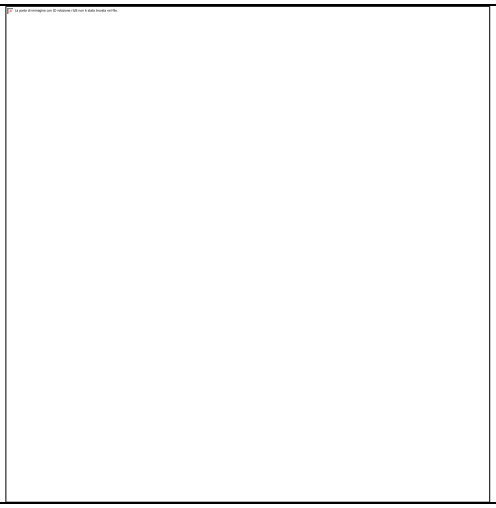
Curriculum Vitae March 2022



PERSONAL INFORMATION

Name: Vincenza Andrisano
Date and place of birth: 17/05/1958, Bologna, Italy
Citizenship: Italian
Married, one child
Home Address: via Aurelio Bertola 84, 47921 Rimini, Italy
Web site: https://www.unibo.it/sitoweb/vincenza.andrisano/en
ORCID: 0000-0003-4396-1904
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CURRENT POSITION

Full Professor of Medicinal Chemistry, Alma Mater Studiorum, University of Bologna, Rimini Campus, Italy (Dec2012)

Address: Department for Life Quality Studies, Alma Mater Studiorum-University of Bologna Rimini Campus, Italy Corso d'Augusto 237, 47921 Rimini, Italy. Tel. +39-0541-434627 Fax +39-0541-434608 Mobile: +39-3371180566

ACADEMIC CAREER

1981 5 years Degree in Chemistry and Pharmaceutical Technology, Laurea in Chimica e Tecnologie farmaceutiche, University of Bologna: (110/110 with laude).

1987-88 Research Assistant, Department of Biochemistry, University of Sydney, Australia

1989 post-lauream Diploma from Scuola di specializzazione in Scienze e Tecnologie Cosmetiche Università di Ferrara, Italy (70/70 cum laude)

1995 Visiting Fellow at the McGill University, Division de Pharmacocinétique, Department D'Oncologie, Montréal (Canada)

1998-2012 Associate Professor in Medicinal Chemistry and Pharmaceutical Analysis, Department of Pharmaceutical Sciences, University of Bologna

2000 Visiting Fellow at the Department of Pharmacology Georgetown University Medical Center Washington DC (USA)

2012-present Full professor in Medicinal Chemistry, University of Bologna, Rimini Campus

2017-present Visiting professorship at the School of Pharmacy, University of Reading, Reading (UK)

AWARDS AND HONORS

2022-2025 Ri-elected Scientific Director of the Chemistry and Toxicology of Materials' Unit 06 of the Inter-departmental Centre of industrial research for Advanced materials and mechanics (CIRI-MAM) at the Rimini Technopole, Via Dario Campana 71, Rimini
2020-present nominated member of Accademia delle Scienze dell'Istituto di Bologna, Classe di Scienze Fisiche per la I Sezione – Scienze Matematiche, Fisiche, Chimiche e Geologiche.
2018-present; Director of Single Cycle Degree of Pharmacy, Rimini Campus, University of Bologna
2017-2021; Member of the Commission for Professorship Abilitation in SC03/D1 Medicinal Chemistry, food chemistry, chemistry of food supplements
2018-2021; Elected Scientific Director of the 'Chemistry and Toxicology of Materials', Unit 06 of the Inter-departmental Centre of industrial research for Advanced materials and mechanics (CIRI-MAM) at the Rimini Technopole, Via Dario Campana 71, Rimini
2015-2021 Member of the Advisory Board of the Division of Medicinal Chemistry of the Italian Society of Chemistry (SIC)
2015-2021 Director of First Cycle Degree of Quality control of health products, Rimini Campus
2008- 2013, Director of the Summer School on Pharmaceutical Analysis SSPA (http://www.scpaweb.org/), sponsored by the Division of Medicinal Chemistry of the Italian Society of Chemistry (SCI) and the European Federation of Medicinal Chemistry (EFMC).
2013-present President of the Pharmacy students Internship activity board and Quality assurance board of Pharmacy course

