CURRICULUM VITAE

Prof. Cosimo Damiano Altomare

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Date of birth: June 17, 1956
Education: M.Sc. degree "summa cum laude" in Pharmaceutical Chemistry and Technology (1981).

ACADEMIC POSITION AND TEACHING

- Since 2001: Full professor of Medicinal Chemistry at the Faculty of Pharmacy (now Department of Pharmacy-Pharmaceutical Sciences) of the University of Bari, where presently he takes lectures in Pharmaceutical and Toxicological Chemistry for undergraduate students in Pharmaceutical Chemistry and Technology (Industrial Pharmacy). Member of the Professors' Committee of the Doctorate in Drug Sciences at the University of Bari, he has been supervisor of more than ten Ph.D. Theses.
- Since October 2022: Coordinator of the M.Sc. Degree in Pharmacy and Industrial Pharmacy.
- 2008-2012: Head of the Department of Pharmaceutical Chemistry (University of Bari).
- September 2015: Visiting professor at the Departments of Biochemistry and Molecular Biology, Pharmacy and Chemistry of the University of Santiago de Compostela (Spain), supported by a grant from EU Erasmus+ program.
- October 2008: Visiting professor at the Department of Organic Chemistry of the Peoples Friendship University of Russia (PFUR) in Moscow, where he held a course on "Drug Design: basic principles, methods and applications". He returned in the same Russian Department periodically in 2017-2019 for several weeks.
- 1984-2001: Assistant professor (1984-1997) and Associate professor (1998-2000) of Medicinal Chemistry at the University of Bari.
- 1992-2001: Teaching in medicinal chemistry related disciplines, such as Drug Analysis and Advanced Methodologies in Medicinal Chemistry in the Faculties of Pharmacy at the universities of Bari and Chieti (Italy).

SCIENTIFIC CAREER AND EDITORIAL ACTIVITY

- 2013-2019: Secretary (2013-2015) and vice-president (2016-2019) of the Council of the Division of Medicinal Chemistry of the Italian Chemical Society.
- 2017-2020: Member of the International Scientific Committee for the Chemical Sciences Area of the Peoples' Friendship University of Russia (Moscow, Russian Federation).
- Since 2012: Section editor of the European Journal of Pharmaceutical Sciences.
- 2001-2011: Member of the Editorial Advisory Board of the European Journal of Pharmaceutical Sciences.
- 2009-2012: Member of the Scientific Board of the European School of Medicinal Chemistry (Esmec, Urbino, Italy), advanced summer school of medicinal chemistry recognized by the European Federation of Medicinal Chemistry (EFMC).
- Since 1998: Reviewer for several international journals of organic and medicinal chemistry (Journal of Medicinal Chemistry, European Journal of Medicinal Chemistry, ChemMedChem, Bioorganic and Medicinal Chemistry, Biochemical Pharmacology, etc.).
- 1989-1990: Visiting scientist, as a NATO-CNR fellow, in the research group of Prof. Bernard Testa at the University of Lausanne (Switzerland), where he returned for 2-3-month stages in 1991, 1992 and 1994.

RESEARCH ACTIVITY

- Publications: 169 publications (144 original articles, 11 reviews and 14 book chapters), published mostly in peer-reviewed international journals, pertaining to drug design and synthesis, pharmacophore development, studies of the quantitative structure-activity relationships (QSAR) and computer-aided molecular design. Prof. Altomare has co-invented two patents on water-soluble prodrugs of the anesthetic agent propofol, registered in 2004 in Germany and USA and one patent on new formulations of PSMA-11.
- Bibliometry (Scopus) at October 12, 2024:
  - N. publications: 159
  - Total cites: 4068
  - H-index: 33
- Invited speaker at numerous Italian and international conferences and advances courses on bioorganic and medicinal chemistry.
- Fields of interest: Neurotoxins and neurological agents (substrates and inhibitors of monoamine oxidases, MAOs, cholinesterases, ChEs). Antithrombotic agents (inhibitors of serine proteases of the blood coagulation cascade and antiplatelet drugs). QSAR, lipophilicity and related biological properties. Modeling of enzyme proteins, targets of cardiovascular and neurological agents. Computational toxicology.
- International collaborations:

- Neurobiology group headed by Prof. Ramon Soto-Otero at the University of Santiago de Compostela (Spain);
- Organic chemistry unity of Prof. Leonid G. Voskressensky of the Peoples Friendship University of Russia in Moscow (Russia);
- Medicinal chemistry group of Prof. Eddy Sotelo, at the University of Santiago de Compostela (Spain);
- Computational chemistry unity of Prof. Francisco J. Luque at the University of Barcelona (Spain).

PROJECTS AND RESEARCH FUNDS (2018-2023)

1. European Union's Horizon 2020 Research and Innovation Programme. Call: H2020-INFRADEV-2016-2017. Grant Agreement n. 777554. Project title: "Infradev – European Paediatric Translational Research Infrastructure" (ID-EPTRI). Duration: 24 months (2018-2020). Role: Participant to Research Unit.

2. European Union's Horizon 2020 Research and Innovation Programme. Call: H2020-TWINN-2015. Grant Agreement n. 692327. Project title: "Small Medicines Advanced Research Training" (SMART). Duration: 36 months (2016-2018). Role: Participant to Research Unit.

3. POR PUGLIA FESR-FSE 2014-2020, Asse I – Azione 1.6. Call: INNONETWORK. Grant Agreement n. WF8B9E9. Project title: PRO(wellbeing)STATE "Sviluppo di un Sistema innovativo per la gestione globale della salute del paziente con tumore prostatico". Duration: 24 months (2018-2019). Role: Scientific coordinator of the research Unit at the University of Bari.

