

AGONISTI DEL GLP-1 NEL TRATTAMENTO DEL DIABETE DI TIPO 2 E DELL'OBESITÀ

PROVIDER	N.EVENTO	COSTO	VALIDITÀ	NR. CREDITI	TIPOLOGIA
Unione Tecnica Italiana Farmacisti ID 145	ED.1 473694	Gratuito per gli associati; 50 € per i non associati.	02/02/2026 al 31/12/2026	5	FAD

ABSTRACT DEL CORSO

Premessa

Il diabete mellito di tipo 2 e l'obesità rappresentano due delle principali sfide sanitarie globali del XXI secolo, strettamente interconnesse da meccanismi fisiopatologici comuni, come l'insulino-resistenza e la disfunzione delle cellule beta del pancreas. L'eccesso di tessuto adiposo, in particolare quello viscerale, contribuisce all'infiammazione cronica di basso grado e all'alterazione del metabolismo glucidico e lipidico. Negli ultimi anni, la gestione terapeutica di queste condizioni si è profondamente evoluta grazie all'introduzione degli agonisti del recettore del GLP-1 (glucagon-like peptide-1). Questi farmaci, originariamente sviluppati per migliorare il controllo glicemico, hanno dimostrato notevoli benefici anche nella riduzione del peso corporeo e del rischio cardiovascolare. L'azione combinata su più organi (pancreas, sistema nervoso centrale, stomaco e fegato) ne fa un approccio innovativo e integrato al trattamento del diabete di tipo 2 e dell'obesità. Gli agonisti del GLP-1 rappresentano quindi una svolta terapeutica capace di coniugare efficacia metabolica e protezione d'organo, aprendo nuove prospettive nella medicina dell'obesità e del metabolismo.

Finalità

Il corso si propone di fornire ai farmacisti un aggiornamento completo sui principali aspetti fisiopatologici che legano il diabete mellito di tipo 2 e l'obesità, due condizioni strettamente interconnesse e di crescente rilevanza clinica. Verranno analizzati i meccanismi alla base dell'insulino-resistenza, della disfunzione beta-cellulare e del ruolo del tessuto adiposo nella regolazione metabolica. Seguirà una panoramica dei principali farmaci antidiabetici attualmente disponibili, con particolare attenzione ai diversi meccanismi d'azione e alle implicazioni terapeutiche. Nella seconda parte del corso (due ore), saranno approfonditi i farmaci che agiscono sul sistema delle incretine, evidenziandone la fisiologia e la rilevanza clinica. L'attenzione sarà poi focalizzata sui nuovi agonisti del recettore del GLP-1, analizzandone sia gli aspetti tradizionali legati al controllo glicemico, sia quelli più innovativi che riguardano la riduzione del peso corporeo, la protezione cardiovascolare e il potenziale impatto su altri distretti d'organo e gli effetti avversi. L'obiettivo finale è fornire ai farmacisti strumenti aggiornati per comprendere, consigliare e ottimizzare l'uso di queste terapie nell'ambito della gestione integrata del paziente diabetico e obeso.

DESTINATARI

Professione: Farmacista

Disciplina: Farmacia territoriale e Farmacia ospedaliera

OBIETTIVO ECM DI SISTEMA

18 - Contenuti tecnico-professionali (conoscenze e competenze) specifici di ciascuna professione, di ciascuna specializzazione e di ciascuna attività ultraspecialistica, ivi incluse le malattie rare e la medicina di genere

RESPONSABILI SCIENTIFICI

- Dott. Eugenio Leopardi

DOCENTI

- Prof. Orazio Cantoni

PROGRAMMA DEL CORSO

AGONISTI DEL GLP-1 NEL TRATTAMENTO DEL DIABETE DI TIPO 2 E DELL'OBESITÀ

- 1) OBESITÀ E DIABETE DI TIPO 2: ASPETTI FISIOPATOLOGICI E FARMACOLOGICI**
- 2) AGONISTI GLP-1: FARMACI ANTIDIABETICI CONTRO L'OBESITÀ**

Curriculum Vitae

Informazioni personali

Nome(i) / Cognome(i)

Orazio Cantoni

Indirizzo(i)

Abitazione:
Via Cà Mignone 14, - 61029 Urbino (PU)

Lavoro:
Università degli Studi di Urbino "Carlo Bo"
Dipartimento di Scienze Biomolecolari
Sezione di Farmacologia e Farmacognosia
Via S. Chiara 27
61029 Urbino (PU)

Telefono(i)

Abitazione: +39 0722 2423
Lavoro: +39 0722 303523

Cellulare: 3288073175

Fax

+39 0722 305470

E-mail

orazio.cantoni@uniurb.it

Cittadinanza

Italiana

Data di nascita

25 Luglio 1954

Sesso

Maschio

Occupazione /Settore professionale

**Professore Ordinario di Farmacologia, Settore disciplinare BIOS-11/A
Farmacologia**

Esperienza professionale

Date

1977 - Laurea in Farmacia (cum laude) presso l'Università degli Studi di Urbino "Carlo Bo".
1981 - Laurea in Scienze Biologiche (cum laude) presso l'Università degli Studi di Urbino "Carlo Bo".
1981 - Visiting Scientist presso il Laboratory of Preclinical Pharmacology, NIMH, Washington D.C.
1982-1983 - Post-Doctoral Fellow presso il Department of Pharmacology, University of Texas, Houston.
1983 - Ricercatore presso l'Istituto di Farmacologia e Farmacognosia dell'Università degli Studi di Urbino.
1984-1985 (4 mesi) - Visiting Scientist nei Departments of Physics (1984, 4 mesi) e Experimental Radiotherapy dell'MD Anderson Hospital, Houston.
1992 - Professore Associato (BIO/14), presso la Facoltà di Farmacia dell'Università degli Studi di Urbino "Carlo Bo".
2000 - Professore Ordinario (BIO/14), presso la Facoltà di Farmacia dell'Università degli Studi di Urbino "Carlo Bo".
2009 - Preside della Facoltà di Farmacia dell'Università degli Studi di Urbino "Carlo Bo"
2010-2021 – Direttore del dipartimento di Scienze Biomolecolari dell'Università degli Studi di Urbino "Carlo Bo".
2016-2024 ricopre la carica di Prorettore alla Ricerca
2021: Presidente della Società Italiana di Tossicologia

Lavoro o posizione ricoperti

Il Prof. Cantoni ha ricevuto diversi premi, tra cui quelli dell' "Associazione Italiana per la Lotta contro i Tumori" (1985), della "Fondazione Assicurazioni Generali" (1986), "Menzione di merito" della Commissione giudicatrice della Società Italiana di Farmacologia del "Premio Benedicenti" (1988) e, nel 1990, il "Premio Benedicenti" della Società Italiana di Farmacologia.

Il Prof. Cantoni è stato membro del Consiglio Direttivo della Society for Free Radical Research – Europe. Attualmente è membro del direttivo della Società Italiana di Tossicologia.. E' stato reviewer per numerosi giornali scientifici, tra cui: Free Radical Research, Free Radical Biology and Medicine, Biochimica Biophysica Acta, Biochemical Pharmacology, Journal Biological Chemistry Hoppe-Seyler, Cell Death and Differentiation, Drugs, Expert Opinion on Investigational Drugs, Experimental Cell Research, Journal of Neurochemistry e The Proceedings of the National Academy of Science (USA). Attualmente membro dell' Editorial Board di Pharmacological Research.

Finanziamenti:

- Responsabile dell'Unità di Ricerca del progetto Ricerca Finalizzata – Ministero della salute 2018 (RF-2016-02363761). Titolo del progetto: "Precision medicine to study and prevent metabolic adverse effects induced by second generation antipsychotic drugs: pharmacogenetic profiling in patients and mechanistic analysis of the effect of genetic variants in vitro".
- Responsabile dell'Unità di Ricerca del progetto Programmi di Ricerca di Interesse Nazionale PRIN 2017 (2017FJSM9S_002). Titolo del progetto: "New pharmacological strategies modulating PGC1alpha signalling and mitochondrial biogenesis to restore skeletal and cardiac muscle functionality in Duchenne Muscular Dystrophy".
- Responsabile dell'Unità di Ricerca del progetto Programmi di Ricerca di Interesse Nazionale PRIN 2015 (2015MJBEM2_003). Titolo del progetto: "Exploring the role of mitochondrial dysfunction in skeletal muscle degenerative and inflammatory diseases: Drp1-related pathways as possible targets of novel therapeutic approaches".
- Coordinatore Scientifico del progetto Programmi di Ricerca di Interesse Nazionale PRIN 2010-2011 (20108YB5W3_001). Titolo del progetto: "Identificazione di nuove molecole terapeutiche per le malattie muscolari orfane su base infiammatoria".

- Number of scientific articles (international journals with peer review) in extenso: **221**
- H-index (Scopus – December 2025): **35**
- Total citations (Scopus – December 2025): **6523**
- Total impact factor of publications (Journal of Citation Reports 2025): **904.4**
- Mean impact factor ((Journal of Citation Reports 2025): **4.95**
- Journal rankings in the subject category of scientific articles (SCImago Journal & Country Rank 2025): Q1: **153** articles; Q2: **31** articles; Q3: **13** articles.

Principali attività e responsabilità

Attività scientifica: Il lavoro di ricerca di Orazio Cantoni è stato caratterizzato da numerose collaborazioni nazionali ed internazionali su tematiche riguardanti gli aspetti farmacologici e tossicologici dello stress ossidativo e nitrosativo. I seguenti rappresentano alcuni dei suoi contributi più significativi: i) identificazione del ruolo del Ca^{2+} mitocondriale nei processi che portano alla formazione di superossidi mitocondriali in seguito a stimolazione da parte diversi idroperossidi, incluso il perossinitrito. ii) caratterizzazione degli effetti a valle della formazione di superossido mitocondriale che portano a citotossicità e/o genotossicità. iii) identificazione dei meccanismi di segnalazione che prevengono la tossicità del perossinitrito in cellule appartenenti al lineage monocitico/macrofagico. iv) identificazione dei meccanismi di trasporto attivo dell'acido ascorbico nei mitocondri. v) identificazione dei meccanismi che determinano la formazione del superossidi mitocondriali e la conseguente citotossicità mediata dall'arsenico trivalente.

