

CV Nicola Baldini

Born in Florence, Italy, on 12 August 1956

EDUCATION

University of Bologna Medical School. Internship, Institute of Surgical Pathology (1979-81)

MD Diploma, University of Bologna (1981)

Residency Program in Orthopaedics, University of Bologna (1987)

Residency Program in Oncology, University of Bologna (1990)

PROFESSIONAL PROFILE

Intern, Department of Surgery, Alder Hey Children's Hospital, Liverpool (UK) (1981)

Fellow, Department of Orthopaedic Surgery, Mount Sinai Hospital, Toronto (Canada) (1986)

Fellow, Center for Bone Tumors, Istituto Ortopedico Rizzoli, Bologna (1982-87)

Research Fellow, Department of Orthopaedic Surgery, Massachusetts General Hospital - Harvard Medical School, Boston, Massachusetts (USA) (1988-89)

Staff scientist, Laboratory for Oncologic Research, Istituto Ortopedico Rizzoli, Bologna (1989-99), responsible for "Drug resistance studies"

Staff surgeon, Orthopaedic and Traumatology Unit 1, Istituto Ortopedico Rizzoli (1999-11), responsible for "Organization of research" (1999-08) and "Oncologic surgery and clinical research" (2008-11). Deputy director, Laboratory for Pathophysiology (2000-11)

Consultant of Orthopaedic Oncology, Istituto Oncologico del Mediterraneo, Viagrande (CT) (2005-)

Director, Orthopaedic Pathophysiology and Regenerative Medicine Unit, Istituto Ortopedico Rizzoli (2011-)

AWARDS and HONORS

1982-83 Ministry of Foreign Affairs, travel grant at the University of Cape Town

1982-87 Ministry of Education, Residency program in Orthopaedics

1988- 89 National Research Council, travel grant in the USA

1994 Italian Foundation for Cancer Research, research grant in the USA

1995 Italian Foundation for Cancer Research, travel grant in the USA

1998-1999. President, Connective Tissue Oncology Society

2009-2012. President, Italian Orthopaedic Research Society

2008-2012. President, European Orthopaedic Research Society

2012-present. Full Professor of Orthopaedics, national qualification

2012-present. Coordinator, Podiatry Program, University of Bologna

2013-present. Visiting Professor, Department of Cell Molecular Biology, Kyoto Prefectural University of Medicine

2014. Marco Polo Award for Italian Science

2015-present. Honorary Member of Gioenia Academy

2015-present. Director, Microsurgery Program, University of Bologna

ACADEMIC PROFILE

Lecturer, Faculty of Biotechnology, University of Bologna (1996-2004). Supervised 16 graduate theses.

Associate professor of Orthopaedic Surgery, Faculty of Medicine, Università di Bologna (2008). Supervised 3 graduate theses, 3 Master theses.

Faculty member, PhD Program in Biomedical Sciences, University of Bologna (2008-). Supervised 8 PhD theses.

Member, European Board of Orthopaedics and Traumatology (2010-)

Chair, University of Bologna, Podiatry Program (2012-)

SCIENTIFIC SOCIETIES

- Connective Tissue Oncology Society, C.T.O.S. (President, 1988-99)
- European Musculo-Skeletal Oncology Society, E.M.S.O.S.
- European Orthopaedic Research Society, E.O.R.S. (President, 2008-11)
- European Society of Biomaterials, E.S.B.
- Orthopaedic Research Society, O.R.S.

- Società Italiana di Ortopedia e Traumatologia, S.I.O.T.
- Società Italiana di Ricerche in Ortopedia e Traumatologia, I.O.R.S. (President 2008-)
- Forum of Italian Researchers on Mesenchymal Stromal Stem Cells, F.I.R.S.T. (Steering Committee Member 2011-)
- International Society of Proton Dynamics in Cancer, I.S.P.D.C.
- International Society of Cancer Metabolism

NETWORKING

Organization, 2nd Osteosarcoma Research Conference, Bologna 1996
 Organization, 6° Congresso della Società Italiana di Ricerche in Ortopedia e Traumatologia, Bologna 2004
 Organization, Summer School on Biomaterials in Orthopaedics and Dentistry, Bologna 2005
 Organization, 16th Annual Meeting of the European Orthopaedic Research Society, Bologna 2006
 Convenor, European Science Foundation Workshop “Bone Stem Cells”, Bertinoro, 2009
 Convenor, European Science Foundation Exploratory Workshop “Around mesenchymal stem cells: dissection and exploitation of secretory activity of MSC for regenerative medicine and anticancer therapies”, Bologna 2012
 President, 8th Combined Meeting of the Orthopaedic Research Societies, Venezia 2013
 President, 24th Annual Meeting of the European Orthopaedic Research Society, Bologna 2016
 President, Annual Meeting of the International Society of Cancer Metabolism, Bertinoro 2017