4. MIUR. Call: PRIN 2017. Grant Agreement: 201744BN5T_004. Project title: "Nuovi agenti antitumorali dotati di meccanismo di azione multi-targeting". Duration: 36 months (2019-2022). Role: Scientific coordinator of the research Unit at the University of Bari.

LIST OF PUBLICATIONS IN THE LAST TEN YEARS (2014-2024):

1. TOGO M.V., MASTROLORITO F., GAMBACORTA N., TRISCIUZZI D., TONDO A.R., CUTROPIA F., BELGIOVINE V., ALTOMARE C.D., AMOROSO N., NICOLOTTI O. (2025). TIRESIA and TISBE: Explainable Artificial Intelligence Based Web Platforms for the Transparent Assessment of the Developmental Toxicity of Chemicals and Drugs. In: Nicolotti, O. (eds) Computational Toxicology. Methods in Molecular Biology, vol 2834. Humana, New York, NY.
2. CARRIERI A., BARBAROSSA A., DE CANDIA M., SAMARELLI F., ALTOMARE C.D., CZARNOTA-ŁYDKA K., SUDOŁ-TAŁAJ S., LATACZ G., HANDZLIK J., BRUNETTI L., PIEMONTESE L., LIMONGELLI F., LENTINI G., CAROCCI A. (2024) Chiral pyrrolidines as multipotent agents in Alzheimer and neurodegenerative diseases. BIOORGANIC AND MEDICINAL CHEMISTRY, 110, 117829.

3. SAMARELLI F., PURGATORIO R., LOPOPOLO G., DERUVO C., CATTO M., ANDRESINI M., CARRIERI A., NICOLOTTI O., DE PALMA A., MINIERO D.V., DE CANDIA M., ALTOMARE C.D. (2024) Novel 6-alkyl-bridged 4-arylalkylpiperazin-1-yl derivatives of azepino[4,3-*b*]indol-1(2*H*)-one as potent BChE-selective inhibitors showing protective effects against neurodegenerative insults. EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY, 270, 116353.

4. NEVSKAYA, A.A., PURGATORIO, R., BORISOVA, T.N., VARLAMOV, A.V., ANIKINA, L.V., OBYDENNIK, A.Y., NEVSKAYA, E.Y., NISO, M., COLABUFO, N.A., CARRIERI, A., CATTO, M., DE CANDIA, M., VOSKRESSENSKY, L.G., ALTOMARE, C.D. (2024) Nature-Inspired 1-Phenylpyrrolo[2,1-a]isoquinoline Scaffold for Novel Antiproliferative Agents Circumventing P-Glycoprotein-Dependent Multidrug Resistance. PHARMACEUTICALS, 17 (4), 539.

5. MUGNAINI C., BRIZZI A., PAOLINO M., SCARSELLI E., CASTELLI R., DE CANDIA M., GAMBACORTA N., NICOLOTTI O., KOSTRZEWA M., KUMAR P., MAHMOUD A.M., BORGONETTI V., IANNOTTA M., MORACE A., GALEOTTI N., MAIONE S., ALTOMARE C.D., LIGRESTI A., CORELLI F. (2024). Novel Dual-Acting Hybrids Targeting Type-2 Cannabinoid Receptors and Cholinesterase Activity Show Neuroprotective Effects In Vitro and Amelioration of Cognitive Impairment In Vivo ACS CHEMICAL NEUROSCIENCE, 15 (5), pp. 955-971.

6. SBLANO S., BOCCARELLI A., MESITI F., PURGATORIO R., DE CANDIA M., CATTO M., ALTOMARE C.D. (2024) A second life for MAO inhibitors? From CNS diseases to anticancer therapy. EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY, 267, 116180.

7. SAMARELLI F., GRAZIANO G., GAMBACORTA N., GRAPS E.A., LEONETTI F., NICOLOTTI O., ALTOMARE C.D. (2024) Small Molecules for the Treatment of Long-COVID-Related Vascular Damage and Abnormal Blood Clotting: A Patent-Based Appraisal. VIRUSES, 16 (3), 450.

8. LEE S.H., PURGATORIO R., SAMARELLI F., CATTO M., DENORA N., MORGESE M.G., TUCCI P., TRABACE L., KIM H.W., PARK H.S., KIM S.E., LEE B.C., DE CANDIA M., ALTOMARE C.D. (2024) Radiosynthesis and whole-body distribution in mice of a 18F-labeled azepino[4,3-*b*]indole-1-one derivative with multimodal activity for the treatment of Alzheimer's disease. ARCHIV DER PHARMAZIE, 357 (3), 2300491.

9. MASTROLORITO F., TOGO M.V., GAMBACORTA N., TRISCIUZZI D., GIANNUZZI V., BONIFAZI F., LIANTONIO A., IMBRICI P., DE LUCA A., ALTOMARE C.D., CIRIACO F., AMOROSO N., NICOLOTTI O. (2024). TISBE: A Public Web Platform for the Consensus-Based Explainable Prediction of Developmental Toxicity. CHEMICAL RESEARCH IN TOXICOLOGY, 37(2), pp. 323-339.

10. PURGATORIO R., BOCCARELLI A., PISANI L., DE CANDIA M., CATTO M., ALTOMARE C.D. (2024) A Critical Appraisal of the Protective Activity of Polyphenolic Antioxidants against Iatrogenic Effects of Anticancer Chemotherapeutics. ANTIOXIDANTS, 13 (1), 133.

