BIOGRAPHICAL SKETCH

NAME: **Massimo Bertinaria**
POSITION TITLE: **Associate Professor in Medicinal Chemistry – Department of Drug Science and Technology- University of Turin- Italy**

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE	Completion Date MM/YYYY	FIELD OF STUDY
University of Turin (Italy)	**M.D. 110/110 *summa cum laude***	**11 / 1993**	**Pharmaceutical Chemistry and Technologies**
University of Turin (Italy)	**M.D. 110/110 *summa cum laude***	**10 / 1994**	**Pharmacy**
University of Turin (Italy)	**PhD**	**02 / 1999**	**Medicinal Chemistry**

PREVIOUS RESEARCH ACTIVITY

I am an Associate Professor in Medicinal Chemistry at the Department of Drug Science and Technology (DSTF), University of Turin. After graduating, I spent nine months at the School of Chemistry, University of East Anglia (UK) working in the field of heterocyclic synthesis under the supervision of Prof. A McKillop and Dr. A.J. Boulton. Since 1999, I worked in the field of medicinal chemistry were I gained a long experience in the field of drug design and synthesis. In years 2000-2012, my work was mainly dedicated to the synthesis of NO-donors and to the design of NO-donor-based multitarget drugs, exploiting the multiple role of nitric oxide hybrid drugs within different GPCRs and cellular systems. Since 2013, I lead the SynBioMed research group at DSTF. SynBioMed research is focused on the design and synthesis of new chemical entities (NCEs) acting on inflammatory signaling; at present we are actively developing NLRP3-inflammasome inhibitors and dual TP receptor antagonists/COX-2 inhibitors. The design and synthesis of NCEs able to modulate DNA methylation and active demethylation is also implemented in our research group. We are currently actively developing these projects thanks to a network of national and international collaborations. I am author of over 40 peer-reviewed publications and one patent. My laboratory is fully equipped to perform drug synthesis and physicochemical characterization of new molecules, stability studies, and preliminary evaluations of new chemical entities either on isolated enzymes or in *ex vivo* systems. Since 2000, I have been teaching different BSc-, MD- and PhD degree courses in the field of medicinal chemistry and supervising PhD students in Pharmaceutical and Biomolecular Sciences.

FUTURE PROGRAMMES

In the next years, the activity of my research team will focus on the development of new NLRP3 inhibitors for the treatment of neuroinflammation associated with neurodegenerative diseases. This aim will be pursued thanks to the collaboration with scientists with recognized expertise in the field of immunology, neuroimmunology and neurosciences from national and international centers, among them Dr. Benedicte Py (International Center for Infectiology Research, Lyon – France), Dr. Pablo Pelegrin (Instituto Murciano de Investigacion Biosanitaria, Hospital Universitario Virgen de la

Arrixaca- Spain), and Prof. Francesca Montarolo (Neuroscience Institute Cavalieri Ottolenghi, Orbassano – Italy). We have two running projects aimed at the development of New Chemical entities for the treatment of neurodegenerative diseases.

PREVIOUS POSITIONS

2011- today: **Associate Professor**, Department of Drug Science and Technology, University of Turin, Italy.

2015-today**: Member of the scientific board.** Master degree in "Pharmaceutical Technologies and regulatory affairs" Department of Drug Science and Technology, University of Turin, Italy.

1999-2011: **Assistant Professor**, Department of Drug Science and Technology, University of Turin, Italy.

OTHER APPOINTMENTS

1999: **Laboratory demonstrator**, School of Pharmacy, University of Turin, Italy.
1994: **Laboratory demonstrator**, School of Pharmacy, University of Turin, Italy.

FELLOWSHIPS/AWARDS

1995/1996 **Awarded a fellowship from University of Turin for training at an international institution** (Borsa di Studio per il perfezionamento all'estero). **Training in heterocyclic chemistry at the School of Chemical Sciences, UEA, Norwich (UK)**, under the guidance of Prof. A. McKillop and Dr. A. J. Boulton (July 1995-Apr 1996).

1998 **Selected Speaker – "XVIII Corso Avanzato in Chimica Farmaceutica e Seminario nazionale per dottorandi E. Duranti",** Urbino, Italy.

2002 **Invited speaker – X meeting "Heterocyclic Structures in Medicinal Chemistry"** – Palermo, Italy.