Nome e indirizzo del datore di lavoro

Università degli Studi di Urbino "Carlo Bo"
Via Saffi 2
61029 Urbino (PU)

Tipo di attività o settore

Professore Ordinario (BIOS-11/A - Farmacologia)

Istruzione e formazione

Date

Titolo della qualifica rilasciata

Principali tematiche/competenze professionali acquisite

Nome e tipo d'organizzazione erogatrice dell'istruzione e formazione

Livello nella classificazione nazionale o internazionale

Capacità e competenze personali

Madrelingua(e) Italiano

Altra(e) lingua(e) Inglese

Autovalutazione

Livello europeo (*)

Lingua

Lingua

Comprensione		Parlato		Scritto
Ascolto	Lettura	Interazione orale	Produzione orale	
C1	C1	C1	C1	C1

Capacità e competenze sociali

Capacità e competenze organizzative

Capacità e competenze tecniche

Capacità e competenze informatiche

Capacità e competenze artistiche

Altre capacità e competenze

Patente

Ulteriori informazioni

Allegati Elenco delle pubblicazioni

Firma Urbino, 9 dicembre 2025



Autorizzo il trattamento dei dati personali contenuti nel mio curriculum vitae in base all'art. 13 del D. Lgs 196/2003 e all'art. 13 GDPR 679/16. Inoltre si dichiara di non essere in conflitto d'interesse.

Pubblicazioni Prof. Orazio Cantoni

RETINI M, CHERUBINI A, MARRAZZA A, VARONE E, GERMANI S, RENNA GM, RECCHIA A, GUIDARELLI A, FUMAGALLI S, GRASSELLI C, MARI M, PIERSANTI G, BOTTEGONI G, TONELLI R, GOBBI M, JIN BR, CHO J, **CANTONI O**, ZITO E. Pyrazolone-based ERO1 inhibitors in ERO1-driven Triple-Negative Breast Cancer and SEP1-Related Myopathy: Structure-activity relationship and therapeutic potential. PHARMACOLOGICAL RESEARCH. 2025 NOV 19;108037. DOI: 10.1016/J.PHRS.2025.108037.

BUFFI G, FIORANI M, GUIDARELLI A, BAGHERLOU N, SPINA A, SCOCCHIA L, RENNA GM, ZITO E, **CANTONI O**. Myotube-specific vulnerability to clozapine. BIOMEDICINE AND PHARMACOTHERAPY 2025. Nov;192:118661. doi: 10.1016/j.biopha.2025.118661.

VARONE E, RETINI M, CHERUBINI A, CHERNORUDSKIY A, MARRAZZA A, GUIDARELLI A, CAGNOTTO A, BEEG M, GOBBI M, FUMAGALLI S, BOLIS M, GUARRERA L, BARBERA MC, GRASSELLI C, BLEVE A, GENERALI D, MILANI M, MARI M, SALMONA M, PIERSANTI G, BOTTEGONI G, BROGGINI M, JANSSEN-HEININGER YMW, CHO J, **CANTONI O**, ZITO E. Small molecule-mediated inhibition of the oxidoreductase ERO1A restrains aggressive breast cancer by impairing VEGF and PD-L1 in the tumor microenvironment. CELL DEATH AND DISEASE. 2025, 16(1), 105, doi: 10.1038/s41419-025-07426-1

SPINA, A., GUIDARELLI, A., BUFFI, G., FIORANI, M., **CANTONI, O**. Unveiling the link between NADPH oxidase 2 activation and mitochondrial superoxide formation in leukemic cell killing induced by arsenic trioxide. PHARMACOLOGICAL RESEARCH. 2025 Jan;211:107554. doi: 10.1016/j.phrs.2024.107554.

BLANDINO G, FIORANI M, CANONICO B, DE MATTEIS R, GUIDARELLI A, MONTANARI M, BUFFI G, COPPO L, ARNER ESJ, **CANTONI O**. Clozapine suppresses NADPH oxidase activation, counteracts cytosolic H₂O₂, and triggers early onset mitochondrial dysfunction during adipogenesis of human liposarcoma SW872 cells. REDOX BIOLOGY. 2023 Nov;67:102915. doi: 10.1016/j.redox.2023.102915.

GUIDARELLI A, SPINA A, BUFFI G, BLANDINO G, FIORANI M, **CANTONI O**. ERO1 α primes the ryanodine receptor to respond to arsenite with concentration dependent Ca²⁺ release sequentially triggering two different mechanisms of ROS formation. CHEMICAL BIOLOGICAL INTERACTIONS. 2023 Sep 25;383:110694. doi: 10.1016/j.cbi.2023.110694.

GUIDARELLI, A, SPINA, A, FIORANI, M, ZITO, E, **CANTONI, O** (2023). Arsenite enhances ERO1 α expression via ryanodine receptor dependent and independent mechanisms. ENVIRONMENTAL TOXICOLOGY AND PHARMACOLOGY. doi: 10.1016/j.etap.2023.104080.

GERMANI S, MARCHETTI AC, GUIDARELLI A, **CANTONI O**, SORRENTINO V, ZITO E. (2022). Loss-of-rescue of Ryr1I4895T-related pathology by the genetic inhibition of the ER stress response mediator CHOP. SCIENTIFIC REPORTS, vol.12(1):20632. doi: 10.1038/s41598-022-25198-y.

GUIDARELLI, A, SPINA, A, FIORANI, M, ZITO, E, **CANTONI, O** (2022). Inhibition of activity/expression, or genetic deletion, of ERO1 α blunts arsenite geno- and cyto-toxicity. FOOD AND CHEMICAL TOXICOLOGY, vol. 168:113360. doi: 10.1016/j.fct.2022.113360..

CANTONI, O, ZITO, E, GUIDARELLI, A, FIORANI, M, GHEZZI P (2022) Mitochondrial ROS, ER Stress, and Nrf2 Crosstalk in the Regulation of Mitochondrial Apoptosis Induced by Arsenite. ANTIOXIDANTS, vol. 23;11(5):1034. doi: 10.3390/antiox11051034.

SPINA, A, GUIDARELLI, A, FIORANI, M, VARONE, E, CATALANI, A, ZITO, E, **CANTONI, O** (2022). Crosstalk between ERO1 α and ryanodine receptor in arsenite-dependent mitochondrial ROS formation. BIOCHEMICAL PHARMACOLOGY, vol. 198:114973. doi: 10.1016/j.bcp.2022.114973.

GUIDARELLI, A, CATALANI, A, SPINA, A, VARONE, E, FUMAGALLI, S, ZITO, E, FIORANI, M, **CANTONI, O** (2021). Functional organization of the endoplasmic reticulum dictates the susceptibility of target cells to arsenite-induced mitochondrial superoxide formation, mitochondrial dysfunction and apoptosis. FOOD AND CHEMICAL TOXICOLOGY, vol. 156, ISSN: 0278-6915, doi: 10.1016/j.fct.2021.112523

FIORANI, M, DE MATTEIS, R, CANONICO, B, BLANDINO, G, MAZZOLI, A, MONTANARI, M, GUIDARELLI, A, **CANTONI, O** (2021). Temporal correlation of morphological and biochemical changes with the recruitment of different mechanisms of reactive oxygen species formation during human SW872 cell adipogenic differentiation. BIOFACTORS, ISSN: 0951-6433, doi: 10.1002/biof.1769

CANTONI, O, ZITO, E, FIORANI, M, GUIDARELLI, A (2021). Arsenite impinges on endoplasmic reticulum-mitochondria crosstalk to elicit mitochondrial ROS formation and downstream toxicity. SEMINARS IN CANCER BIOLOGY, ISSN: 1044-579X, doi: 10.1016/j.semcancer.2021.06.002

POZZER, D, INVERNIZZI, RW, BLAAUW, B, **CANTONI, O**, ZITO, E (2020) Ascorbic Acid Route to the Endoplasmic Reticulum: Function and Role in Disease. ANTIOXIDANTS & REDOX SIGNALING, doi: 10.1089/ars.2019.7912.

FIORANI, M, SCOTTI, M, GUIDARELLI, A, BURATTINI, S, FALCIERI, E, **CANTONI, O** (2020). SVCT2-DEPENDENT PLASMA AND MITOCHONDRIAL MEMBRANE TRANSPORT OF ASCORBIC ACID IN DIFFERENTIATING MYOBLASTS. PHARMACOLOGICAL RESEARCH, ISSN: 1043-6618, doi: 10.1016/j.phrs.2020.105042

