

Chiara Mondello

Curriculum vitae

Education

1980: Graduation in Biological Sciences cum laude, University of Pavia, Italy.

1984: Advanced Studies in Genetics cum laude, University of Pavia, Italy.

1987: PhD in Genetics and Molecular Biology, University of Pavia, Italy.

Professional positions

1981: Fellowship of the University of Pavia, Istituto di Genetica Biochimica ed Evoluzionistica of the Consiglio Nazionale delle Ricerche (CNR).

1982-1983: CNR Fellowship, Istituto di Genetica Biochimica ed Evoluzionistica, CNR, Pavia (Italy).

1984-1985: Post-doctoral EMBO Fellowship, Imperial Cancer research Fund, London (UK).

1986-2001: CNR Researcher, Istituto di Genetica Biochimica ed Evoluzionistica, CNR, Pavia, Italy.

1992-1994: Professor a contratto, University of Pavia (Faculty of Science).

2001-present: Senior Researcher, Istituto di Genetica Molecolare of CNR, Pavia, Italy.

2002-2009; 2016-2020: Member of the Scientific Committee of the Istituto di Genetica Molecolare of CNR.

2005-present: Member of the CNR list of: "Esperti in gestione progettuale".

Memberships

Member of the New York Academy of Science.

Member of the Italian Genetic Association.

Editorial activity

Member of the Editorial Board of *Scientific Reports*; *Mutation Research – Reviews in Mutation Research*; *Oncology Letters*; *Experimental and Therapeutic Medicine*; *Stem Cell Discovery*.

Leadership in projects

1995-1997: AIRC project: "Genome Instability in XP fibroblasts used as a model to study cellular transformation".

1996-1998: Partner in the EU BIOMED 2 Concerted Action: "Mammalian chromosome stability and cancer".

2001-2003: Partner in the EU project "Telomere instability and the formation and transmission of radiation induced DNA damage".

2003-2005: Partner in the EU project "Telomeres and radiosensitivity of individuals".

2004-2008: FIRB Project from Italian Ministry of Research "Nuovi sistemi cellulari per studiare la riparazione delle rotture a doppio filamento del DNA in cellule di mammifero".

2007-2010: Project funded by Fondazione Cariplo "Genomics of tumor progression using a model cellular system".

2011-2014: Project funded by Fondazione Cariplo “Optofluidic chips for the study of cancer cell mechanical properties and invasive capacities.”

Reviewer activity

Reviewer for the following scientific journals: Proc. Nat. Acad. Science USA; International Journal of Cancer; European Journal of Cancer; Molecular Cancer Research; Oncotarget; Carcinogenesis; Cancers; Scientific Reports; PLoS One; BMC Medical Genetics; BBA - Molecular Basis of Disease; Mechanisms of Ageing and Development; Biochimie; Bioorganic Chemistry; Biomolecules; Cytogenetics and Genome Research; International Journal of Oncology; Oncology Reports; Experimental and Therapeutic Medicine; Journal of Experimental Medicine; Molecular Medicine Reports; International Journal of Cell Biology; Environmental Pollution; Mutation Research Reviews; chapters in Springer books.

Evaluator of scientific projects for Swiss Cancer League, Swiss National Science Foundation and Belgian FNRS (Fonds de la Recherche Scientifique).

Member of the CNR panel of evaluators for the Projects launched by the Italian Ministero dello Sviluppo Economico, in the framework of the “Fondo per la crescita sostenibile”.

Research activity

The main research interests have been: study of DNA repair in mammalian cells: isolation and characterization of UV sensitive mutants; cytological aspects of DNA damage. Molecular analysis of the terminal region of the human X chromosome short arm. Chromosomal instability in mammalian cells: mechanisms of origin of rearranged chromosomes and their role in cellular transformation and senescence. Telomere metabolism in mammalian cells. Interstitial telomeric sequences. Factors and genes controlling gene amplification in mammalian cells. Use of *in vitro* cellular model systems to study the process of neoplastic transformation, metabolic reprogramming and cancer stem cell generation during transformation.

Publications

She is author of 93 full papers, 4 chapters in books and 112 Abstracts in Meetings. She has been the Editor of the book “Multiple Parthways in neoplastic transformation.” Transworld research network. Kerala (India).

H index: 28 ISI web of knowledge; 28 Scopus; 31 Google Scholar.

List of Publications

- 1) Giulotto E. and Mondello C. Aphidicolin does not inhibit the repair synthesis of mitotic chromosomes. Biochem. Biophys. Res. Comm. 99: 1287-1294 (1981).
- 2) Stefanini M., Mondello C. and Nuzzo F. Studies on DNA repair in mammals: Isolation and characterization of mutagen sensitive cell lines. In: Proceeding of a Meeting on Cancer Risk and DNA Repair, p. 111-119. Ed. by A. Castellani (1982).

