

Curriculum vitae
Pergolizzi Barbara

Personal details

Born in Torino
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Educations

1994 Degree in Biological Science at the University of Torino
1995 Professional Accreditation as a Biologist.
2001 Ph.D in "Immunology", University of Torino

Professional experiences and current position

1995-1996: Postgraduation course in the Molecular Biology Laboratory at the Medical School, University of Torino
1996-2000: Ph.D. training, Cell Biology Laboratory at the Medical school, University of Torino.
1997: Training in the Cell Biology Laboratory at the Max Planck Institute of Biochemistry, Munich, Germany.
2000: Ph.D. in Immunology
2001-2003: Post-doctoral fellow, University of Torino
2003-2006: Research Fellowship, University of Torino
2006: Researcher University of Torino
2009: Researcher Confirmed, University of Torino

Participation to Directive Boards of Scientific Societies and/or Institutions:

2006-today: Member of Italian Association of Biology and molecular and cellular Genetic. A.I.B.G

Honors

2004: Zanichelli Award as best scientific seminar of the young researchers at the A.I.B.G. meeting

Teaching activity:

1999-2005: Conducted tutoring activities in Cell Biology for the Nursing Science degree at the Medicine School, University of Torino (Orbassano).
1999-2000: Provided tutoring activities in Cell Biology for the Nursing Sciences degree at the Medicine School, University of Torino (Cuneo).
2000-2007: Engaged in tutoring activities in Cellular and Genetic Bases of Medicine at the Medicine School of Medicine, University of Torino.
2006-today: Professor and Coordinator for the Cell Biology & Genetic course at the Nursing Sciences School, Medicine School, University of Torino (Aosta).
2007/2008: Professor for Cell Biology and Genetic course at the Nursing Sciences School, Medicine School, University of Torino (Asti).
2009-2016: Delivered lectures as a Professor in the Cell Biology course at the School of Medicine and Surgery, San Luigi Gonzaga, University of Torino.
2013-2014: Conducted integrative teaching, including laboratory activities for the ADE course - Cell Biology research seminars - [MSL0002]. School of Medicine and Surgery, San Luigi Gonzaga, University of Torino.
2014-2015: Professor in the Genomics and Proteomics course at the School of Medicine and Surgery, San Luigi Gonzaga, University of Torino.
2017-today: Professor and coordinator in the cell biology for the Structure and Morphology of the Human Body Course in the Nursing Sciences School, University of Torino

2019-today: Professor and Coordinator in the cell biology course for the Structure and Morphology of the Human Body Course in the Nursing Sciences School, University of Torino (Orbassano).

2020-today: Invited as a professor to deliver lectures in the Model Systems in Biomedical Research course at the Department of Life Science, University of Trieste.

2022-today: Professor in the Molecular and genomic approaches for biological and applied studies course at the PhD in Biological Sciences and Applied Biotechnologies, University of Torino.

2015-today: Tutor and a member of the examination committees for the final exams of the Master's degree students in Cellular and Molecular Biology (LM-6), University of Torino.

2018-today: Tutor of PhD students for the PhD in Biological Sciences and Applied Biotechnologies and PhD

2019-today: Member of the CDP (Commissione Didattica Paritetica) for the Clinical and biological sciences department, University of Torino.

2021-today: Contributed as a member of the Research Commission at the clinical and biological sciences department, University of Torino.

2010-today: Assumed the role of Coordinator for the Proteomic Laboratory at the clinical and biological sciences department.

Research main topics

Main projects as PI:

- Mechanism of DNA repair in *Dictyostelium*; the molecular mechanisms regulating induced cellular migration, ii) the function of TORC2 complex and iii) the role of ubiquitination system in linked G-protein-receptor signaling, using as model organism the social amoeba *Dictyostelium discoideum*
- Physiological and pathological roles of an E3 Ubiquitin Ligase named HERC1 in *Dictyostelium*, mammalian and leukemic cells.
- Role of oxygen in the cellular migration.
- Effect on health and environment as results of human exposure to non-biodegradable substances (POPs) using as a model the *Dictyostelium d.*

