

## Curriculum Vitae European Format

### Personal information

Name / Surname	<b>Prof. Mauro Krampera</b>
Scopus Author ID:	6603925872
ORCID ID:	0000-0002-7280-2040
WoS Research ID:	K-5596-2018
Address	Hematology and Bone Marrow Transplant Unit 'G. Perona', Section of Biomedicine of Innovation, Department of Engineering for Innovation Medicine, University of Verona, Italy  UOC di Ematologia e Centro Trapianto di Midollo Osseo 'G. Perona', DAI Medico Generale, Policlinico G.B. Rossi – Borgo Roma, P.le L.A. Scuro 10, 37134 Verona, Azienda Ospedaliera Universitaria Integrata Verona.
Telephone	+39-045-8124034
Fax	+39-045-8027488
E-mail	<a href="mailto:mauro.krampera@univr.it">mauro.krampera@univr.it</a>
Website	<a href="https://www.dimi.univr.it/?ent=persona&amp;id=1163">https://www.dimi.univr.it/?ent=persona&amp;id=1163</a>
Nationality	Italian
Year of birth	1967
Gender	M

<b>Principal areas of expertise</b>	<b>Hematology (Italian SSD MED/15), particularly focused on advanced diagnostic and therapeutical approaches to hematological diseases and on stem cell biology and clinical application</b>
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### EDUCATION AND TRAINING

July 16, 1992:	M.D. graduation at the University School of Medicine in Verona (Italy). Title of the graduation thesis: 'Intensive cyclic chemotherapy in chronic myelogenous leukemia'
Oct. 21, 1996:	Specialization in Hematology, University of Verona (Italy). Title of the Specialization thesis: 'Immunophenotypic detection of minimal residual disease in acute T-lymphoblastic leukemia'
Jan. 12, 2001:	Ph.D. in Experimental Hematology at the University of Milan (Italy). Title of the Ph.D thesis: 'Immunophenotypic detection of minimal residual disease in acute T-lymphoblastic leukemia: G.I.M.E.M.A. (Italian Group for the study of Adult Malignant Hematological Diseases) multicentric study'
2000-2001:	Academic Visitor and Research Associate at the Departments of Hematology (Prof. J.M. Goldman) and Immunology (Prof. R. Lechler) Imperial College School of Medicine, Hammersmith Hospital, London, U.K. with a research project about the immune regulation by mesenchymal stem cells in allogeneic bone marrow transplantation.
Feb-May 2007:	Training at the Zambon Pharma in Vicenza concerning the production of injectable drugs according to GMP standards.
Oct. 18, 2007:	Certification by the Italian Agency of Drug (AIFA) of Qualified Person in authorized centers for the preparation of cell therapy