- FIORANI, M, GUIDARELLI, A, **CANTONI, O** (2020). Mitochondrial reactive oxygen species: the effects of mitochondrial ascorbic acid vs untargeted and mitochondria-targeted antioxidants. *INTERNATIONAL JOURNAL OF RADIATION BIOLOGY*, p. 1-8-8, ISSN: 0955-3002, doi: 10.1080/09553002.2020.1721604
- GUIDARELLI, A, CERIONI, L, FIORANI, M, CATALANI, A, **CANTONI, O** (2020). Arsenite-induced mitochondrial superoxide formation: time and concentration requirements for the effects of the metalloid on the endoplasmic reticulum and mitochondria. *JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS*, ISSN: 0022-3565, doi: 10.1124/jpet.119.262469
- GUIDARELLI, A, FIORANI, M, CERIONI, L, **CANTONI, O** (2019). The compartmentalised nature of the mechanisms governing superoxide formation and scavenging in cells exposed to arsenite. *TOXICOLOGY AND APPLIED PHARMACOLOGY*, vol. 384, ISSN: 0041-008X, doi: 10.1016/j.taap.2019.114766
- CERIONI, L, GUIDARELLI, A, FIORANI, M, **CANTONI, O** (2019). Prostaglandin E₂ Signals Through E Prostanoid Receptor 2 to Inhibit Mitochondrial Superoxide Formation and the Ensuing Downstream Cytotoxic and Genotoxic Effects Induced by Arsenite. *FRONTIERS IN PHARMACOLOGY* 12 July 2019 | <https://doi.org/10.3389/fphar.2019.00781>
- GUIDARELLI, A, FIORANI, M, CERIONI, L, **CANTONI, O** (2019). Calcium signals between the ryanodine receptor- and mitochondria critically regulate the effects of arsenite on mitochondrial superoxide formation and on the ensuing survival vs apoptotic signaling. *REDOX BIOLOGY*, vol. 20, p. 285-295-295, ISSN: 2213-2317, doi: 10.1016/j.redox.2018.10.015
- GUIDARELLI, A, FIORANI, M, **CANTONI, O** (2018). Low Concentrations of Arsenite Target the Intraluminal Inositol 1, 4, 5-Trisphosphate Receptor/Ryanodine Receptor Crosstalk to Significantly Elevate Intracellular Ca²⁺. *JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS*, vol. 367 p.184-193. ISSN: 0022-3565, doi: 10.1124/jpet.118.250480
- SCOTTI, M, FIORANI, M, GUIDARELLI, A, **CANTONI, O** (2018). Differentiation of Promonocytic U937 Cells to Monocytes Is Associated with Reduced Mitochondrial Transport of Ascorbic Acid. *OXIDATIVE MEDICINE AND CELLULAR LONGEVITY*, vol. 2018, p. 1-12, ISSN: 1942-0900, doi: 10.1155/2018/4194502
- CANTONI, O**, GUIDARELLI, A, FIORANI, M (2018). Mitochondrial Uptake and Accumulation of Vitamin C: What Can We Learn From Cell Cultures Studies?. *ANTIOXIDANTS & REDOX SIGNALING*, vol. 29 p.1502-1515. ISSN: 1523-0864, doi: 10.1089/ars.2017.7253
- FIORANI, M, GUIDARELLI A, CAPELLACCI, V, CERIONI, L, CRINELLI, R, **CANTONI, O** (2018). The dual role of mitochondrial superoxide in arsenite toxicity: Signaling at the boundary between apoptotic commitment and cytoprotection. *TOXICOLOGY AND APPLIED PHARMACOLOGY*, vol. 345, p. 26-35, ISSN: 0041-008X, doi: 10.1016/j.taap.2018.03.008
- GUIDARELLI, A, CERIONI, L, FIORANI, M, **CANTONI, O** (2017). Intramitochondrial Ascorbic Acid Enhances the Formation of Mitochondrial Superoxide Induced by Peroxynitrite via a Ca(2+)-Independent Mechanism. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*, vol. 18, p. E1686. ISSN: 1422-0067, doi: 10.3390/ijms18081686
- GUIDARELLI, A, FIORANI, M, CERIONI, L, SCOTTI, M, **CANTONI, O** (2017). Arsenite induces DNA damage via mitochondrial ROS and induction of mitochondrial permeability transition. *BIOFACTORS*, vol. 43, p. 673-684, ISSN: 0951-6433, doi: 10.1002/biof.1375
- PERSICHINI TIZIANA, MARIOTTO SOFIA, SUSUKI HISANORI, BUTTIRINI ELENA, MASTRANTONIO ROBERTA, **CANTONI ORAZIO**, COLASANTI MARCO (2016). Cross-Talk Between NO Synthase Isoforms in Neuro-Inflammation: Possible Implications in HIV-Associated Neurocognitive Disorders. *CURRENT MEDICINAL CHEMISTRY*, vol. 23, p. 2706-2714.
- GUIDARELLI A, CARLONI S, FIORANI M, A, BALDUINI W, **CANTONI O** (2016). Mitochondrial ascorbic acid prevents mitochondrial O₂⁻ formation, an event critical for U937 cell apoptosis induced by arsenite through both autophagic-dependent and independent mechanisms. *BIOFACTORS*, vol. 42, p. 190-200.
- GUIDARELLI ANDREA, FIORANI MARA, CARLONI SILVIA, CERIONI LIANA, BALDUINI WALTER, **CANTONI ORAZIO** (2016). The study of the mechanism of arsenite toxicity in respiration-deficient cells reveals that NADPH oxidase-derived superoxide promotes the same downstream events mediated by mitochondrial superoxide in respiration-proficient cells. *TOXICOLOGY AND APPLIED PHARMACOLOGY*, vol. 307, p. 35-44.
- FIORANI M, AZZOLINI C, GUIDARELLI A, CERIONI L, SCOTTI M, **CANTONI O** (2015). Intracellular dehydroascorbic acid inhibits SVCT2-dependent transport of ascorbic acid in mitochondria. *PHARMACOLOGICAL RESEARCH*, ISSN: 1043-6618.
- FIORANI M, AZZOLINI C, CERIONI L, SCOTTI M, GUIDARELLI A, CIACCI C, **CANTONI O** (2015). The mitochondrial transporter of ascorbic acid functions with high affinity in the presence of low millimolar concentrations of sodium and in the absence of calcium and magnesium. *BIOCHIMICA ET BIOPHYSICA ACTA-BIOMEMBRANES*, vol. 99, p. 289-295, ISSN: 0005-2736.
- GUIDARELLI A, FIORANI M, AZZOLINI C, CERIONI L, SCOTTI M, **CANTONI O** (2015). U937 cell apoptosis induced by arsenite is prevented by low concentrations of mitochondrial ascorbic acid with hardly any effect mediated by the cytosolic fraction of the vitamin. *BIOFACTORS*, vol. 41, p. 101-110, ISSN: 0951-6433

TIZIANA PERSICHINI, ROBERTA MASTRANTONIO, SILVIA DEL MATTO, LETIZIA PALOMBA, **ORAZIO CANTONI**, MARCO COLASANTI (2014). The role of arachidonic acid in the regulation of nitric oxide synthase isoforms by HIV gp120 protein in astroglial cells. *FREE RADICAL BIOLOGY & MEDICINE*, vol. 74, p. 14-20, ISSN: 0891-5849.

FIORANI M, AZZOLINI C, GUIDARELLI A, CERIONI L, **CANTONI O** (2014). A novel biological role of dehydroascorbic acid: Inhibition of Na⁺-dependent transport of ascorbic acid. *PHARMACOLOGICAL RESEARCH*, vol. 84, p. 12-17, ISSN: 1043-6618.

GUIDARELLI A, CERIONI L, FIORANI M, AZZOLINI C, **CANTONI O** (2014). Mitochondrial ascorbic acid is responsible for enhanced susceptibility of U937 cells to the toxic effects of peroxynitrite. *BIOFACTORS*, vol. 40, p. 236-246, ISSN: 0951-6433.

AZZOLINI C, FIORANI M, CERIONI L, GUIDARELLI A, **CANTONI O**. (2013). Sodium-dependent transport of ascorbic acid in U937 cell mitochondria. *IUBMB Life*, vol 65, p. 149-153, ISSN: 15216543.

FIORANI M, AZZOLINI C, CERIONI L, GUIDARELLI A, **CANTONI O**. (2013). Superoxide dictates the mode of U937 cell ascorbic acid uptake and prevents the enhancing effects of the vitamin to otherwise non-toxic levels of reactive oxygen/nitrogen species. *JOURNAL OF NUTRITIONAL BIOCHEMISTRY*, vol. 24, p. 467-474, ISSN: 0955-2863

CERIONI L, FIORANI M, AZZOLINI C, **CANTONI O**. (2012). A moderate decline in U937 cell GSH levels triggers PI3 kinase/Akt-dependent Bad phosphorylation, thereby preventing an otherwise prompt apoptotic response. *PHARMACOLOGICAL RESEARCH*, vol. 65, p. 379-386, ISSN: 1043-6618

AZZOLINI C, FIORANI M, GUIDARELLI A, **CANTONI O**. (2012). Studies with low micromolar levels of ascorbic and dehydroascorbic acid fail to unravel a preferential route for vitamin C uptake and accumulation in U937 cells. *BRITISH JOURNAL OF NUTRITION*, vol. 107, p. 691-696, ISSN: 0007-1145

CRIMELLA C, **CANTONI O**, GUIDARELLI A, VANTAGGIATO C, MARTINUZZI A, FIORANI M, AZZOLINI C, ORSO G, BRESOLIN N, BASSI MT. (2011). A novel nonsense mutation in the APTX gene associated with delayed DNA single-strand break removal fails to enhance sensitivity to different genotoxic agents. *HUMAN MUTATION*, vol. 32, p. E2118-2133, ISSN: 1098-1004

AIROLDI G, GUIDARELLI A, **CANTONI O.**, PANZERI C, VANTAGGIATO C, BONATO S, GRAZIA D'ANGELO M, FALCONE S, DE PALMA C, TONELLI A, CRIMELLA C, BONDIONI S, BRESOLIN N, CLEMENTI E, BASSI MT (2010). Characterization of two novel SETX mutations in AOA2 patients reveals aspects of the pathophysiological role of senataxin. *NEUROGENETICS*, vol. 11; p. 91-100, ISSN: 1364-6745

CERIONI L, **CANTONI O**. (2010). Assessing bad sub-cellular localization under conditions associated with prevention or promotion of mitochondrial permeability transition-dependent toxicity. *METHODS IN MOLECULAR BIOLOGY*, vol. 648; p. 291-301, ISSN: 1064-3745

FIORANI M, GUIDARELLI A, BLASA M, AZZOLINI C, CANDIRACCI M, PIATTI E, **CANTONI O**. (2010). Mitochondria accumulate large amounts of quercetin: prevention of mitochondrial damage and release upon oxidation of the extramitochondrial fraction of the flavonoid. *JOURNAL OF NUTRITIONAL BIOCHEMISTRY*, vol. 21; p. 397-404, ISSN: 0955-2863

GUIDARELLI A, FIORANI M, AZZOLINI C, **CANTONI O**. (2010). A Novel Mechanism, Uniquely Dependent on Mitochondrial Calcium Accumulation, Whereby Peroxynitrite Promotes Formation of Superoxide/Hydrogen Peroxide and the Ensuing Strand Scission of Genomic DNA. *ANTIOXIDANTS & REDOX SIGNALING*, ISSN: 1523-0864

PALOMBA L, CERIONI L, **CANTONI O**. (2010). Arachidonic acid inhibits neuronal nitric oxide synthase elicited by proinflammatory stimuli and promotes astrocyte survival with both exogenous and endogenous peroxynitrite via different mechanisms. *JOURNAL OF NEUROSCIENCE RESEARCH*, vol. 88; p. 2459-2468, ISSN: 0360-4012

GUIDARELLI A, CERIONI L, FIORANI M, **CANTONI O**. (2009). Differentiation-associated loss of ryanodine receptors: a strategy adopted by monocytes/macrophages to prevent the DNA single-strand breakage induced by peroxynitrite. *JOURNAL OF IMMUNOLOGY*, vol. 183; p. 4449-4457, ISSN: 0022-1767

PALOMBA L, CERIONI L, **CANTONI O**. (2009). Arachidonic acid: A key molecule for astrocyte survival to peroxynitrite. *GLIA*, vol. 57; p. 1672-1679, ISSN: 0894-1491

CANTONI O., GUIDARELLI A (2008). Peroxynitrite damages U937 cell DNA via the intermediate formation of mitochondrial oxidants. *IUBMB LIFE*, vol. 60; p. 753-756, ISSN: 1521-6543

CANTONI O., GUIDARELLI A (2008). Indirect Mechanisms of DNA Strand Scission by Peroxynitrite. *METHODS IN ENZYMOLOGY*, vol. 440; p. 111-120, ISSN: 0076-6879

CANTONI O., PALOMBA L, PERSICHINI T, MARIOTTO S, SUZUKI H, COLASANTI M (2008). Pivotal Role of Arachidonic Acid in the Regulation of Neuronal Nitric Oxide Synthase Activity and Inducible Nitric Oxide Synthase Expression in Activated Astrocytes. *METHODS IN ENZYMOLOGY*, vol. 440; p. 243-252, ISSN: 0076-6879