RESEARCH ACTIVITY

V.A. research activity has been focused on the drug discovery and development process, with a special attention to validation of instrumental analytical approach (HPLC, GC, Mass spectrometry, fluorimetry, spectrophotometry, circular dichroism) for monitoring drug-target protein interaction, in view of activity determination and adsorption, distribution, metabolism excretion (ADME) properties of synthetic and natural molecules.
This activity was mainly centred on the discovery of new active agents to treat neurodegenerative (Alzheimer's disease) and cancer diseases, by researching on:

- enzymatic properties of new mechanism based substrates and inhibitors
- stereoselective interaction between drug-target protein by biochromatography and circular dichroism
- Enzyme immobilization in separative systems for the development of efficient screening of new inhibitors
- Amyloid peptide secondary structure determination and its modulation in kinetic studies of aggregation and inhibiton by circular dichroism, fluorescence, atomic force microscopy
- Circular dichroism for protein secondary structure determination in the interaction with ligand molecules
- Biochromatography for ligand-target protein interaction
- Ultra fast analysis of active compounds in complex matrices
- Drug and biologically active compounds metabolism studies by HPLC, GC hyphenated with mass spectrometry
- Proteomic studies (Histone proteins) in tumour cells in view of epigenetic regulation by HDAC inhibitors and biomarkers discovery
- Development of analytical methods for the determination of drugs and biologically active compounds in complex matrices by GC/HPLC-ESI-MS.

As Scientific Director of the 'Chemistry and Toxicology of materials' Unit 06 of the Inter-departmental Centre of industrial research for Advanced materials and mechanics UniBo(CIRI-MAM) at the Rimini Technopole, research lines involving collaboration with industries are the following:

- Analytical characterization of microalgae for nutraceutical, cosmetic, pharmaceutical valorization (funds from ENI SpA)
- 'Secondary products from agrifood to be valorised by nutraceutical, cosmetic, pharmaceutical and packaging industries in view of a green circular bioeconomy" (industry collaboration agreement with Fruttagel (https://www.fruttagel.it) and Valpharma (https://www.valpharma.com). On this 'green' topic a PON Ph.D scholarship has been obtained.

MAIN PROJECTS RESPONSABILITY:

2019-present scientific coordinator of the project 'Microalgae analytical characterization' funded by ENI S.p.A.
2021-present 'Secondary products from agrifood to be valorised by nutraceutical, cosmetic, pharmaceutical and packaging industries in view of a green circular bioeconomy" (industry collaboration agreement with Fruttagel (https://www.fruttagel.it) and Valpharma (https://www.valpharma.com). On this 'green' topic a PON Ph.D scholarship has been obtained.
2017-20 coordinator of WP within the European/Emilia Romagna POR-FESR cofunded project 'ECOPACKLAB'
2008-12 coordinator of the Italian unit of the European FP7 research project 'BISNES: Bio-Inspired Self-assembled Nano-Enabled Surfaces' in the call NMP-2007-1.1-1 "Nano-scale mechanisms of bio/non-bio interactions" NMP-2007-1.1-2 "Self-assembling and self-organization".
2007 Coordinator of the University of Bologna Unit for Italian Scientific Research Board PRIN 2007: 'Advanced analytical methodologies in drug discovery and development'.
2009 Coordinator of the University of Bologna Unit for Italian Scientific Research Board PRIN 2009: 'Advanced analytical methodologies in drug discovery and development'.
2003 FIRB project (FIRB2003, RBNE03FH5Y, 'Development of innovative methodologies for the identification and synthesis of new therapeutics; applications in the field of Alzheimer's disease') participation.

