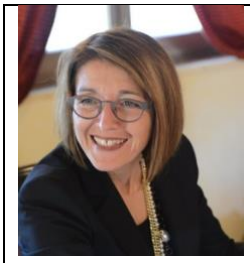
Curriculum vitae



Oriana Tabarrini

University of Perugia, Perugia, Italy

Email: oriana.tabarrini@unipg.it

Department: Pharmaceutical Sciences web: http://www.dsf.unipg.it

EDUCATION, TRAINING AND WORKING EXPERIENCES

1986	Degree in Pharmaceutical Chemistry and Technology, summa cum laude, (University of Perugia)
1986	Habilitation as Pharmacist
1987-1994	Post-graduate researcher with research grant from MEDIOLANUM Farmaceutici S.r.L (then S.p.A.) entitled " Synthesis of heterocyclic derivatives of biological interest"
1990	Habilitation as teacher of Chemistry (classe di Concorso XV), competition for professorship DM 23/3/90
1994-1997	Research assistant (NC07-Pharmaceutic)-Faculty of Pharmacy UNIPG
1997-2002	Confirmed Research Assistant (NC07-Pharmaceutic)- Faculty of Pharmacy UNIPG
2002- present	Associate Professor, CHIM08-Medicinal Chemistry, Department of Pharmaceutical Sciences- DSF), UNIPG
2017	National Scientific Habilitation as Full Professor

COORDINATION, ATTENDENCE IN COMMITTEES AND OFFICIAL APPOINTEMENTS

November 2021-present	Member of group for the sustainability analysis of the UNIPG educational offer
March 2021-present	Member of the UNIPG-committee for attribution/organization of the 24 CFU required for teaching
2020 -present	Member of the Support Observatory of the Vice Rector of UNIPG
2019-present	Scientific Coordinator POT-Pharmacy (Plan for Orienting and Tutoring)
2019-present	Member of the Scientific Committee of the University College of Merit of the ONAOSI Foundation-Perugia
2017-present	Coordinator of the Master Degree in Pharmaceutical Chemistry and Technology (CTF), DSF-UNIPG
2017-present	Member of the Teaching Committee of DSF-UNIPG

2016-2020	Member of COST Action CA15135- Multi-target paradigm for innovative ligand identification in the drug discovery process (MuTaLig)
2015-present	Local Coordinator of the International European Network of PhD in Medicinal Chemistry, Paul Ehrlich European Ph.D (58 European Universities) http://www.pehrlichmedchem.eu/members.html2014-2016
2014-2016, and 2019	Elected member of the board of the DSF-UNIPG
2015-2017	Delegate of the DSF-UNIPG for Students Orientation
2009-2017	Delegate of the Faculty of Pharmacy and then DSF-UNIPG for Special Needs and Differently-able students
2014-present	Teaching staff member of the PhD program in "Pharmaceutical Sciences", UNIPG
2012– present	Founder member of the International Network "SeS Redox and Catalysis"
2011-2016	Member of the Steering Committee of the Master Degree in CTF, DSF-UNIPG
2007-2016	Coordinator of the teaching activities of the International PhD course in Chemistry and Technology of Drugs and "Pharmaceutical Sciences" UNIPG
2011-2016	Coordinator of the Evaluation Committee of the annual reports of PhD students- UNIPG
2011- present	Member of the commettee for the allocation of part-time students, DSF-UNIPG
2009- present	Member of the commettee of the DSF-UNIPG (initially Faculty of Pharmacy), for the evaluation of Erasmus and Erasmus Placement applications
2009-2017	Member of CLA board (University Language Centre), UNIPG
2007-2012	Elected member of SCI/Umbria Section
2002-2014	Teaching staff member of the PhD program in Pharmaceutical Chemistry and Technology, International (Perugia, Vienna e Granada) and National profiling, UNIPG

Member of SCI-Medicinal Chemistry Division

TEACHING ACTIVITIES

Since 1987, member of commissions for the exams, gave seminars and made integrative teaching activities.