- CANTONI O.**, TOMMASINI I, CERIONI L (2008). The arachidonate-dependent survival signaling preventing toxicity in monocytes/macrophages exposed to peroxynitrite. *METHODS IN ENZYMOLOGY*, vol. 441; p. 73-82, ISSN: 0076-6879
- CERIONI L, **CANTONI O.** (2008). Mitochondrial H₂O₂ limits U937 cell survival to peroxynitrite by promoting ERK1/2 dephosphorylation. *BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR CELL RESEARCH*, vol. 1783; p. 492-502, ISSN: 0167-4889
- GUIDARELLI A, PALOMBA L, FIORANI M, **CANTONI O.** (2008). Susceptibility of rat astrocytes to DNA strand scission induced by activation of NADPH oxidase and collateral resistance to the effects of peroxynitrite. *FREE RADICAL BIOLOGY & MEDICINE*, vol. 45; p. 521-529, ISSN: 0891-5849
- TOMMASINI I, CERIONI L, PALOMBA L, **CANTONI O.** (2008). Prostaglandin E₂ signals monocyte/macrophage survival to peroxynitrite via protein kinase A converging in bad phosphorylation with the protein kinase C alpha-dependent pathway driven by 5-hydroxyeicosatetraenoic acid. *JOURNAL OF IMMUNOLOGY*, vol. 181; p. 5637-5645, ISSN: 0022-1767
- CERIONI L, **CANTONI O.** (2007). ERK1/2 regulates two sequential steps promoting monocyte survival to peroxynitrite. *JOURNAL OF CELLULAR PHYSIOLOGY*, vol. 210; p. 177-182, ISSN: 0021-9541
- GUIDARELLI A, CERIONI L, **CANTONI O.** (2007). Inhibition of complex III promotes loss of Ca²⁺ dependence for mitochondrial superoxide formation and permeability transition evoked by peroxynitrite. *JOURNAL OF CELL SCIENCE*, vol. 120; p. 1908-1914, ISSN: 0021-9533
- MARIOTTO S, SUZUKI Y, PERSICHINI T, COLASANTI M, SUZUKI H, **CANTONI O.** (2007). Cross-talk between NO and arachidonic acid in inflammation. *CURRENT MEDICINAL CHEMISTRY*, vol. 14; p. 1940-1944, ISSN: 0929-8673
- PALOMBA L, AMADORI A, **CANTONI O.** (2007). Early release of arachidonic acid prevents an otherwise immediate formation of toxic levels of peroxynitrite in astrocytes stimulated with lipopolysaccharide/interferon-gamma. *JOURNAL OF NEUROCHEMISTRY*, vol. 103; p. 904-914, ISSN: 0022-3042
- CERIONI L, PALOMBA L, BRUNE B, **CANTONI O.** (2006). Peroxynitrite-induced mitochondrial translocation of PKC α causes U937 cell survival. *BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS*, vol. 339; p. 126-131, ISSN: 0006-291X
- GUIDARELLI A, FIORANI M, TOMMASINI I, **CANTONI O.** (2006). Reduced mitochondrial formation of H₂O₂ is responsible for resistance of dimethyl sulfoxide differentiated U937 cells to peroxynitrite. *THE INTERNATIONAL JOURNAL OF BIOCHEMISTRY & CELL BIOLOGY*, vol. 38; p. 56-68, ISSN: 1357-2725
- GUIDARELLI A, SCIORATI C, CLEMENTI E, **CANTONI O.** (2006). Peroxynitrite mobilizes calcium ions from ryanodine-sensitive stores, a process associated with the mitochondrial accumulation of the cation and the enforced formation of species mediating cleavage of genomic DNA. *FREE RADICAL BIOLOGY & MEDICINE*, vol. 41; p. 154-164, ISSN: 0891-5849
- PERSICHINI T, **CANTONI O.**, SUZUKI H, COLASANTI M (2006). Cross-talk between constitutive and inducible NO synthase: an update. *ANTIOXIDANTS & REDOX SIGNALING*, vol. 8; p. 949-954, ISSN: 1523-086
- TOMMASINI I, GUIDARELLI A, PALOMBA L, CERIONI L, **CANTONI O.** (2006). 5-Hydroxyeicosatetraenoic acid is a key intermediate of the arachidonate-dependent protective signaling in monocytes/macrophages exposed to peroxynitrite. *JOURNAL OF LEUKOCYTE BIOLOGY*, vol. 80; p. 929-938, ISSN: 0741-5400
- VALERIO A, CARDILE A, COZZI V, BRACALE R, TEDESCO L, PISCONTI A, PALOMBA L, **CANTONI O.**, CLEMENTI E, MONCADA S, CARRUBA MO, NISOLI E (2006). TNF-alpha downregulates eNOS expression and mitochondrial biogenesis in fat and muscle of obese rodents. *JOURNAL OF CLINICAL INVESTIGATION*, vol. 116; p. 2791-2798, ISSN: 0021-9738
- CANTONI O.**, GUIDARELLI A, PALOMBA L, FIORANI M. (2005). U937 cell necrosis mediated by peroxynitrite is not caused by depletion of ATP and is prevented by arachidonate via an ATP-dependent mechanism. *MOLECULAR PHARMACOLOGY*, vol. 67; p. 1399-1405, ISSN: 0026-895X
- CANTONI O.**, TOMMASINI I, CERIONI L, PALOMBA L, CARLONI E, GUIDARELLI A (2005). Survival pathways triggered by peroxynitrite in cells belonging to the monocyte/macrophage lineage. *COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY. PART A, MOLECULAR & INTEGRATIVE PHYSIOLOGY*, vol. 142; p. 118-123, ISSN: 1095-6433
- GUIDARELLI A, CERIONI L, TOMMASINI I, BRUNE B, **CANTONI O.** (2005). A downstream role for protein kinase C alpha in the cytosolic phospholipase A₂-dependent protective signalling mediated by peroxynitrite in U937 cells. *BIOCHEMICAL PHARMACOLOGY*, vol. 69; p. 1275-1286, ISSN: 0006-2952
- GUIDARELLI A, CERIONI L, TOMMASINI I, FIORANI M, BRUNE B, **CANTONI O.** (2005). Role of Bcl-2 in the arachidonate-mediated survival signaling preventing mitochondrial permeability transition-dependent U937 cell necrosis induced by peroxynitrite. *FREE RADICAL BIOLOGY & MEDICINE*, vol. 39; p. 1638-1649, ISSN: 0891-5849

NISOLI E, TONELLO C, CARDILE A, COZZI V, BRACALE R, TEDESCO L, FALCONE S, VALERIO A, **CANTONI O.**, CLEMENTI E, MONCADA S, CARRUBA MO. (2005). Calorie restriction promotes mitochondrial biogenesis by inducing the expression of eNOS. *SCIENCE*, vol. 310; p. 314-317, ISSN: 0036-8075

TOMMASINI I, CERIONI L, GUIDARELLI A, **CANTONI O.** (2005). ERK1/2-dependent regulation of U937 cell survival after exposure to peroxynitrite. *BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS*, vol. 329; p. 1282-1287, ISSN: 0006-291X

GUIDARELLI A, FIORANI M, **CANTONI O.** (2004). The enhancing effects of intracellular ascorbic acid on peroxynitrite-induced U937 cell death are mediated by mitochondrial events resulting in enhanced sensitivity to peroxynitrite-dependent inhibition of complex iii and formation of hydrogen peroxide. *BIOCHEMICAL JOURNAL*, vol. 378; p. 959-966, ISSN: 0264-6021

NISOLI E, FALCONE S, TONELLO C, COZZI V, PALOMBA L, FIORANI M, PISCONTI A, BRUNELLI S, CARDILE A, FRANCOLINE M, **CANTONI O.**, CARRUBA MO, MONCADA S, CLEMENTI E. (2004). Mitochondrial biogenesis by NO yields functionally active mitochondria in mammals. *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*, vol. 101; p. 16507-16512, ISSN: 0027-8424

PALOMBA L, BIANCHI M, PERSICHINI T, MAGNANI M, COLASANTI M, **CANTONI O.** (2004). Downregulation of nitric oxide formation by cytosolic phospholipase A2-released arachidonic acid. *FREE RADICAL BIOLOGY & MEDICINE*, vol. 36; p. 319-329, ISSN: 0891-5849

PALOMBA L, PERSICHINI T, MAZZONE V, COLASANTI M, **CANTONI O.** (2004). Inhibition of nitric-oxide synthase-i (NO-i)-dependent nitric oxide production by lipopolysaccharide plus interferon-gamma is mediated by arachidonic acid. Effects on NFK-b activation and late inducible nos expression. *THE JOURNAL OF BIOLOGICAL CHEMISTRY*, vol. 279; p. 29895-29901, ISSN: 0021-9258

TOMMASINI I., **CANTONI O.** (2004). Dexamethasone Promotes Toxicity in U937 Cells Exposed to Otherwise Non-toxic Concentrations of Peroxynitrite: Pivotal Role for Lipocortin 1 Mediated Inhibition of Cytosolic Phospholipase A2. *MOLECULAR PHARMACOLOGY*, vol. 65; p. 964-972, ISSN: 0026-895X

TOMMASINI I., GUIDARELLI A., **CANTONI O.** (2004). Arachidonate-dependend cytoproctective signaling evoked by peroxynitrite is a general response of the monocyte/macrophage lineage. *BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS*, vol. 316; p. 1191-1195, ISSN: 0006-291X

TOMMASINI I., SESTILI P., GUIDARELLI A., **CANTONI O.** (2004). Hydrogen peroxide generated at the level of mitochondria in response to peroxynitrite promotes U937 cell death via inhibition of the cytoprotective signalling mediated by cytosolic phospholipase A2. *CELL DEATH AND DIFFERENTIATION*, vol. 11; p. 974-984, ISSN: 1350-9047

TOMMASINI I, GUIDARELLI A, **CANTONI O.** (2004). Non-toxic concentrations of peroxynitrite commit U937 cells to mitochondrial permeability transition-dependent necrosis that is however prevented by endogenous arachidonic acid. *BIOCHEMICAL PHARMACOLOGY*, vol. 67; p. 1077-1087, ISSN: 0006-2952

CERIONI L, PALOMBA L, **CANTONI O.** (2003). The Raf/Mek inhibitor PD98059 enhances ERK1/2 phosphorylation mediated by peroxynitrite via enforced mitochondrial formation of reactive oxygen species. *FEBS LETTERS*, vol. 547; p. 92-96, ISSN: 0014-5793

FIORANI M, ACCORSI A, **CANTONI O.** (2003). Human red blood cells as a natural flavonoid reservoir. *FREE RADICAL RESEARCH*, vol. 37; p. 1331-1338, ISSN: 1071-5762