2012 **Keynote Speaker – XXII National Medicinal Chemistry Meeting,** Keynote lecture on the design and synthesis of cardiovascular safer coxibs", Palermo, Italy.

2015 **Invited speaker at the International CGT workshop on DNA methylation,** Goethe University, 29 May 2015, Frankfurt-am-Main (Germany).

2018 **Invited speaker at ECM course** «Pathways molecolari e terapie innovative nella neuroinfiammazione associata alle malattie neurodegenerative», Fondazione Don Carlo Gnocchi, 29 Nov 2018, Milano (Italy).

AFFILIATIONS

2000 - today	Professor at the Department of Drug Science and Technology, University of Turin, Italy.
2010 – today	Professor and supervisor at the Doctoral School of Sciences and innovative technology, University of Turin, Italy.
2006 - today	Member of The American Chemical Society, Medicinal Chemistry Division.
2001 - today	Member of the Italian Chemical Society, Medicinal Chemistry Division.

2002 - 2007 Elected member of the board of Italian Chemical Society (SCI), Piemonte-Valle d'Aosta section.

TEACHING ACTIVITY

- Preparazioni estrattive dei principi attivi di origine vegetale
- Analisi dei Farmaci 1 (modulo 2)
- Chimica Farmaceutica e Tossicologica 2
- Metodologie di sviluppo di processo farmaceutico

INSTITUTIONAL ACTIVITY

- Member of the organizing committee: SCI meeting "Giornate Italo-francesi di Chimica" GIFC2006 – Torino 25-27 May 2006.
- Member of the organizing committee and Chairman SCI meeting: "Nuove prospettive in Chimica Farmaceutica (NPCF7)-medicinal chemistry meeting, 29 May-1 June 2013, Savigliano (TO), Italy.
- Commissario concorso per ricercatori settore Chim/08 presso Università degli Studi di Genova anno 2005.
- Commissario esame finale di dottorato di ricerca in "Corso di Dottorato in Scienze e Tecnologie della Chimica e dei Materiali, Ciclo XXXII, CURRICULUM: Scienze Farmaceutiche Alimentari e Cosmetologiche, Università degli Studi di Genova.
- Commissario esame finale di dottorato per il corso di dottorato in "Scienze Farmaceutiche e Biomolecolari" XX e XXIX ciclo, Università degli Studi di Torino.
- Member of the editorial board for the Journal "Molecules", Medicinal Chemistry Section.
- Member of the editorial board for the Journal "Arkivoc".
- Guest Editor: Research Topic "Neurological, Metabolic and Inflammatory Disorders: A Common Root In Inflammasome" Frontiers in Pharmacology 2020.
- Guest Editor: Special Issue "Inflammasome Inhibitors" Molecules 2020.
- Reviewer of grant proposal for the Ministero dell'Università e della Ricerca (MIUR), Italy.
- Reviewer for important international journals: *J. Med. Chem.; Eur. J. Med. Chem.; ACS Med. Chem. Lett.; Molecules; Int. J. Med. Sci.; Arch. Biochem. Biophys.; ACS Chem. Neurosci.; ACS Che. Biol.; ChemMedChem; Bioorg. Med. Chem.; Bioorg. Med. Chem. Lett.; Fut. Med. Chem.; Int. J. Peptide Therapeutics; J. Chem. Res.; J. Food. Toxicol.; J. Het. Chem.; Mol. Pharm.; Front. Pharmacol.; Tet. Lett.; Synlett; Synthesis; Arkivoc*.
- Reviewer of grant proposal for international organization: Z-NSERC (Canada).

LANGUAGE

Mother language: Italian
Foreign language: English

LIST OF PUBLICATIONS

43. Gütschow M, Vanden Eynde JJ, Jampilek J, Kang C, Mangoni AA, Fossa P, Karaman R, Trabocchi A, Scott PJH, Reynisson J, Rapposelli S, Galdiero S, Winum J-Y, Brullo C, Prokai-Tatrai K, Sharma AK, Schapira M, Azuma Y-T, Cerchia L, Spetea M, Torri G, Collina S, Geronikaki A, García-Sosa A-T, Vasconcelos MH, Sousa ME, Kosalec I, Tuccinardi T, Duarte IF, Salvador JAR, Bertinaria M, Pellecchia M, Amato J, Rastelli G, Gomes PAC, Guedes RC, Sabatier J-M, Estévez-Braun A, Pagano B, Mangani S, Ragno R, Kokotos G, Brindisi M, González FV, Borges F, Miloso M, Rautio J, Muñoz-Torrero D. Breakthroughs in Medicinal Chemistry: New Targets and Mechanisms, New Drugs, New Hopes–7. (Editorial) *Molecules* **2020**, *25*, 2968