11. TOGO M.V., MASTROLORITO F., ORFINO A., GRAPS, E.A., TONDO A.R., ALTOMARE C.D., CIRIACO F., TRISCIUZZI D., NICOLOTTI O., AMOROSO N. (2024). Where developmental toxicity meets explainable artificial intelligence: state-of-

the-art and perspectives. EXPERT OPINION ON DRUG METABOLISM AND TOXICOLOGY, 20(7), pp. 561-577.

12. IMBRICI P., D'ORSI G., CARELLA M., NICOLOTTI O., DE LUCA A., ALTOMARE C.D., LIANTONIO A. (2024) Sodium-glucose cotransporter-2 inhibitors: A potential novel treatment for Lafora disease? PHARMACOLOGICAL RESEARCH, 199, 107012.
13. MELE M., IMBRICI P., MELE A., TOGO M.V., DINOI G., CORREAL M., BRUNETTI N.D., NICOLOTTI O., DE LUCA A., ALTOMARE C.D., LIANTONIO A., AMOROSO N. (2023). Short-term anti-remodeling effects of gliflozins in diabetic patients with heart failure and reduced ejection fraction: an explainable artificial intelligence approach (2023). FRONTIERS IN PHARMACOLOGY 14, 1175606.
14. GAMBACORTA N., TRISCIUZZI D., CIRIACO F., MASTROLORITO F., TOGO M.V., TONDO A.R., ALTOMARE C.D., AMOROSO N., NICOLOTTI O. (2023). Chapter 26 - Machine learning resources for drug design. In Roy K. (Ed.): Cheminformatics, QSAR and Machine Learning Applications for Novel Drug Development, Academic Press, 2023, pp. 663-678, ISBN 9780443186387.
15. AMOROSO N., GAMBACORTA N., MASTROLORITO F., TOGO M.V., TRISCIUZZI D., MONACO A., PANTALEO E., ALTOMARE C.D., CIRIACO F., NICOLOTTI O. (2023). Making sense of chemical space network shows signs of criticality. SCIENTIFIC REPORTS 13, 21335.
16. DE CANDIA M., TITOV A.A., VIAYNA A., KULIKOVA L.N., PURGATORIO R., PIERGIOVANNI B., NISO M., CATTO M., VOSKRESSENSKY L.G., LUQUE J.F., ALTOMARE C.D. (2023). In-vitro and in-silico studies of annelated 1,4,7,8-tetrahydroazocine ester derivatives as nanomolar selective inhibitors of human butyrylcholinesterase. CHEMICO-BIOLOGICAL INTERACTIONS, 386, 110741.
17. CZARNOTA-ŁYDKA K., SUDOŁ-TAŁAJ S., KUCWAJ-BRYSZ K., KURCZAB R., SATAŁA G., DE CANDIA M, SAMARELLI F., ALTOMARE C.D., CAROCCI A., BARBAROSSA A., ESŁAWSKA E.Z., GŁUCH-LUTWIN F., MORDYL B., KUBACKA M., WILCZY´NSKA-ZAWAL M., JASTRZĘBSKA-WIĘSEK M., PARTYKA A., KHAN N., WIĘCEK M., NITEK W., HONKISZ-ORZECHOWSKA E., LATACZ E., WESOŁOWSKA A., CARRIERI A., HANDZLIK J. (2023). Synthesis, computational and experimental pharmacological studies for (thio)ether-triazine $5\text{-}HT_6R$ ligands with noticeable action on AChE/BChE and chalcogen-dependent intrinsic activity in search for new class of drugs against Alzheimer's disease. EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY, 259, 115695.
18. GAMBACORTA N., CIRIACO F., AMOROSO N., ALTOMARE C.D., BAJORATH J., NICOLOTTI O. (2023). CIRCE: Web-Based Platform for the Prediction of Cannabinoid Receptor Ligands Using Explainable Machine Learning. JOURNAL OF CHEMICAL INFORMATION AND MODELING 63, pp. 5916-5926.
19. PAOLINO M., DE CANDIA M., PURGATORIO R., CATTO M., SALETTI M., TONDO A.R., NICOLOTTI O., CAPPELLI A., BRIZZI A., MUGNAINI C., CORELLI F., ALTOMARE C.D. (2023). Investigation on Novel E/Z 2-Benzylideneindan-1-One-Based Photoswitches with AChE and MAO-B Dual Inhibitory Activity. MOLECULES 28, 5857.