BARSACCHI R., PERROTTA C., SESTILI P., **CANTONI O.**, MONCADA S, CLEMENTI E. (2002). Cyclic GMP-dependent inhibition of acid sphingomyelinase by nitric oxide: an early step in protection against apoptosis. *CELL DEATH AND DIFFERENTIATION*, vol. 9; p. 1248-1255, ISSN: 1350-9047

CANTONI O., PALOMBA L., GUIDARELLI A., TOMMASINI I., CERIONI L., SESTILI P. (2002). Cell signaling and cytotoxicity by peroxynitrite. *ENVIRONMENTAL HEALTH PERSPECTIVES*, vol. 110; p. 823-825, ISSN: 0091-6765

GUIDARELLI A., **CANTONI O.** (2002). Pivotal role of superoxides generated in the mitochondrial respiratory chain in peroxynitrite-dependent activation of phospholipase A2. *BIOCHEMICAL JOURNAL*, vol. 366; p. 307-314, ISSN: 0264-6021

SESTILI P., DIAMANTINI G., BEDINI A., CERIONI L., TOMMASINI I., TARZIA G., **CANTONI O.** (2002). Plant-derived phenolic compounds prevent the DNA single-strand breakage and cytotoxicity induced by tert-butylhydroperoxide via an iron-chelating mechanism. *BIOCHEMICAL JOURNAL*, vol. 364; p. 121-128, ISSN: 0264-6021

TOMMASINI I., SESTILI P., **CANTONI O.** (2002). Delayed formation of hydrogen peroxide mediates the lethal response evoked by peroxynitrite in U937 cells. *MOLECULAR PHARMACOLOGY*, vol. 61(4); p. 870-878, ISSN: 0026-895X

- TOMMASINI I., SESTILI P., GUIDARELLI A., **CANTONI O.** (2002). Peroxynitrite stimulates the activity of cytosolic phospholipase A2 in U937 cells: the extent of arachidonic acid formation regulates the balance between cell survival or death. *CELL DEATH AND DIFFERENTIATION*, vol. 9; p. 1368-1376, ISSN: 1350-9047
- VENTURINI G., COLASANTI M., PERSICHINI T., FIORAVANTI E., ASCENZI P., PALOMBA L., **CANTONI O.**, MUSCI G. (2002). Beta-amyloid inhibits NOS activity by subtracting NADPH availability. *FASEB JOURNAL*, vol. 16; p. 1970-1972, ISSN: 0892-6638
- GUIDARELLI A., CLEMENTI E., DE NADAI C., BARSACCHI R., **CANTONI O.** (2001). TNF α enhances the DNA single-strand breakage induced by the short-chain lipid hydroperoxide analogue tert-butylhydroperoxide via ceramide-dependent inhibition of complex III followed by enforced superoxide and hydrogen peroxide formation. *EXPERIMENTAL CELL RESEARCH*, vol. 270; p. 56-65, ISSN: 0014-4827
- GUIDARELLI A., DE SANCTIS R., CELLINI B., FIORANI M., DACHÀ M., **CANTONI O.** (2001). Intracellular ascorbic acid enhances the DNA single-strand breakage and toxicity induced by peroxynitrite in U937 cells. *BIOCHEMICAL JOURNAL*, vol. 356; p. 509-513, ISSN: 0264-6021
- PALOMBA L., GUIDARELLI A., SCOVASSI A. I., **CANTONI O.** (2001). Different effects of tert-butylhydroperoxide-induced peroxynitrite-dependent and -independent DNA single-strand breakage on PC12 cell poly(ADP-ribose) polymerase activity. *EUROPEAN JOURNAL OF BIOCHEMISTRY*, vol. 268; p. 5223-5228, ISSN: 0014-2956
- PALOMBA L., SESTILI P., **CANTONI O.** (2001). tert-Butylhydroperoxide induces peroxynitrite-dependent mitochondrial permeability transition leading PC12 cells to necrosis. *JOURNAL OF NEUROSCIENCE RESEARCH*, vol. 65; p. 387-395, ISSN: 0360-4012
- SESTILI P., TOMMASINI I., **CANTONI O.** (2001). Peroxynitrite promotes mitochondrial permeability transition-dependent rapid U937 cell necrosis: survivors proliferate with kinetics superimposable on those of untreated cells. *FREE RADICAL RESEARCH*, vol. 34; p. 513-527, ISSN: 1071-5762
- BRUNE B., **CANTONI O.** (2000). Nitric oxide-mediated redox reactions in pathology, biochemistry and medicine. *CELL DEATH AND DIFFERENTIATION*, vol. 7; p. 1018-1020, ISSN: 1350-9047
- DE NADAI C., SESTILI P., **CANTONI O.**, LIÈVREMONT J.-P., SCIORATI C., BARSACCHI R., MONCADA S., MELDOLES J., CLEMENTI E. (2000). Nitric oxide inhibits tumor necrosis factor- α -induced apoptosis by reducing the generation of ceramide. *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*, vol. 97 (10); p. 5480-5485, ISSN: 0027-8424
- GUIDARELLI A., FIORANI M., **CANTONI O.** (2000). Calcium-dependent mitochondrial formation of species promoting strand scission of genomic DNA in U937 cells exposed to tert-butylhydroperoxide: the role of arachidonate. *FREE RADICAL RESEARCH*, vol. 33; p. 477-487, ISSN: 1071-5762
- GUIDARELLI A., PALOMBA L., **CANTONI O.** (2000). Peroxynitrite-mediated release of arachidonic acid from PC12 cells. *BRITISH JOURNAL OF PHARMACOLOGY*, vol. 129; p. 1539-1541, ISSN: 0007-1188
- GUIDARELLI A., SESTILI P., FIORANI M., **CANTONI O.** (2000). Arachidonic acid induces calcium-dependent mitochondrial formation of species promoting strand scission of genomic DNA. *FREE RADICAL BIOLOGY & MEDICINE*, vol. 28 (11); p. 1619-1627, ISSN: 0891-5849
- GUIDARELLI A., TOMMASINI I., FIORANI M., **CANTONI O.** (2000). Essential role of the mitochondrial respiratory chain in peroxynitrite-induced strand scission of genomic DNA. *IUBMB LIFE*, vol. 50; p. 195-201, ISSN: 1521-6543
- PALOMBA L., SESTILI P., GUIDARELLI A., SCIORATI C., CLEMENTI E., FIORANI M., **CANTONI O.** (2000). Products of the phospholipase A2 pathway mediate the dihydrorhodamine fluorescence response evoked by endogenous and exogenous peroxynitrite in PC12 cells. *FREE RADICAL BIOLOGY & MEDICINE*, vol. 29; p. 783-789, ISSN: 0891-5849
- SESTILI P., CLEMENTI E., GUIDARELLI A., SCIORATI C., **CANTONI O.** (2000). Endogenous and exogenous nitric oxide enhance the DNA strand scission induced by tert-butylhydroperoxide in PC12 cells via peroxynitrite-dependent and independent mechanisms, respectively. *EUROPEAN JOURNAL OF NEUROSCIENCE*, vol. 12; p. 145-154, ISSN: 0953-816X
- GUIDARELLI A., CLEMENTI E., BRAMBILLA L., **CANTONI O.** (1999). NADH-linked substrate-mediated enhancement of mitochondrial calcium accumulation and DNA single-strand breakage elicited by tert-butylhydroperoxide: the source of the cation is a ryanodine-sensitive calcium store. *EXPERIMENTAL CELL RESEARCH*, vol. 249; p. 65-69, ISSN: 0014-4827
- GUIDARELLI A., CLEMENTI E., SCIORATI C., **CANTONI O.** (1999). Different signalling pathways mediate the opposite effects of endogenous versus exogenous nitric oxide on hydroperoxide toxicity in CHP100 neuroblastoma cells. *JOURNAL OF NEUROCHEMISTRY*, vol. 73; p. 1667-1673, ISSN: 0022-3042
- PALOMBA L., SESTILI P., **CANTONI O.** (1999). The antioxidant butylated hydroxytoluene induces apoptosis in human U937 cells: the role of hydrogen peroxide and altered redox state. *FREE RADICAL RESEARCH*, vol. 31; p. 93-101, ISSN: 1071-5762