- 3) Mazza C., Mondello C. and Nuzzo F. Determinazione dell'attività mutagenica e genotossica dell'antibiotico Distamicina A. *Giornale Italiano di Chemioterapia*. 30: 39-52 (1983).
- 4) Mondello C., Giorgi R. and Nuzzo F. Chromosomal effects of methotrexate on cultured human lymphocytes. *Mutat. Res.* 139: 67-70 (1984).
- 5) Mondello C., Zei G. and Nuzzo F. Correlation between unscheduled DNA synthesis and chromosome condensation in mitoses from human lymphocytes. *Mutat. Res.* 142: 45-48 (1985).
- 6) Mondello C. and Goodfellow P.N. Methylation and expression of a housekeeping gene. *Trends Genet.* 1: 124-125 (1985).
- 7) Buckle V., Mondello C., Darling S., Craig I.W. and Goodfellow P.N. Homologous expressed genes in the human sex chromosome pairing region. *Nature* 317: 739-741 (1985).
- 8) Stefanini M., Mondello C., Tessera L., Capuano V., Guerra B.R. and Nuzzo F. Sensitivity to DNA damaging agents and mutation induction in UV sensitive CHO cells. *Mutat. Res.* 174: 155-159 (1986).
- 9) Ballabio A., Parenti G., Tippet P., Mondello C., Di Maio S., Tenore A. and Andria G. X-linked ichthyosis due to steroid sulphatase deficiency, associated with Kallmann syndrome (hypogonadotropic hypogonadism and anosmia): linkage relationship with Xg and cloned DNA sequences from the distal short arm of the X chromosome. *Hum. Genet.* 72; 237-240 (1986).
- 10) Mondello C., Ropers H.H., Craig I.W., Tolley E. and Goodfellow P.N. Physical mapping of genes and sequences at the end of the human X chromosome short arm. *Ann. of Hum. Genet.* 51: 137-143 (1987).
- 11) Goodfellow P.J., Darling S., Banting G., Pym B., Mondello C. and Goodfellow P.N. Pseudoautosomal genes in man. In: "The mammalian Y chromosome, Molecular search for the sex determining gene" Editors Goodfellow P.N., Wolf J. and Craig I.W., *Development* 101: 119-125(s) (1987).
- 12) Stefanini M., Mondello C., Tessera M.L., Botta E. and Nuzzo F. Cellular and genetic studies in three UV-sensitive Chinese hamster mutants. *Cytotechnology* 1: 91-94 (1987).
- 13) Talarico D., Peverali A.F., Ginelli E., Meneveri R., Mondello C. and Della Valle G. Satellite DNA induces unstable expression of the adjacent Herpes Simplex Virus TK gene cotransfected in mouse cells. *Molecular and Cellular Biology* 8: 1336-1344 (1988).
- 14) Goodfellow P.J., Mondello C., Darling S.M., Pym B., Little P. and Goodfellow P.N. Absence of methylation of a CpG rich region at the 5' end of the MIC2 gene is the same on the active X, inactive X and the Y chromosome. *Proc. Natl. Acad. Sci. USA* 85: 5605-5609 (1988).
- 15) Mondello C., Goodfellow P.J. and Goodfellow P.N. Analysis of methylation of a human X located gene which escapes X inactivation. *Nucleic Acids Res.* 16: 6813-6824 (1988).
- 16) Banting G., Mondello C., Hope R. and Goodfellow P.N. A monoclonal antibody, R1, and a polyclonal serum, S10, recognize the same molecules: a novel use of DNA transfectants. *J. of Immunogenet.* 15: 257-265 (1988).
- 17) Stefanini M., Mondello C., Botta E., Riboni R. and Nuzzo F. Cellular and genetic characterization of UV sensitive Chinese hamster mutants. *Ann. Ist. Sup. Sanità* 25: 123-130 (1989).

