Editorial Board Member of Immunometabolism
2019-present	Scientific Advisor of Review Commons (an EMBO and ASAPbio initiative)
2019-present	Scientific co-founder and member of the Board of Directors of Montis Biosciences
2018-present	Steering Committee VIB FACS Core
2018-2023	Internal Advisory Panel member, Department of Oncology, KU Leuven
2017-present	Member of the Executive Board of the Leuven Cancer Center (LKI)
2017-2022	Scientific co-founder and member of the Board of Directors of Oncurios
2017-2021	Member of the META-CAN European International Training Network (ITN)
2016-present	User Committee Member, KU Leuven FACS Core
2016-2021	Scientific Evaluation Board of the Belgian Foundation Against Cancer (STK)
2016-present	Member of the European Academy for Tumor Immunology (EATI)
2015	Scientific consultant for the Italian Ministry for University and Research (ANVUR)
2014-present	Evaluation committees and tenure track programs (Ludwig Cancer Center Lausanne, Beatson Institute Glasgow, University of Florence)
2014-present	EMBO Young Investigator Program (YIP), Immunology focus group YIP member
2014-2019	Cancer UK Research Funding Committee member
2012-present	Editorial Board Member of the journal Cancer Research
2010-present	Board member PhD programs: 1/Cancer & 2/ Cardiovascular Medicine, KU Leuven; Molecular Medicine, Torino University; Pharmacology, Padua University
2010-present	Industrial Advisory boards: Sanofi-Aventis; Merck; Montis Biosciences; Metaptys; CoBioRes; OctiMet; DeuterOncology; LeverBio; Oncurios
2009-present	Reviewer for the following journals (~40/year): Cancer Res, Clin Cancer Res, Cancer Immunol Res, Nature, Nat Biotechnol, Nat Cell Biol, Nat Commun, Nat Rev Cancer, Nat Cancer, Nat Metab, Science, Sci Immunol, Sci Transl Med, Cell, Cancer Cell, Cell Metab, Cell Rep, Mol Cell, EMBO J, EMBO Mol Med, etc.
2009-present	Remote reviewer for the following granting agencies: FWO, IWT (BE), MIUR (IT), DFG (DE), ARC (FR), SNSF (CH); NWO, KWF (NL); FCT (PT); ERC (EU), etc.

ORGANIZATION OF INTERNATIONAL CONFERENCES & SOCIAL OUTREACH

- Co-Organizer of the Forbeck Cancer Forum on immune tumor microenvironment, California, March 2025 (with Prof. Sara Zanivan)
- EACR Podcast, Episode 11: 'Breast tumors interfere with endothelial TRAIL at the premetastatic niche to promote cancer cell seeding'. This work is published in Science Advances and was listed in September 2024 in the EACR's Highlights in Cancer Research, a summary of the most interesting and impactful recent papers in cancer research.
- Co-Organizer of the 8th annual meeting of the International Society of Cancer Metabolism (ISCaM), Molecular Biotechnology Center (MBC), Torino, IT (June 27th-30th, 2022)
- Co-Organizer VIB Conference on ImmunoOncology, Leuven, BE 2022 (June 16th-17th) and 2024 (June 30th-31st)
- Co-Organizer VIB Training on Organoids, Leuven, BE (May 25th, 2022)
- Scientific Committee of the ESMO Immuno-Oncology Congress, Geneva, CH (December 8th-11th, 2021)
- Organizer METACAN Training Conference (MSCA-ITN, Horizon 2020) on "Mouse models, organoids and large data analysis", Leuven, BE (September 23rd-27th, 2019)
- Organizer VIB Conference on Metabolism in Cancer and Stromal Cells (November 26th-27th, 2018) in Leuven (BE)
- Scientific Committee, 4th International Congress of Translational Research in Human Nutrition, topic on nutrition and cancer, Clermont-Ferrand, FR (June 22nd-23rd, 2017)
- Organizer VIB Symposium on Cell Metabolism, Leuven, BE (September 6th, 2016)

- Co-organizer parallel session on tumor microenvironment, AACR, Philadelphia, PA (April 18th-22nd, 2015)