20. CIRIACO F., GAMBACORTA N., LEONETTI F., ALTOMARE C.D., NICOLOTTI O. (2023). Virtual Reverse Screening Approach to Target Type 2 Cannabinoid Receptor. METHODS IN MOLECULAR BIOLOGY, 2576, pp. 495-504.
21. PISANI L., DE CANDIA M., RULLO M., ALTOMARE C.D. (2023). Hansch-Type QSAR Models for the Rational Design of MAO Inhibitors: Basic Principles and Methodology. METHODS IN MOLECULAR BIOLOGY, 2558, pp. 207-220.
22. SCHINO I., CANTORE M., DE CANDIA M., ALTOMARE C.D., MARIA C., BARROS J., CACHATRA V., CALADO P., SHIMIZU K., FREITAS A.A., OLIVEIRA M.C., FERREIRA M.J., LOPES J.N.C., COLABUFO N.A., RAUTER A.P. (2023) Exploring Mannosylpurines as Copper Chelators and Cholinesterase Inhibitors with Potential for Alzheimer's Disease. PHARMACEUTICALS, 16, 54.
23. TOGO M.V., MASTROLORITO F., CIRIACO F., TRISCIUZZI D., TONDO A.R., GAMBACORTA N., BELLANTUONO L., MONACO A., LEONETTI F., BELLOTTI R., ALTOMARE C.D., AMOROSO N., NICOLOTTI O. (2023) TIRESIA: An eXplainable Artificial Intelligence Platform for Predicting Developmental Toxicity. JOURNAL OF CHEMICAL INFORMATION AND MODELING, 63, pp. 56-66.
24. KULIKOVA L.N., RAESI G.R., LEVICKAYA D.D., PURGATORIO R., SPADA G.L., CATTO M., ALTOMARE C.D., VOSKRESSENSKY L.G. (2023) Synthesis of Novel Benzo[b][1,6]naphthyridine Derivatives and Investigation of Their Potential as Scaffolds of MAO Inhibitors. MOLECULES, 28, 1662
25. KULIKOVA L.N., PURGATORIO R., BELOGLAZKIN A.A., TAFEENKO V.A., REZA R.G., LEVICKAYA D.D., SBLANO S., BOCCARELLI A., DE CANDIA M., CATTO M., VOSKRESSENSKY L.G., ALTOMARE C.D. (2023). Chemical and Biological Evaluation of Novel 1*H*-Chromeno[3,2-*c*]pyridine Derivatives as MAO Inhibitors Endowed with Potential Anticancer Activity. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, 24, 7724.
26. PAOLINO M., RULLO M., MARAMAI S., DE CANDIA M., PISANI L., CATTO M., MUGNAINI C., BRIZZI A., CAPPELLI A., OLIVUCCI M., CORELLI F., ALTOMARE C.D. (2022). Design, synthesis and biological evaluation of light-driven on-off multitarget AChE and MAO-B inhibitors. RSC MEDICINAL CHEMISTRY, vol. 13, pp. 873-883
27. LOPALCO A., MANNI A., KEELEY A., HAIDER S., LI W., LOPEDOTA A., ALTOMARE C.D., DENORA N., TULEU C. (2022) In Vivo Investigation of (2-Hydroxypropyl)-β-cyclodextrin-Based Formulation of Spironolactone in Aqueous Solution for Paediatric Use. PHARMACEUTICS, vol. 14, 780.
28. KOBZEV, M.S., TITOV, A.A., ALEXANDROVA, E.V., PURGATORIO, R., CATTO, M., SOROKINA, E.A., BORISOVA, T.N., VARLAMOV, A.V., ALTOMARE, C.D., VOSKRESSENSKY, L.G. (2022) Synthesis of 8-phenyl substituted 3-benzazecines with allene moiety, their thermal rearrangement and evaluation as acetylcholinesterase inhibitors. MOLECULAR DIVERSITY, vol. 26, pp. 1243-1247
29. RULLO M., CIPOLLONI M., CATTO M., COLLIVA C., MINIERO D.V., LATRONICO T., DE CANDIA M., BENICCHI T., LINUSSON A., GIACCHÈ N., ALTOMARE C.D., PISANI L. (2022) Probing Fluorinated Motifs onto Dual AChE-MAO B Inhibitors:

Rational Design, Synthesis, Biological Evaluation, and Early-ADME Studies. JOURNAL OF MEDICINAL CHEMISTRY, vol. 65, pp. 3962-3977.

30. BOLOGNINO I., CARRIERI A., PURGATORIO R., CATTO M., CALIANDRO R., CARROZZINI B., BELVISO B.D., MAJELLARO M., SOTELO E., CELLAMARE S., ALTOMARE C.D. (2022) Enantiomeric Separation and Molecular Modelling of Bioactive 4-Aryl-3,4-dihydropyrimidin-2(1*H*)-one Ester Derivatives on Teicoplanin-Based Chiral Stationary Phase. SEPARATIONS, vol. 9, 7.

31. PURGATORIO R., GAMBACORTA N., SAMARELLI F., LOPOPOLO G., DE CANDIA M., CATTO M., NICOLOTTI O., ALTOMARE C.D. (2022). Assessing the Role of a Malonamide Linker in the Design of Potent Dual Inhibitors of Factor Xa and Cholinesterases. MOLECULES, 27, 4269.

32. BRUNETTI L., LEUCI R., CARRIERI A., CATTO M., OCCHINERI S., VINCI G., GAMBACORTA L., BALTRUKEVICH H., CHAVES S., LAGHEZZA A., ALTOMARE C.D., TORTORELLA P., SANTOS M.A., LOIODICE F., PIEMONTESE L. (2022). Structure-based design of novel donepezil-like hybrids for a multi-target approach to the therapy of Alzheimer's disease. EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY, 237, 114358.

33. DE MAIO F., RULLO M., DE CANDIA M., PURGATORIO R., LOPOPOLO G., SANTARELLI G., PALMIERI V., PAPI M., ELIA G., DE CANDIA E., SANGUINETTI M., ALTOMARE C.D. (2022). Evaluation of Novel Guanidino-Containing Isonipecotamide Inhibitors of Blood Coagulation Factors against SARS-CoV-2 Virus Infection. VIRUSES, 14, 1730.

34. CAROCCI A., BARBAROSSA A., LEUCI R., CARRIERI A., BRUNETTI L., LAGHEZZA A., CATTO M., LIMONGELLI F., CHAVES S., TORTORELLA P., ALTOMARE C.D., SANTOS M.A., LOIODICE F., PIEMONTESE L. (2022). Novel Phenothiazine/Donepezil-like Hybrids Endowed with Antioxidant Activity for a Multi-Target Approach to the Therapy of Alzheimer’s Disease. ANTIOXIDANTS, 11, 1631

35. TITOV A.A., PURGATORIO R., OBYDENNIK A.Y., LISTRATOVA A.V., BORISOVA T.N., DE CANDIA M., CATTO M., ALTOMARE C.D., VARLAMOV A.V., VOSKRESSENSKY L.G. (2022). Synthesis of Isomeric 3-Benzazecines Decorated with Endocyclic Allene Moiety and Exocyclic Conjugated Double Bond and Evaluation of Their Anticholinesterase Activity. MOLECULES, 27, 6276.