**WORK EXPERIENCE**  
Main activities and responsibilities

Nov. 13-14 2007:	products (articolo 52 del D.L. 24 aprile 2006 n. 219) AIFA Course in collaboration with ISS (Istituto Superiore di Sanità) and CNT (Centro Nazionale Trapianti) for the use of cell therapy products.
Jan. 28, 2008:	Courses on 'Procedures in GMP rooms' e 'GMP rooms cleaning', organized by Società A.M. Instruments Srl., Policlinico 'G.B. Rossi', Verona.
Sept. 4, 2015	Course 'A Joint Basic Training Session for Quality Assurance & Quality Control on Advanced Therapies', organized by the International Society for Cellular Therapy (ISCT) in Seville (ESP).
Feb. - Dec. 2019:	Attendance and passing of the final test with positive evaluation of the 'Managerial Training Course for Complex Structure Executives' organized by the Veneto Region, Montebelluna (VI) - 15 <sup>th</sup> edition.
Oct.- Dec. 2019:	Attendance and passing of the final test with positive evaluation of the virtual training course 'The Regional Electronic Health Record' with the training objective: <i>'Appropriateness of health services, evaluation systems, verification and improvement of efficiency and effectiveness. Essential levels of assistance (LEA) '</i> .
Since 22-June-2018:	Head of the Hematology and Bone Marrow Transplant Unit 'G. Perona', DAI Medico Generale - Integrated University Hospital of Verona (acting director from 12-May-2017 to 22-June-2018).
Since 12-May-2017:	Head of the Hematology and Bone Marrow Transplant Unit 'G. Perona', belonging to the Department of Medicine until 28-Feb-2023, since 3-Jan-2023 to the Department of Engineering for Innovation Medicine (DIMI) - University of Verona, of which he is the contact person for the Third Mission and DIMI Representative for the Technology Platform Center (CPT).
Since Nov 2023:	Head of the Innovation Biomedicine Section of the Department of Engineering for Innovation Medicine (DIMI), University of Verona.
Jan. 2, 2017:	Full Professor of Hematology, Department of Medicine, Section of Hematology, University of Verona (Italy).
Jan. 29, 2015:	Appointment of Full Professor of Hematology (art. 16 L. 240/2010).
Nov. 1, 2014:	Associate Professor of Hematology at the Department of Medicine, Section of Hematology, University of Verona (Italy).
Dec. 3, 2013:	Appointment of Associate Professor of Hematology (art. 16 L. 240/2010)
1998-Oct. 2014:	Assistant Professor and Consultant at the Department of Medicine, Section of Hematology, University of Verona (Italy).
Since 1998:	Acquisition of broad professional experience and competence, with continuous clinical activity (including night and day on-call-service and consultancy in other Hospital Units) and direct responsibility for patient management, in all the services of the Section of Hematology, University of Verona, including Inpatient Ward, Bone Marrow Transplant Unit (whose he was Responsible for Quality Assurance), Outpatient Service (Clinic and Hospital Day), and Laboratory of Hematological Diagnostics. Specific competences for diagnosis, treatment, management of complications and follow-up of hematological patients undergoing chemotherapy and autologous or allogeneic stem cell transplantation.
2004-2013:	Member of the Faculty Council, at the Faculty of Medicine, University of Verona.
2004-2020:	collaboration with Dr. Luc Sensebé (Etablissement Français du Sang Centre Atlantique, Tours - Toulouse, France) to design protocols of human mesenchymal stem cells for clinical use according to the rules of GMP (Good Manufacturing Practice). Co-