PUBLICATIONS

V.A. has published up to 237 papers, with an Hirsch index H=56 (Scopus), total citations 9901. A full list is available at https://www.unibo.it/sitoweb/vincenza.andrisano/en

Selected publications in the last **five** years:

1. Fernandes F, Barroso MF, De Simone A, Emriková E, Dias-Teixeira M, Pereira JP, Chlebek J, Fernandes VC, Rodrigues F, Andrisano V, Delerue-Matos C, Grosso C. Multi-target neuroprotective effects of herbal medicines for Alzheimer's disease. J Ethnopharmacol. 2022 Feb 14;290:115107. doi: 10.1016/j.jep.2022.115107. Online ahead of print.PMID: 35176467
2. Vrabec R, Maříková J, Ločárek M, Korábečný J, Hulcová D, Hošťálková A, Kuneš J, Chlebek J, Kučera T, Hrabinová M, Jun D, Soukup O, Andrisano V, Jenčo J, Šafratová M, Nováková L, Opletal L, Cahlíková L. Monoterpene indole alkaloids from Vinca minor L. (Apocynaceae): Identification of new structural scaffold for treatment of Alzheimer's disease.Phytochemistry. 2022 Feb;194:113017. doi: 10.1016/j.phytochem.2021.113017. Epub 2021 Nov 16.PMID: 34798410
3. Ismaili L, Monnin J, Etievant A, Arribas RL, Viejo L, Refouvelet B, Soukup O, Janockova J, Hepnarova V, Korabecny J, Kucera T, Jun D, Andrys R, Musilek K, Baguet A, García-Frutos EM, De Simone A, Andrisano V, Bartolini M, de Los Ríos C, Marco-Contelles J, Haffen E. (±)-BIGI-3h: Pentatarget-Directed Ligand combining Cholinesterase, Monoamine Oxidase, and Glycogen Synthase Kinase 3β Inhibition with Calcium Channel Antagonism and Antiaggregating Properties for Alzheimer's Disease. ACS Chem Neurosci. 2021 Apr 21;12(8):1328-1342. doi: 10.1021/acschemneuro.0c00803. Epub 2021 Apr 2. PMID: 33797877.
4. Naldi M, Brusotti G, Massolini G, Andrisano V, Temporini C, Bartolini M. Bio-Guided Fractionation of Stem Bark Extracts from Phyllanthus muellarianus: Identification of Phytocomponents with Anti-

Cholinesterase Activity. Molecules. 2021 Jul 20;26(14):4376. doi: 10.3390/molecules26144376. PMID: 34299650; PMCID: PMC8307647.