42. Penna C, Aragno M, Cento A. S, Femminò, s, Russo I, Dal Bello F, Chiazza F, Collotta D, Ferreira Alves G, Bertinaria M, Zicola E, Mercurio V, Medana C, Collino M, Pagliaro P. "Ticagrelor Conditioning Effects Are Not Additive to Cardioprotection Induced by Direct NLRP3 Inflammasome Inhibition: role of RISK, NLRP3 and Redox cascades". *Ox. Med. Cell. Longev.* **2020** Art. ID 9219825.

41. Bertinaria, M., Gastaldi, S., Marini, E., Giorgis, M. Development of covalent NLRP3 inflammasome inhibitors: Chemistry and biological activity. *Arch. Biochem. Biophys.* **2019**, *670*, 116-139. doi: 10.1016/j.abb.2018.11.013.

40. Pellegrini C., Fornai M., Colucci R., Benvenuti L., D'Antongiovanni V., Natale G., Fulceri F., Giorgis M., Marini E., Gastaldi S., Bertinaria M., Blandizzi C. and Antonioli L. A Comparative Study on the Efficacy of NLRP3 Inflammasome Signaling Inhibitors in a Pre-clinical Model of Bowel Inflammation. *Front. Pharmacol.* **2018**, *9*:1405. doi: 10.3389/fphar.2018.01405.

39. Atlante, S., Visintin, A., Marini, E., Savoia, M., Dianzani, C., Giorgis, M., Sürün, D., Maione, F., Schnütgen, F., Farsetti, A., Zeiher, A.M., Bertinaria, M., Giraudo, E., Spallotta, F., Cencioni, C., Gaetano, C. α-ketoglutarate dehydrogenase inhibition counteracts breast cancer-associated lung metastasis. *Cell Death Dis.* **2018**, 9:756

38. Spallotta, F., Cencioni, C., Atlante, Garella, D., Cocco, M., Mori, M., Mastrocola, R., Kuenne, C., Guenther, S., Nanni, S., Azzimato, V., Zukunft, S., Kornberger, A., Sürün, D., Schnütgen, F., von Melchner, H., Di Stilo, A., Aragno, M., Braspenning, M., van Criekinge, W., De Blasio, M., Ritchie, R. H., Zaccagnini, G., Martelli, F., Farsetti, A., Fleming, I., Braun, T., Beiras-Fernandez, A., Botta, B., Collino, M., Bertinaria, M., Zeiher, A., M., Gaetano, C. Stable oxidative cytosine modifications accumulate in cardiac mesenchymal cells from Type2 diabetes patients: rescue by alpha-ketoglutarate and TET-TDG functional reactivation. *Circ. Res.* **2018**, *122*, 31-46.

37. Cocco M, Pellegrini C, Martinez-Banaclocha H, Giorgis M, Marini E, Costale A, Miglio G, Fornai M, Antonioli L, Lopez-Castejon G, Tapia-Abellan A, Angosto D, Hafner-Bratkovic I, Regazzoni L, Blandizzi C, Pelegrin P, Bertinaria M. Development of an acrylate derivative targeting the NLRP3 inflammasome for the treatment of Inflammatory Bowel Disease. *J. Med. Chem.* **2017**, *60*, 3656- 3671.

36. Carnevali S, Buccellati C, Bolego C, Bertinaria M, Rovati G.E, Sala A. Non Steroidal Anti-Inflammatory Drugs: exploiting Bivalent COXIB/TP antagonists for the control of cardiovascular risk. *Curr. Med. Chem*. **2017**, 24(30):3218-3230. doi: 10.2174/0929867324666170602083428.

35. Mastrocola R, Penna C, Tullio F, Femminò S, Nigro D, Chiazza F, Serpe L, Collotta D, Alloatti G, Cocco M, Bertinaria M, Pagliaro P, Aragno M, Collino M. Pharmacological inhibition of NLRP3 inflammasome attenuates myocardial Ischemia/reperfusion injury by activation of RISK and mitochondrial pathways. *Ox. Med. Cell. Longev*. **2016**, art. ID: 5271251. doi: 10.1155/2016/5271251.