	founder (2008-2013), with Dr. Sensebé, and member of the European Consortium CASCADE (Cultivated Adult Stem Cells for Damaged Epithelia), financed in 2008 by the 7TH Framework Programme on Research, Technological Development and Demonstration of European Commission.
2005-2006:	Member of the MIUR (Italian Ministry of University and Scientific Research) 60% Commission for research fund assignment at the Faculty of Medicine, University of Verona.
2005-present:	Coordinator of the Stem Cell Research Laboratory, Section of Hematology, University of Verona, Italy ( <a href="http://www.stemcellreslab-verona.it">www.stemcellreslab-verona.it</a> )
2005-present:	Coordinator and teacher of the PhD Course on 'Biology and Clinical Application of Stem Cells', University of Verona, until 2013 belonging to the PhD School of Translational Biomedical Sciences, Doctorate of Oncological Pathology and Stem Cells, and since 2013 belonging to the PhD School of Clinical and Experimental Biomedical Sciences.
2006-2013:	Member of the Research and Development Commission of the Faculty of Medicine, University of Verona.
2006-2013:	Delegate of the Chancellor of the University of Verona inside the CORIT (Consortium for the Research on Organ Transplantation)
2007-present:	Member of the Commission for Good Use of Blood, Azienda Ospedaliera di Verona
2008-2014	Co-founder with Dr. Pierre Layrolle (INSERM, Nantes, France) and member of the European Consortium REBORNE (Regenerating Bone defects using New biomedical Engineering approaches), financed in 2009 by the 7TH Framework Programme on Research, Technological Development and Demonstration of European Commission.
2010-present:	Assignment of High Qualification in 'Biological and clinical integrated approach to stem cell use in regenerative medicine' by Azienda Ospedaliera Universitaria Integrata (University Hospital) of Verona
2010-present:	Appointment by A.I.F.A. (Agenzia Italiana del Farmaco) of European Expert for Advanced Therapies inside EMA (European Medicines Agency)
2010-2020:	Appointment of Production Manager of the Cell Factory, Policlinico 'G.B. Rossi', Verona
2010-2014:	Responsible for Thrombocytopenia Italian Registry (RIT) at the Section of Hematology of Verona
2011-present:	Member of the Mesenchymal Stromal Cell (MSC) Committee of the International Society for Cellular Therapy (ISCT)
2013-2015:	Member of the Mesenchymal Stromal Cell (MSC) Ruler Working Group, coordinated by Prof. Armand Keating (University of Toronto, Canada)
2013-present:	Institutional Representative of University of Verona inside APRE (Agency for Promotion of European Research).
2013:	Member of the Commission for the final evaluation of the Doctorate degree at the School of Oncology and Oncological Surgery, University of Padua, Italy.
Jan. 13, 2015:	Nomination as external examiner for a Doctoral Thesis in the Department of Biology, Faculty of Science and Engineering, National University of Ireland Maynooth.
2015-present:	Responsible for the Laboratory of hematological flow-cytometric diagnostics of the Section of Hematology, Azienda Ospedaliera Universitaria Integrata (AOUI) Verona.
2015-2018:	Member of the Study Group of the Italian Society of Diabetology (SID) 'Regenerative Medicine in diabetes' (Coordinator Prof.

	Lorenzo Piemonti) at the Diabetes Research Institute, San Raffaele Hospital, Milan, Italy.
2015-present:	Responsible for the Specialized Regional Center 'Center for the Translational Research in Regenerative and Immune Regulatory Cell Therapy with Mesenchymal Stromal Cells (CRT-STAMI-RIM)' - prot. n. 25687 May 29th, 2015 by General Director of the Azienda Ospedaliera Universitaria (AOUI) Verona, transmitted to Veneto Region - 'Sezione Attuazione Programmazione Sanitaria'.
2016-present:	Teaching Coordinator for Blood diseases (SSD MED/15) for the Department of Medicine, University of Verona, Italy.
2016-present:	Member of the Evaluation Expert Group (GEV) of the National Agency for University and Research Evaluation (ANVUR).
2017-present:	Teaching Coordinator of the Systematic Pathology I for the School of Medicine, University of Verona, Italy.
2017-present:	Director of the Specialization School of Hematology, University of Verona, Italy.
2017-2019:	Coordinator of the CLL Project for University Hospital of Verona.
2018-present:	Coordinator of the Verona Hematological Pole of the Veneto Hematological Network (REV).
2018-present:	Coordinator of the Program for Research, Innovation and Health Technology Assessment (PRIHTA) of the Veneto Region, Italy.
2018-present:	Member of the Working Group for Innovative Drugs of the Veneto Region, Italy. Coordinator of the Group since 22-April-2022 (Decreto del Direttore Generale Area Sanità e Sociale n. 35 del 24/3/2021).
2018-present:	Coordinator of the Hematology Verona Pole of the University Hospital of Verona.
2018-2019:	Coordinator of the Program for Research, Innovation and Health Technology Assessment (PRIHTA) of the Veneto Region, Italy.
2018-present:	Member of the Working Group on Onco-Hematologic Drugs in support of the Regional Technical Commission for Medicines of the Veneto Region, Italy. Since 22-Apr-2021, Coordinator of the Working Group (Decree of the General Director of the Health and Social Area n.35, 24-March-2021).
Dec 2023-present:	Member of the Regional Technical Commission for Medicines of the Veneto Region, Italy
2020-present:	Coordinator of the CAR T Cell Team Multidisciplinary Group, Integrated University Hospital (AOUI) Verona.
2021-present:	Member of the Molecular Tumor Board (MTB) - Veneto Oncological Network (ROV) of the Veneto Region, Italy.

