

Riccardo Autelli
Curriculum vitae

Personal details

Born in 1961
Nationality: Italian
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Education

1984: Graduated in Biological Sciences at the University of Turin.
1990: Ph.D. in Experimental and Molecular Pathology.
1991-1993: Postdoctoral scholarship at the Department of Experimental Medicine and Oncology.
1994-1996: Scholarship of the Cooperation Group in Cancerology (Turin), of the Piedmont Region or of other private research foundations.
1997-present: Researcher (MED / 04 - General Pathology) at the University of Turin.

Professional experiences and current position

Researcher, Department of Clinical and Biological Sciences

Participation to Directive Boards of Scientific Societies and/or Institutions

2021-present: Member of the Board of the Department of Clinical and Biological Sciences, University of Turin.

Teaching activity:

School of Life Sciences

1994-1995: Adjunct Professor of the Integrative Course of General Pathology on "Regulation of gene expression in the control of cell proliferation and death".
1999-2010: Laboratory of General Pathology for the Degree in Biological Sciences and for the First Level Degree in Biology.
2003-2009: Pathology Unit of the Laboratory Course of Biological Chemistry and Pathology for the Master Degree in Health Biology.
2005-2010: General Physiopathology Course for the Master Degree in Health Biology.
2008-present: Environmental Pathology Unit for the Master Degree in Environmental Biology.
2015-present: General Physiopathology Unit for the Master Degree in Cellular and Molecular Biology.

School of Medicine

Degree in Medicine and Surgery

2022-present: Course of General Pathology,

School of Specialization in Clinical Pathology.

1999: holder of the Cellular Biotechnology Course.
2000-2020: holder of the Molecular Pathology Course.

School of Biotechnology.

1999-2001: co-holder of the General Pathophysiology Course for the First Level Degree in Industrial Biotechnology.
2002-2010: co-holder of the Cellular and Molecular Pathology Course for the First Level Degree in Industrial Biotechnology.

Other teaching activities

Interuniversity School of Specialization for the Training of Secondary School Teachers.
2006-2007: General Pathology Laboratory Course.

Research main topics

- Molecular mechanisms of resistance of breast cancer cells to anticancer drugs and targeted therapy.
- Mechanisms underlying autophagy-mediated endocrine resistance of breast cancer cells.
- Characterization of TNF-induced death mechanisms in hepatoma cells: involvement of iron and of the lysosomal-vacuolar acidic compartment.
- Role of sphingolipids in TNF-related death in hepatoma cells.
- Molecular mechanisms of hepatic fibrosis.

Main projects as PI:

Dissection of the autophagy-based mechanisms of tamoxifen resistance in breast cancer cells of the luminal A subtype

Molecular role of TFEB and of its target genes in the onset of endocrine resistance in breast cancer cells.

Bibliometry (1998-present)

Scopus: *h*-index: 22; total citations 6550

Publications

1. Di Maira G, Foglia B, Napione L, Turato C, Maggiora M, Sutti S, Novo E, Alvaro M, **Autelli R**, Colombatto S, Bussolino F, Carucci P, Gaia S, Rosso C, Biasiolo A, Pontisso P, Bugianesi E, Albano E, Marra F, Parola M, Cannito S.

Oncostatin M is overexpressed in NASH-related hepatocellular carcinoma and promotes cancer cell invasiveness and angiogenesis.

J Pathol. 2022; 257:82-95. doi: 10.1002/path.5871.

2. Foglia B, Sutti S, Cannito S, Rosso C, Maggiora M, **Autelli R**, Novo E, Bocca C, Villano G, Ramavath NN, Younes R, Tusa I, Rovida E, Pontisso P, Bugianesi E, Albano E, Parola M. Hepatocyte-Specific Deletion of HIF2 α Prevents NASH-Related

Liver Carcinogenesis by Decreasing Cancer Cell Proliferation.

Cell Mol Gastroenterol Hepatol. 2022; 13:459-482. doi: 10.1016/j.jcmgh.2021.10.002.

3. Schierano G, Baldi D, Peirone B, Mauthe von Degerfeld M, Navone R, Bragoni A, Colombo J, **Autelli R**, Muzio G.

Biomolecular, Histological, Clinical, and Radiological Analyses of Dental Implant Bone Sites Prepared Using Magnetic Mallet Technology: A Pilot Study in Animals.

Materials (Basel). 2021; 14:6945. doi: 10.3390/ma14226945.

4. Actis C, Muzio G, **Autelli R**. Autophagy Triggers Tamoxifen Resistance in Human Breast Cancer Cells by Preventing Drug-Induced Lysosomal Damage.

Cancers (Basel). 2021; 13(6):1252. doi: 10.3390/cancers13061252.

