

FERDINANDO CHIARADONNA, PhD

PERSONAL DETAILS

Date and place of birth: October 24th 1966; Pomigliano d'Arco (NA), Italy

Marital status: cohabiter with 2 daughters

Laboratory address: Biotechnology and Biosciences Dept, University of Milano-Bicocca, Piazza della Scienza 2, 20126 Milan, Italy

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PERSONAL SKILLS

Mother tongue

Italian

Other languages

English, written and spoken

Spanish, spoke

ACADEMIC ACTIVITIES

1. Roles

- 2019 to date: Associate Professor in Biochemistry at Biotechnology and Biosciences Dept, University of Milano-Bicocca, Milan, Italy
- 2002-2019: Assistant Professor in Biochemistry at Biotechnology and Biosciences Dept, University of Milano-Bicocca, Milan, Italy
- 2002 to date: Group leader at the Biotechnology and Biosciences Dept - University of Milano-Bicocca, Milan, Italy
- 2012-2020: Principal investigator of a research unit of the Centre of Systems Biology (SYSBIO)
- 2002 to date: Scientific supervisor for Bachelor students (only those carried out in the laboratory for which I am responsible, n=74), Master students (only those carried out in the laboratory for which I am responsible, n=23) and PhD students (n=5) of the Biotechnology and Biosciences Dept, University of Milano-Bicocca, Milan, Italy
- 2002 to date: Scientific supervisor for Erasmus Program Master thesis (n=4)
- 2002 to date: Scientific responsible for scholarship and fellowship (n=12)
- 2019 to date: National Coordinator of the Italian Society of Biochemistry and Molecular Biology Group "Tumor Biochemistry" (around 400 members)
- 2019 to date: Member of the University commission for multidisciplinary teaching and research approach inclusive of all 3 Rs

2. Studies/Research

- October 2019: Associate Professor of Biochemistry at Biotechnology and Biosciences Dept, University of Milano-Bicocca, Milan, Italy

- July 2005: PhD in Life Science, Open University PhD program of London, supervisors Prof. Piergiuseppe Pelicci (European Institute of Oncology, Milan) and Prof. Arthur Zelent (Leukaemia Research Fund Center, Institute of Cancer Research, London)
- October 2002-October 2019: Assistant Professor of Biochemistry at the Biotechnology and Biosciences Dept - University of Milano-Bicocca, Milan, Italy
- June 2000-May 2003: Researcher in the laboratories of Prof. Pier Giuseppe Pelicci, at the FIRC Molecular Oncology Institute (IFOM) in Milan, Italy
- September 1997-October 2000: Researcher as fellow for the Italian Cancer Research Association in the laboratories of Prof. Pier Giuseppe Pelicci, at the European Institute of Oncology (IEO) in Milan, Italy
- June 1996-July 1997: Researcher at the Institute of Genetics and Biophysics of Naples (CNR) in the laboratory of Dr. Maria Patrizia Stoppelli, Naples, Italy
- February 1996-June 1996: EMBO fellow, at the laboratory of Prof. Thomas Graf at the European Molecular Biology Laboratory (EMBL), Heidelberg, Germany
- January 1994-December 1995: Researcher as fellow for the Italian Cancer Research Association in the laboratory of Dr. Maria Patrizia Stoppelli, at the Institute of Genetics and Biophysics of Naples, Naples, Italy
- March 1994: Qualification for the profession of Biologist and registration in the national Register of Biologists
- March 1993-March 1994: Post-graduate internship at the Institute of Genetics and Biophysics, in the laboratory of Dr. Maria Patrizia Stoppelli, Naples, Italy
- March 1993: Master Degree in Biological Science, Federico II University of Naples, discussing a thesis in Biochemistry entitled "Nuclear Steroid Hormone Receptors", with a score of 110/110 cum laude. Supervisor Professor Piera Quesada.