#### **SCIENTIFIC ACTIVITY (Technical Skills and Competence):**

The scientific activity is currently carried out at the Department of Medicine, Section of Hematology, University of Verona (headed by Prof. Giovanni Pizzolo until September 2014, then by Prof. Achille Ambrosetti until November 2017) and, from October 2000 to October 2001, it was carried out at the Departments of Hematology (Prof. John M. Goldman) and Immunology (Prof. Robert Lechler), Imperial College School of Medicine, Hammersmith Hospital in London. He is the Coordinator of both the Stem Cell Research Laboratory and the Laboratory of hematological flow-cytometric diagnostics of the Hematology and Bone Marrow Transplant Unit 'G. Perona', University of Verona. Main fields of interest:

1. immunophenotypic and functional characterization and sorting of lymphoid subsets in peripheral blood and normal hemato-lymphopoietic tissues and in a number of malignant and non-malignant conditions
2. immunophenotypic characterization of acute and chronic leukemias
3. clinical application of flow-cytometric monitoring of minimal residual disease (MRD) in acute leukemia patients; he coordinated the use of this approach also in an Italian multicentre study (GIMEMA LAL0496)

4. biology and clinical application of adult stem cells, including:
  - a) mesenchymal stromal cells: investigation of their differentiation potential and of their role in regenerative medicine, transplant-related immune reactions following allogeneic bone marrow transplantation, tumor-specific immune responses and stromal support to hematological and nonhematological malignancies;
  - b) hematopoietic stem cells: in vitro expansion and in vivo transplantation;
  - c) leukemia stem cells: study of the mechanisms of leukemia self-renewal, with particular interest in the role of the Notch and Wnt pathways in the stromal support to acute and chronic leukemia development, as potential targets for new drug development;
  - d) neural stem cells: study of in vivo niches of neurogenesis;
  - e) cardiac stem cells: study of the mechanisms of regeneration of infarcted myocardium;
  - f) epithelial stem cells: study of the mechanism of wound healing and epithelial regeneration.
5. intensive therapeutic protocols with molecular inhibitors, target therapy and cellular immunotherapy in leukemia and lymphoma, with local coordination of various clinical experimental studies, including the national studies REL-AML001-2017 (Coordinator Dr. Cairoli - Niguarda Hospital of Milan) and CAR T in Real Life (Coordinator Prof. Corradini – University of Milan), and the international studies ROBUST (Celgene), IELSG32 – MATRIX, and MonumentAL-6 (Janssen).
6. Advanced therapies for regenerative medicine and immune cell therapies based on CAR T cells (Coordinator of the CAR T Cell Team Multidisciplinary Group, Integrated University Hospital of Verona since 2020).

**Scientific referee for many years for many scientific journals in the field of clinical and experimental hematology, laboratory diagnostics, cell biology, clinical and experimental immunology, transplantation, cell therapy and regenerative medicine based on adult stem cells.** For some of these journals the revision activity is carried out very frequently (Blood, Leukemia, Haematologica, Stem Cells, Stem Cells and Development, Cytotherapy).

**Project referee for:**

- National Medical Research Council of Singapore
- Swiss National Science Foundation
- Medical Research Council (MRC), London, UK
- National Science Centre (Narodowe Centrum Nauki - NCN), Poland
- Multiple Sclerosis Society Grant Round U.K.
- Health and Social Services sector, The Research Council, Sultanate of Oman
- BRAIN-be - Belgian Research Action through Interdisciplinary Networks
- Etablissement Francais du Sang Centre Atlantique (EFS), France
- Research Council of Oman
- Israel Science Foundation
- Leukaemia & Lymphoma Research
- Dutch Kidney Foundation
- Italian Ministry of Instruction, University and Research (MIUR) – Reprise – ResearchItaly
- Worldwide Cancer Research (Edinburgh, GB)
- Kansas State Cancer Center (US)