Since 1994, teacher in various courses within the CHIM-08 disciplinary scientific sector of the Faculty of Pharmacy and then of the DSF, such as CTF, Pharmacy, Pharmaceutical Biotechnology, Quality Control in SIFA and Scientific Informant on Drugs, as specified below.

Participation in numerous commissions of the State Exams for the qualification to the profession of Pharmacist and those for the qualification to the profession of Chemist.

Since 2017, in addition to being coordinator of the master's degree course in CTF, I have been a member of the Didactic Commission of the DSF and from March 2021 of the University Commission for the acquisition of 24 credits for teaching.

With regard to the results of the evaluation by students, the courses I hold have always received a positive evaluation with values above the average of the CdL in CTF.

Academic year	**Teachings**
from 2018-2019 to 2020-2021	Medicinal Chemistry I (CTF, 9 CFU) Analysis of drugs (CTF, 3+2, Co-teaching)
2020	Cycle of Lessons at University College of Merit of the ONAOSI Foundation-Perugia: "Farmaci antivirali: un grande impegno per annientare il più piccolo nemico dell'uomo"
2016-2017 and 2017-2018	Medicinal Chemistry I (CTF, 9 CFU) Analysis of drugs (Pharmacy, 2+3L CFU)
2015-2016	Medicinal Chemistry I (CTF, 9 CFU)
2014-2015	Analysis of drugs (CTF, 3+3L CFU)
from 2011-2012 to 2013-2014	Analysis of drugs (CTF, 3+3L CFU) Medicinal Chemistry and Toxicology I (Pharmacy, 11 CFU)
2010-2011	Analysis of drugs (CTF, 3+3L CFU) Biotechnological Medicinal Chemistry (Pharmaceutical Biotechnology, 3 CFU)
from 2005-2006 to 2009-2010	Analysis of drugs (CTF, 2+3L CFU) Medicinal Chemistry (ISF, 10 CFU) Medicinal Chemistry (CQ on SIFA, 10 CFU, AA 2009-2010) Biotechnological Medicinal Chemistry (Pharmaceutical Biotechnology, 3 CFU), 3 CFU)
from 2002-2003 to 2004-2005	Analysis of drugs (CTF, 2+3L CFU) Medicinal Chemistry (ISF, 10 CFU)
from1998-99 to 2001-2002	Analysis of drugs (CTF, 2+3L CFU)
from1998-99 to 2001-2002	Integrative teaching activity for Analysis of Drugs III and Medicinal Chemistry and Toxicology II (CdL Pharmacy, Faculty of Pharmacy), Preparation, Extraction and Synthesis Laboratory of Drugs and Medicinal Chemistry and Toxicology II (CdL CTF), Faculty of Pharmacy.
from1994-95 to 1997-98	Integrative teaching activity for Analysis of Drugs (CdL CTF), Analysis of Drugs III and Medicinal Chemistry and Toxicology II (CdL Pharmacy, Faculty of Pharmacy).
from 1987-88-present	Member of the commissions of the exams of the courses I was the owner and those for which I did supplementary teaching activities and others in the CHIM-08 sector. Member of the graduation commissions (all those in which I was

	thesis supervisor and from 2017, president of all the CTF graduation commissions).
from 2017-present	Member of the commission for the evaluation of the professional training of students of the CdL di CTF.