3. Academic and organizational activities

- 2023: Board member as Commissioner for an assistant professor position at the University of Piemonte Orientale, Novara, Italy
- 2022: Board member as President for an assistant professor position at the University of Milano Bicocca, Milano, Italy
- 2022: Board member as Commissioner for an assistant professor position at the University of Firenze, Firenze, Italy
- 2020 to date: member of the Scientific - Didactic Council of the Interuniversity Center for the promotion of the principles of 3R in teaching and research
- 2020 to date: member of the Teaching Quality Assurance for the Bachelor degree in Biotechnology and for the Master degree in Industrial Biotechnology
- 2020-2021: External supervisor for final thesis assessment of the PhD programs in University of Catanzaro and Roma Tre
- 2018-2021: Member of the Department Board (second term) at the Department of Biotechnology and Biosciences of the University of Milan Bicocca, Milan, Italy
- 2018: External supervisor for final thesis assessment of the PhD program in Biomedical and Neuromotor Sciences of the University of Bologna, Bologna, Italy

- 2018: External supervisor for final thesis assessment of the PhD program in Clinical and Experimental Oncology and Immunology of the University of Padua, Padua, Italy
- 2018: Board member for the final examination of the European School of Molecular Medicine (SEMM) PhD program, University of Milan, Milan, Italy
- 2018 to date: member of the national register of expert peer reviewers for Italian scientific evaluation (Italian Government)
- 2017 to date: Board Member of the PhD program in Converging Technologies for Biomolecular Systems (TECSBI) at the University of Milan Bicocca, Milan, Italy
- 2015-2018: Member of the Department Board at the Department of Biotechnology and Biosciences of the University of Milan Bicocca, Milan, Italy
- 2014-2016: Board Member of the PhD program in Biology and Biotechnology at the University of Milan Bicocca, Milan, Italy
- 2013: Board Member of the PhD program in Life Sciences at the University of Milan Bicocca, Milan, Italy
- 2012: Board member for the final examination of the PhD in Oncology, University of Perugia, Perugia, Italy
- 2006-2012: Board Member of the PhD program in Industrial Biotechnology at the University of Milan Bicocca, Milan, Italy
- 2011: Board Member for the final examination of the European School of Molecular Medicine (SEMM) PhD program, University of Milan, Milan, Italy
- 2007: Board member as Commissioner for an assistant professor position at the Faculty of Medicine and Surgery, disciplinary sector Biochemistry, University of Florence, Florence, Italy
- 11/2006-12/2007: Scientific tutor for *Ingenio* fellows (as expert in the technical feasibility of the research project), for a total of 352 hours, at the University of Milan-Bicocca, on behalf of the Lombardy Region as part of the INGENIO Project, "Development and consolidation of entrepreneurship with priority to new areas of employment" and "Improvement of human resources in the research and technological development sector"
- 2004-2009: Educational manager of the Professionalising Laboratory of Cellular Biochemistry Technologies, Bachelor in Biotechnology, University of Milano Bicocca, as part of the FSE-LIKE Project (European Social Fund)
- 2002 to date: Scientific supervisor for Bachelor, Master and PhD students - Biotechnology and Biosciences Dept, University of Milano-Bicocca, Milan, Italy
- 2002 to date: Scientific supervisor for Master thesis of the Erasmus Program

4. University Teaching

- 2002-2010: Cellular Biochemistry, Bachelor in Biotechnology
- 2010-2012: Biochemistry II, Bachelor in Biotechnology
- 2002-2016: Cellular Biochemistry Laboratories, Bachelor in Biotechnology
- 2019-to date: Cellular Biochemistry Laboratories, Bachelor in Biotechnology (last academic year by online teaching and creating e-learning resources). Student satisfaction for this course is around 2.6 on 3

- 2012 to date: Tumor Biochemistry, Master in Industrial Biotechnology (last academic year by online teaching and creating e-learning resources). Student satisfaction for this course is around 2.7 on 3. 2019/2020 new type of analysis: Organizational aspects 8.12 on 10; Didactic effectiveness 9,24 on 10; Student satisfaction 8,87 on 10.