- 18) Mazzarello P., Verri A., Mondello C., Colombo S., Maga G., Spadari S. and Focher F. Enzymes of DNA metabolism in a patient with Wiedemann-Rautenstrauch progeroid syndrome. *Annales of the New York Academy of Sciences*. Vol. 663: 440-441 (1992).
- 19) Fontana M., Lestingi M., Mondello C., Braghetti A., Montecuccio A. Ciarrocchi G. DNA binding properties of FCE 24517, an electrophilic distamycin analogue. *Anti-Cancer Drug Design*. 7: 131-141 (1992).
- 20) Casati A., Giorgi R., Lanza A., Raimondi E., Vagnarelli P., Mondello C., Ghetti P., Piazza G. and Nuzzo F. Trisomy mosaicism in two subjects from two generations. *Ann. Génét.* 35, 245-250(1992).
- 21) Braghetti A., Piazzzi G., Lanfranco L. and Mondello C. Multiple DNA- protein interactions at the CpG island of the human pseudoautosomal gene MIC2. *Somat. Cell. Molec. Genet.* 19: 51-63, (1993).
- 22) Montecuccio A., Capolongo L., Melegara G., Mondello C. and Ciarrocchi G. Temperature influences both cytotoxicity and DNA nicking efficiency of the antitumor Distamycin analogue FCE24517. *Anticancer Res.* 14: 189-192 (1994).
- 23) Mondello C., Nardo T., Giliani S., Arrand J.E., Weber C.A., Lehmann A.R., Nuzzo F. and Stefanini M. Molecular analysis of the XP-D gene in Italian families with patients affected by trichothiodystrophy and xeroderma pigmentosum group D. *Mutat. Res. DNA repair* 314: 159-165 (1994).
- 24) Mondello C., Casati A., Riboni R. and Nuzzo F. Structural instability of a transmissible end-to-end dicentric chromosome in a xeroderma pigmentosum fibroblast clone. *Cancer Genet. Cytogenet.* 79: 41-48 (1995).
- 25) Mondello C., Riboni R., Rady M., Giulotto E. and Nuzzo F. Gene amplification in chinese hamster DNA repair deficient mutants. - *Mutation Res.* 346: 61-67 (1995)
- 26) Casati A, Riboni R. Caprioli J., Nuzzo F. and Mondello C. Condensation anomalies and exclusion in micronuclei of rearranged chromosomes in human fibroblasts cultured in vitro. *Chromosoma* 104: 137-142 (1995).
- 27) Riboni R., Casati A, Nardo T., Zaccaro E., Ferretti L., Nuzzo F. and Mondello C. Telomeric fusions in human cultured fibroblasts as a source of genomic instability. *Cancer Genetics and Cytogenetics* 95: 130-136 (1997).
- 28) Mondello C., Riboni R., Casati A., Nardo T. and Nuzzo F. Chromosomal instability and telomere length variations during the life span of human fibroblast clones. *Exp. Cell. Res.* 236: 385-396 (1997).
- 29) Giulotto E. and Mondello C. Telomeres. In "Advances in Genome Biology", Vol 5B pages 323-361. JAI Press Inc. (1998).
- 30) Mondello C. I telomeri. *BioTec* 3: 41-52 (1998).
- 31) Mondello C., Petropoulou C, Monti D., Gonos E.S., Franceschi C. and Nuzzo F. Telomere length in fibroblast and blood cells from healthy centenarians. *Exp. Cell Res.* 248: 234-242 (1999).
- 32) Mondello C., Moralli D, Franceschi C and Nuzzo F. Occurrence and expansion of trisomy 7 in a centenarian fibroblast strain. *Exp. Gerontol.* 34: 717-719 (1999).
- 33) Franceschi C, Mondello C., Bonafè M., Valesin S., Sansoni P. and Sorbi S. Long telomeres and well preserved proliferative vigor in cells from centenarians: A contribution to longevity? *Aging Clin. Exp. Res.* 11: 69-72 (1999).