36. PISANI L., CATTO M., MUNCIPINTO G., NICOLOTTI O., CARRIERI A., RULLO M., STEFANACHI A., LEONETTI F., ALTOMARE C. (2022). A twenty-year journey exploring coumarin-based derivatives as bioactive molecules. FRONTIERS IN CHEMISTRY, 10, 1002547.

37. BRINDISI M., FRATTARUOLO L., MANCUSO R., PALUMBO PICCIONELLO A., ZICCARELLI I., CATTO M., NICOLOTTI O., ALTOMARE C.D., GABRIELE N., CAPPELLO A.R. (2021) Anticancer potential of novel α,β-unsaturated γ-lactam derivatives targeting the PI3K/AKT signaling pathway. BIOCHEMICAL PHARMACOLOGY, vol. 190, 114659.

38. PURGATORIO R., DE CANDIA M., CATTO M., RULLO M., PISANI L., DENORA N., CARRIERI A., NEVSKAYA A.A., VOSKRESSENSKY L.G., ALTOMARE C.D. (2021) Evaluation of Water-Soluble Mannich Base Prodrugs of 2,3,4,5-Tetrahydroazepino[4,3-*b*]indol-1(6*H*)-one as Multitarget-Directed Agents for Alzheimer's Disease. CHEMMEDCHEM, vol 16, 589-598.

39. MANCUSO R., ZICCARELLI I., BRINDISI M., ALTOMARE C.D., FRATTARUOLO L., FALCICCHIO A., DELLA CA' N., CAPPELLO A.R., GABRIELE B. (2021) A stereoselective, multicomponent catalytic carbonylative approach to a new class of α,β-unsaturated γ-lactam derivatives. CATALYSTS, vol. 11, 1-18.

40. TITOV A.A., KOBZEV M.S., CATTO M., DE CANDIA M., GAMBACORTA N., DENORA N., PISANI L., NICOLOTTI O., BORISOVA T.N., VARLAMOV A.V., VOSKRESSENSKY L.G., ALTOMARE C.D. (2021) Away from Flatness: Unprecedented Nitrogen-Bridged Cyclopenta[*a*]indene Derivatives as Novel Anti-Alzheimer Multitarget Agents. ACS CHEMICAL NEUROSCIENCE, vol. 12, 340-353.

41. BOLOGNINO I., GIANGREGORIO N., TONAZZI A., MARTINEZ A.L., ALTOMARE C.D., LOZA M.I., SABLONE S., CELLAMARE S., CATTO M. (2021) Synthesis and Biological Evaluation of Dantrolene-Like Hydrazide and Hydrazone Analogues as Multitarget Agents for Neurodegenerative Diseases. CHEMMEDCHEM, https://doi.org/10.1002/cmdc.202100209

42. KOBZEV M.S., TITOV A.A., ALEXANDROVA E.V., PURGATORIO R., CATTO M., SOROKINA E.A., BORISOVA T.N., VARLAMOV A.V., ALTOMARE C.D., VOSKRESSENSKY L.G. (2021) Synthesis of 8-phenyl substituted 3-benzazecines with allene moiety, their thermal rearrangement and evaluation as acetylcholinesterase inhibitors. MOLECULAR DIVERSITY, https://doi.org/10.1007/s11030-021-10185-8

43. NEVSKAYA A.A., ANIKINA L.V., PURGATORIO R., CATTO M., NICOLOTTI O., DE CANDIA M., PISANI L., BORISOVA T.N., MIFTYAKHOVA A.R., VARLAMOV A.V., NEVSKAYA E.YU., BORISOV R.S. (2021) Homobivalent lamellarin-like schiff bases: In vitro evaluation of their cancer cell cytotoxicity and multitargeting anti-alzheimer's disease potential. MOLECULES, vol. 26, 359.

44. GUIEU B., LECOUTEY C., LEGAY R., DAVIS A., DE OLIVEIRA SANTOS J.S., ALTOMARE C.D., CATTO M., ROCHAIS C., DALLEMAGNE P. (2021) First synthesis of racemic trans propargylamino-donepezil, a pleiotrope agent able to both inhibit AChE and MAO-B, with potential interest against Alzheimer's disease. MOLECULES, vol. 26, 80.

45. PURGATORIO R., GAMBACORTA N., CATTO M., DE CANDIA M., PISANI L., ESPARGARÓ A., SABATÉ R., CELLAMARE S., NICOLOTTI O., ALTOMARE C.D. (2020) Pharmacophore modeling and 3D-QSAR study of indole and isatin derivatives as antiamyloidogenic agents targeting Alzheimer's disease. MOLECULES, vol. 25, 5773.

46. COCO L.D., MAJELLARO M., BOCCARELLI A., CELLAMARE S., ALTOMARE C.D., FANIZZI, F.P. (2020) Novel antiproliferative biphenyl nicotinamide: NMR metabolomic study of its effect on the MCF-7 cell in comparison with cisplatin and vinblastine. MOLECULES, vol. 15, 3502.