NON-ACADEMIC SCIENTIFIC ACTIVITIES

1. Grant Reviewer

1. 2010: AICR (Association for International Cancer Research)
2. 2011: Dutch Childhood Oncology Group - DCOG (Stinchting Kinderoncologie Nederland - SKION)
3. 2018: National Science Centre (Narodowe Centrum Nauki, Poland)
4. 2019: Joint Project University of Verona
5. 2020: Junior Individual fellowship, University of Varese Insubria
6. 2020-2022: Invited by the European Community for the evaluation of proposal Individual Fellowships, Marie Skłodowska-Curie Actions
7. 2020-2023: Invited as scientific expert by MIUR (REPRISE)
8. 2023: Invited as expert by the European Commission for the evaluation of proposals submitted to the Horizon Europe Mission Cancer topic: HORIZON-MISS-2023-CANCER-01-01 (Bruxelles, Belgium)

2. Journal Reviewer for the following scientific journals: Oncogene, Cell Death and Disease, iScience, Molecular Cancer Therapeutics, BBA -Molecular Cell Research, BBA -Molecular Basis of Disease, Expert Opinion on Therapeutic Targets, ISRN Cell Biology, Biotechnology Advances, Journal of Cellular Physiology, Journal of Cellular Biochemistry, Bioinformatics, Anti-Cancer Agents in Medicinal Chemistry, BioMed Research International, Current Metabolomics, Bioscience Reports, Molecular Cancer Research, Metabolites, Cancer Letters, Molecules, Cell Biology International, Journal of Cancer and Tumor International, Antioxidants and Redox Signaling, Hepatology, BMC Cancer, PLOS One, Frontiers in Oncology, Cancer Chemotherapy and Pharmacology, BBA -General Subjects-, BMC Biology, Seminars in Cell and Developmental Biology, International Journal of Molecular Sciences, Open Life Sciences, Cells, Cancers, Antioxidant, Biomolecules

3. Editorial Board Member

- 2022 to date: Review Editor for *Frontiers in Oncology*, section Cancer Metabolism
- 2021 to date: Guest editor for the Topical collection "Pathometabolism: Understanding Disease through Metabolism", *Cells*
- 2020 to date: Section Board member for *Cells*
- 2020-2021: Guest editor for the special issue: "Metabolic Rewiring in Cancer Cells: From Tumor Onset to Novel Therapies", *Cells* (29 articles)
- 2011-2017: Board member for *ISRN Cell Biology*
- 2017 to date: Editor Board member for *Oxidative Medicine and Cellular Longevity*
- 2013 to date: Editor Board member for *BioMed Research International*
- 2014-2018: Board member for *Journal of Cells*

4. Project and Society member

- Member of the international Team “Deregulated metabolism” part of the Halifax Project in Carcinogenesis
- Member of the international Team “SysRev SOP: Hallmark and key characteristics mapping”
- Member of Italian Society of Biochemistry
- Member of Italian Association of Cell Culture
- Member of Italian Group of Bioenergetics and Biomembranes
- Member of International Society of Cancer Metabolism
- Member of European Association for Cancer Research

AWARDED FELLOWSHIPS

- 1994-1996: Three-year fellowship from the Italian Cancer Research Association (International Institute of Genetics and Biophysics, Naples, Italy)
- 2000-2002: Annual fellowship of the Italian Foundation for Cancer Research "Detection of cancer gene mutation and expression profiling by nanotechnology" (European Institute of Oncology, Milan, Italy)
- 2002-2003: Annual fellowship from the European Institute of Oncology Foundation and the Italian Foundation for Cancer Research (Milan, Italy)

AWARDED GRANTS

- 2007: Progetti di Rilevante Interesse Nazionale (PRIN-Italian Government) (Principal Investigator) “Identification of the role of Sestrin 2 in tumorigenesis by a mouse KO approach” (positive result, not funded for lack of resources), (Principal Investigator)
- 2008-2012: Progetti di Rilevante Interesse Nazionale (PRIN-Italian Government) “Transcriptional, Proliferative and Metabolic analyses of 3AB-OS Cancer Stem Cells Compared to MG-63 osteosarcoma Cells”, (Unit Principal Investigator)
- 2009-2022: Fondi Agevolazione Ricerca (FAR-Italian Government) (Principal Investigator)
- 2010-2015: MIUR SysBioNet, Italian Roadmap for European Strategy Forum on Research Infrastructures (ESFRI), (Cancer cell Unit Principal Investigator)
- 2015-2017: Italian Association for Cancer Research (AIRC), “Molecular targeting of the hexosamine biosynthetic pathway in pancreatic cancer as a novel therapeutic strategy” (Principal Investigator)
- 2017: Fondo per il finanziamento delle attività base di ricerca. Bando: FFABR 2017 (Italian Government) (Principal Investigator)
- 2019-2022 Executive Programme of Scientific Collaboration between Italy and China, Innovative Biomedical Devices (BIOMED), (Ministry for Foreign Affairs and International Cooperation), “Preclinical evaluation of a novel PGM3 inhibitor in pancreatic ductal adenocarcinoma” (Principal Investigator)