34. Davide Garella, Sandra Atlante, Emily Borretto, Mattia Cocco, Marta Giorgis, Annalisa Costale, Livio Stevanato, Gianluca Miglio, Chiara Cencioni, Eli Fernández-de Gortari, José L. Medina-Franco, Francesco Spallotta, Carlo Gaetano, Massimo Bertinaria; "Design and synthesis of *N*-benzoyl amino acid derivatives as DNA methylation inhibitors"; *Chem. Biol. Drug. Des.* **2016**, *88*, 664-676. doi: 10.1111/cbdd.12794.

33. Mattia Cocco, Gianluca Miglio, Marta Giorgis, Davide Garella, Elisabetta Marini, Annalisa Costale, Luca Regazzoni, Giulio Vistoli, Marica Orioli, Raïhane Massulaha-Ahmed, Isabelle Détraz-Durieux, Marine Groslambert, Bénédicte F. Py, and Massimo Bertinaria; "Design, Synthesis, and Evaluation of Acrylamide Derivatives as Direct NLRP3 Inflammasome Inhibitors"; *ChemMedChem* **2016**, 11(16), 1790-1803. doi: 10.1002/cmdc.201600055

32. Malvina Hoxha, Carola Buccellati, Valérie Capra, Davide Garella, Clara Cena, Barbara Rolando, Roberta Fruttero, Silvia Carnevali, Angelo Sala, G.Enrico Rovati, Massimo Bertinaria; "In vitro pharmacological evaluation of multitarget agents for thromboxane prostanoid receptor antagonism and COX-2 inhibition"; *Pharmacol. Res.* **2016**, *103*, 132 – 143.

31. Massimo Bertinaria, Pamela Orjuela-Sanchez, Elisabetta Marini, Stefano Guglielmo, Anthony Hofer, Yuri C. Martins, Graziela M. Zanini, John A. Frangos, Alberto Gasco, Roberta Fruttero, Leonardo J. M. Carvalho; "NO-Donor Dihydroartemisinin Derivatives as Multitarget Agents for the Treatment of Cerebral Malaria"; *J. Med. Chem.* **2015**, *58*, 7895 – 7899.

30. Mattia Cocco, Davide Garella, Antonella Di Stilo, Emily Borretto, Livio Stevanato, Marta Giorgis, Elisabetta Marini, Roberto Fantozzi, Gianluca Miglio, Massimo Bertinaria; "Electrophilic Warhead-based Design of Compounds Preventing NLRP3 Inflammasome-dependent Pyroptosis"; *J. Med. Chem.* **2014**, *57*, 10366-10382. DOI: 10.1021/jm501072b.

29. M. Hoxha, V. Capra, C. Buccellati, A. Sala, C. Cena, R. Fruttero, M. Bertinaria, G.E. Rovati ; "A New Gateway for Rheumatoid Arthritis: COXIBs with an Improved Cardiovascular Profile"; *International Journal of Medical, Health, Pharmaceutical and Biomedical Engineering* **2014**, Vol:8 No:4, 204-208.

28. Georgia Eleni Tsoutsou,,Giovanna Di Nardo, Sheila J. Sadeghi, Roberta Fruttero, Loretta Lazzarato, Massimo Bertinaria, Gianfranco Gilardi; "A rapid screening for cytochrome P450 catalysis on new chemical entities: cytochrome P450 BM3 and 1,2,5-oxadiazole derivatives"; *J. Biomol. Screen.* **2013**, 18(2), 211-218.

27. Inventori: Leonardo Jose de Moura Carvalho, Alberto Gasco, Roberta Fruttero, Massimo Bertinaria. Brevetto IT0001416933 data concessione **20 Luglio 2015** (domanda TO20130283 depositata il 09/04/2013) COMPOSTI IBRIDI PER IL TRATTAMENTO DELLA MALARIA CEREBRALE.

26. Gabriele Montanaro, Massimo Bertinaria, Barbara Rolando, Roberta Fruttero, Christopher D. Lucas, David A. Dorward, Adriano G. Rossi, Ian L. Megson, Alberto Gasco; Novel R-roscovitine NO-donor hybrid compounds as potential pro-resolution of inflammation agents"; *Bioorg. Med. Chem.* **2013**, *21*, 2107-2116.