Bibliometry (***-present) (www.scopus.com)**

<https://www.scopus.com/authid/detail.uri?authorId=8781889800>

Publications (last ten years)

Research Articles

Panuzzo C., Pironi L., Maglione A., Rocco S., Stanga S., Riganti C., Kopecka J., Ali M. S., Pergolizzi B., Bracco E., Cilloni D. (2023). *mTORC2 Is Activated under Hypoxia and Could Support Chronic Myeloid Leukemia Stem Cells*. International Journal of Molecular Sciences, vol. 24, p. 1234-1250 ISSN: 1422-0067, doi: 10.3390/ijms24021234

Ali M. S., Magnati S., Panuzzo C., Cilloni D., Saglio G., Pergolizzi B & Bracco E. (2022). The Downregulation of both giant HERCs, HERC1 and HERC2, Is An Unambiguous Feature Of Chronic Myeloid Leukemia, And HERC1 Levels Are Associated With Leukemic Cell Differentiation. Journal Of Clinical Medicine, vol. 11, p. 324-340, ISSN: 2077-0383, doi: 10.3390/jcm110203242022

Ali M.S., Panuzzo C., Calabrese C., Maglione A., Piazza R., Cilloni D., Saglio G., Pergolizzi B & Bracco E. (2021). The giant HECT E3 ubiquitin ligase HERC1 is aberrantly expressed in myeloid related disorders and it is a novel BCR- ABL1 binding partner. Cancers, vol. 19, p. 341-352, ISSN: 2072-6694

Biondo M., Panuzzo C., Ali S. M., Bozzaro S., Osella M., Bracco E. & Pergolizzi B. (2021). The Dynamics of Aerotaxis in a Simple Eukaryotic Model. Frontiers in Cell And Developmental Biology, vol. 9, p. 1-14, ISSN: 2296-634X, doi: 10.3389/fcell.2021.720623

Lo Iacono M., Signorino, E., Petiti, J., Pradotto M., Calabrese C., Panuzzo C., Caciolli F, Pergolizzi B., De Gobbi M., Rege-Cambrin G., Fava C., Giachino C., Bracco E., Saglio G., Frassoni F., Cilloni D. genetic screening for potential new targets in chronic myeloid leukemia based on drosophila transgenic for human BCR-ABL1. Cancers, vol. 13, p. 293-303, ISSN: 2072-6694, doi: 10.3390/cancers13020293

Sakalauskaite J., Marin F., Pergolizzi B., Demarchi B. (2020). Shell palaeoproteomics: First application of peptide mass fingerprinting for the rapid identification of mollusc shells in archaeology. *Journal Of Proteomics*, vol. 227, p. 1-10, ISSN: 1874-3919, doi: 10.1016/j.jprot.2020.103920

Calabrese C., Panuzzo C., Stanga S., Andreani G., Ravera S., Maglione A., Pironi L., Petiti J., Ali M.S., Scaravaglio P., Napoli F., Fava C., De Gobbi M., Frassoni F., Saglio G., Bracco E., Barbara Pergolizzi & Daniela Cilloni. Dysfunction and restores p53 signaling by stabilization of p53 family members in leukemic cells. *International Journal Of Molecular Sciences*, p. 7674-7696, ISSN: 1661-6596, doi: 10.3390/ijms21207674

Petiti J., Rosso V., Lo Iacono M., Panuzzo C., Calabrese C., Signorino E., Pironi L., Cartellà A., Bracco E., Pergolizzi B., Beltramo T., Fava C., Cilloni D. (2019). Curcumin induces apoptosis in JAK2-mutated cells by the inhibition of JAK2/STAT and mTORC1 pathways. *Journal Of Cellular And Molecular Medicine*, vol. 23, p. 4349-4357, ISSN: 1582-1838, doi: 10.1111/jcmm.14326

Pergolizzi B., Panuzzo C., Ali M. S., Lo Iacono M., Levra Levron C., Ponzzone L., Prelli M., Cilloni D., Calautti E., Bozzaro S., Bracco E. (2019). Two conserved glycine residues in mammalian and *Dictyostelium* Rictor are required for mTORC2 activity and integrity. *JOURNAL OF CELL SCIENCE*, vol. 132, p. jcs236505, ISSN: 1477-9137, doi: 10.1242/jcs.236505