- 2020-2021 COVID-19 project from Regione Lombardia, “COVitaminD Trial: Prevention of COVID19 Complications in Cancer Patients”, (Unit Principal Investigator)
- 2021-2023 Competitive Project of University of Milano Bicocca (Principal Investigator)

SOME CURRENT AND PAST INTERNATIONAL AND ITALIAN COLLABORATIONS

- Prof. Bodo Grimbacher, Faculty of Medicine Albert-Ludwigs-Universität, Center for Chronic Immunodeficiency, Freiburg, Germany; PGM3 insufficiency: a study of genotype-phenotype correlation in Hyper-IgE syndrome (HIES), combined immunodeficiency (CID), to severe combined immunodeficiency (SCID) (ongoing)
- Prof. Luis Izquierdo. Institut de Salut Global de Barcelona, Barcelona, Spain. Role of hexosamine pathway in malaria parasite *Plasmodium falciparum* infection: a new therapeutic target (ongoing)
- Prof. Domenica Scumaci. Research Center on Advanced Biochemistry and Molecular Biology, Department of Experimental and Clinical Medicine, Magna Græcia University of Catanzaro, Catanzaro, Italy. Identification of O-glycosylated proteins involved in pancreatic cancer resistance to chemotherapy (ongoing)
- Prof. Taiping Zhang, Peking Union Medical College Hospital, Beijing, China; Institute of Materia Medica, Chinese Academy of medical Science, Beijing, China. Preclinical evaluation of a PGM3 inhibitor as innovative therapeutic approach for pancreatic ductal adenocarcinoma (ongoing)
- Prof. Andre Wegner, Braunschweig Integrated Centre of Systems Biology (BRICS), Braunschweig, Germany. PGM3 inhibition and cooperativity with Erastin in pancreatic cancer cells induction of Ferroptosis (ongoing)
- Prof. Francesco Gatti, Department of Chemistry, Materials and Chemistry Engineering “G. Natta”, Politecnico di Milano, Milano, Italy. Chemical modification of camptothecin to enhance time of release in pancreatic cancer (ongoing)
- Prof. Silvia Arpicco, Department of Drug Science and Technology, University of Turin, Turin, Italy. Encapsulation in liposomes of a novel PGM3 inhibitor for cancer therapy (ongoing)
- Department of Experimental Oncology, Pathology and Surgery of European Institute of Oncology, Milan, Italy; Oncology Research Unit, Pfizer Global Research and Development, La Jolla, California, USA; Sanofi Oncology, Cambridge, Massachusetts, USA; Institute for Applied Cancer, The University of Texas MD Anderson Cancer Center Science, Houston, Texas, USA; Department of Biosciences, University of Milan, Milan, Italy for the identification of resistance mechanisms in breast cancer patients treated with HDAC inhibitors
- Luxembourg Centre for Systems Biomedicine, Esch-sur-Alzette, Luxembourg; Department of Informatics Systems and Communication, University of Milano-Bicocca, Milan, Italy; Institute of Molecular Bioimaging and Physiology (IBFM),

CNR, Segrate-Cefalù, Italy; Department of Biomedical Sciences for Health, University of Milan, Segrate, Milan, Italy for the definition of the role of PKA in cancer cell resistance to nutrient stress