25. Massimo Bertinaria, Mohammed Abrar Abdul Gaffar Shaikh, Carola Buccellati, Clara Cena, Barbara Rolando, Loretta Lazzarato, Roberta Fruttero, Alberto Gasco, Malvina Hoxha, Valerie Capra, Angelo Sala, G. Enrico Rovati; "Designing Multitarget Anti-inflammatory Agents: Chemical Modulation of the Lumiracoxib Structure toward Dual Thromboxane Antagonists–COX-2 Inhibitors"; *ChemMedChem* **2012**, *7*, 1647 – 1660.

24. Massimo Bertinaria, Barbara Rolando, Marta Giorgis, Gabriele Montanaro, Elisabetta Marini, Massimo Collino, Elisa Benetti, Pier Giuseppe Daniele, Roberta Fruttero, Alberto Gasco; "Carnosine analogues containing NO-donor substructures: Synthesis, physico-chemical characterization and preliminary pharmacological profile" *Eur. J. Med. Chem*. **2012**, *54*, 103-112.

23 Massimo Bertinaria, Stefano Guglielmo, Barbara Rolando, Marta Giorgis, Cristina Aragno, Roberta Fruttero, Alberto Gasco, Silvia Parapini, Donatella Taramelli, Yuri C. Martins, Leonardo J.M. Carvalho.; "Amodiaquine analogues containing NO-donor substructures: Synthesis and their preliminary evaluation as potential tools in the treatment of cerebral malaria" *Eur. J. Med. Chem*. **2011**, *46*, 1757-1767.

22. Massimo Bertinaria, Barbara Rolando, Marta Giorgis, Gabriele Montanaro, Stefano Guglielmo, M. Federica Buonsanti, Valentina Carabelli, Daniela Gavello, Pier Giuseppe Daniele, Roberta Fruttero, Alberto Gasco.; "Synthesis, Physicochemical Characterization, and Biological Activities of New Carnosine Derivatives Stable in Human Serum As Potential Neuroprotective Agents" *J. Med. Chem.* **2011**, *54*, 611-621.

21 Stefano Guglielmo, Massimo Bertinaria, Barbara Rolando, Marco Crosetti, Roberta Fruttero, Vanessa Yardley, Simon L. Croft, Alberto Gasco.; "A new series of amodiaquine analogues modified in the basic side chain with in vitro antileishmanial and antiplasmodial activity" *Eur. J. Med. Chem.* **2009**, *44*, 5701-5709.

20. Konstantin Chegaev, Clara Cena, Marta Giorgis, Barbara Rolando, Paolo Tosco, Massimo Bertinaria, Roberta Fruttero, Pierre-Alain Carrupt, and Alberto Gasco; "Edaravone Derivatives Containing NO-Donor Functions"; *J. Med. Chem.* **2009**, *52*, 574-578.

19. Lucıa Boiani, Gabriela Aguirre, Mercedes González, Hugo Cerecetto, Agustina Chidichimo, Juan J. Cazzulo, Massimo Bertinaria, Stefano Guglielmo; "Furoxan-, alkylnitrate-derivatives and related compounds as anti-trypanosomatid agents: Mechanism of action studies"; *Bioorg. Med. Chem.* **2008**, *16*, 7900-7907.

18. Paolo Tosco, Elisabetta Marini, Barbara Rolando, Loretta Lazzarato, Clara Cena, Massimo Bertinaria, Roberta Fruttero, Marianne Reist, Pierre-Alain Carrupt and Alberto Gasco; "Structure-Antioxidant Activity Relationships in a Series of NO-Donor Phenols"; *ChemMedChem.* **2008**, *3*, 1443-1448.

17. M. Federica Buonsanti, Massimo Bertinaria, Antonella Di Stilo, Clara Cena, Roberta Fruttero and Alberto Gasco.; "Nitric Oxide Donor β_2-Agonists: Furoxan Derivatives Containing the Fenoterol Moiety and Related Furazans"; *J. Med. Chem.* **2007, *50*,** 5003-5011.

16. Konstantin Chegaev, Loretta Lazzarato, Barbara Rolando, Elisabetta Marini, Gloria V. Lopez, Massimo Bertinaria, Antonella Di Stilo, Roberta Fruttero and Alberto Gasco; "Amphiphilic NO-Donor Antioxidants"; *ChemMedChem.* **2007**, *2*, 234-240 e *ChemMedChem* **2008**, *3*, 200.