- PALOMBA L., SESTILI P., COLUMBARO M., FALCIERI E., **CANTONI O.** (1999). Apoptosis and necrosis following exposure of U937 cells to increasing concentrations of hydrogen peroxide: the effect of the poly(ADP-ribose)polymerase inhibitor 3-aminobenzamide. *BIOCHEMICAL PHARMACOLOGY*, vol. 58; p. 1743-1750, ISSN: 0006-2952
- SESTILI P., BRAMBILLA L., **CANTONI O.** (1999). Rotenone and pyruvate prevent the tert-butylhydroperoxide-induced necrosis of U937 cells and allow them to proliferate. *FEBS LETTERS*, vol. 457; p. 139-143, ISSN: 0014-5793
- SESTILI P., **CANTONI O.** (1999). Osmotically driven radial diffusion of single-stranded DNA fragments on an agarose bed as a convenient measure of DNA strand scission. *FREE RADICAL BIOLOGY & MEDICINE*, vol. 26; p. 1019-1026, ISSN: 0891-5849
- BRAMBILLA L., **CANTONI O.** (1998). Mitochondrial formation of hydrogen peroxide is causally linked to the antimycin A-mediated prevention of tert-butylhydroperoxide-induced U937 cell death. *FEBS LETTERS*, vol. 431; p. 245-249, ISSN: 0014-5793
- BRAMBILLA L., SESTILI P., GUIDARELLI A., PALOMBA L., **CANTONI O.** (1998). Electron transport-mediated wasteful consumption of NADH promotes the lethal response of U937 cells to tert-butylhydroperoxide. *JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS*, vol. 284; p. 1112-1121, ISSN: 0022-3565
- CLEMENTI E., GUIDARELLI A., **CANTONI O.** (1998). The inositol 1,4,5-trisphosphate-generating agonist ATP enhances DNA cleavage induced by tert-butylhydroperoxide. *EXPERIMENTAL CELL RESEARCH*, vol. 239; p. 175-178, ISSN: 0014-4827
- GALEY J. B., DESTREE O., DUMATS J., PICHAUD P., MARCHE J., GENARD S., BRACCIOLLI G., LE CAPITAIN L., PLESSIX H., BRAMBILLA L., **CANTONI O.** (1998). Protection of U937 cells against oxidative injury by a novel series of iron chelators. *FREE RADICAL BIOLOGY & MEDICINE*, vol. 25; p. 881-890, ISSN: 0891-5849
- 71 1998
- GUIDARELLI A., SESTILI P., **CANTONI O.** (1998). Opposite effects of nitric oxide donors on DNA single strand breakage and cytotoxicity caused by tert-butylhydroperoxide. *BRITISH JOURNAL OF PHARMACOLOGY*, vol. 123; p. 1311-1316, ISSN: 0007-1188
- GUIDARELLI A., CLEMENTI E., SCIORATI C., **CANTONI O.** (1998). The mechanism of the nitric oxide-mediated enhancement of tert-butylhydroperoxide-induced DNA single strand breakage. *BRITISH JOURNAL OF PHARMACOLOGY*, vol. 125; p. 1074-1080, ISSN: 0007-1188
- RICCIARELLI R., PALOMBA L., **CANTONI O.**, AZZI A. (1998). 3-Aminobenzamide inhibition of protein kinase C at a cellular level. *FEBS LETTERS*, vol. 431; p. 465-467, ISSN: 0014-5793
- SESTILI P., GUIDARELLI A., DACHÀ M., **CANTONI O.** (1998). Quercetin prevents DNA single strand breakage and cytotoxicity caused by tert-butylhydroperoxide: free radical scavenging versus iron chelating mechanism. *FREE RADICAL BIOLOGY & MEDICINE*, vol. 25; p. 196-200, ISSN: 0891-5849
- BRAMBILLA L., CAIRO G., SESTILI P., O'DONNELL V., AZZI A., **CANTONI O.** (1997). Mitochondrial respiratory chain deficiency leads to overexpression of antioxidant enzymes. *FEBS LETTERS*, vol. 418; p. 247-250, ISSN: 0014-5793
- CANTONI O.**, GIACOMONI P. (1997). The role of DNA damage in the cytotoxic response to hydrogen peroxide/histidine. *GENERAL PHARMACOLOGY*, vol. 29; p. 513-516, ISSN: 0306-3623
- GUIDARELLI A., BRAMBILLA L., CLEMENTI E., SCIORATI C., CATTABENI F., **CANTONI O.** (1997). Stimulation of oxygen consumption promotes mitochondrial calcium accumulation, a process associated with, and causally linked to, enhanced formation of tert-butylhydroperoxide-induced DNA single strand breakage. *EXPERIMENTAL CELL RESEARCH*, vol. 237; p. 176-185, ISSN: 0014-4827
- GUIDARELLI A., CLEMENTI E., BRAMBILLA L., **CANTONI O.** (1997). Mechanism of the antimycin A-mediated enhancement of tert-butylhydroperoxide-induced single-strand breakage in DNA. *BIOCHEMICAL JOURNAL*, vol. 328; p. 801-806, ISSN: 0264-6021
- GUIDARELLI A., CLEMENTI E., SCIORATI C., CATTABENI F., **CANTONI O.** (1997). Calcium-dependent mitochondrial formation of species mediating DNA single strand breakage in U937 cells exposed to sublethal concentrations of tert-butylhydroperoxide. *JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS*, vol. 283; p. 66-74, ISSN: 0022-3565
- GUIDARELLI A., CATTABENI F., **CANTONI O.** (1997). Alternative mechanism for hydroperoxide-induced DNA single strand breakage. *FREE RADICAL RESEARCH*, vol. 26; p. 537-547, ISSN: 1071-5762
- AZZI A., **CANTONI O.**, OZER N., BOSCOBOINIK D., SPYCHER S. (1996). The role of hydrogen peroxide and RRR- α -tocopherol in smooth muscle cell proliferation. *CELL DEATH AND DIFFERENTIATION*, vol. 3; p. 77-90, ISSN: 1350-9047
- BALDUINI W., CATTABENI F., **CANTONI O.** (1996). Modulation of muscarinic receptor-stimulated phosphoinositide breakdown by sulfhydryl group modification is a general response in different rat brain regions and depends on the stage of brain development. *BIOCHEMISTRY AND MOLECULAR BIOLOGY INTERNATIONAL*, vol. 40; p. 427-432, ISSN: 1039-9712

- CANTONI O.**, BOSCOBOINIK D., FIORANI M., STAUBLE B., AZZI A. (1996). The phosphorylation state of MAP-kinases modulates the cytotoxic response of smooth muscle cells to hydrogen peroxide. *FEBS LETTERS*, vol. 389; p. 285-288, ISSN: 0014-5793
- CANTONI O.**, SESTILI P., GUIDARELLI A., PALOMBA L., BRAMBILLA L., CATTABENI F. (1996). Cytotoxic impact of DNA single vs double strand breaks in oxidatively injured cells. *ARCHIVES OF TOXICOLOGY*, vol. 18; p. 223-235, ISSN: 0340-5761
- CANTONI O.**, SESTILI P., PALOMBA L., GUIDARELLI A., CATTABENI F., MURRAY D. (1996). Isolation and preliminary characterization of a Chinese hamster ovary cell line with high-degree resistance to hydrogen peroxide. *BIOCHEMICAL PHARMACOLOGY*, vol. 51; p. 1021-1029, ISSN: 0006-2952
- CANTONI O.**, SESTILI P., FIORANI M., DACHÀ M (1996). Effect of 50 Hz sinusoidal electric and/or magnetic fields on the rate of repair of DNA single strand breaks in cultured mammalian cells exposed to three different carcinogens: methylmethane sulphonate, chromate and 254 nm U.V. radiation. *BIOCHEMISTRY AND MOLECULAR BIOLOGY INTERNATIONAL*, vol. 38; p. 527-533, ISSN: 1039-9712
- GUIDARELLI A., BRAMBILLA L., CATTABENI F., **CANTONI O.** (1996). Pyruvate enhances DNA single-strand break formation while abolishing cytotoxicity in U937 cells exposed to tert-butylhydroperoxide. *BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS*, vol. 226; p. 70-74, ISSN: 0006-291X
- GUIDARELLI A., BRAMBILLA L., ROTA C., TOMMASI A., CATTABENI F., **CANTONI O.** (1996). The respiratory-chain poison antimycin A promotes the formation of DNA single-strand breaks and reduces toxicity in U937 cells exposed to tert-butylhydroperoxide. *BIOCHEMICAL JOURNAL*, vol. 317; p. 371-375, ISSN: 0264-6021
- MARINI M., MUSIANI D., SESTILI P., **CANTONI O.** (1996). Apoptosis of human lymphocytes in the absence or presence of internucleosomal DNA cleavage. *BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS*, vol. 229; p. 910-915, ISSN: 0006-291X
- PALOMBA L., SESTILI P., CATTABENI F., AZZI A., **CANTONI O.** (1996). Prevention of necrosis and activation of apoptosis in oxidatively injured human myeloid leukemia U937 cells. *FEBS LETTERS*, vol. 390; p. 91-94, ISSN: 0014-5793
- PALOMBA L., BRAMBILLA L., BRANDI G., SESTILI P., CATTABENI F., **CANTONI O.** (1996). Low levels of hydrogen peroxide and L-histidine induce DNA double-strand breakage and apoptosis. *EUROPEAN JOURNAL OF PHARMACOLOGY*, vol. 318; p. 167-173, ISSN: 0014-2999
- SESTILI P., BRANDI G., BRAMBILLA L., CATTABENI F., **CANTONI O.** (1996). Hydrogen peroxide mediates the killing of U937 tumor cells elicited by pharmacologically attainable concentrations of ascorbic acid: cell death prevention by extracellular catalase or catalase from cocultured erythrocytes or fibroblasts. *JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS*, vol. 277; p. 1719-1725, ISSN: 0022-3565
- SESTILI P., GUIDARELLI A., CATTABENI F., MURRAY D., **CANTONI O.** (1996). AG8 cells, which are highly resistant to hydrogen peroxide, display collateral sensitivity to the combination of hydrogen peroxide and L-histidine. *CARCINOGENESIS*, vol. 17; p. 885-888, ISSN: 0143-3334
- SESTILI P., CATTABENI F., **CANTONI O.** (1996). Direct excision of 50 kb pair DNA fragments from megabase-sized fragments produced during apoptotic cleavage of genomic DNA. *FEBS LETTERS*, vol. 396; p. 337-342, ISSN: 0014-5793
- CANTONI O.**, BRANDI G., ALBANO A., CATTABENI F (1995). Action of cystine in the cytotoxic response of Escherichia coli cells exposed to hydrogen peroxide. *FREE RADICAL RESEARCH*, vol. 22; p. 275-283, ISSN: 1071-5762
- CANTONI O.**, SESTILI P., FIORANI M., DACHÀ M (1995). The effect of 50 Hz sinusoidal electric and/or magnetic fields on the rate of repair of DNA single/double strand breaks in oxidatively injured cells. *BIOCHEMISTRY AND MOLECULAR BIOLOGY INTERNATIONAL*, vol. 37; p. 681-689, ISSN: 1039-9712
- FIORANI M., **CANTONI O.**, TASINATO A., BOSCOBOINIK D., AZZI A (1995). Hydrogen peroxide-and fetal bovine serum-induced DNA synthesis in vascular smooth muscle cells: positive and negative regulation by protein kinase C isoforms. *BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR CELL RESEARCH*, vol. 1269; p. 98-104, ISSN: 0167-4889
- GUIDARELLI A., SESTILI P., COSSARIZZA A., FRANCESCHI C., CATTABENI F., **CANTONI O.** (1995). Evidence for dissimilar mechanisms of enhancement of inorganic and organic hydroperoxide cytotoxicity by L-histidine. *JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS*, vol. 275; p. 1575-1582, ISSN: 0022-3565
- PALOMBA L., GUIDARELLI A., CATTABENI F., **CANTONI O.** (1995). The effect of hydrogen peroxide/L-histidine-induced DNA single- vs. double-strand breaks on poly(ADP-ribose)polymerase. *EUROPEAN JOURNAL OF PHARMACOLOGY*, vol. 291; p. 167-173, ISSN: 0014-2999
- SESTILI P., **CANTONI O.**, CATTABENI F., MURRAY D (1995). Evidence for separate mechanisms of cytotoxicity in mammalian cells treated with hydrogen peroxide in the absence or presence of L-histidine. *BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR CELL RESEARCH*, vol. 1268; p. 130-136, ISSN: 0167-4889

SESTILI P, CATTABENI F, **CANTONI O.** (1995). The L-histidine-mediated enhancement of hydrogen peroxide-induced DNA double strand breakage and cytotoxicity does not involve metabolic processes. *BIOCHEMICAL PHARMACOLOGY*, vol. 50; p. 1823-1830, ISSN: 0006-2952

SESTILI P, CATTABENI F, **CANTONI O.** (1995). Simultaneous determination of DNA double strand breaks and DNA fragment size in cultured mammalian cells exposed to hydrogen peroxide/histidine or etoposide with CHEF electrophoresis. *CARCINOGENESIS*, vol. 16; p. 703-706, ISSN: 0143-3334