- Computational Systems Biology Laboratory, Institute of Biomedicine and Genome-Scale Biology Research Program, University of Helsinki, Helsinki, Finland for the identification of a gene signature associated to NCI60 cancer cell collection transformation
- Department of Chemical Engineering, Massachusetts Institute of Technology (MIT), Cambridge, MA, USA for the identification of the role of oncogenic K-ras in cancer cell metabolic rewiring
- "The Halifax Project", for the identification of the effect of the chemical pollutants on the metabolic alterations associated to cancer
- Section of Biochemical Sciences, Department of Experimental Biomedicine and Clinical Neurosciences, Polyclinic, University of Palermo, Palermo, Italy; Institute for Cancer Research and Molecular Medicine, Center of Biotechnology-College of Science and Biotechnology, Temple University, Philadelphia, Pennsylvania, USA for the genetic and metabolic characterization of osteosarcoma cancer stem cells
- Institute for Biomedical Technology – CNR, Segrate, Milan, Italy; Computational Systems Biology, Max Planck Institute for Molecular Genetics, Berlin, Germany; Institute for Biology, Theoretical Biophysics, Humboldt University Berlin, Berlin, Germany for the definition of a computational model of the G1 to S transition in a mouse model of K-ras transformed fibroblasts
- Department of Informatics Systems and Communication (DISCo), University of Milano-Bicocca, Milan, Italy for the identification of a transcriptional signature PKA-dependent associated to cancer cell survival under glucose depletion
- Ludwig Institute for Cancer Research, Royal Melbourne Hospital Parkville, Victoria, Australia; European Molecular Biology Laboratory, Heidelberg, Germany for the characterization of the role of Urokinase in transformed monocyte/macrophage adhesion and migration
- Farmitalia Carlo Erba, Nerviano (Milano), Italy; Lepetit Spa Research Center, Gerenzano (Varese) for the synthesis and *in vivo* test of recombinant proteins (Urokinase) for therapeutic purposes
- Centro de Biología Molecular, Facultad de Ciencias, Universidad Autónoma de Madrid, Madrid, Spain; Dipartimento di Genetica, Università di Milano; Department of Biology and Biotechnology, San Raffaele Scientific Institute, Milan, Italy for the definition of the post-translational modifications of Urokinase, involved in cancer cells migration

SCIENTIFIC MEETINGS-Invited speaker (2015-2022)

- 9th International ISCaM Meeting – Targeting metabolic dynamics in cancer, June 29-July 2 2022, Turin, Italy

- 33rd AICC annual conference: International meeting on cancer metabolism. November 22-24, 2021, University of Turin, Turin, Italy
- Erasmus week (October 25-28, 2021), Double Diploma program for students of the University of Milano Bicocca and the University of Paris, University of Milano Bicocca, Milan, Italy
- Metabolic club meeting for the University of Torino, Torino, Italy November 20, 2021 (Webinar)
- Metabolism Meets Function, The multifaced role of metabolism in cancer. June 14th 2021, Florence, Italy (Webinar)
- PhD meeting of Magna Græcia University of Catanzaro, February 10, 2021 (Webinar)
- Erasmus week (October 26-29, 2020), Double Diploma program for students of the University of Milano Bicocca and the University of Paris, University of Milano Bicocca, Milan, Italy (Webinar)
- Metabolism Meets Function, The multifaced role of metabolism in cancer. July 20th 2020, Florence, Italy (one year postponed)
- 4th IFOM Symposium "Breaking Boundaries: Metabolism at the Cross-roads". November 2019, IFOM, Milan, Italy
- Seminar held at Union Peking Medical College Hospital, December 2019, Beijing, China
- Annual Scientific Day of the Biotechnology and Biosciences Dept, University of Milano-Bicocca, December 2019, Milan, Italy
- Speaker at the PhD day in Biochemistry Science, Department of Neuroscience, Biomedicine and Movement, University of Verona, February 2018, Verona, Italy
- Speaker at European Institute of Oncology "IEO ALUMNI MEETING", Research Campus, December 2018, Milano, Italy
- 4th ISCaM2017 Cancer Metabolism, October 2017, Bertinoro, Italy
- 59th National Meeting of the Italian Society of Biochemistry and Molecular Biology, September 2017, Caserta, Italy
- First International GIBB Meeting, June 2017, Catania, Italy
- "hackUniTO for Ageing", November 2016, Turin, Italy
- 23rd Meeting of the European Section of Urological Research (ESUR), October 2016, Parma, Italy
- "Dissecting Biological Complexity at the Molecular Level" Meeting of the Italian Society of Biochemistry and Molecular Biology, March 2016, Bologna, Italy
- Annual Scientific Day of the Biotechnology and Biosciences Dept, University of Milano-Bicocca, December 2015, Milan, Italy
- 2nd International ISCaM Meeting – Metabolism and Microenvironment in Cancer Plasticity, September 2015, Venice, Italy
- 58th National Meeting of the Italian Society of Biochemistry and Molecular Biology, September 2015, Urbino, Italy