TEACHING ACTIVITIES AT FOREIGN UNIVERSITIES

2019 (4 hours)	"New strategies to identify antiviral and antitubercular agents", Department of Pharmaceutical Chemistry – Ljubljana University, Ljubljana, Slovenia (Erasmus Plus). Invited by Prof Danijel Kikelj from 1-12-2019 to 4-12-2019
2016 (8 hours)	"Recent Advance in the Identification of Tat-Mediated Transactivation Inhibitors: Progressing Toward a Functional cure of HIV" , Part I and Pary II; "Allosteric HIV-1 Ribonuclease H inhibitors: Studies on Cycloheptathiophene-3-Carboxamide Derivatives"; "Quinolone derivatives as privileged structure" . Department of Organic Chemistry, Faculty of Pharmacy, Wrocław University of Technology, PL (Erasmus Plus Program). Invited by Prof Elzbieta Wojaczynska from 10-04-2016 to 13-04-2016
2016 (8 hours)	"Innovative strategies to treat HIV infection", Department of Organic Chemistry, Faculty of Pharmacy, University of Santiago de Compostela (Erasmus Plus program). Invited by Prof Uriarte Villares Eugenio from 26-09-2016 to 28-09-2016
2006 (8 hours)	"Aptamers: basic research, drug development, and clinical applications"; " Hepatitis C virus (HCV): the health problem"; " Blocking HIV replication by targeting Tat-TAR complex", School of Pharmacy Jagellonian University Krakow –PL (LLP-Erasmus Program). Invited by Prof. Prof Katarzyna Kieć-Kononowicz from 04-09-2006 to 07-09-2006

ABILITY TO INVOLVE AND TRAIN YOUNG RESEARCHERS

2018-2021	Referent of RTD B (assistant researcher of type B) (Dott. S. Massari)
2019	Scientific referent of a post-degree grant financed by Tabarrini's funds (3 months, Dott. A. Mazzarella)
2015-2018	Referent of RTD A (assistant researcher of type A) (Dott. S. Massari)
2016	Scientific referent of a post-degree grant financed by Tabarrini's funds (2 months, Dott. G. Santucci)
2014	Scientific referent of a post-Doc grant financed by CINMPIS (3 months, Dott. L. Sancineto)
2013	Scientific referent of a research grant financed by CINMPIS (12 months, Dott. L. Sancineto)

2012	Scientific referent of a Co.Co.Co. entitled "Aggiornamento e verifica di un database di composti sintetizzati in house" financed by Tabarrini's funds (5 months, Dott. S. Massari)
2009	Scientific referent of a post-degree grant financed by Tabarrini's funds (3 months, Dott. E. Coppari)
2005-present	Supervisor of 5 PhD students (Pieroni M, Massari S, Sancineto L, Desantis J, M. G. Nizi) and Tutor of 4 PhD students (Lorenzini C, Miao H, Dall'Uomo M, Manfroni G), of which three are currently Associate Professors, one is RTD-B and another is post-doc, at various Universities, and therefore with a brilliant and independent career.
from1989-90 -present	Supervisor and/or co-supervisor of more than 100 experimental master thesis, mainly of students from the CdL in CTF, but also Pharmacy and Pharmaceutical Biotechnology.
from1987-88 to 2001-2002	Seminars activities for the course of Medicinal Chemistry and Toxicology II (CdL Pharmacy, Faculty of Pharmacy).
from 2004-present	Supervisor of many incoming and outcoming ERASMUS students.

EXTERNAL REFEREE

- Member of the examining committee for Doctoral Thesis in Pharmaceutical Sciences: Department of Biotechnology, Chemistry and Pharmacy-**Siena** (**2010, 2012, 2020**); Department of Drug Sciences- **Padova** (**2018, 2019**); Faculty of Pharmaceutical Sciences - **Ghent** (Belgium) (**2019**); Universidad CEU San Pablo, **Madrid** (**2019**); Department of Chemistry and Technology of Drug-**Roma** (**2019**); Department of Neurosciences-**Firenze** (**2016**).
- Member of the selection board for comparative evaluation within the 03/D1, SSD CHIM/08 – Medicinal Chemistry: **2020,** researcher RTDB (University of Padova, Dipartimento di Scienze del Farmaco); **2017**, researcher RTDA (Università degli studi di Firenze, Dipartimento di NEUROFARBA); **2002**, Assistant professor (Facoltà di Farmacia, Università di Cagliari); Assistant professor (Dipartimento di Scienze Farmaceutiche, Università di Firenze).
- Referee of a project submitted to the National Natural Science Foundation of China (NSFC) / RGC Joint Research Scheme (JRS) 2020/21, Hong Kong, November **2020**
- Evaluator of application for promotion from associate professor to "Professor In" at the Trinity College di Dublino, November **2020**

ORIENTATION AND TUTORING ACTIVITIES

Over the years, the orientation activity has involved numerous presentations of DSF courses and lessons at second grade schools, and participation to numerous orientation salons. The welcome in my research laboratory of secondary school students thanks to the alternation school-work projects (ASL), now courses for transversal skills (PCTO), represents a further action of conscious orientation to the course of study.