5. Klionsky DJ, Abdel-Aziz AK, Abdelfatah S, Abdellatif M, Abdoli A, Abel S, Abeliovich H, Abildgaard MH, Abudu YP, Acevedo-Arozena A, Adamopoulos IE, Adeli K, Adolph TE, Adornetto A, Aflaki E, Agam G, Agarwal A, Aggarwal BB, Agnello M, Agostinis P, Agrewala JN, Agrotis A, Aguilar PV, Ahmad ST, Ahmed ZM, Ahumada-Castro U, Aits S, Aizawa S, Akkoc Y, Akoumianaki T, Akpinar HA, Al-Abd AM, Al-Akra L, Al-Gharaibeh A, Alaoui-Jamali MA, Alberti S, Alcocer-Gómez E, Alessandri C, Ali M, Alim Al-Bari MA, Aliwaini S, Alizadeh J, Almacellas E, Almasan A, Alonso A, Alonso GD, Altan-Bonnet N, Altieri DC, Álvarez ÉMC, Alves S, Alves da Costa C, Alzaharna MM, Amadio M, Amantini C, Amaral C, Ambrosio S, Amer AO, Ammanathan V, An Z, Andersen SU, Andrabi SA, Andrade-Silva M, Andres AM, Angelini S, Ann D, Anozie UC, Ansari MY, Antas P, Antebi A, Antón Z, Anwar T, Apetoh L, Apostolova N, Araki T, Araki Y, Arasaki K, Araújo WL, Araya J, Arden C, Arévalo MA, Arguelles S, Arias E, Arikath J, Arimoto H, Ariosa AR, Armstrong-James D, Arnauné-Pelloquin L, Aroca A, Arroyo DS, Arsov I, Artero R, Asaro DML, Aschner M, Ashrafizadeh M, Ashur-Fabian O, Atanasov AG, Au AK, Auberger P, Auner HW, Aurelian L, **Autelli R**, et al. Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition).

Autophagy. 2021; 17:1-382. doi: 10.1080/15548627.2020.1797280.

6. Klionsky DJ, Abdelmohsen K, Abe A, Abedin MJ, Abeliovich H, Acevedo Arozena A, Adachi H, Adams CM, Adams PD, Adeli K, Adhietty PJ, Adler SG, Agam G, Agarwal R, Aghi MK, Agnello M, Agostinis P, Aguilar PV, Aguirre-Ghiso J, Airolidi EM, Ait-Si-Ali S, Akematsu T, Akporiaye ET, Al-Rubeai M, Albaiceta GM, Albanese C, Albani D, Albert ML, Aldudo J, Algül H, Alirezaei M, Alloza I, Almasan A, Almonte-Beceril M, Alnemri ES, Alonso C, Altan-Bonnet N, Altieri DC, Alvarez S, Alvarez-Erviti L, Alves S, Amadoro G, Amano A, Amantini C, Ambrosio S, Amelio I, Amer AO, Amessou M, Amon A, An Z, Anania FA, Andersen SU, Andley UP, Andreadi CK, Andrieu-Abadie N, Anel A, Ann DK, Anoopkumar-Dukie S, Antonioli M, Aoki H, Apostolova N, Aquila S, Aquilano K, Araki K, Arama E, Aranda A, Araya J, Arcaro A, Arias E, Arimoto H, Ariosa AR, Armstrong JL, Arnould T, Arsov I, Asanuma K, Askanas V, Asselin E, Atarashi R, Atherton SS, Atkin JD, Attardi LD, Auberger P, Auburger G, Aurelian L, **Autelli R**, et al. Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). *Autophagy*. 2016; 12:1-222. doi: 10.1080/15548627.2015.1100356.
7. Cannito S, Turato C, Paternostro C, Biasiolo A, Colombatto S, Cambieri I, Quarta S, Novo E, Morello E, Villano G, Fasolato S, Musso T, David E, Tusa I, Roviada E, Autelli R, Smedile A, Cillo U, Pontisso P, Parola M. Hypoxia up-regulates SERPINB3 through HIF-2 α in human liver cancer cells. *Oncotarget*. 2015; 6:2206-21. doi: 10.18632/oncotarget.2943.
8. Ullio C, Brunk UT, Urani C, Melchiorretto P, Bonelli G, Baccino FM, **Autelli R**. Autophagy of metallothioneins prevents TNF-induced oxidative stress and toxicity in hepatoma cells. *Autophagy*. 2015;11(12):2184-98. doi:10.1080/15548627.2015.1106662.
9. Bocca C, Ievolella M, **Autelli R**, Motta M, Mosso L, Torchio B, Bozzo F, Cannito S, Paternostro C, Colombatto S, Parola M, Miglietta A. Expression of Cox-2 in human breast cancer cells as a critical determinant of epithelial-to-mesenchymal transition and invasiveness. *Expert Opin Ther Targets*. 2014; 18:121-35. doi: 10.1517/14728222.2014.860447.
10. Ullio C, Casas J, Brunk UT, Sala G, Fabriàs G, Ghidoni R, Bonelli G, Baccino FM, **Autelli R**. Sphingosine mediates TNF α -induced lysosomal membrane permeabilization and ensuing programmed cell death in hepatoma cells. *J Lipid Res*. 2012; 53:1134-43. doi: 10.1194/jlr.M022384.
11. Tamagno E, Guglielmotto M, Giliberto L, Vitali A, Borghi R, **Autelli R**, Danni O, Tabaton M. JNK and ERK1/2 pathways have a dual opposite effect on the expression of BACE1. *Neurobiol Aging*. 2009; 30:1563-73. doi:10.1016/j.neurobiolaging.2007.12.015.
12. **Autelli R**, Ullio C, Prigione E, Crepaldi S, Schiavone N, Brunk UT, Capaccioli S, Baccino FM, Bonelli G. Divergent pathways for TNF and C(2)-ceramide toxicity in HTC hepatoma cells. *Biochim Biophys Acta*. 2009; 1793:1182-90. doi: 10.1016/j.bbamcr.2009.03.005.
13. Guglielmotto M, Aragno M, **Autelli R**, Giliberto L, Novo E, Colombatto S, Danni O, Parola M, Smith MA, Perry G, Tamagno E, Tabaton M. The up-regulation of BACE1 mediated by hypoxia and ischemic injury: role of oxidative stress and HIF1 α . *J Neurochem*. 2009 Feb;108(4):1045-56. doi:10.1111/j.1471-4159.2008.05858.x.
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15. Bandino A, Compagnone A, Bravoco V, Cravanzola C, Lomartire A, Rossetto C, Novo E, Cannito S, Valfrè di Bonzo L, Zamara E, **Autelli R**, Parola M, Colombatto S. Beta-catenin triggers nuclear factor kappaB-dependent up-regulation of hepatocyte inducible nitric oxide synthase. *Int J Biochem Cell Biol*. 2008; 40:1861-71. doi: 10.1016/j.biocel.2008.01.029.