SCIENTIFIC MEETINGS-Selected speaker

- 53rd National Meeting of the Italian Society of Biochemistry and Molecular Biology, September 2005, Riccione, Italy
- International Conference on Mitochondria, "From Molecular Insight to Physiology and Pathology", December 2005, Bari, Italy
- National Meeting of Italian Society of Biochemistry, June 2003, Milano, Italy
- Gene molecular structure and expression, 2000, Cortona, Italy
- Gene molecular structure and expression, 1997, Cortona, Italy

CONGRESS ORGANIZATION AND CHAIR

- Organizer and Scientific Committee of the 3rd Workshop "Understanding cancer metabolism: exploring tumor heterogeneity to advance cancer therapy". 29-30 June 29-30, 2023, University "Magna Græcia" of Catanzaro, Department of Experimental and Clinical Medicine
- Scientific Committee of 62nd SIB National Congress (Italian Society of Biochemistry and Molecular Biology), September 7-9, 2023, University of Florence, Florence, Italy
- Organizer of IV annual meeting of Centro 3R, The role of 3Rs in the age of one health: where we are and where we're going, September 13-15, 2023, University of Milano Bicocca, Milan, Italy
- Organizer of the 2nd Workshop "Adaptive mechanisms in cancer drug resistance", September 22, 2022, University of Napoli Federico II, Napoli, Italy
- Organizer of the 1st Workshop "From genes to metabolites through proteins: dealing with human health and disease", February 25, 2022, University of Milano Bicocca, Milano, Italy
- Organizer of the 61° Italian Society of Biochemistry and Molecular Biology (SIB) meeting (virtual edition), September 23-24, 2021
- Organizer of the under 35 online meetings (each month from 2020) "The Tuesday of Tumor Biochemistry Group"
- Organizer of the 3rd Workshop "From genes to metabolites through proteins: dealing with human health and disease", February 27, 2020, University of Milano Bicocca, Milan, Italy (postponed)
- Organizer of the 2nd Workshop "Molecular, cellular and translational approaches to differentiation and neoplastic transformation", June 17, 2019, University of Florence, Florence, Italy
- Chair of the Parallel Symposia "Cancer and metabolism: chicken or egg?" as part of the 60th Congress of the Italian Biochemistry and Molecular Biology Society, September 18-20, 2019, Lecce, Italy
- Chair 2nd National Workshop of the Group of the Italian Biochemistry and Molecular Biology "Neoplastic Differentiation and Transformation" and "Proteins", June 17, 2019, University of Florence, Florence, Italy

SCIENTIFIC EXPERIENCE

October 2002-present time

Associate Professor-Biotechnology and Bioscience Dept, University of Milano-Bicocca, Milan, Italy

Major scientific interests: Relationship between the processes leading to cellular transformation and the metabolic alterations characterizing cancer cells

Identification and test of novel compounds able to induce cell growth arrest and/or death in pancreatic and breast cancer cells through their ability to modulate cancer cell metabolism

Relationship between nutrient depletion and cancer cell proliferation, death and DNA damage

October 2002-October 2019

Assistant Professor-Biotechnology and Bioscience Dept, University of Milano-Bicocca, Milan, Italy

Major scientific interests: Relationship between the processes leading to cellular transformation and the metabolic alterations characterizing cancer cells

Relationship between nutrient depletion and cancer cell death

Signal transduction and molecular mechanisms of cell cycle control

Systems dynamics of cell proliferation and cell death, with a focus to cancer cell models

September 1997-October 2002

AIRC post-doctoral fellow, European Institute of Oncology, Milan, Italy-Prof P. Pelicci's lab Identification of new genes involved in APL (Acute Promyelocytic Leukemia) phenotype.