- 34) Mucciolo E., Bertoni L., Mondello C. and Giulotto E. Late onset of CAD gene amplification in unamplified PALA resistant Chinese hamster mutants. *Cancer Letters* 150: 119-127 (2000).
- 35) Mondello C., Pirzio L., Azzalin C. and Giulotto E. Instability of interstitial telomeric sequences in the human genome. *Genomics* 68: 111-117 (2000).
- 36) Mondello C., Faravelli M., Pipitone L., Rollier A., Di Leonardo A. and Giulotto E. Gene amplification in fibroblasts from ataxia telangiectasia patients and in X-ray hypersensitive Chinese hamster mutants. *Carcinogenesis* 22: 141-145 (2001).
- 37) Mondello C., Rebuzzini P., Dolzan M., Edmonson S., Taccioli G.E., and Giulotto E. Increased gene amplification in immortalized rodent cells deficient in the catalytic subunit of the DNA-dependent protein kinase. *Cancer Res.* 61: 4520-4525 (2001).
- 38) Faravelli M., Bertoni L., Azzalin C.M., Attolini C., Chernova O., Mondello C. and Giulotto E. Molecular organization of intrachromosomal sequences in Chinese hamster. *Gene* 283: 11-16 (2002).
- 39) Mondello C., Guasconi V., Giulotto E and Nuzzo F. γ -Ray and hydrogen peroxide induction of gene amplification in hamster cells deficient in DNA double strand break repair. *DNA repair* 1: 483-493 (2002).
- 40) Mondello C., Chiesa M., Rebuzzini P, Zongaro S, Verri A., Colombo T., Giulotto E., D'Incalci M., Franceschi C. and Nuzzo F. Karyotype instability and anchorage independent growth in telomerase immortalized fibroblasts from two centenarian individuals. *Biochem. Biophys. Res. Commu.* 308: 914-921 (2003).
- 41) Rebuzzini P., Lisa A., Giulotto E. and Mondello C. Chromosomal end-to-end fusions in immortalized mouse embryonic fibroblasts deficient in the DNA-dependent protein kinase catalytic subunit. *Canc. Lett.* 203: 79-86 (2004).
- 42) Desmaze C., Pirzio L.M., Blaise R., Mondello C., Giulotto E., Murnane J.P. and Sabatier L. Interstitial telomeric repeats are not preferentially involved in radiation-induced chromosome aberrations in human cells. *Cytogenet Genome Res.* 104: 123-130 (2004).
- 43) Mondello C. and Scovassi A.I. Telomeres, telomerase and apoptosis. *Biochem.and Cell Biol.* 82: 498-507 (2004).
- 44) Nergadze S.G., Rocchi M., Azzalin C.M., Mondello C. and Giulotto E. Insertion of telomeric repeats at intrachromosomal break sites during primate evolution. *Genome Res.* 14: 1704-1710 (2004).
- 45) Rebuzzini P., Khorjiauli L., Azzalin C. M., Magnani E., Mondello C.* and Giulotto E. New mammalian cellular systems to study mutations introduced at the break site by non-homologous end-joining. *DNA repair* 4: 546-555 (2005).
Corresponding author
- 46) Salvioli S., Bonafé M, Barbi C., Storci G., Trapassi C., Tocco F., Gravina S., Rossi M., Tiberi L., Mondello C., Monti D., and Franceschi C. p53 codon 72 alleles influence the response to anticancer drugs in cells from aged people by regulating the cell cycle inhibitor p21WAF1. *Cell Cycle* 4: 1264-1271 (2005).
- 47) Zongaro S., Colombo T., D'Incalci M., Giulotto E. and Mondello C. Stepwise neoplastic transformation of a telomerase immortalized fibroblast cell line. *Cancer Res.* 65: 11411-11418 (2005).
- 48) Mondello C., Zongaro S., and D'Incalci M. Telomerase Expression in Somatic Cells: Fountain of Youth or Damocles' Sword? *Cell Cycle* 5: 465-466 (2006)

- 49) Mondello C., Bottone MG., Noriki S., Soldani C., Pellicciari C. and Scovassi A.I. Oxidative Stress Response in Telomerase-Immortalized Fibroblasts from a Centenarian. *Ann. N. Y. Acad. Sci.* 1091: 94-101 (2006).
- 50) Rebuzzini P., Martinelli P., Blasco M., Giulotto E. and Mondello C. Inhibition of gene amplification in telomerase deficient immortalized mouse embryonic fibroblasts. *Carcinogenesis* 283: 553-559 (2007). Epub 2006 Sep 14.
- 51) Paulis M., Bensi M., Orioli D., Mondello C., Mazzini G., D'Incalci M., Falcioni C., Radaelli E., Erba E., Raimondi E., and De Carli L. Transfer of a human chromosomal vector from a hamster cell line to a mouse embryonic stem cell line. *Stem Cells* 25: 2543-2550 (2007). Epub 2007 Jul 5.
- 52) Nergadze S.G., Santagostino M.A., Salzano A., Mondello C., and Giulotto E. Contribution of telomerase RNA retrotranscription to DNA double-strand break repair during mammalian genome evolution. *Genome Biol.* 8: R260 (2007)
- 53) Donà F., Mondello C. and Scovassi A.I. Poly (ADP-ribosylation) at telomeres. *Trends in Cell & Molecular Biology* 2: 77-88 (2007).
- 54) Zongaro S., Verri A., Giulotto E., and Mondello C. Telomere length and radiosensitivity in human fibroblast clones immortalized by ectopic telomerase expression. *Oncology Reports* 19: 1605-1609 (2008).
- 55) Donà F., Prosperi E., Savio M., Coppa T., Scovassi A. I., and Mondello C. Loss of Histone H2AX increases sensitivity of immortalized mouse fibroblasts to the topoisomerase inhibitor etoposide. *Int. J. Oncol.* 33: 613-621 (2008).
- 56) Belgiovine C., Chiodi I., and Mondello C. Telomerase: cellular immortalization and neoplastic transformation. Multiple functions of a multifaceted complex. *Cytogenetic and Genome Research.* 122: 255-262 (2008).
- 57) Maga G., Crespan E., Wimmer U., van Loon B., Amoroso A., Mondello C., Belgiovine C., Ferrari E., Villani G. and Hübscher U. Replication Protein A and Proliferating Cell Nuclear Antigen coordinate DNA polymerase selection in 8-oxo-guanine repair. *Proc. Natl. Acad. Sci. USA.* 105: 20689-20694 (2008).
- 58) Salzano A., Kochiashvili N., Nergadze S.G., Khoriauli L., Smirnova A., Herrera A., Mondello C., and Giulotto E. Enhanced gene amplification in human cells knocked down for DNA-PKcs. *DNA Repair* 8: 19-28 (2009).
- 59) Mondello C., Smirnova A., and Giulotto E. Gene amplification, radiation sensitivity and DNA double strand breaks. *Mutat. Res.* 704: 29-37 (2010). Epub ahead of print January 2010.
- 60) Belgiovine C., Frapolli R., Bonezzi K., Chiodi I., Mello-Grand M., Favero F., Dei Tos A. P., Giulotto E., Taraboletti G., D'Incalci M., Mondello C. ROCK inhibitor RhoE is associated with increased invasiveness and metastatic potential in mesenchymal tumor cells. *PLoS ONE* 5: e141542010 (2010).
- 61) Mondello C. and Scovassi I. Apoptosis: a way to maintain healthy individuals. In "Genome Stability and Human Diseases" Nasheuer, H.P. (Ed.). *Subcell Biochem.* 50: 307-323 (2010). ISBN 978-90-481-3470-0
- 62) Ruiz-Herrera A., Smirnova A., Khoriauli L., Nergadze S.G., Mondello C. and Giulotto E. Gene amplification in human cells knocked down for RAD54. *Genome Integrity.* 2: 5 (2011).
- 63) Chiodi I., Belgiovine C., Donà I., Scovassi A.I. and Mondello C. Drug treatment of cancer cell line: a way to select for cancer stem cells? *Cancers* 3: 1111-1128 (2011).