- **2015-2017**, **Delegate of the DSF** for orientation activities
- **2019-2020, Scientific coordinator of the project POT-Pharmacy** (Plan for Orienting and Tutoring), financed by MIUR, in collaboration with 14 Universities

- **2020-present, Scientific coordinator of the project POT-Pharmacy**, financed by University of Perugia.
  I coordinate all the orientation and tutoring actions foreseen by the POT project, aimed at increasing aware enrollments and promoting students' careers.

COORDINATOR OF ERASMUS AGREEMENTS

- Universidad San Pablo CEU, Facultad de Farmacia, Madrid (SPAIN)
- Faculty of Pharmaceutical Sciences, Lubjan (SLOVENIA)
- Ghent University, Ghent (BELGIUM)
- University of Chemistry and Technology, UCT, Prague (CZECH REPUBLIC)
- Universitat Ramon Llull IQS, Barcellona (SPAIN)

SCIENTIFIC ACTIVITIES

SCIENTIFIC COORDINATOR AND MEMBER OF RESEARCH PROJECTS

2020	FISR 2020-Covid	"A Small molecule To Overcome Present and future COronaVIrus Diseases (STOP Covid)", cod. FISR2020IP_03296, starting date September 2021, duration 6 months. ***Scientific coordinator***
2019	Sterling SPA	"Synthesis of a small molecule as tyrosine kinase inhibitor", cod. 3STERLING18OT, starting date February 2019, duration 6 months. ***Scientific coordinator***
2018	Ricerca di base	Università degli studi di Perugia, cod. 3RICBASE2018_TABARRINI, starting date June 2018, duration 24 months. ***Scientific coordinator***
2016	Santucci e Partners	"Identificazione di agenti alternativi nel trattamento dell'infezione da HIV", cod. 3SANTPATOT, starting date December 2016, duration 2 months. ***Scientific coordinator***
2015	Fondazione Cassa Risparmio Perugia (FCRP) - Ricerca Scientifica e Tecnologica 2015	"Sviluppo di farmaci anti-influenzali che interferiscono con il corretto assemblaggio delle subunità polimerasiche", cod. 2015.0342.021, starting data June 2015, duration 12 months. ***Scientific coordinator***
2015	Ricerca di base-UNIPG	"Sviluppo di inibitori dell'interazione PA/PB1 della polimerasi dell'influenza come nuovi agenti antivirali", cod. 3RICBASEOT, starting date May 2015, duration 24 months. ***Scientific coordinator***
2015-2020	Academy of Finland	"ADP-ribosyltransferase inhibitors as chemical probes and drugs" cod. 287063 starting data September 2015, duration 5 years, e cod. 29408, starting data September 2015, duration 3 years. ***Scientific collaborator***