PhD student at Open University, London- Supervisor: Prof Arthur Zelent

June 1996-July 1997

Fellowship, I.I.G.B., Naples, Italy-Dr. Stoppelli's lab

Creation of a stable U937 cell lines expressing Nef to devise novel vectors and characterize inducible myelocytic cellular clones. Analysis of the clones under various experimental conditions in order to define their chemotactic and adhesive properties

May 1996-June 1996

CNR fellow, European Molecular Biology Laboratory (EMBO), Heidelberg, Germany-Prof. T. Graf's lab

February 1996-June 1996

EMBO short-term fellow, EMBO, Heidelberg, Germany-Prof. T. Graf's lab (Differentiation Program) Analysis of the cytoskeletal rearrangement in myelocytic cell lines induced to differentiate by various agents;

Development of several techniques (i.e. microinjection of DNA and proteins in fibroblasts and myelocytic cell lines; confocal microscopy; image elaboration)

January 1994-December 1995

Fellowship, Italian Association for Cancer Research (AIRC), I.I.G.B., Naples, Italy- Dr. Stoppelli's lab. Characterize the ability of human urokinase receptor to bind vitronectin in mammary carcinoma

Identification of the molecular mechanisms involved in monocytic motility and on the adhesion properties of differentiated macrophages

Analysis of the effects of the interaction between the HIV viral protein Nef and p60Src

Extensive experience in expressing proteins in poor transfectable cellular models such as hematopoietic cell lines

March 1993-March 1994

Fellowship, I.I.G.B., Naples, Italy-Dr. Stoppelli's lab

Regulation of plasminogen activation

Molecular and cellular biology techniques (recombinant fusion proteins to define enzyme's phosphorylation sites)

September 1991- September 1992

Part-time job (ex Art. 23) for environmental analyses in Naples' old gardens (Assessment and recovery of ancient plants)

Theory Course

- Course in " The digital image in microscopy" organized by Leica, Milan, Italy, September 2003
- 2nd EMBO Workshop "Making decisions in G1", organized by Fondazione Adriano Buzzati-Traverso, Milan, Italy, October 2002
- 64th Course of International School of Pharmacology, "Embo Workshop" in "Structure and function of Nuclear Receptors" organized by Prof. P. Benigno, L. Rausa, G.P. Velo and A. Maggi, Lerici, Italy, May 2001
- Course in "The Development of the Neural Primordium and Paraxial Mesoderm in the Vertebrate Embryo" held by Prof. Nicole Le Dourain Institute of Genetic and Biophysics (CNR), Naples, Italy, October 1995
- Course in "Dealing with Genes" held by Prof. Paul Berg International Institute of Genetic and Biophysics (CNR), Naples, Italy, September 1994
- Course in "Gene molecular structure and expression" organized Prof. G. Macino, Capalbio, Italy, May 1994
- Course in "The transcription" organized by Italian Association of Genetic, Cortona, Italy, June 1993
- Course in "Gene molecular structure and expression" organized Prof. G. Macino, Capalbio, Italy, May 1993
- Course in "DNA Replication" held by Prof. Arthur Kornberg, International Institute of Genetic and Biophysics (CNR), Naples, Italy, May 1993

MANAGERIAL SKILLS

Member of the following Commissions:

Commission for Departmental Space Management, Department of Biotechnology and Biosciences of the University of Milan Bicocca, Milan, Italy

Commission for Instruments Management Department of Biotechnology and Biosciences of the University of Milan Bicocca, Milan, Italy

Commission for Human Resource Management, Department of Biotechnology and Biosciences of the University of Milan Bicocca, Milan, Italy

Didactic and Scientific laboratories responsible, Department of Biotechnology and Biosciences of the University of Milan Bicocca, Milan, Italy

Teaching Quality Assurance for the bachelor degree in Biotechnology and for the master degree in Industrial Biotechnology

Department Board (second term) at the Department of Biotechnology and Biosciences of the University of Milan Bicocca, Milan, Italy

Member of the University of Milano Bicocca 3R commission

SCIENTIFIC ACHIEVEMENTS

VQR 2011-2014: National evaluation of the personal research quality by Italian Government: Excellent (2) (maximum)

VQR 2015-2019: National evaluation of the personal research quality by Italian Government: Excellent (3) (maximum)