- 64) Belgiovine C., Chiodi I. and Mondello C. Relocalization of cell adhesion molecules during neoplastic transformation of human fibroblasts. *Int. J. Oncol.* 39: 1199-1204 (2011).
- 65) Ostano P., Bione S., Belgiovine C., Chiodi I., Ghmenti C., Scovassi A.I., Chiorino G. and Mondello C. Cross-analysis of gene and miRNA genome-wide expression profiles in human fibroblasts at different stages of transformation. *OMICS* 16: 24-36 (2012).
- 66) Donà F., Chiodi I., Belgiovine C., Raineri T., Ricotti R., Mondello C. and Scovassi A.I. Poly(ADP-ribosylation) and neoplastic transformation: effect of PARP inhibitors. *Current Pharm. Biotechnol.* 2012 Mar 20. [Epub ahead of print].
- 67) Vidale P., Magnani E., Nergadze S.G., Santagostino M., Cristofari G., Smirnova A., Mondello C. and Giulotto E. The catalytic and the RNA subunits of human telomerase are required to immortalize equid primary fibroblasts. *Chromosoma* 121: 475-488, 2012. Epub 2012 Jul 14.
- 68) Bragheri F., Minzioni P., Martinez Vazquez R., Bellini N., Paiè P., Mondello C., Ramponi R., Cristiani I. and Osellame R. Optofluidic integrated cell sorter fabricated by femtosecond lasers. *Lab Chip* 12: 3779-384, 2012.
- 69) Chiodi I. and Mondello C. Telomere-independent functions of telomerase in nuclei, cytoplasm, and mitochondria. *Frontiers in Oncology* "Telomeres: structure, functions and therapeutic opportunities". *Front Oncol.* 2:133, 2012. doi: 10.3389/fonc.2012.00133. Epub 2012 Sep 28.
- 70) Chiodi I., Belgiovine C., Zongaro S., Ricotti R., Horard B., Lossani A., Focher F., Gilson E., Giulotto E. and Mondello C. Super-telomeres in transformed human fibroblasts. *Biochim Biophys Acta.* 1833:1885-1893, 2013. Epub 2013 Apr 6. doi: 10.1016/j.bbamcr.2013.03.030.
- 71) Mondello C. and Chiodi I. Cellular immortalization and neoplastic transformation: Simultaneous, sequential or independent? Telomeres, telomerase or karyotypic variations? *Cell Cycle* 12:1804-1805, 2013.
- 72) Fumagalli M, Rossiello F, Mondello C and d'Adda di Fagagna F. Stable cellular senescence is associated with persistent DDR activation. *PLoS One.* 2014, Oct 23;9(10):e110969.
- 73) Salvati E, Rizzo A, Iachettini S, Zizza P, Cingolani C, D'Angelo C, Porru M, Mondello C, Aiello A, Farsetti A, Gilson E, Leonetti C and Biroccio A. A basal level of DNA damage and telomere deprotection increases the sensitivity of cancer cells to G-quadruplex interactive compounds. *Nucleic Acids Res.* 2015, 43:1759-69.
- 74) Yang T, Paiè P, Nava G, Bragheri F, Martinez Vazquez R, Minzioni P, Veglione M, Di Tano M, Mondello C, Osellame R and Cristiani I. An integrated optofluidic device for single-cell sorting driven by mechanical properties. *Lab Chip.* 2015, 15:1262-6.
- 75) Martinez Vazquez R, Nava G, Veglione M, Yang T, Bragheri F, Minzioni P, Bianchi E, Di Tano M, Chiodi I, Osellame R, Mondello C* and Cristiani I. An optofluidic constriction chip for monitoring metastatic potential and drug response of cancer cells. *Integr Biol.* 2015, 7:477-84.
*Corresponding author
- 76) Narayanan KB, Ali M, Barclay BJ, Cheng Q, D'Abronzio L, Dornetshuber-Fleiss R, Ghosh PM, Gonzalez Guzman MJ, Lee TJ, Leung PS, Li L, Luanpitpong S, Ratovitski E, Rojanasakul Y, Romano MF, Romano S, Sinha RK, Yedjou C, Al-Mulla F, Al-Temaimi R, Amedei A, Brown DG, Ryan EP, Colacci A, Hamid RA,