15. Donatella Boschi, Gian Cesare Tron, Loretta Lazzarato, Konstantin Chegaev, Clara Cena, Antonella Di Stilo, Marta Giorgis, Massimo Bertinaria, Roberta Fruttero and Alberto Gasco; "NO-

Donor Phenols: A New Class of Products Endowed with Antioxidant and Vasodilator Properties"; *J. Med. Chem.* **2006,** 49, 2886-2897.

14. Clara Cena, Massimo Bertinaria, Donatella Boschi, Marta Giorgis and Alberto Gasco; "Use of the furoxan (1,2,5-oxadiazole 2-oxide) system in the design of new NO-donor antioxidant hybrids"; *Arkivoc* **2006**, *7*, 301-309.

13. Ubaldina Galli, Loretta Lazzarato, Massimo Bertinaria, Giovanni Sorba, Alberto Gasco, Silvia Parapini, Donatella Taramelli; "Synthesis and antimalarial activities of some furoxan sulfones and related furazans"; *Eur. J. Med. Chem.* **2005**, *40*, 1335-1340.

12. Paolo Tosco, Massimo Bertinaria, Antonella Di Stilo, Clara Cena, Roberta Fruttero, Alberto Gasco; "Non-imidazole histamine NO-donor H_3-antagonists"; *Farmaco* **2005**, *60*, 507-512.

11. Paolo Tosco, Massimo Bertinaria, Antonella Di Stilo, Clara Cena, Giovanni Sorba, Roberta Fruttero, Alberto Gasco; "Furoxan analogues of the histamine H_3-receptor antagonist imoproxifan and related furazan derivatives"; *Bioorg. Med. Chem.* **2005**, *13*, 4750-4759.

10. Paolo Tosco, Massimo Bertinaria, Antonella Di Stilo, Elisabetta Marini, Barbara Rolando, Giovanni Sorba, Roberta Fruttero, Alberto Gasco; "A new class of NO-donor H_3-antagonists"; *Farmaco* **2004**, *59*, 359-371.

9. Janesmar C.M. Cavalcanti, Natalia V. Oliveira, Maria Aline B.F. de Moura, Roberta Fruttero, M. Bertinaria, Marilia O.F. Goulart; "Evidence of self-protonation on the electrodic reduction mechanism of an anti-*Helicobacter pylori* metronidazole isostere"; *J. Electroanal. Chem.* **2004**, *571,* 177-182.

8. Janesmar C.M. Cavalcanti, F.C. de Abreu, Natalia.V. Oliveira, Maria Aline B.F.de Moura, J.G. Chaves, R.J. Alves, Massimo Bertinaria, Roberta Fruttero, Marilia O.F. Goulart; "Effect of the leaving group on the electrodic reduction mechanism of anti-*Helicobacter pylori* metronidazole derivatives, in aprotic and protic media"; *Bioelectrochemistry* **2004**, *63*, 353-357.

7. Massimo Bertinaria, Antonella Di Stilo, Paolo Tosco, Giovanni Sorba, Enzo Poli Cristina Pozzoli, Gabriella Coruzzi, Roberta Fruttero, Alberto Gasco; "[3-(1*H*-Imidazol-4-yl)propyl]guanidines Containing Furoxan Moieties: A new Class of H_3-antagonists Endowed with NO-Donor Properties"; *Bioorg. Med. Chem.* **2003**, *11*, 1197-1205.

6. Massimo Bertinaria; "H_3 receptor ligands: new imidazole H_3-antagonists endowed with NO-donor properties", *Farmaco,* **2003***, 58,* 279-283.

5. Massimo Bertinaria, Ubaldina Galli, Giovanni Sorba, Roberta Fruttero, Alberto Gasco, Maria Immacolata Brenciaglia, Maria Maddalena Scaltrito, Francesco Dubini; "Synthesis and Anti-*Helicobacter pylori* Properties of NO-Donor/Metronidazole Hybrids and Related Compounds"; *Drug Dev. Res.* **2003**, *60*, 225-239.

4. Donatella Boschi, Giovanni Sorba, Massimo Bertinaria, Roberta Fruttero, Rosella Calvino and Alberto Gasco; "Unsymmetrically substituted furoxans. Part 18. Smiles rearrangement in furoxan system and in related furazans"; *J. Chem. Soc. Perkin Trans. 1* **2001**, 1751-1757.