2015: Journal Cover for the article: Redox-Mediated Suberoylanilide Hydroxamic Acid Sensitivity in Breast Cancer. Chiaradonna et al., Antioxidants & Redox Signaling. Volume 23, Issue 1/July 1, 2015

2020: Award for the best Publication in the Journal "Cells"

ACADEMIC ACHIEVEMENTS

2017 National habilitation to the role of full professor of Biochemistry

2017 National habilitation to the role of associate professor of Biochemistry

2013 National habilitation to the role of associate professor of Applied Biology

PUBLICATIONS

50 original articles

1 chapter in a book

10 contributions in indexed conference proceedings

72 congress communications

Scopus h-index: 27, Citations: 2908

Google Scholar h-index: 29

Google Scholar i10-index: 41

WoS Average citations per year: 85,56

WoS Average citations per item: 42,49

Total IF: 355,99

Average IF: 7,41

PUBLICATIONS

1. Venturi S, **Chiaradonna F**, Gatti FG, La Ferla B, Palorini R, Zerbato B. Chiral trimethyl lock based on vic-trisubstituent effect: prolonged release of Camptothecin. ChemComm. (*Under revision*)
2. Zerbato B, Gobbi M, Ludwig T, Brancato V, Pessina A, Brambilla L, Wegner A and **Chiaradonna F***. PGM3 inhibition Shows cooperative Effects With Erastin inducing Pancreatic cancer cell death via activation of the Unfolded Protein Response. Frontiers in Oncology. (*Revision submitted*)
3. De Vitis C, Battaglia AM, Pallocca M, Santamaria G, Mimmi MC, Sacco A, De Nicola F, Gaspari M, Salvati V, Ascenzi F, Bruschini S, Esposito A, Ricci G, Sperandio S, Prestagiacomo LE, Cavaliere R, Vecchione A, Ricci A, Sciacchitano S, Salerno G, French D, Aversa I, Cereda C, Fanciulli M, **Chiaradonna F**, Cuda G, Costanzo F, Ciliberto G, Mancini R, Biamonte F. ALDOC- and ENO2- driven glucose metabolism sustains 3D tumor spheroids growth regardless of nutrient environmental conditions: a multi-omics analysis. Journal of Experimental & Clinical Cancer Research. (*In press*)
4. Heinz A, Nonnenmacher Y, Henne A, Khalil MA, Bejkollari K, Dostert C, Hosseini S, Goldmann O, He W, Palorini R, Verschueren C, Korte M, **Chiaradonna F**,

- Medina E, Brenner D, Hiller K. Itaconate controls its own synthesis via feedback-inhibition of reverse TCA cycle activity at IDH2. *Biochim Biophys Acta Mol Basis Dis*. 2022 Aug 26;166530.
5. D'Ecclesiis O, Gavioli C, Martinoli C, Raimondi S, Chiocca S, Miccolo C, Bossi P, Cortinovis D, **Chiaradonna F**, Palorini R, Facciotti F, Bellerba F, Canova S, Jemos C, Salé EO, Gaeta A, Zerbato B, Gnagnarella P, Gandini S. Vitamin D and SARS-CoV2 infection, severity and mortality: A systematic review and meta-analysis. *PLoS One*. 2022 Jul 6;17(7):e0268396.
 6. Olivo E, La Chimia M, Ceramella J, Catalano A, **Chiaradonna F**, Sinicropi MS, Cuda G, Iacopetta D, Scumaci D. Moving beyond the tip of the iceberg: DJ-1 implications in cancer metabolism. *Cells*. 2022 Apr 23;11(9):1432.
 7. Ghilardi C, Moreira-Barbosa C, Brunelli L, Ostano P, Panini N, Lupi M, Anastasia A, Fiordaliso F, Salio M, Formenti L, Russo M, Arrigoni E, **Chiaradonna F**, Chiorino G, Draetta G, Marszalek JR, Vellano CP, Pastorelli R, Bani MR, Decio A and Giavazzi R. PGC1 α/β expression predicts the therapeutic response to oxphos inhibition in ovarian cancer. *Cancer Res*. 2022 Apr 1;82(7):1423-1434.
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Book chapter

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Ferdinando Chiaradonna

A handwritten signature in black ink, appearing to read 'F. Chiaradonna', with a stylized flourish at the end.