- Mondello C, Raju J, Salem HK, Woodrick J, Scovassi I, Singh N, Vaccari M, Roy R, Forte S, Memeo L, Kim SY, Bisson WH, Lowe L and Park HH. Disruptive environmental chemicals and cellular mechanisms that confer resistance to cell death. *Carcinogenesis*. 2015, 36 Suppl 1:S89-S110.
- 77) Langie SA, Koppen G, Desaulniers D, Al-Mulla F, Al-Temaimi R, Amedei A, Azqueta A, Bisson WH, Brown D, Brunborg G, Charles AK, Chen T, Colacci A, Darroudi F, Forte S, Gonzalez L, Hamid RA, Knudsen LE, Leyns L, Lopez de Cerain Salsamendi A, Memeo L, Mondello C, Mothersill C, Olsen AK, Pavanello S, Raju J, Rojas E, Roy R, Ryan E, Ostrosky-Wegman P, Salem HK, Scovassi I, Singh N, Vaccari M, Van Schooten FJ, Valverde M, Woodrick J, Zhang L, van Larebeke N, Kirsch-Volders M and Collins AR. Causes of genome instability: the effect of low dose chemical exposures in modern society. *Carcinogenesis*. 2015 Jun;36 Suppl 1:S61-88.
- 78) Engstrom W, Darbre P, Eriksson S, Gulliver L, Hultman T, Karamouzis MV, Klaunig JE, Mehta R, Moorwood K, Sanderson T, Sone H, Vadgama P, Wagemaker G, Ward A, Singh N, Al-Mulla F, Al-Temaimi R, Amedei A, Colacci AM, Vaccari M, Mondello C, Scovassi AI, Raju J, Hamid RA, Memeo L, Forte S, Roy R, Woodrick J, Salem HK, Ryan E, Brown DG and Bisson WH. The potential for chemical mixtures from the environment to enable the cancer hallmark of sustained proliferative signalling. *Carcinogenesis*. 2015 Jun;36 Suppl 1:S38-60.
- 79) Goodson WH 3rd, Lowe L, Carpenter DO, Gilbertson M, Manaf Ali A, Lopez de Cerain Salsamendi A, Lasfar A, Carnero A, Azqueta A, Amedei A, Charles AK, Collins AR, Ward A, Salzberg AC, Colacci A, Olsen AK, Berg A, Barclay BJ, Zhou BP, Blanco-Aparicio C, Baglolle CJ, Dong C, Mondello C, Hsu CW, Naus CC, Yedjou C, Curran CS, Laird DW, Koch DC, Carlin DJ, Felsher DW, Roy D, Brown DG, Ratovitski E, Ryan EP, Corsini E, Rojas E, Moon EY, Laconi E, Marongiu F, Al-Mulla F, Chiaradonna F, Darroudi F, Martin FL, Van Schooten FJ, Goldberg GS, Wagemaker G, Nangami G, Calaf GM, Williams G, Wolf GT, Koppen G, Brunborg G, Kim Lyerly H, Krishnan H, Ab Hamid H, Yasaei H, Sone H, Kondoh H, Salem HK, Hsu HY, Park HH, Koturbash I, Miousse IR, Scovassi AI, Klaunig JE, Vondraček J, Raju J, Roman J, Wise JP Sr, Whitfield JR, Woodrick J, Christopher JA, Ochieng J, Martinez-Leal JF, Weisz J, Kravchenko J, Sun J, Prudhomme KR, Narayanan KB, Cohen-Solal KA, Moorwood K, Gonzalez L, Soucek L, Jian L, D'Abronzio LS, Lin LT, Li L, Gulliver L, McCawley LJ, Memeo L, Vermeulen L, Leyns L, Zhang L, Valverde M, Khatami M, Romano MF, Chapellier M, Williams MA, Wade M, Manjili MH, Leonart M, Xia M, Gonzalez MJ, Karamouzis MV, Kirsch-Volders M, Vaccari M, Kuemmerle NB, Singh N, Cruickshanks N, Kleinstreuer N, van Larebeke N, Ahmed N, Ogunkua O, Krishnakumar PK, Vadgama P, Marignani PA, Ghosh PM, Ostrosky-Wegman P, Thompson P, Dent P, Heneberg P, Darbre P, Sing Leung P, Nangia-Makker P, Cheng QS, Robey RB, Al-Temaimi R, Roy R, Andrade-Vieira R, Sinha RK, Mehta R, Vento R, Di Fiore R, Ponce-Cusi R, Dornetshuber-Fleiss R, Nahta R, Castellino RC, Palorini R, Abd Hamid R, Langie SA, Eltom S, Brooks SA, Ryeom S, Wise SS, Bay SN, Harris SA, Papagerakis S, Romano S, Pavanello S, Eriksson S, Forte S, Casey SC, Luanpitpong S, Lee TJ, Otsuki T, Chen T, Massfelder T, Sanderson T, Guarnieri T, Hultman T, Dormoy V, Odero-Marah V, Sabbisetti V, Maguer-Satta V, Rathmell WK, Engstrom W, Decker WK, Bisson WH, Rojanasakul Y, Luqmani Y, Chen Z and Hu Z. Assessing the carcinogenic