RESEARCH ACTIVITY

- Developed lentiviral vector-based antagonists and antibodies against HGF/MET signalling in the context of cancer.
- Identified the role of MET in neutrophils during inflammation and cancer.
- Identified possible mechanisms of resistance to chemotherapy and anti-angiogenic drugs.
- Studied PHD2 in endothelial cells and macrophages using cancer and ischemia mouse models.
- Characterized post-translational modifications of PHD2 and the PHD2 interactome.
- Studied the effect of macrophage polarization, metabolism and localization on tumor immunity, angiogenesis, metastasis and response to chemotherapy.
- Studied new immunotherapeutic strategies and combination treatments to foster anti-cancer immunity, *ad hoc* licensed to Oncurios.
- Developed a monocyte-based test for colorectal cancer diagnosis, licensed to DNA Lytics (Colonokit™).
- Drug repurposing of anti-cancer drugs in the muscle regeneration field.
- Studied the metabolic cross-talks and metabolic vulnerabilities defining the tumor immune landscape and usable as new immunotherapeutic targets.

MAJOR SCIENTIFIC COLLABORATIONS

Angiogenesis and cancer invasion: L. Claesson-Welsh, E. Dejana (SE), K. Alitalo (FI), H. Gerhardt (DE), M. Simons (US), D. Hanahan (CH), O. Sansom (UK), D. Taverna, L. Tamagnone, G. Serini (IT). **Clinics:** H. Prenen, B. Topal, S. Tejpar, A. D'Hoore, A. Smeets, G. Floris, X. Sagaert, T. Roskams, M.F. Bosisio, A. Hendlisz (BE), F. Loupakakis, G. Gasparini (IT), T. Tueting, M. Schneider, T. Schmidt, S. Schölch, J. Weitz (DE). **Hypoxia:** M. Ivan (US), C. Taylor (IE), P.J. Ratcliffe, P. Maxwell, M. Whyte (UK). **Immunometabolism:** S. Kaech (US), H. Ping-Chih, P. Romero (CH). **Immunity:** M. De Palma, G. Coukos (CH), G. Matteoli, P. Agostinis, G. Bergers, J. Van Ginderachter, A. Liston, B. Vanden Eynde, P. Coulie (BE), A. Mantovani (IT), M. Hoelzel (DE), C. Lewis (UK), Z. Granot (IL). **Metabolism:** P. Carmeliet, S. Fendt, B. Ghesquière, J. Swinnen, G. Bommer (BE), C. Muñoz-Pinedo, J. Aragonés-Lopez (ES), S. Zanivan (UK), C. Frezza (DE), A. Castegna (IT). **Epigenetics:** P. Close, B. Thienpont, J. Cools (BE). **Imaging:** S. Soenen, C. Scheele (BE) Bioinformatics: D. Lambrechts, S. Aerts, C. Marine, F. Fuks (BE), R. DasGupta (SG).

BIBLIOMETRIC INDICATORS

- 185 articles in peer-reviewed journals, comprising 143 research papers (5 as first author and 31 as last author, of which 29 as corresponding author), 30 reviews (3 as first author and 15 as last author, of which 15 as corresponding author) and 12 editorials/commentaries (3 as first author of which 1 as corresponding author, 8 as last author of which 7 as corresponding); 3 book chapters; 21 patents (of which 3 were licensed)
- Cumulative citations index: 22474 (ISI Web of Science), 27870 (Google Scholar)
- H index: 75 (ISI Web of Science), 82 (Google Scholar)

COMPLETE LIST OF PUBLICATIONS

***Equally contributing first author / Equally contributing senior author; #Corresponding Author; IF Impact Factor publication year; C Citations (no self-citations)**

PUBLISHED

1. Virga F, Taverna D, Ferrero G, Leclercq M, El Hachem N, Godoy-Tena G, Jacobs C, Tarallo S, Pardini B, Naccarati A, Wauters J, Lauwers HM, Wauters E, Close P, Orso F, **Mazzone M[#]**. Transcriptome changes in circulating immune cells of critical COVID-19 patients predict a specific metabolic and epigenetic imprint. *J Transl Med.*, 24(1), doi: 10.1186/s12967-025-07665-y (2026). IF=7.5
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BOOK CHAPTERS

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