2014	Alexander von Humboldt foundation	"Targeting HIV-1 trans-activation responsive RNA by halogenated molecules". In collaboration with P. Carloni, German Research School for Simulation Sciences Jülich, (German) and M. Kolar, University of Chemistry and Technology, Technicka, Prague (Czech Republic), duration 24 months. ***Scientific collaborator***
2014	CINMPIS (Interuniversity Consortium)	"Design and Synthesis of Se and S derivative for the treatment of HIV infection", starting date May 2014, duration 3 months. ***Scientific coordinator***
2013	CINMPIS	"Design and Synthesis of Se and S derivative for the treatment of HIV infection". Starting date March 2013, duration 12 months. ***Scientific coordinator***
2012	PRIN 2010-11	"Bloccare la replicazione di HIV-1 attraverso un approccio rivolto verso diversi bersagli molecolari", starting date February 2013, duration 36 months. ***Member of unit research***
2010	FCRP-Bando a tema ricerca di base 2010	"Sviluppo di nuovi farmaci basati sul metabolismo del triptofano per il trattamento della sclerosi multipla", cod. 2010.011.0408, starting date March 2011, duration 18 months. ***Scientific coordinator***
2009	Istituto Superiore di Sanità (ISS)-Program for AIDS research 2009	"Targeting HIV transcription to control infection and to purge post-integrative latency", cod. upr-2009-1301355, starting date December 2010, duration 24 months. ***Scientific coordinator***
2009	ISS	"Come contrastare la pandemia influenzale: individuazione di nuovi farmaci efficaci", starting date November 2009, duration 18 months. ***Scientific coordinator*** for the "disegn and synthesis of flu polymerase inhibitors"
2008	PRIN 2008	"Progettazione, sintesi e attività biologica di agenti anti-HIV che interagiscono con target virali e cellulari innovativi (in, HAT, Tat/TAR, cdk9, RNasi H, dimerizzazione dell'RT, DDX3, CXCR4 e CCR5)", cod. 2008ce75sa_002, starting date March 2010, duration 24 months. ***Member of unit research***
2006	PRIN 2006	"Sviluppo di derivati chinolonici e di altri eterocicli azotati come agenti anti-HIV: progettazione, sintesi, studio delle interazioni con nuovi target (in, RNasi H, Tat/RNA) e modulazioni della farmaco-resistenza (NNRTI)", cod. 2006030809, duration 24 mesi. ***Member of unit research***
2004	PRIN 2004	"Optimization of anti-HIV quinolone derivatives as inhibitors of Tat-drived transactivation", cod. 2004037792_006, duration 24 months. ***Member of unit research***
2002	PRIN 2002	"Ottimizzazione strutturale di chinoloni anti-HIV", cod. 2002038878_ 004 , duration 24 months. ***Member of unit research***
2000	COFIN 2000	"Progettazione, sintesi e valutazione biologica di nuovi agenti anti-AIDS", cod. mm03262952_005, duration 24 months. ***Member of unit research***

1999	COFIN 1999	"New agents for the therapy of AIDS and related diseases: design, synthesis and biological assays", cod. 9903265257_006. ***Member of unit research***
1997	COFIN 1997	"Progettazione, sintesi e valutazione biologica di nuovi farmaci", cod. 9703028183¬003, duration 24 months. ***Member of unit research***

RICERCA SCIENTIFICA

The scientific activity, documented by 118 publications in international journals with high IF (of which 31 published in JMedChem), four patents and one in preparation, mainly concerned the design, synthesis, characterization and biological evaluation of small molecules as chemotherapeutic agents, with particular focus on antivirals. The studies initially concerned compounds with antibacterial activity thanks to scholarships funded by Mediolanum Farmaceutici. The research activity was then directed to the development of antiviral agents, starting the line of research on HIV, HCV and Influenza. Other viruses of interest have been HCMV, HPV, and Dengue and in the last year SARS-CoV2. Another line of research involved the development of a broad class of efflux pump inhibitors to counteract bacterial resistance. Less ongoing research lines have been K-channel modulators, p38α MAPK inhibitors, and compounds with antitubercular activity. Over the years I have also been involved in the development of anticancer agents and recently I started a new line of research with very promising compounds that inhibit PARP enzymes. The interest in molecules capable of selectively interacting with RNA, not only viral, has also guided studies towards neurodegenerative diseases such as Huntington, and a special issue on Molecules is still open for submission, "RNA: Still an Under -Exploited Drug Target ", of which I am Guest Editor.

All the researches were performed in collaborations with national and international groups responsible for biological evaluation and/or computational studies.