EDITORIAL ACTIVITY

- Review Editor, Musculoskeletal Surgery
- Section Editor (Basic Science), European Orthopaedics and Traumatology
- Referee: Cancer, International Journal of Cancer, Nature Medicine, The American Journal of Pathology, European Journal of Cancer, British Journal of Cancer, Oncogene, The Histochemical Journal, Journal of Clinical Oncology, Oncology, Biomaterials

RESEARCH

Principal investigator, Istituto Ortopedico Rizzoli research projects: "Valore prognostico della ploidia e della cinetica cellulare nei tumori ossei e delle parti molli (1990-92). "Studio della chemiosensibilità nell'osteosarcoma" (1990-91). "Raccolta e conservazione di campioni biologici di pazienti affetti da tumore dell'apparato locomotore" (1991). "Impiego dell'analisi numerica nella diagnostica per immagini di neoplasie dell'apparato locomotore" (1991-92). "Studio della chemiosensibilità nei tumori muscoloscheletrici (1992-93). "Applicazioni dell'analisi d'immagine in oncologia ortopedica" (1992-93). "Valore diagnostico e prognostico delle alterazioni genetiche nei tumori muscoloscheletrici" (1993). "Studio di parametri biologici predittivi della risposta alla chemioterapia nei sarcomi dell'apparato locomotore" (1994-96)

Principal investigator, Ministry of Health research project: "Studio dei meccanismi coinvolti nella farmacoresistenza e validazione di indicatori della chemiosensibilità nei sarcomi muscolo-scheletrici" (1994-96)

Principal investigator, unit "Definizione biologica del sarcoma di Ewing", Project 'Applicazioni Cliniche della Ricerca Oncologica', CNR (1995-96)

Principal investigator, research project of the Associazione Italiana per la Ricerca sul Cancro “Molecular mechanisms of drug resistance in sarcomas” (1998-00)

Principal investigator, Istituto Ortopedico Rizzoli research project “Fisiopatologia del rimodellamento osseo” (2001-03)

Principal investigator, Ministry of Health research project “Identificazione di bersagli molecolari per la terapia delle metastasi scheletriche” (2002-04)

Principal investigator, research project of the Associazione Italiana per la Ricerca sul Cancro “Molecular mechanisms of osteolysis in metastatic bone disease” (2000-03)

Principal investigator, Ministry of Health research project “Identificazione dei profili di espressione genica associati alla progressione tumorale nei tumori solidi dell’età pediatrica” (2002-05)

Principal investigator, EC 6th Framework Program, project “Injectable macroporous biomaterial based on calcium phosphate cement for bone regeneration (SmartCap)” (2005-07)

Principal investigator, research project of the Associazione Italiana per la Ricerca sul Cancro “Targeting skeletal metastases by nanoscale multifunctional bone-seeking agents” (2006-08)

Principal investigator, Ministry of Education research project PRIN “Differenziamento di cellule stromali midollari in biopolimeri polipeptidici per ingegneria tissutale” (2010-12)

Responsible, Center for Biomedical Visualization, University of Bologna (2010-13)

Principal investigator, EC 7th Framework Program, project “Regenerating bone defects using new biomedical engineering approaches (REBORNE)” (2010-14).

Principal investigator, Ministry of Education FIRB project “Cellule staminali tumorali: vie di trasduzione del segnale quali bersagli di potenziali terapie” (2011-13)

Principal investigator, research project of the Associazione Italiana per la Ricerca sul Cancro “Multimodal treatment of musculoskeletal sarcomas by targeting proton dynamics and acidic microenvironment (2011-14)

Principal investigator, research project of the Associazione Italiana per la Ricerca sul Cancro “Targeting tumor-stroma interaction in sarcoma microenvironment to inhibit the development of metastases” (2014-)

Principal investigator, research project funded by Fondazione del Monte Ravenna e Bologna, “ACAROs - Studio clinico e *in vitro* sull’efficacia dei citrati alcalini nel trattamento delle osteopenie. Composti alcalinizzanti e prevenzione dell’osteoporosi post-menopausale” (2015-2017)

Coordinator, research project funded by Italian Ministry of Health, ERANET-Lac “ACIDinCIBP Acidic microenvironment as a target for cancer associated bone pain” (2017-)

Coordinator for Italian Clinical Centers, HO2020, EC research project “ORTHOpaedic randomized clinical trial with expanded bone marrow MSC and bioceramics versus autograft in long bone nonUNIONS”(2017-)

SCIENTIFIC PRODUCTION

Author of 260 peer reviewed papers (H-index: 49), 4 books, 26 book chapters, over 400 abstracts of presentations and posters, over 25 invited lectures.