47. PURGATORIO R., KULIKOVA L.N., PISANI L., CATTO M., DE CANDIA M., CARRIERI A., CELLAMARE S., DE PALMA A., BELOGLAZKIN A.A., REZA RAESI G., VOSKRESSENSKY L.G., ALTOMARE C.D. (2020) Scouting around 1,2,3,4-Tetrahydrochromeno[3,2-*c*]pyridin-10-ones for Single- and Multitarget Ligands Directed towards Relevant Alzheimer's Targets. CHEMMEDCHEM, vol. 15, 1947-1955.
48. YUE X., FESTA A.A., STOROZHENKO O.A., VARLAMOV A.V., SUBRAMANI K., BOCCARELLI A., PURGATORIO R., ALTOMARE C.D., VOSKRESSENSKY L.G. (2020) Reductive domino reaction to access chromeno[2,3-*c*]isoquinoline-5-amines with antiproliferative activities against human tumor cells. BIOORGANIC CHEMISTRY, vol. 104, 104169.
49. CATTO M., PISANI L., DE LA MORA E., BELVISO B.D., MANGIATORDI G.F., PINTO A., DE PALMA A., DENORA N., CALIANDRO R., COLLETIER J.-P., SILMAN I., NICOLOTTI O., ALTOMARE C.D. (2020). Chiral Separation, X-ray Structure, and Biological Evaluation of a Potent and Reversible Dual Binding Site AChE Inhibitor. ACS MEDICINAL CHEMISTRY LETTERS, vol. 11, p. 869-876.
50. VIAYNA A., ANTERMITE S.G., DE CANDIA, M., ALTOMARE C.D., LUQUE F.J. (2020). Interplay between Ionization and Tautomerism in Bioactive β-Enamino Ester-Containing Cyclic Compounds: Study of Annulated 1,2,3,6-Tetrahydroazocine Derivatives. JOURNAL OF PHYSICAL CHEMISTRY B, vol. 124, p. 28-37.
51. PASCULLI A., GURRADO A., DE LUCA G.M., MELE A., MARZULLO A., MANGONE A., CELLAMARE S., FERRARO V., MAQOUD F., CAGGIANI M.C., RANA F., CAVALLARO G., PRETE F.P., TRICARICO D., ALTOMARE C.D., TESTINI M. (2020). Bridging repair of the abdominal wall in a rat experimental model. Comparison between uncoated and polyethylene oxide-coated equine pericardium meshes. SCIENTIFIC REPORTS, vol. 10, p. 6959.
52. RULLO M., NISO M., PISANI L., CARRIERI A., COLABUFO N.A., CELLAMARE S., ALTOMARE C.D. (2019). 1,2,3,4-Tetrahydroisoquinoline/2H-chromen-2-one conjugates as nanomolar P-glycoprotein inhibitors: Molecular determinants for affinity and selectivity over multidrug resistance associated protein 1. EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY, vol. 161, p. 433-444, ISSN: 0223-5234, doi: 10.1016/j.ejmech.2018.10.043
53. MATVEEVA M.D., PURGATORIO R., VOSKRESSENSKY L.G., ALTOMARE C.D. (2019). Pyrrolo[2,1-*a*]isoquinoline scaffold in drug discovery: Advances in synthesis and medicinal chemistry. FUTURE MEDICINAL CHEMISTRY, vol. 11, p. 2735-2755.
54. TITOV A.A., NISO M., CANDIA M., KOBZEV M.S., VARLAMOV A.V., BORISOVA T.N., VOSKRESSENSKY L.G., COLABUFO N.A., CELLAMARE S., PISANI L., ALTOMARE C.D. (2019). 3-benzazecine-based cyclic allene derivatives as highly potent P-glycoprotein inhibitors overcoming doxorubicin multidrug resistance. FUTURE MEDICINAL CHEMISTRY, vol. 11, p. 2095-2106, ISSN: 1756-8919, doi: 10.4155/fmc-2019-0037
55. BOLOGNINO I., GIANGREGORIO N., PISANI L., DE CANDIA M., PURGATORIO R., TONAZZI A., ALTOMARE C.D., CELLAMARE S., CATTO M. (2019). A Prospective Repurposing of Dantrolene as a Multitarget Agent for Alzheimer's Disease. MOLECULES, vol. 24, 4298, doi: 10.3390/molecules24234298