Fossati C., Grasso L., Pergolizzi B., Abbadessa G., Racca S., Saluto A., Camerini, O, Pigozzi, F, Borriore, P (2018). Analysis of the modifications of erythrocyte membrane proteome induced by blood storage. *Medicina Dello Sport*, vol. 71, p. 203-215, ISSN: 0025-7826, doi: 10.23736/S0025- 7826.18.03314-8

Pergolizzi B., Bracco E., Bozzaro S. (2017). A new HECT ubiquitin ligase regulating chemotaxis and development in *Dictyostelium discoideum*. *Journal of Cell Science*, vol. 130, p. 551- 562, ISSN: 0021-9533, doi: 10.1242/jcs.194225

Pegoraro M., Matić S., Pergolizzi B., Iannarelli L., Rossi A.M., Morra M., Noris E. (2017). Cloning and Expression Analysis of Human Amelogenin in *Nicotiana benthamiana* Plants by Means of a Transient Expression System. *Molecular Biotechnology*, vol. 59, p. 425-434, ISSN: 1073-6085, doi: 10.1007/s12033-017-0030-y

Pergolizzi B., Carriero V.M.A., Abbadessa G., Penna C., Berchialla P., De Francia S., Bracco E., Racca, S.A. (2017). Subchronic nandrolone administration reduces cardiac oxidative markers during restraint stress by modulating protein expression patterns. *Molecular and Cellular Biochemistry*, vol. 434, p. 51-60, ISSN: 0300-8177, doi: 10.1007/s11010- 017-3036-7

Morotti A., Panuzzo C., Crivellaro S., Pergolizzi B., Familiari U., Berger A. H., Saglio G., Pandolfi De Rinaldis P.P. BCR-ABL disrupts PTEN nuclear-cytoplasmic shuttling through phosphorylation-dependent activation of HAUSP. *Leukemia*, vol. 28, p. 1326-1333, ISSN: 0887-6924, doi: 10.1038/leu.2013.370.

Review

Panuzzo C., Jovanovski A., Ali M.S., Cilloni D., Pergolizzi B. (2022). Revealing the Mysteries of Acute Myeloid Leukemia: From Quantitative PCR through Next-Generation Sequencing and Systemic Metabolomic Profiling. *Journal of Clinical Medicine*, vol. 11, p. 483-495, ISSN: 2077-0383, doi: 10.3390/jcm11030483

Pergolizzi B., Bozzaro, S., Bracco, E. (2019). *Dictyostelium* as model for studying ubiquitination and deubiquitination. *The International Journal of Developmental Biology*, vol. 63, p. 529-539, ISSN: 1696-3547, doi: 10.1387/ijdb.190260eb

Pergolizzi B., Bozzaro S., Bracco E. (2017). G-protein dependent signal transduction and ubiquitination in *dictyostelium*. *International Journal of Molecular Sciences*, vol. 18, p. 2180-2196, ISSN: 1661-6596, doi: 10.3390/ijms18102180

Panuzzo C., Jovanovski A., Pergolizzi B., Pironi L., Stanga S., Fava C., Cilloni D. (2020). Mitochondria: A Galaxy in the Hematopoietic and Leukemic Stem Cell Universe.. *International Journal Of Molecular Sciences*, vol. 21, p. 1-27, ISSN: 1422-0067, doi: 10.3390/ijms21113928

Book

Bracco E., Pergolizzi B. (2014) Ras proteins signaling in the early Metazoan Dictyostelium discoideum. Methods in Molecular Biology. Methods In Molecular Biology, p. 407-420, N/A: Springer Nature, ISSN: 1940-6029, doi: 10.1007/978-1-62703-791-4_25.

Kamimura Y., Pergolizzi B., Bracco E. (2021). Second messengers | Cyclic AMP receptors of Dictyostelium. In: Encyclopedia of Biological Chemistry: Third Edition. vol. 6, p. 503-508, Amsterdam:Elsevier, ISBN: 9780128220405, doi: 10.1016/B978-0-12-819460-7.00314-5, 2021