**Guideline referee for Scientific Societies:**

- Italian Society of Hematology (SIE): revision of the guidelines for non-promyelocytic acute myeloid leukemia >60 year old patients (2022)
- International Society for Cell and Gene Therapy (ISCT): standardization of mesenchymal stem/stromal cell characterization (since 2011)

**Guest Editor** for Stem Cells International journal on topic of 'Mesenchymal Stem Cell Biodistribution, Migration, and Homing in Vivo' (2012)

**Member of the Editorial Board** of Stem Cells and Development journal (2012-present).

**Affiliation to scientific societies:**

1993 - present: Member of the Italian Society of Hematology (SIE)

	<p>1993 - present: Member of the Italian Society of Experimental Hematology (SIES)</p> <p>2010 - 2014: Member of the Directive Board of the Italian Society for Clinical and Experimental Cytometry (S.I.Ci.C.S.)</p> <p>2011 - present: Member of the MSC Committee of the International Society for Cellular Therapy (ISCT)</p> <p>2013 - present: Member of the American Society of Hematology (ASH)</p> <p>2014 - 2018: Member of the Directive Board of the Italian Society of Experimental Hematology (SIES)</p> <p>2016 - 2018: Vice-President of the Italian Society of Experimental Hematology (SIES).</p> <p>2018 - 2022: Member of the Commission for the Training Activities (CAF) of the Italian Society of Hematology (SIE).</p> <p>2019 - present: Member of the European Hematology Association (EHA).</p> <p>2021 - present: Delegate of the Italian Society of Hematology (SIE) for the Veneto Region.</p> <p>2022 - present: member of the Italian and European Society for Cytometric Cell Analysis (ISCA/ESCA)</p> <p>2022 - present: Member of the Board 'POST-ASH – News from the Meeting of the American Society of Hematology (ASH)'</p>
	<p><b>Patents:</b></p> <p>Patent n. TO2010U000026, deposited on 23rd February 2010, entitled: 'Device for cell culture', then converted into national (n. 272134) and international patent (PCT/IB2011/000365) - International and European Patent: WO2011104612 (A2). Date: 09/01/2011 DEVICE FOR CELL CULTURE AND ANALYSIS.</p>
	<p><b>Teaching activity since 1998</b> at the Faculty of Medicine and Surgery (Master's Degree Course, Specialization Schools and Doctorate) and Faculty of Biotechnology of the University of Verona and other Italian Universities.</p>
	<p><b>Invited speaker, organizer and chairman</b> at several Italian and international congresses and scientific events, continuously from 2002 to today.</p>
<b>PERSONAL SKILLS AND</b>	
<b>COMPETENCES</b>	
MOTHER TONGUE	<b>Italian</b>
OTHER LANGUAGES	<b>English</b>
Reading skills	very good
Writing skills	very good
Verbal skills	very good
Organization skills	Excellent, acquired during his work activity in Verona and abroad. He coordinates clinical and diagnostic activity, as well as experimental and clinical research as Principal Investigator in profit and no profit studies according to Good Clinical Practice (GCP) rules.
Technical Skills	<p>a. Cell cultures:</p> <ul style="list-style-type: none"> <li>- isolation and culture of human and murine mononuclear cells</li> <li>- in vitro expansion of human and murine mesenchymal stem cells</li> </ul> <p>b. Co-culture of human and murine mesenchymal stem/stromal cells and lymphocytes</p> <p>c. Functional assays to measure cell proliferation and cytotoxicity</p> <p>d. Flow-cytometry:</p> <ul style="list-style-type: none"> <li>- surface and intracellular staining with monoclonal antibodies</li> <li>- intracellular cytokine detection after activation by specific peptides</li> <li>- quantitative flow-cytometry</li> <li>- cell sorting</li> <li>- immunophenotypic analysis of minimal residual disease in acute and chronic leukemias</li> </ul>