CANTONI O., GUIDARELLI A, SESTILI P, GIACOMONI PU, CATTABENI F (1994). L-histidine-mediated enhancement of hydrogen peroxide-induced cytotoxicity: relationships between DNA single/double strand breakage and cell killing. *PHARMACOLOGICAL RESEARCH*, vol. 29; p. 169-178, ISSN: 1043-6618

CANTONI O., GUIDARELLI A, SESTILI P, MANNELLO F, GAZZANELLI G, CATTABENI F (1994). Hydrogen peroxide cytotoxicity under conditions of normal or reduced catalase activity in H₂O₂-sensitive and -resistant Chinese hamster ovary (CHO) cell variants. *TOXICOLOGY LETTERS*, vol. 73; p. 193-199, ISSN: 0378-4274

CANTONI O., HUSSAIN S, GUIDARELLI A, CATTABENI F (1994). Cross-resistance to heavy metals in hydrogen peroxide-resistant CHO cell variants. *MUTATION RESEARCH*, vol. 324; p. 1-6, ISSN: 0027-5107

CANTONI O., SESTILI P, BRANDI G, CATTABENI F (1994). The L-histidine-mediated enhancement of hydrogen peroxide-induced cytotoxicity is a general response in cultured mammalian cell lines and is always associated with the formation of DNA double strand breaks. *FEBS LETTERS*, vol. 353; p. 75-78, ISSN: 0014-5793

CANTONI O., SESTILI P, GUIDARELLI A, CATTABENI F (1994). Development and characterization of hydrogen peroxide-resistant Chinese hamster ovary (CHO) cell variants--II. Relationships between non-protein sulfhydryl levels and the induction/stability of the oxidant-resistant phenotype. *BIOCHEMICAL PHARMACOLOGY*, vol. 29; p. 1258-1261, ISSN: 0006-2952

FIORANI M, **CANTONI O.**, PICCOLI G, BIAGIARELLI B, STOCCHI V (1994). Cell density-dependent regulation of ATP levels during the growth cycle of cultured Chinese hamster ovary cells. *BIOCHEMISTRY AND MOLECULAR BIOLOGY INTERNATIONAL*, vol. 32; p. 251-258, ISSN: 1039-9712

SESTILI P, CATTABENI F, **CANTONI O.** (1994). The induction/loss of the oxidant-resistant phenotype of Chinese hamster ovary (CHO) cell variants does not correlate with sensitivity to DNA single strand breakage by hydrogen peroxide. *BIOCHEMICAL PHARMACOLOGY*, vol. 48; p. 1701-1706, ISSN: 0006-2952

TACHON P, GIACOMONI PU, BRANDI G, **CANTONI O.** (1994). Differential effects of histidine on hydrogen peroxide-induced bacterial killing and DNA nicking in vitro. *FREE RADICAL RESEARCH*, vol. 20; p. 11-20, ISSN: 1071-5762

CANTONI O., GUIDARELLI A, SESTILI P, MANNELLO F, GAZZANELLI G, CATTABENI F (1993). Development and characterization of hydrogen peroxide-resistant Chinese hamster ovary cell variants--I. Relationship between catalase activity and the induction/stability of the oxidant-resistant phenotype. *BIOCHEMICAL PHARMACOLOGY*, vol. 45; p. 2251-2257, ISSN: 0006-2952

MARINI M, FRABETTI F, ZUNICA G, BRANDI G, **CANTONI O.** (1993). Differential effect of L-histidine in human lymphocytes damaged by different oxygen radical producing systems. *MUTATION RESEARCH*, vol. 301; p. 243-248, ISSN: 0027-5107

BRANDI G, LUZZI L, GIACOMONI P, ALBANO A, CATTABENI F, **CANTONI O.** (1992). Differential effect of the amino acid cystine in cultured mammalian and bacterial cells exposed to oxidative stress. *MUTATION RESEARCH*, vol. 281; p. 157-161, ISSN: 0027-5107

BRANDI G, MARROT L, GIACOMONI PU, SESTILI P, HUSSAIN S, CATTABENI F, **CANTONI O.** (1992). The role of extracellular medium components and specific amino acids in the cytotoxic response of *Escherichia coli* and Chinese hamster ovary cells to hydrogen peroxide. *FREE RADICAL RESEARCH COMMUNICATIONS*, vol. 16; p. 41-49, ISSN: 8755-0199

CANTONI O. (1992). Intra- and extracellular modifiers of the cytotoxic response to oxidative stress. *ANNALS OF THE NEW YORK ACADEMY OF SCIENCES*, vol. 663; p. 71-73, ISSN: 0077-8923

CANTONI O., FIORANI M, MUGNAINI M, CATTABENI F (1992). Induction/repair of strand breakage in mature and nascent DNA of cultured Chinese hamster ovary cells exposed to hydrogen peroxide. *JOURNAL OF CANCER RESEARCH AND CLINICAL ONCOLOGY*, vol. 118; p. 587-590, ISSN: 0171-5216

CANTONI O., SESTILI P, GUIDARELLI A, GIACOMONI PU, CATTABENI F (1992). Effects of L-histidine on hydrogen peroxide-induced DNA damage and cytotoxicity in cultured mammalian cells. *MOLECULAR PHARMACOLOGY*, vol. 41; p. 969-974, ISSN: 0026-895X

FIORANI M, **CANTONI O.**, SESTILI P, CONTI R, NICOLINI P, VETRANO F, DACHÀ M (1992). Electric and/or magnetic field effects on DNA structure and function in cultured human cells. *MUTATION RESEARCH*, vol. 282; p. 25-29, ISSN: 0027-5107

- SESTILI P, GIACOMONI PU, CATTABENI F, **CANTONI O.** (1992). L-glutamine prevents the L-histidine-mediated enhancement of hydrogen peroxide-induced cytotoxicity. *BIOCHEMICAL PHARMACOLOGY*, vol. 44; p. 2418-2421, ISSN: 0006-2952
- SESTILI P, GIACOMONI PU, GUIDARELLI A, CATTABENI F, **CANTONI O.** (1992). Modulation of the oxidative response of cultured mammalian cells by L-histidine. *ANNALS OF THE NEW YORK ACADEMY OF SCIENCES*, vol. 663; p. 456-457, ISSN: 0077-8923
- BRANDI G, SALVAGGIO L, CATTABENI F, **CANTONI O.** (1991). Cytocidal and filamentous response of *Escherichia coli* cells exposed to low concentrations of hydrogen peroxide and hydroxyl radical scavengers. *ENVIRONMENTAL AND MOLECULAR MUTAGENESIS*, vol. 18; p. 22-27, ISSN: 0893-6692
- CANTONI O.**, FIORANI M, CATTABENI F, BELLOMO G (1991). DNA breakage caused by hydrogen peroxide produced during the metabolism of 2-methyl-1,4-naphthoquinone (menadione) does not contribute to the cytotoxic action of the quinone. *BIOCHEMICAL PHARMACOLOGY*, vol. 42; p. 220-222, ISSN: 0006-2952
- BRANDI G, SCHIAVANO GF, ALBANO A, CATTABENI F, **CANTONI O.** (1990). Growth delay and filamentation of *Escherichia coli* wild-type and Rec A cells in response to hexavalent chromium and other metal compounds. *MUTATION RESEARCH*, vol. 245; p. 201-204, ISSN: 0027-5107
- CANTONI O.**, SESTILI P, CATTABENI F, GERONI C, GIULIANI F (1990). Comparative effects of doxorubicin and 4'-epi-doxorubicin on nucleic acid metabolism and cytotoxicity in a human tumor cell line. *CANCER CHEMOTHERAPY AND PHARMACOLOGY*, vol. 27; p. 47-51, ISSN: 0344-5704
- FIORANI M, FUMO M, SESTILI P, CATTABENI F, **CANTONI O.** (1990). Inhibition of Chinese hamster ovary cell DNA synthesis by hydrogen peroxide. *CHEMICO-BIOLOGICAL INTERACTIONS*, vol. 76; p. 129-139, ISSN: 0009-2797
- SCHIAVANO GF, BRANDI G, SALVAGGIO L, CATTABENI FC, **CANTONI O.** (1990). Role of free radicals produced during the metabolism of mitomycin C in *Escherichia coli* inactivation. *XENOBIOTICA*, vol. 20; p. 549-554, ISSN: 0049-8254
- SESTILI P, BRANDI G, ALBANO A, CATTABENI F, **CANTONI O.** (1990). The effect of histidine on the cytotoxicity of hydrogen peroxide in cultured mammalian and bacterial cells. *PHARMACOLOGICAL RESEARCH*, vol. Suppl 3; p. 111-112, ISSN: 1043-6618
- SESTILI P, SPADONI G, BALSAMINI C, SCOVASSI I, CATTABENI F, DURANTI E, **CANTONI O.**, HIGGINS D, THOMSON C (1990). Structural requirements for inhibitors of poly(ADP-ribose) polymerase. *JOURNAL OF CANCER RESEARCH AND CLINICAL ONCOLOGY*, vol. 116; p. 615-622, ISSN: 0171-5216
- BRANDI G, CATTABENI F, ALBANO A, **CANTONI O.** (1989). Role of hydroxyl radicals in *Escherichia coli* killing induced by hydrogen peroxide. *FREE RADICAL RESEARCH COMMUNICATIONS*, vol. 6; p. 47-55, ISSN: 8755-0199
- BRANDI G, FIORANI M, PIEROTTI C, ALBANO A, CATTABENI F, **CANTONI O.** (1989). Morphological changes in *Escherichia coli* cells exposed to low or high concentrations of hydrogen peroxide. *MICROBIOLOGY AND IMMUNOLOGY*, vol. 33; p. 991-1000, ISSN: 0385-5600
- BRANDI G, SCHIAVANO GF, ALBANO A, CATTABENI F, **CANTONI O.** (1989). The effect of K₂Cr₂O₇ on the growth and morphology of *Escherichia coli*. *BIOLOGICAL TRACE ELEMENT RESEARCH*, vol. 21; p. 271-275, ISSN: 0163-4984
- CANTONI O.**, BRANDI G, SALVAGGIO L, CATTABENI F (1989). Molecular mechanisms of hydrogen peroxide cytotoxicity. *ANNALI DELL'ISTITUTO SUPERIORE DI SANITÀ*, vol. 25; p. 69-73, ISSN: 0021-2571
- CANTONI O.**, BRANDI G, SCHIAVANO GF, ALBANO A, CATTABENI F (1989). Lethality of hydrogen peroxide in wild type and superoxide dismutase mutants of *Escherichia coli*. (A hypothesis on the mechanism of H₂O₂-induced inactivation of *Escherichia coli*). *CHEMICO-BIOLOGICAL INTERACTIONS*, vol. 70; p. 281-288, ISSN: 0009-2797
- CANTONI O.**, CATTABENI F, STOCCHI V, MEYN RE, CERUTTI P, MURRAY D (1989). Hydrogen peroxide insult in cultured mammalian cells: relationships between DNA single-strand breakage, poly(ADP-ribose) metabolism and cell killing. *BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR CELL RESEARCH*, vol. 1014; p. 1-7, ISSN: 0167-4889
- CANTONI O.**, FUMO M, CATTABENI F (1989). Role of metal ions in oxidant cell injury. *BIOLOGICAL TRACE ELEMENT RESEARCH*, vol. 21; p. 277-281, ISSN: 0163-4984
- CANTONI O.**, SESTILI P, CATTABENI F, BELLOMO G, POU S, COHEN M, CERUTTI P (1989). Calcium chelator Quin 2 prevents hydrogen-peroxide-induced DNA breakage and cytotoxicity. *EUROPEAN JOURNAL OF BIOCHEMISTRY*, vol. 182; p. 209-212, ISSN: 0014-2956
- CANTONI O.**, SESTILI P, CATTABENI F, GERONI C, GRANDI M, GIULIANI FC (1989). Cellular and molecular pharmacology of 4'-epidoxorubicin in HeLa cells. Comparison with its parent drug, doxorubicin. *JOURNAL OF CANCER RESEARCH AND CLINICAL ONCOLOGY*, vol. 115; p. 373-378, ISSN: 0171-5216