16. Novo E, Marra F, Zamara E, Valfrè di Bonzo L, Monitillo L, Cannito S, Petrai I, Mazzocca A, Bonacchi A, De Franco RS, Colombatto S, **Autelli R**, Pinzani M, Parola M.
Overexpression of Bcl-2 by activated human hepatic stellate cells: resistance to apoptosis as a mechanism of progressive hepatic fibrogenesis in humans.
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Int J Biochem Cell Biol. 2005; 37:2134-46. doi: 10.1016/j.biocel.2005.03.010.
18. **Autelli R**, Crepaldi S, De Stefanis D, Parola M, Bonelli G, Baccino FM.
Intracellular free iron and acidic pathways mediate TNF-induced death of rat hepatoma cells. *Apoptosis*. 2005 Aug;10(4):777-86. doi:10.1007/s10495-005-2944-2.
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J Hepatol. 2004; 40:60-8. doi: 10.1016/s0168-8278(03)00480-x.
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Agmatine inhibits the proliferation of rat hepatoma cells by modulation of polyamine metabolism.
J Hepatol. 2003; 39:793-9. doi: 10.1016/s0168-8278(03)00386-6.
22. Canuto RA, Muzio G, Maggiora M, Trombetta A, Martinasso G, **Autelli R**, Costelli P, Bonelli G, Baccino FM.
Apoptosis induced by clofibrate in Yoshida AH-130 hepatoma cells: role of HMG-CoA reductase.
J Lipid Res. 2003;44:56-64. doi: 10.1194/jlr.m200072-jlr200.
23. Muzio G, Salvo RA, Trombetta A, **Autelli R**, Maggiora M, Terreno M, Dianzani MU, Canuto RA.
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28. Carini R, **Autelli R**, Bellomo G, Dianzani MU, Albano E.
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Biochem Biophys Res Commun. 1995; 206:180-5. doi: 10.1006/bbrc.1995.1025.

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Feedback regulation of ornithine decarboxylase expression. Studies using a polysomal run-off system. FEBS Lett. 1990; 260:39-41. doi: 10.1016/0014-5793(90)80060-v.
32. Parola M, Albano E, **Autelli R**, Barrera G, Biocca ME, Paradisi L, Dianzani MU.
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Purification and properties of cathepsin D from rat Yoshida ascites hepatoma AH-130.
Biol Chem Hoppe Seyler. 1988;369 Suppl:323-7.
34. Tessitore L, Bonelli G, Cecchini G, **Autelli R**, Amenta JS, Baccino FM.
Regulation of protein turnover versus growth state. Studies on the mechanism(s) of initiation of acidic vacuolar proteolysis in cells of stationary ascites hepatoma.
Biochem J. 1988; 251:483-90. doi: 10.1042/bj2510483.