3. Giovanni Sorba, Massimo Bertinaria, Antonella Di Stilo, Alberto Gasco, Maria M. Scaltrito, Maria I. Brenciaglia and Franceso Dubini; "Anti-*Helicobacter pylori* Agents Endowed with H_2-Antagonist Properties"; *Bioorg. Med. Chem. Lett.* **2001**, *11*, 403-406.

2. Gabriella Coruzzi, Maristella Adami, Giuseppina Morini, Cristina Pozzoli, Clara Cena, Massimo Bertinaria, Alberto Gasco; "Antisecretory and gastroprotective activities of compounds endowed with H_2 antagonistic and nitric oxide (NO) donor properties"; *J. Physiol. (Paris)* **2000**, *94*, 5-10.

1. Massimo Bertinaria, Giovanni Sorba, Claudio Medana, Clara Cena, Maristella Adami, Giuseppina Morini, Cristina Pozzoli, Gabriella Coruzzi, and Alberto Gasco; "Synthesis and Pharmacological Characterization of New H_2-Antagonists Conatining NO-Donor Moieties, Endowed with Mixed Antisecretory and Gastroprotective Activities", *Helv. Chimica Acta* **2000**, *83,* 287-299.

FUNDED PROJECTS

- Fighting Neuroinflammation in Parkinson's Disease: development of NLRP3 inhibitors". BERM S1618 EX-POST 19_01*Granting agency:* Compagnia di San Paolo/Unito (2018). Role: Project coordinator and Principal investigator.

- "Nuovi Farmaci per le malattie neurodegenerative" BERM_CRT_18_02. *Granting agency:* Fondazione CRT (2018). Role: Project coordinator and Principal investigator.

- Design and synthesis of TP antagonists/COX-2 inhibitors for the treatment of chronic inflammatory diseases. BERM_RILO_18_02. *Granting agency:* University of Torino (2018). Role: Principal investigator.

- "Design and synthesis of anti-inflammatory agents acting on NLRP3 signaling" *Granting agency:* University of Torino (2016-17 local funds ex 60%). Role: Team Member.

- "Nuovi approcci farmacologici per il danno cardiometabolico: studio preliminare di effetti protettivi di nuovi inibitori dell'inflammasoma NLRP3 in un modello di danno ischemico cardiaco." *Granting agency:* University of Torino (2015 local funds ex 60%_ quota B). Role: team member.

- "Progettazione e sintesi di modulatori della metilazione del DNA" *Granting agency:* University of Torino (2015 local funds ex 60%). *Role*: Principal investigator

- "Development of compounds inhibiting NLRP3-dependent pyroptosis". *Granting agency:* University of Torino (2014 local funds ex 60%). *Role*: Principal investigator

- "Design, synthesis and pharmaco-modulation of compounds targeting NLRP3 inflammasome activation and related signaling pathways". *Granting agency:* University of Torino (2013 local funds ex 60%). *Role*: principal investigator

- "Progettazione, sintesi e preliminare caratterizzazione farmacologica di nuove entità chimiche a potenziale attività antitumorale. *Granting agency:* University of Torino (2012 local funds ex 60%). *Role:* Team member.

- COFIN 2005: Prot. 2005033023_003. "NO-donatori quali potenziali farmaci per il trattamento della aterosclerosi e disfunzioni cardiovascolari ad essa correlate". *Granting agency:* MIUR. Duration: 24 months. *Role:* Team member.

- COFIN 2003: Pot. 2003034413_009 "Studio di ligandi ai recettori istaminergico e adrenergico dotati di proprieta' NO-donatrici. Studio di isosteri del gruppo carbossilico in ligandi ai recettori degli amino acidi centrali". Duration: 24 months. *Role:* Team member.

- COFIN 2001: Prot. 2001037552_009 “Studio di ligandi ai recettori istaminergico e adrenergico dotati di proprieta' NO-donatrici”. Coordinator: Gualtieri Fulvio. Duration: 24 months. *Role:* Team member.

- Progetto giovani ricercatori 1999: “Progettazione e Sintesi di derivati del metronidazolo dotati di proprietà NO-donatrici”. Università degli Studi di Torino. *Role*: principal investigator.