- CANTONI O.**, SESTILI P, FIORILLI M, SANTORO MP, TANNIOIA MC, NOVELLI G, CATTABENI F, DALLAPICCOLA B (1989). Identification of 4 ataxia telangiectasia cell lines hypersensitive to gamma-irradiation but not to hydrogen peroxide. *MUTATION RESEARCH*, vol. 218; p. 143-148, ISSN: 0027-5107
- SESTILI P, BALSAMINI C, SPADONI G, DURANTI E, CATTABENI F, HIGGINS D, THOMSON C, **CANTONI O.** (1989). Substituted benzamides as poly(ADP-ribose) transferase inhibitors: development of new derivatives by using computer graphics techniques. *PHARMACOLOGICAL RESEARCH*, vol. Suppl 1; p. 123-124, ISSN: 1043-6618
- CANTONI O.**, SESTILI P, CATTABENI F (1988). Randomly distributed DNA single strand breaks are not lethal for mammalian cells. *XENOBIOTICA*, vol. 18; p. 1481-1487, ISSN: 0049-8254
- SESTILI P, BALSAMINI C, SPADONI G, CATTABENI F, **CANTONI O.** (1988). Analogues of benzamide as poly(ADP-ribose)transferase inhibitors: a study on structure activity relationships. *PHARMACOLOGICAL RESEARCH COMMUNICATIONS*, vol. 20; p. 613-614, ISSN: 0031-6989
- BRANDI G, SESTILI P, PEDRINI MA, SALVAGGIO L, CATTABENI F, **CANTONI O.** (1987). The effect of temperature or anoxia on *Escherichia coli* killing induced by hydrogen peroxide. *MUTATION RESEARCH*, vol. 190; p. 237-240, ISSN: 0027-5107
- CANTONI O.**, SESTILI P, SPADONI G, BALSAMINI C, CUCCHIARINI L, CATTABENI F (1987). Analogues of benzamide containing a sulfur atom as poly(ADP-ribose) transferase inhibitors. *BIOCHEMISTRY INTERNATIONAL*, vol. 15; p. 329-337, ISSN: 0158-5231
- SILVOTTI L, PIEDIMONTE G, CRISTALLI G, GRIFANTINI M, GALIOTTA P, CATTABENI F, **CANTONI O.** (1987). The effect of deazaadenosine analogues on the proliferation rate of cultured Vero cells. *PHARMACOLOGICAL RESEARCH COMMUNICATIONS*, vol. 19; p. 359-366, ISSN: 0031-6989
- CANTONI O.**, MURRAY D, MEYN RE (1986). Effect of 3-aminobenzamide on DNA strand-break rejoining and cytotoxicity in CHO cells treated with hydrogen peroxide. *BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR CELL RESEARCH*, vol. 867; p. 135-143, ISSN: 0167-4889
- CANTONI O.**, PERUZZI G, CATTABENI F (1986). A method for disposing of lysates from cells analyzed for DNA damage by filter elution assay. *JOURNAL OF BIOCHEMICAL AND BIOPHYSICAL METHODS*, vol. 12; p. 363-364, ISSN: 0165-022X
- CANTONI O.**, PIEDIMONTE G, SESTILI P, BALDUINI W, CRISTALLI G, GRIFANTINI M, CATTABENI F (1986). 1,3 dideazaadenosine is a mitogen for cultured mammalian cells. *PHARMACOLOGICAL RESEARCH COMMUNICATIONS*, vol. 18; p. 333-342, ISSN: 0031-6989
- CANTONI O.**, SESTILI P, CATTABENI F (1986). Regulatory role of extracellular medium components in metal induced cyto- and geno-toxicity. *BULLETIN OF ENVIRONMENTAL CONTAMINATION AND TOXICOLOGY*, vol. 37; p. 883-889, ISSN: 0007-4861
- CANTONI O.**, SESTILI P, CATTABENI F, STOCCHI V (1986). Chilling followed by incubation at 37 degrees C causes a reduction in NAD⁺ levels which can be prevented by the poly(ADP-ribose)transferase inhibitor 3-aminobenzamide. *FEBS LETTERS*, vol. 204; p. 266-268, ISSN: 0014-5793
- CHRISTIE NT, **CANTONI O.**, SUGIYAMA M, CATTABENI F, COSTA M (1986). Differences in the effects of Hg(II) on DNA repair induced in Chinese hamster ovary cells by ultraviolet or X-rays. *MOLECULAR PHARMACOLOGY*, vol. 29; p. 173-178, ISSN: 0026-895X
- SESTILI P, PIEDIMONTE G, CATTABENI F, **CANTONI O.** (1986). Induction of DNA breakage and suppression of DNA synthesis by the OH radical generated in a Fenton-like reaction. *BIOCHEMISTRY INTERNATIONAL*, vol. 12; p. 493-501, ISSN: 0158-5231
- SUGIYAMA M, PATIERNO SR, **CANTONI O.**, COSTA M (1986). Characterization of DNA lesions induced by CaCrO₄ in synchronous and asynchronous cultured mammalian cells. *MOLECULAR PHARMACOLOGY*, vol. 29; p. 606-613, ISSN: 0026-895X
- CANTONI O.**, SESTILI P, BALDUINI W, CRISTALLI G, GRIFANTINI M, CATTABENI F (1985). Inhibition of nucleic acids and protein synthesis by deazaadenosine derivatives: a study on structure-activity relationships. *PHARMACOLOGICAL RESEARCH COMMUNICATIONS*, vol. 17; p. 1087-1094, ISSN: 0031-6989
- CANTONI O.**, SESTILI P, CATTABENI F (1985). Adriamycin does not affect the repair of X-ray induced DNA single strand breaks. *CANCER LETTERS*, vol. 27; p. 215-219, ISSN: 0304-3835
- CANTONI O.**, CHRISTIE NT, ROBISON SH, COSTA M (1984). Characterization of DNA lesions produced by HgCl₂ in cell culture systems. *CHEMICO-BIOLOGICAL INTERACTIONS*, vol. 49; p. 209-224, ISSN: 0009-2797
- CANTONI O.**, CHRISTIE NT, SWANN A, DRATH DB, COSTA M (1984). Mechanism of HgCl₂ cytotoxicity in cultured mammalian cells. *MOLECULAR PHARMACOLOGY*, vol. 26; p. 360-368, ISSN: 0026-895X
- CANTONI O.**, COSTA M (1984). Analysis of the induction of alkali sensitive sites in the DNA by chromate and other agents that induce single strand breaks. *CARCINOGENESIS*, vol. 5; p. 1207-1209, ISSN: 0143-3334

CHRISTIE NT, **CANTONI O.**, EVANS RM, MEYN RE, COSTA M (1984). Use of mammalian DNA repair-deficient mutants to assess the effects of toxic metal compounds on DNA. BIOCHEMICAL PHARMACOLOGY, vol. 33; p. 1661-1670, ISSN: 0006-2952

ROBISON SH, **CANTONI O.**, COSTA M (1984). Analysis of metal-induced DNA lesions and DNA-repair replication in mammalian cells. MUTATION RESEARCH, vol. 131; p. 173-181, ISSN: 0027-5107

CANTONI O., COSTA M (1983). Correlations of DNA strand breaks and their repair with cell survival following acute exposure to mercury(II) and X-rays. MOLECULAR PHARMACOLOGY, vol. 24; p. 84-89, ISSN: 0026-895X

DURANTI E, BONIFAZI P, SALVATORI A, BALSAMINI C, PERUZZI G, **CANTONI O.** (1983). [Aryloxy- and arylthioalkylamine hypolipidemic agents]. FARMACO. EDIZIONE SCIENTIFICA, vol. 38; p. 664-671, ISSN: 0430-0920

EVANS RM, PATIERNO SR, WANG DS, **CANTONI O.**, COSTA M (1983). Growth inhibition and metallothionein induction in cadmium-resistant cells by essential and non-essential metals. MOLECULAR PHARMACOLOGY, vol. 24; p. 77-83, ISSN: 0026-895X

ROBISON SH, **CANTONI O.**, HECK JD, COSTA M (1983). Soluble and insoluble nickel compounds induce DNA repair synthesis in cultured mammalian cells. CANCER LETTERS, vol. 17; p. 273-279, ISSN: 0304-3835

CANTONI O., EVANS RM, COSTA M (1982). Similarity in the acute cytotoxic response of mammalian cells to mercury (II) and X-rays: DNA damage and glutathione depletion. BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, vol. 108; p. 614-619, ISSN: 0006-291X

COSTA M, **CANTONI O.**, DE MARS M, SWARTZENDRUBER DE (1982). Toxic metals produce an S-phase-specific cell cycle block. RESEARCH COMMUNICATIONS IN CHEMICAL PATHOLOGY AND PHARMACOLOGY, vol. 38; p. 405-419, ISSN: 0034-5164

PERUZZI G, CANDELETTI S, LOMBARDELLI G, **CANTONI O.**, SCARINCI V (1982). Meprobamate/morphine interactions on avoidance and escape behaviour in rats. PHARMACOLOGICAL RESEARCH COMMUNICATIONS, vol. 14; p. 73-81, ISSN: 0031-6989

ROBISON SH, **CANTONI O.**, COSTA M (1982). Strand breakage and decreased molecular weight of DNA induced by specific metal compounds. CARCINOGENESIS, vol. 3; p. 657-662, ISSN: 0143-3334