56. RULLO M., CATTO M., CARRIERI A., DE CANDIA M., ALTOMARE C.D., PISANI L. (2019). Chasing ChEs-MAO B Multi-Targeting 4-Aminomethyl-7-Benzyloxy-2H-Chromen-2-ones. MOLECULES, vol. 24, doi: 10.3390/ molecules24244507
57. PURGATORIO R., DE CANDIA M., CATTO M., CARRIERI A., PISANI L., DE PALMA A., TOMA M., IVANOVA O. A., VOSKRESSENSKY L.G., ALTOMARE C.D. (2019). Investigating 1,2,3,4,5,6-hexahydroazepino[4,3-*b*]indole as scaffold of butyrylcholinesterase-selective inhibitors with additional neuroprotective activities for Alzheimer's disease. EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY, vol. 177, p. 414-424, ISSN: 0223-5234, doi: 10.1016/j.ejmech.2019.05.062
58. PISANI L., IACOBAZZI R.M., CATTO M., RULLO M., FARINA R., DENORA N., CELLAMARE S., ALTOMARE C.D. (2019). Investigating alkyl nitrates as nitric oxide releasing precursors of multitarget acetylcholinesterase-monoamine oxidase B inhibitors. EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY, vol. 161, p. 292-309, ISSN: 0223-5234, doi: 10.1016/j.ejmech.2018.10.016.
59. NEVSKAYA A.A., MATVEEVA M.D., BORISOVA T.N., NISO M., COLABUFO N.A., BOCCARELLI A., PURGATORIO R., DE CANDIA M., CELLAMARE S., VOSKRESSENSKY L.G., ALTOMARE C.D. (2018). A New Class of 1-Aryl-5,6-dihydropyrrolo[2,1-*a*]isoquinoline Derivatives as Reversers of P-Glycoprotein-Mediated Multidrug Resistance in Tumor Cells. CHEMMEDCHEM, vol. 15, p. 1588-1596, DOI: 10.1002/cmdc.201800177.
60. PISANI L., RULLO M., CATTO M., DE CANDIA M., CARRIERI A., CELLAMARE S., ALTOMARE C.D. (2018). Structure–property relationship study of the HPLC enantioselective retention of neuroprotective 7-[(1-alkylpiperidin-3-yl)methoxy]coumarin derivatives on an amylose-based chiral stationary phase. JURNAL OF SEPARATION SCIENCE, vol. 41, p. 1376-1384, DOI: 10.1002/jssc.201701442.
61. PURGATORIO R., DE CANDIA M., DE PALMA A., DE SANTIS F., PISANI L., CAMPAGNA F., CELLAMARE S., ALTOMARE C.D., CATTO M. (2018). Insights into structure-activity relationships of 3-arylhydrazonoindolin-2-one derivatives for their multitarget activity on β-amyloid aggregation and neurotoxicity. MOLECULES, vol. 23, p. 1544, DOI: 10.3390/molecules23071544.
62. PISANI L., DE PALMA A., GIANGREGORIO N., MINIERO D.V., PESCE P., NICOLOTTI O., CAMPAGNA F., ALTOMARE C.D., CATTO M. (2017). Mannich base approach to 5-methoxyisatin 3-(4-isopropylphenyl)hydrazone: A water-soluble prodrug for a multitarget inhibition of cholinesterases, beta-amyloid fibrillization and oligomer-induced cytotoxicity. EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES, vol. 109, p. 381-388, DOI: 10.1016/j.ejps.2017.08.004.
63. LEE B.C., MOON B.S., PARK H.S., JUNG J.H., PARK H.S., PARK D.D., DE CANDIA M., DENORA N., ALTOMARE C.D., KIM S.E. (2017). The position of fluorine in CP-118,954 affects AChE inhibition potency and PET imaging quantification for AChE expression in the rat brain. EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES, vol. 109, p. 209-216. DOI: 10.1016/j.ejps.2017.08.008
64. CASSANO T., LOPALCO A., DE CANDIA M., LAQUINTANA V., LOPEDOTA A., CUTRIGNELLI A., PERRONE M., IACOBAZZI R.M., BEDSE G., FRANCO M.,

DENORA N., ALTOMARE C.D. (2017). Oxazepam-Dopamine Conjugates Increase Dopamine Delivery into Striatum of Intact Rats. MOLECULAR PHARMACEUTICS, vol. 14, p. 3178-3187. DOI: 10.1021/acs.molpharmaceut.7b00405

65. DE CANDIA M., ALTAMURA C., DENORA N., CELLAMARE S., NUZZOLESE M., DE VITO D., VOSKRESSENSKY L.G., VARLAMOV A.V., ALTOMARE C.D. (2017). Physicochemical properties and antimicrobial activity of new spirocyclic thieno[2,3-*d*]pyrimidin-4(3H)-one derivatives. CHEMISTRY OF HETEROCYCLIC COMPOUNDS, vol. 53, p. 357-363. DOI: 10.1007/s10593-017-2057-1

66. DENORA N., LOPEDOTA A., DE CANDIA M., CELLAMARE S., DEGENNARO L., LUISI R., MELE A., TRICARICO D., CUTRIGNELLI A., LAQUINTANA V., ALTOMARE C.D., FRANCO M., DIMICCOLI V., TOLOMEO A., SCILIMATI A. (2017). Pharmaceutical development of novel lactate-based 6-fluoro-L-DOPA formulations. EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES, vol. 99, p. 361-368. DOI: 10.1016/j.ejps.2016.10.001

67. PISANI L., CATTO M., DE PALMA A., FARINA R., CELLAMARE S., ALTOMARE C.D. (2017). Discovery of Potent Dual Binding Site Acetylcholinesterase Inhibitors via Homo- and Heterodimerization of Coumarin-Based Moieties. CHEMMEDCHEM, vol. 12, p. 1349-1358. DOI: 10.1002/cmdc.201700282

68. DE CANDIA M., ZAETTA G., DENORA N., TRICARICO D., MAJELLARO M., CELLAMARE S., ALTOMARE C.D. (2017). New azepino[4,3-b]indole derivatives as nanomolar selective inhibitors of human butyrylcholinesterase showing protective effects against NMDA-induced neurotoxicity. EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY, vol. 125, p. 288-298. DOI: 10.1016/j.ejmech.2016.09.037

69. PARISI G., DEGENNARO L., CARLUCCI C., DE CANDIA M., MASTRORILLI P., ROLLER A., HOLZER W., ALTOMARE C.D., PACE V., LUISI R. (2017). A greener and efficient access to substituted four- and six-membered sulfur-bearing heterocycles. ORGANIC AND BIOMOLECULAR CHEMISTRY, vol. 15, p. 5000-5015. DOI: 10.1039/c7ob00846e