- potential of low-dose exposures to chemical mixtures in the environment: the challenge ahead. *Carcinogenesis*. 2015 Jun;36 Suppl 1:S254-96.
- 80) Thompson PA, Khatami M, Baglolle CJ, Sun J, Harris S, Moon EY, Al-Mulla F, Al-Temaimi R, Brown D, Colacci A, Mondello C, Raju J, Ryan E, Woodrick J, Scovassi I, Singh N, Vaccari M, Roy R, Forte S, Memeo L, Salem HK, Amedei A, Hamid RA, Lowe L, Guarnieri T and Bisson WH. Environmental immune disruptors, inflammation and cancer risk. *Carcinogenesis*. 2015 Jun;36 Suppl 1:S232-53.
- 81) Brooks Robey R, Weisz J, Kuemmerle N, Salzberg AC, Berg A, G Brown D, Kubik L, Palorini R, Al-Mulla F, Al-Temaimi R, Colacci A, Mondello C, Raju J, Woodrick J, Scovassi AI, Singh N, Vaccari M, Roy R, Forte S, Memeo L, Salem HK, Amedei A, Hamid RA, Williams GP, Lowe L, Meyer J, Martin FL, Bisson WH, Chiaradonna F and Ryan EP. Metabolic reprogramming and dysregulated metabolism: cause, consequence and/or enabler of environmental carcinogenesis? *Carcinogenesis*. 2015 Jun;36 Suppl 1:S203-31.
- 82) Nahta R, Al-Mulla F, Al-Temaimi R, Amedei A, Andrade-Vieira R, Bay S, G Brown D, Calaf GM, Castellino RC, Cohen-Solal KA, Colacci A, Cruickshanks N, Dent P, Di Fiore R, Forte S, Goldberg GS, Hamid RA, Krishnan H, Laird DW, Lasfar A, Marignani PA, Memeo L, Mondello C, Naus CC, Ponce-Cusi R, Raju J, Roy D, Roy R, P Ryan E, Salem HK, Scovassi AI, Singh N, Vaccari M, Vento R, Vondr $\sqrt{\circ}$ fçek J, Wade M, Woodrick J and Bisson WH. Mechanisms of environmental chemicals that enable the cancer hallmark of evasion of growth suppression. *Carcinogenesis*. 2015 Jun;36 Suppl 1:S2-S18.
- 83) Carnero A, Blanco-Aparicio C, Kondoh H, Lleonart ME, Martinez-Leal JF, Mondello C, Ivana Scovassi A, Bisson WH, Amedei A, Roy R, Woodrick J, Colacci A, Vaccari M, Raju J, Al-Mulla F, Al-Temaimi R, Salem HK, Memeo L, Forte S, Singh N, Hamid RA, Ryan EP, Brown DG, Wise JP Sr, Wise SS and Yasaei H. Disruptive chemicals, senescence and immortality. *Carcinogenesis*. 2015 Jun;36 Suppl 1:S19-37.
- 84) Hu Z, Brooks SA, Dormoy V, Hsu CW, Hsu HY, Lin LT, Massfelder T, Rathmell WK, Xia M, Al-Mulla F, Al-Temaimi R, Amedei A, Brown DG, Prudhomme KR, Colacci A, Hamid RA, Mondello C, Raju J, Ryan EP, Woodrick J, Scovassi AI, Singh N, Vaccari M, Roy R, Forte S, Memeo L, Salem HK, Lowe L, Jensen L, Bisson WH and Kleinstreuer N. Assessing the carcinogenic potential of low-dose exposures to chemical mixtures in the environment: focus on the cancer hallmark of tumor angiogenesis. *Carcinogenesis*. 2015 Jun;36 Suppl 1:S184-202.
- 85) Casey SC, Vaccari M, Al-Mulla F, Al-Temaimi R, Amedei A, Barcellos-Hoff MH, Brown DG, Chapellier M, Christopher J, Curran C, Forte S, Hamid RA, Heneberg P, Koch DC, Krishnakumar PK, Laconi E, Maguer-Satta V, Marongiu F, Memeo L, Mondello C, Raju J, Roman J, Roy R, Ryan EP, Ryeom S, Salem HK, Scovassi AI, Singh N, Soucek L, Vermeulen L, Whitfield JR, Woodrick J, Colacci A, Bisson WH and Felsher DW. The effect of environmental chemicals on the tumor microenvironment. *Carcinogenesis*. 2015 Jun;36 Suppl 1:S160-83.
- 86) Ochieng J, Nangami GN, Ogunkua O, Miousse IR, Koturbash I, Odero-Marah V, McCawley L, Nangia-Makker P, Ahmed N, Luqmani Y, Chen Z, Papagerakis S, Wolf GT, Dong C, Zhou BP, Brown DG, Colacci A, Hamid RA, Mondello C, Raju J, Ryan EP, Woodrick J, Scovassi I, Singh N, Vaccari M, Roy R, Forte S, Memeo L, Salem HK, Amedei A, Al-Temaimi R, Al-Mulla F, Bisson WH and Eltom SE.