Main scientific collaborations

ANTIVIRALS*:* ***Johan Neyts***, ***Christophe Pannecouque, Steve de Jonghe,*** Rega Institute for Medical Research, Leuven (Belgium); ***Enzo Tramontano***, Dipartimento di Scienze Applicate ai Biosistemi, Cittadella Universitaria S.P. Monserrato-Cagliari (Italy); **Giorgio Palù, *Arianna Loregian***, Department of Molecular Medicine, University of Padova (Italy); ***Stuart Le Grice,*** Head Center of Excellence in HIV/AIDS & CancerVirology, NCI (U.S.A); ***Alessandro Marcello***, ICGBE , Trieste (Italy).
PARP INHIBITORS: ***Lari Lehtiö***, Biocenter Oulu, Faculty of Biochemistry and Molecular Medicine University of Oulu (Finland); ***Bernhard Lüscher***, Institute of Biochemistry and Molecular Biology, Aachen University, Aachen, (Germany)
RNA as target*:* ***Michal Kolar***, Department of Physical Chemistry, University of Chemistry and Technology, Technicka, Prague (Czech Republic); ***Paolo Carloni***, German Research School for Simulation Sciences Jülich, (Germany); ***Gabriele Varani***, Department of Chemistry, University of Washington, Seattle,WA; ***Barbara Gatto***, Dipartimento di Scienze Farmaceutiche, Università of Padova, (Padova)
ANTITUBERCULARS: ***Scott G. Franzblau***, Institute for Tuberculosis Research, College of Pharmacy, University of Illinois at Chicago, 833 S. Wood St., Chicago (USA) ***Gregory M Cook***, Department of Microbiology, University of Otago (NEW ZEALAND)
PHARMACOKINETIC PROFILING*:* ***Jose Brea***, BioFarma Research Group, Centro Singular de Investigación en Medicina Molecular y Enfermedades Crónicas (CIMUS), Universidade de

Santiago de Compostela, Santiago de Compostela (Spain); ***Jadwiga Handzlik***, Departmentof Technology and Biotechnology of Drugs, Jagiellonian University, Krakow (Poland).
COMPUTATIONAL STUDIES: ***Gabriele Cruciani*** and ***Laura Goracci***, Department of Chemistry, Biology, and Biotechnology, University of Perugia, (Italy); ***Simona Distinto***, Dipartimento di Scienze Applicate ai Biosistemi, Cittadella Universitaria S.P. Monserrato-Cagliari (Italy)

BIBLIOMETRIC DATA (03/01/2022)

	pubblications	citations	h-index
Scopus Database	**120**	**2945**	**31**
Google scholar	**-**	**3561**	**34**

	pubblications (10 years *2011-2021*)	citations (15 years *2006-2021*)	h-index (15 years)
Scopus Database	**69**	**1942**	**26**
Valori soglia ASN (I fascia)	31	661	16
Valori soglia ASN (commissario)	51	1407	22