70. MAJELLARO M., STEFANACHI A., TARDIA P., VICENTI C., BOCCARELLI A., PANNUNZIO A., CAMPANELLA F., COLUCCIA M., DENORA N., LEONETTI F., DE CANDIA M., ALTOMARE C.D., CELLAMARE S. (2017). Investigating Structural Requirements for the Antiproliferative Activity of Biphenyl Nicotinamides. CHEMMEDCHEM, vol. 12, p. 1380-1389. DOI: 10.1002/cmdc.201700365

71. PISANI L., FARINA R., CATTO M., IACOBAZZI R.M, NICOLOTTI O., CELLAMARE S., MANGIATORDI G.F., DENORA N., SOTO-OTERO R., SIRAGUSA L., ALTOMARE C.D., CAROTTI, A. (2016). Exploring Basic Tail Modifications of Coumarin-Based Dual Acetylcholinesterase-Monoamine Oxidase B Inhibitors: Identification of Water-Soluble, Brain-Permeant Neuroprotective Multitarget Agents. JOURNAL OF MEDICINAL CHEMISTRY, vol. 59, p. 6791-6806.

72. D'ANDRIA P., GIANNUZZI V., BONIFAZI F., CECI A., DENORA N., ALTOMARE C.D. (2016). Formulating medicines for children: Challenges and issues. LA CHIMICA E L'INDUSTRIA, 3, 16-21.

73. DE CANDIA M., DENORA N., ALTOMARE C.D. (2016). Antiplatelet 2-Hydroxy Thienopyridine Ester Derivatives for the Reduction of Thrombotic Cardiovascular Events, in Bioactive Carboxylic Compound Classes: Pharmaceuticals and Agrochemicals (eds C. Lamberth and J. Dinges), Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany. doi: 10.1002/9783527693931.ch5

74. ZAHARIA C.A., CELLAMARE S., ALTOMARE, C.D. (2016) Oxazolidinone Amide Antibiotics, in Bioactive Carboxylic Compound Classes: Pharmaceuticals and Agrochemicals (eds C. Lamberth and J. Dinges), Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany. doi: 10.1002/9783527693931.ch11

75. PISANI L., FARINA R., SOTO-OTERO R., DENORA N., MANGIATORDI G.F., NICOLOTTI O., MENDEZ-ALVAREZ E., ALTOMARE C.D., CATTO M., CAROTTI, A. (2016). Searching for Multi-Targeting Neurotherapeutics against Alzheimer's: Discovery of Potent AChE-MAO B Inhibitors through the Decoration of the 2*H*-Chromen-2-one Structural Motif. MOLECULES, vol. 21, 362-377.

76. MANGIATORDI G. F., ALBERGA D., ALTOMARE C. D., CAROTTI A., CATTO M., CELLAMARE S., GADALETA D., LATTANZI G., LEONETTI F., PISANI L., STEFANACHI A., TRISCIUZZI D. NICOLOTTI O. (2016). Mind the Gap! A Journey towards Computational Toxicology. MOLECULAR INFORMATICS vol. 35, 294-308. doi: 10.1002/minf.201501017

77. FARINA R., PISANI L., CATTO M., NICOLOTTI O., GADALETA D., DENORA N., SOTO-OTERO R., MENDEZ-ALVAREZ E., PASSOS C.S., MUNCIPINTO G., ALTOMARE C.D., NURISSO A., CARRUPT P.A., CAROTTI A. (2015). Structure-Based Design and Optimization of Multitarget-Directed 2*H*-Chromen-2-one Derivatives as Potent Inhibitors of Monoamine Oxidase B and Cholinesterases. JOURNAL OF MEDICINAL CHEMISTRY, vol. 58, p. 5561-5578.

78. LEO V., STEFANACHI A., NACCI C., LEONETTI F., DE CANDIA M., CAROTTI A., ALTOMARE C.D., MONTAGNANI M., CELLAMARE S. (2015). Galloyl benzamide-based compounds modulating tumour necrosis factor α-stimulated c-Jun N-terminal kinase and p38 mitogen-activated protein kinase signalling pathways. JOURNAL OF PHARMACY AND PHARMACOLOGY, vol. 67, p. 1380-1392.

79. MIDZAK A., DENORA N., LAQUINTANA V., CUTRIGNELLI A., LOPEDOTA A., FRANCO M., ALTOMARE C.D., Papadopoulos V. (2015). 2-Phenylimidazo[1,2-*a*]pyridine-containing ligands of the 18-kDa translocator protein (TSPO) behave as agonists and antagonists of steroidogenesis in a mouse leydig tumor cell line. EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES, vol. 76, p. 231-237.

80. DE CANDIA M., MARINI E., ZAETTA G., CELLAMARE S., DI STILO A., ALTOMARE C. (2015). New organic nitrate-containing benzyloxy isonipecotanilide derivatives with vasodilatory and anti-platelet activity. EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES, vol. 72, p. 69-80.

81. DE CANDIA M., ALTOMARE C.D. (2015) Organofluorine- containing therapeutics for treatment of cardiovascular disease. Book Chapter in Fluorinated Pharmaceuticals: Advances in Medicinal Chemistry (Future Medicine Ltd.) p. 106-125.

82. BELVISO B.D., CALIANDRO R., DE CANDIA M., ZAETTA G., LOPOPOLO G., INCAMPO F., COLUCCI M., ALTOMARE C. (2014). How a β-D-Glucoside Side Chain Enhances Binding Affinity to Thrombin of Inhibitors Bearing 2-Chlorothiophene as P1 Moiety: Crystallography, Fragment Deconstruction Study and Evaluation of Antithrombotic Properties. JOURNAL OF MEDICINAL CHEMISTRY, vol. 57, p. 8563-8575.

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