5. Viayna E, Coquelle N, Cieslikiewicz-Bouet M, Cisternas P, Oliva CA, Sánchez-López E, Ettcheto M, Bartolini M, De Simone A, Ricchini M, Rendina M, Pons M, Firuzi O, Pérez B, Saso L, Andrisano V, Nachon F, Brazzolotto X, García ML, Camins A, Silman I, Jean L, Inestrosa NC, Colletier JP, Renard PY, Muñoz-Torrero D. Discovery of a Potent Dual Inhibitor of Acetylcholinesterase and Butyrylcholinesterase with Antioxidant Activity that Alleviates Alzheimer-like Pathology in Old APP/PS1 Mice. J Med Chem. 2021 Jan 14;64(1):812-839. doi: 10.1021/acs.jmedchem.0c01775. Epub 2020 Dec 28. PMID: 33356266.
6. Catanzaro E, Betari N, Arencibia JM, Montanari S, Sissi C, De Simone A, Vassura I, Santini A, Andrisano V, Tumiatti V, De Vivo M, Krysko DV, Rocchi MBL, Fimognari C, Milelli A. Targeting topoisomerase II with trypthantrin derivatives: Discovery of 7-((2-(dimethylamino)ethyl)amino)indolo[2,1-b]quinazoline-6,12-dione as an antiproliferative agent and to treat cancer. Eur J Med Chem. 2020 Sep15;202:112504. doi: 10.1016/j.ejmech.2020.112504. Epub 2020 Jul 4. PMID:32712536.
7. Pérez-Areales FJ, Garrido M, Aso E, Bartolini M, De Simone A, Espargaró A,Ginex T, Sabate R, Pérez B, Andrisano V, Puigoriol-Illamola D, Pallàs M, Luque FJ, Loza MI, Brea J, Ferrer I, Ciruela F, Messeguer A, Muñoz-Torrero D.Centrally Active Multitarget Anti-Alzheimer Agents Derived from the Antioxidant Lead CR-6. J Med Chem. 2020 Sep 10;63(17):9360-9390. doi:10.1021/acs.jmedchem.0c00528. Epub 2020 Aug 11. PMID: 32706255.
8. De Simone A, Naldi M, Tedesco D, Bartolini M, Davani L, Andrisano V. Advanced analytical methodologies in Alzheimer's disease drug discovery. J Pharm Biomed Anal. 2020 Jan 30;178:112899. doi:10.1016/j.jpba.2019.112899. Epub 2019 Sep 29. PMID: 31606562.
9. De Simone A, Naldi M, Tedesco D, Milelli A, Bartolini M, Davani L, Widera D, Dallas ML, Andrisano V. Investigating in Vitro Amyloid Peptide 1-42 Aggregation:Impact of Higher Molecular Weight Stable Adducts. ACS Omega. 2019 Jul 18;4(7):12308-12318. doi: 10.1021/acsomega.9b01531. PMID: 31460348; PMCID:PMC6682006.
10. Pérez-Areales FJ, Turcu AL, Barniol-Xicota M, Pont C, Pivetta D, Espargaró A,Bartolini M, De Simone A, Andrisano V, Pérez B, Sabate R, Sureda FX, Vázquez S,Muñoz-Torrero D. A novel class of multitarget anti-Alzheimerbenzohomoadamantane–chlorotacrine hybrids modulating cholinesterases and glutamate NMDA receptors. Eur J Med Chem. 2019 Oct 15;180:613-626. doi: 10.1016/j.ejmech.2019.07.051. Epub 2019 Jul 17. PMID: 31351393.
11. Hulcová D, Maříková J, Korábečný J, Hošťálková A, Jun D, Kuneš J, Chlebek J,Opletal L, De Simone A, Nováková L, Andrisano V, Růžička A, Cahlíková L. Amaryllidaceae alkaloids from Narcissus pseudonarcissus L. cv. Dutch Master as potential drugs in treatment of Alzheimer's disease. Phytochemistry. 2019 Sep;165:112055. doi: 10.1016/j.phytochem.2019.112055. Epub 2019 Jun 28. PMID:31261031.
12. De Simone A, La Pietra V, Betari N, Petragnani N, Conte M, Daniele S, Pietrobono D, Martini C, Petralla S, Casadei R, Davani L, Frabetti F, Russomanno P, Novellino E, Montanari S, Tumiatti V, Ballerini P, Sarno F, Nebbioso A, Altucci L, Monti B, Andrisano V, Milelli A. Discovery of the First-in-Class GSK-3β/HDAC Dual Inhibitor as Disease-Modifying Agent To Combat Alzheimer's Disease. ACS Med Chem Lett. 2019 Feb 4;10(4):469-474. doi: 10.1021/acsmedchemlett.8b00507. Erratum in: ACS Med Chem Lett. 2019 Aug06;10(9):1357. PMID: 30996781; PMCID: PMC6466523.
13. Hulcová D, Breiterová K, Siatka T, Klímová K, Davani L, Šafratová M, Hošťálková A, De Simone A, Andrisano V, Cahlíková L. Amaryllidaceae Alkaloids as Potential Glycogen Synthase Kinase-3β Inhibitors. Molecules. 2018 Mar 21;23(4):719. doi: 10.3390/molecules23040719. PMID: 29561817; PMCID: PMC6017564.
14. Pérez-Areales FJ, Betari N, Viayna A, Pont C, Espargaró A, Bartolini M, De Simone A, Rinaldi Alvarenga JF, Pérez B, Sabate R, Lamuela-Raventós RM, Andrisano V, Luque FJ, Muñoz-Torrero D. Design, synthesis and multitarget biological profiling of second-generation anti-Alzheimer rhein-huprine hybrids. Future Med Chem. 2017 Jun;9(10):965-981. doi: 10.4155/fmc-2017-0049. Epub 2017 Jun 20. PMID: 28632395.
15. Simoni E, Bartolini M, Abu IF, Blockley A, Gotti C, Bottegoni G, Caporaso R, Bergamini C, Andrisano V, Cavalli A, Mellor IR, Minarini A, Rosini M. Multitarget drug design strategy in Alzheimer's disease:

focus on cholinergic transmission and amyloid-β aggregation. Future Med Chem. 2017 Jun;9(10):953-963. doi: 10.4155/fmc-2017-0039. Epub 2017 Jun 20. PMID: 28632446.
16. De Simone A, Fiori J, Naldi M, D'Urzo A, Tumiatti V, Milelli A, Andrisano V. Application of an ESI-QTOF method for the detailed characterization of GSK-3β inhibitors. J Pharm Biomed Anal. 2017 Sep 10;144:159-166. doi:10.1016/j.jpba.2017.02.036. Epub 2017 Feb 27. PMID: 28268049.
17. Seidl C, de Moraes Santos CA, De Simone A, Bartolini M, Weffort-Santos AM, Andrisano V. Uleine Disrupts Key Enzymatic and Non-Enzymatic Biomarkers that Leads to Alzheimer's Disease. Curr Alzheimer Res. 2017;14(3):317-326. doi:10.2174/1567205013666161026150455. PMID: 27784218.

PRESENTATIONS AND INVITED LECTURES

V.A. has given several invited lectures and oral presentation at International Conferences, Universities and Institutions in many Countries. A full list is available at https://www.unibo.it/sitoweb/vincenza.andrisano/en. The more recent and significant invited lectures (last 4 years 2017-2021) are:

- 'Integrated analytical methods in neurodegeneration drug discovery'Pharmaceutical and Biomedical Analysis PBA meeting. August, 29th – September, 1st 2021, Kyoto, Japan;
- 'Investigating amyloid aggregation and its inhibition: implication of reversible and non-reversible adducts formation' Pharmaceutical and Biomedical Analysis PBA meeting. 15-18/09/2019 TelAviv Israel;
- 'Investigating in vitro amyloid peptide aggregation: impact of higher molecular weight stable adducts' the Alzheimer Research United Kingdom (ARUK) Dementia Research meeting, 31-07/2019 Reading, UK
- 'Analytical approach for Alzheimer's disease drug discovery' Drug Analysis 9-12 /08/2018 Leuven (Belgium)
- Investigating β-Amyloid-CORMs interaction by LC-ESI/MS and circular dichroism spectroscopy. MedChemSicily2018, 17-20/2018, Palermo, Italia.
- Analytical methods for a deeper insight into GSK-3β inhibitors characterization. Pharmaceutical and Biomedical Analysis PBA meeting. 02-05/07/2017 Madrid, Spain;

TEACHING ACTIVITY

Courses held in the University of Bologna and regularly taught lecture courses every year since 1998, mainly in: Pharmaceuical Chemistry and analysis and Laboratory practice in the Faculty of Pharmacy and Biotechnology; Cosmetic formulation analysis and quality control Instrumental Pharmaceutical Analysis and Chemistry in the post-graduated courses master in Advanced Cosmetic Science; Seminars for Ph.D students at Reading University on Advanced methodologies in drug discovery. Supervising Activity Over 120 "Tesi di Laurea" (1 year master-like thesis) supervised ("Relatore") at University of Bologna, 5 PhD Thesis supervised ("Relatore") at University of Bologna. Has supervised international predoctoral and postdoctoral fellows from different European Countries