SCIENTIFIC PUBBLICATIONS

1. Felicetti T, Pismataro MC, Cecchetti V, **Tabarrini O***, Massari S. Triazolopyrimidine nuclei: privileged scaffolds for developing antiviral agents with a proper pharmacokinetic profile. *Curr. Med. Chem.* **2021**. *doi:10.2174/0929867328666210526120534.*
2. Cedraro N, Cannalire R, Astolfi A, Mangiaterra G, Felicetti T, Vaiasicca S, Cernicchi G, Massari S, Manfroni G, **Tabarrini O**, Cecchetti V, Barreca ML, Biavasco F, Sabatini S. From Quinoline to Quinazoline-Based S. aureus NorA Efflux Pump Inhibitors by Coupling a Focused Scaffold Hopping Approach and a Pharmacophore Search. *ChemMedChem*. **2021**. *doi:10.1002/cmdc.202100282.*
3. Pismataro MC, Felicetti T, Bertagnin C, Nizi MG, Bonomini A, Barreca ML, Cecchetti V, Jochmans D, De Jonghe S, Neyts J, Loregian A, **Tabarrini O**, Massari S. 1,2,4-Triazolo[1,5-*a*]pyrimidines: efficient one-step synthesis and functionalization as influenza polymerase PA-PB1 interaction disruptors. *Eur. J. Med. Chem*. **2021**, 221:113494.
4. Massari S, Bertagnin C, Pismataro MC, Donnadio A, Nannetti G, Felicetti T, Di Bona S, Nizi MG, Tensi L, Manfroni G, Loza M I, Sabatini S, Cecchetti V, Brea L, Goracci L, Loregian A, **Tabarrini O**. Synthesis and characterization of 1,2,4-triazolo[1,5-*a*]pyrimidine-2-carboxamide-based compounds targeting the PA-PB1 interface of influenza A virus polymerase. *Eur. J. Med. Chem*. **2021**, 209:112944.
5. Massari S, Desantis J, Nizi MG, Cecchetti V, **Tabarrini O***. Inhibition of Influenza Virus Polymerase by Interfering with Its Protein-Protein Interactions. *ACS Infect. Dis*. **2021**, *7*,

1332-1350.

6. Felicetti T, Burali MS, Gwee CP, Ki Chan KW, Alonso S, Massari S, Sabatini S, **Tabarrini O**, Barreca ML, Cecchetti V, Vasudevan SG, Manfroni G. Sustainable, three-component, one-pot procedure to obtain active anti-flavivirus agents. *Eur. J. Med. Chem*. **2020**, 210:112992.

7. Cannalire R, Mangiaterra G, Felicetti T, Astolfi A, Cedraro N, Massari S, Manfroni G, **Tabarrini O**, Vaiasicca S, Barreca ML, Cecchetti V, Biavasco F, Sabatini S. Structural Modifications of the Quinolin-4-yloxy Core to Obtain New Staphylococcus aureus NorA Inhibitors. *Int. J. Mol Sci.* **2020**, *21*, 7037.

8. Nizi MG, Desantis J, Nakatani Y, Massari S, Mazzarella MA, Shetye G, Sabatini S, Barreca ML, Manfroni G, Felicetti T, Rushton-Green R, Hards K, Latacz G, Satała G, Bojarski AJ, Cecchetti V, Kolář MH, Handzlik J, Cook GM, Franzblau SG, **Tabarrini O***. Antitubercular polyhalogenated phenothiazines and phenoselenazine with reduced binding to CNS receptors. *Eur. J. Med. Chem*. **2020**, 201:112420.

9. Cannalire R, Ki Chan KW, Burali MS, Gwee CP, Wang S, Astolfi A, Massari S, Sabatini S, **Tabarrini O**, Mastrangelo E, Barreca ML, Cecchetti V, Vasudevan SG, Manfroni G. Pyridobenzothiazolones Exert Potent Anti-Dengue Activity by Hampering Multiple Functions of NS5 Polymerase. *ACS Med. Chem. Lett*. **2020**, *11*, 773-782.

10. Desantis J, Massari S, Corona A, Astolfi A, Sabatini S, Manfroni G, Palazzotti D, Cecchetti V, Pannecouque C, Tramontano E, **Tabarrini O***. 1,2,4-Triazolo[1,5-*a*]pyrimidines as a Novel Class of Inhibitors of the HIV-1 Reverse Transcriptase-Associated Ribonuclease H Activity. *Molecules* **2020**, *25*, 1183.

11. Felicetti T, Mangiaterra G, Cannalire R, Cedraro N, Pietrella D, Astolfi A, Massari S, **Tabarrini O**, Manfroni G, Barreca ML, Cecchetti V, Biavasco F, Sabatini S. C-2 phenyl replacements to obtain potent quinoline-based Staphylococcus aureus NorA inhibitors. *J. Enzyme Inhib. Med. Chem*. **2020**, *35*, 584-597.