- The impact of low-dose carcinogens and environmental disruptors on tissue invasion and metastasis. *Carcinogenesis*. 2015 Jun;36 Suppl 1:S128-59.
- 87) Kravchenko J, Corsini E, Williams MA, Decker W, Manjili MH, Otsuki T, Singh N, Al-Mulla F, Al-Temaimi R, Amedei A, Colacci AM, Vaccari M, Mondello C, Scovassi AI, Raju J, Hamid RA, Memeo L, Forte S, Roy R, Woodrick J, Salem HK, Ryan EP, Brown DG, Bisson WH, Lowe L and Lyerly HK. Chemical compounds from anthropogenic environment and immune evasion mechanisms: potential interactions. *Carcinogenesis*. 2015 Jun;36 Suppl 1:S111-27.
 - 88) Yang T, Bragheri F, Nava G, Chiodi I, Mondello C, Osellame R, Berg-Sorensen K, Cristiani I, Minzioni P. A comprehensive strategy for the analysis of acoustic compressibility and optical deformability on single cells. *Sci Rep*. 2016, 6:23946. Erratum in: *Sci Rep*. 2017 Jan 19;7:40974.
 - 89) Chiodi I, Mondello C. Telomere and telomerase stability in human diseases and cancer. *Front Biosci (Landmark Ed)*. 2016, 21:203-24.
 - 90) Belgiovine C, Chiesa G, Chiodi I, Frapolli R, Bonezzi K, Taraboletti G, D'Incalci M, Mondello C. Snail levels control the migration mechanism of mesenchymal tumor cells. *Oncol Lett*. 2016, 12:767-771.
 - 91) Bono B, Ostano P, Peritore M, Gregnanin I, Belgiovine C, Liguori M, Allavena P, Chiorino G, Chiodi I, Mondello C. Cells with stemness features are generated from in vitro transformed human fibroblasts. *Sci Rep*. 2018, 8:13838.
 - 92) Chiodi I, Picco G, Martino C, Mondello C. Cellular response to glutamine and/or glucose deprivation in in vitro transformed human fibroblasts. *Oncol Rep*. 2019, 41:3555-3564.
 - 93) Chiodi I, Mondello C. Life style factors, tumor cell plasticity and cancer stem cells. *Mutation Research*. 2020, 784: 108308

Chapters in book

- 1) Giulotto E. and Mondello C. Amplificazione genetica: ruolo biologico e meccanismi molecolari. In "La cellula neoplastica. Biologia, Diagnostica e Terapia molecolare". Ed. Proff. P. Comoglio e A. Nicolini. Consiglio Nazionale delle Ricerche, UTET. Pag 204-216 (1997).
- 2) Mondello C. Telomeri, senescenza e cancro. *Rendiconti, Istituto Lombardo, Accademia di Scienze e Lettere, Vol 138: 55 (2004)*.
- 3) Mondello C. and Rebuzzini P. Gene amplification: molecular mechanisms and biological relevance in cancer. In "Multiple Pathways in neoplastic transformation.". Editor C. Mondello. Transworld research network. Kerala (India). Pag. 43-67 (2008)
- 4) Chiodi I., Belgiovine C. and Mondello C. Telomerase and telomeric proteins: a life beyond telomeres. In "Telomerase: Composition, Functions and Clinical Implications". Editor Aiden N. Gagnon. 2010 Nova Science Publisher, Inc. pp. 35-38. ISBN: 978-1-61668-957-5.