ORGANIZATION OF SCHOOLS, WORKSHOPS, CONFERENCES

Selected Scientific events :
2019-2018 Member of the Scientific committee of the National Meeting in Medicinal Chemistry of the Division of Medicinal Chemistry, Società Chimica Italiana, Milan July 17-20, Palermo July 15-18

2019 Member of the Scientific committee of the Alzheimer's disease United Kingdom (ARUK) research meeting, July 2019, Reading UK
2018- Member of the Scientific committee of the Meeting of the Italian Chemistry society, Società Chimica Italiana, Paestum 2017
2017 Chairman President of the international symposium XXV Recent Development of Pharmaceutical Analysis meeting, 20-23 September Rimini
2014-2019 Past president and member of the scientific committee 'Summer School on Pharmaceutical Analysis' SSPA (http://www.scpaweb.org/), sponsored by the Division of Medicinal Chemistry of the Italian Society of Chemistry (SCI) and the European Federation of Medicinal Chemistry (EFMC).
2013 Member of the International Scientific committee of the 20th International Symposium on Pharmaceutical and Biomedical Analysis PBA, Bologna, June 30-July3.
2007-present Member of the Scientific committee of the International Symposium on Recent Development of Pharmaceutical Analysis
2008-2014 Chairman of Summer School on Pharmaceutical Analysis SSPA (http://www.scpaweb.org/), sponsored by the Division of Medicinal Chemistry of the Italian Society of Chemistry (SCI) and the European Federation of Medicinal Chemistry (EFMC).
2005-Scientific secretariat international symposium XXV Recent Development of Pharmaceutical Analysis meeting, 23-25 September Rimini

MANAGING ACTIVITIES AT THE UNIVERSITY OF BOLOGNA

2018-present; Director of Single Cycle Degree of Pharmacy, Rimini Campus, University of Bologna
2018; Scientific Director of the Chemistry and Toxicology Unit 06 of the Inter-departmental Centre of industrial research for Advanced materials and mechanics (CIRI-MAM) at the Rimini Technopole, Via Dario Campana 71, Rimini
2015-present Director of First Cycle Degree of Quality control of health products, Rimini Campus
2013-present President of the Pharmacy students Internship activity board

INTERNATIONAL SCIENTIFIC COLLABORATIONS (LAST 5 YEARS):

- Prof. Michael Lammerhofer, Institute of pharmaceutical sciences, Tuebingen University
- Prof. Lucie Cahlikova, Department of Pharmaceutical Botany, Faculty of Pharmacy, Charles University, Czech Republic
- Dr Darius Widera and Mark Dallas, Hopkins Building, Reading School of Pharmacy, University of Reading UK
- Prof Rainer Bischoff, Department of Analytical Biochemistry, University of Groningen, The Netherland
- Dr Lhassane Ismaili, University of Franche-Comté, Besançon, France
- Prof. José Marco-Contelles, Laboratory of Free Radicals, Institute of Genaral Organic Chemistry - Madrid, Spain
- Prof. Krzysztof Jozwiak, Department of Biopharmacy Medical University of Lublin, Poland
- Prof. Diego Muñoz-Torrero, Laboratory of Medicinal chemistry, Faculty of Pharmacy, University of Barcelona - Barcelona, Spain
- Dott. Chlebek J., Department of Pharmaceutical Botany and Ecology, Faculty of Pharmacy, Charles University, Czech Republic.

Autorizzo al trattamento dei dati personali D.Lgs 196/2003 e del Regolamento UE 2016/679, per la pubblicazione sito Ateneo "Amministrazione trasparente".