	<p>e. Management of mouse and rabbit models for in vitro and in vivo experiments</p> <p>f. Management of advanced cell therapies according to GMP rules</p> <p>g. Management and statistical analysis of clinical and laboratory experimental data.</p>
Clinical skills	<p>Since Dec. 2017: Head of the Hematology and Bone Marrow Transplant Unit 'G. Perona', University Hospital of Verona (Italy).</p> <p>Since 1998 he has acquired broad professional experience and competence, with continuous clinical activity (including night and day on-call-service and consultancy in other Hospital Units) and direct responsibility for patient management, in all the services of the Section of Hematology, University of Verona, including Inpatient Ward, Bone Marrow Transplant Unit (whose he was Responsible for Quality Assurance), Outpatient Service (Clinic and Hospital Day), and Laboratory of Hematological Diagnostics. He has specific competences for diagnosis, treatment, management of complications and follow-up of hematological patients undergoing chemotherapy and autologous or allogeneic stem cell transplantation. Such competences include:</p> <ul style="list-style-type: none"> <li>- management and organization of standard and intensive care activity, diagnostic and therapeutic management of acute and chronic leukemia, myelodysplasia, indolent and aggressive lymphomas, myeloma, bone marrow aplasia, non-oncological blood diseases, complications of immuno-chemotherapy</li> <li>- selection and treatment of patients undergoing autologous or allogeneic hematopoietic stem cell transplantation and management of infectious and immunological complications (Graft-versus-Host disease, secondary immunodeficiency)</li> <li>- management and organization of Hematology Outpatient Service and Hospital Day activities</li> <li>- consultancy activity in standard care and emergency</li> <li>- morphological and immunophenotypic diagnostics of blood disorders.</li> </ul>
Computer skills	Very good, with both Windows and Mac platforms (Office, Adobe and similar programs, as well as internet browsers and videoconference programs).
Driving licence	B
<b>ADDITIONAL INFORMATION</b>	
PUBLICATIONS	Authors of <b>197</b> papers, with a global impact factor of <b>1.460,700</b> (JCR 2022 updated June 2023), with <b>12.979</b> citations and h-index = <b>52</b> according to Scopus. Author of more than 300 abstracts at national and international congresses and 11 scientific book and journal chapters.
GRANTS AWARDED	Scientific Coordinator or Head of Research Unit in several projects, both Italian (including COFIN, FIRC, Cariverona Foundation and 3 PNRR projects) and international (including two 7 <sup>th</sup> European Framework Projects).
PATENTS	Patent n. TO2010U000026, deposited on 23rd February 2010, entitled: 'Device for cell culture', then converted into national (n. 272134) and international patent (PCT/IB2011/000365) - International and European Patent: WO2011104612 (A2). Date: 09/01/2011 DEVICE FOR CELL CULTURE AND ANALYSIS.
AWARDS	<p>- 2000-2001: "Leonino Fontana e Maria Lionello" annual grant supporting oncological research activity abroad, assigned by Fondazione Italiana per la Ricerca sul Cancro (FIRC) for the research project entitled 'Donor Lymphocyte Infusion (DLI) for leukemia relapse after bone marrow or peripheral blood allogeneic hematopoietic stem cells: role of T cells specific for histocompatibility minor antigens in maintaining anti-leukemia effect (GvL, Graft versus Leukemia) in absence of Graft versus Host Disease (GvHD)'.</p> <p>- 30-11-2009: Premio Apindustria Verona Giovani "Because of the important discovery of</p>

*Leptomeningeal Stem Cells and the collaborative team work in research conduction”.*

I authorize the treatment of my data according to the applicable local regulation about data protection and any further amendments.

Verona (Italy), March 14, 2024

Prof. Mauro Krampera