12. Gargaro M, Vacca C, Massari S, Scalisi G, Manni G, Mondanelli G, Mazza EMC, Bicciato S, Pallotta MT, Orabona C, Belladonna ML, Volpi C, Bianchi R, Matino D, Iacono A, Panfili E, Proietti E, Iamandii IM, Cecchetti V, Puccetti P, **Tabarrini O**, Fallarino F, Grohmann U. Engagement of Nuclear Coactivator 7 by 3-Hydroxyanthranilic Acid Enhances Activation of Aryl Hydrocarbon Receptor in Immunoregulatory Dendritic Cells. *Front. Immunol.* **2019**, *10*, 1973.

13. Astolfi A, Kudolo M, Brea J, Manni G, Manfroni G, Palazzotti D, Sabatini S, Cecchetti F, Felicetti T, Cannalire R, Massari S, **Tabarrini O**, Loza MI, Fallarino F, Cecchetti V, Laufer SA, Barreca ML. Discovery of potent p38α MAPK inhibitors through a funnel like workflow combining in silico screening and in vitro validation. *Eur. J. Med. Chem*. **2019**, *182*, 111624.

14. Cannalire R, Tarantino D, Piorkowski G, Carletti T, Massari S, Felicetti T, Barreca ML, Sabatini S, **Tabarrini O**, Marcello A, Milani M, Cecchetti V, Mastrangelo E, Manfroni G, Querat G Broad spectrum anti-flavivirus pyridobenzothiazolones leading to less infective virions. *Antiviral Res*. **2019**, *167*, 6-12.

15. Felicetti T, Machado D, Cannalire R, Astolfi A, Massari S, **Tabarrini O**, Manfroni G, Barreca ML, Cecchetti V, Viveiros M, Sabatini S. Modifications on C6 and C7 Positions of 3-Phenylquinolone Efflux Pump Inhibitors Led to Potent and Safe Antimycobacterial Treatment Adjuvants *ACS Infect. Dis.* **2019**, *5*, 982-1000.

16. Desantis J, Massari S, Sosic A, Manfroni G, Cannalire R, Felicetti T, Pannecouque C, Gatto

B, **Tabarrini O**. Design and synthesis of WM5 analogues as HIV-1 TAR RNA binders. *Open Med. Chem. J.* **2019**, *13*, 16-28.

17. Nannetti G, Massari S, Mercorelli B, Bertagnin C, Desantis J, Palù G, **Tabarrini O**, Loregian A. Potent and broad-spectrum cycloheptathiophene-3-carboxamide compounds that target the PA-PB1 interaction of influenza virus RNA polymerase and possess a high barrier to drug resistance. *Antiviral Res.* **2019**, *165*, 55-64.

18. Massari S, Corona A, Distinto S, Desantis J, Caredda A, Sabatini S, Manfroni G, Felicetti T, Cecchetti V, Pannecouque C, Maccioni E, Tramontano E, **Tabarrini O**. From cycloheptathiophene-3-carboxamide to oxazinone-based derivatives as allosteric HIV-1 ribonuclease H inhibitors. *J. Enzyme Inhib. Med. Chem*. **2019**, *34*, 55-74.

19. Felicetti T, Cannalire R, Pietrella D, Latacz G, Lubelska A, Manfroni G, Barreca ML, Massari S, **Tabarrini O**, Kieć-Kononowicz K, Schindler BD, Kaatz GW, Cecchetti V, Sabatini S. 2-Phenylquinoline S. aureus NorA Efflux Pump Inhibitors: Evaluation of the Importance of Methoxy Group Introduction. *J. Med. Chem*. **2018**, *61*, 7827-7848.

20. Murthy S, Desantis J, Verheugd P, Maksimainen MM, Venkannagari H, Massari S, Ashok Y, Obaji E, Nkizinkinko Y, Lüscher B, **Tabarrini O**, Lehtio L. 4-(Phenoxy) and 4-(benzyloxy)benzamides as potent and selective inhibitors of mono-ADP-ribosyltransferase PARP10/ARTD10. *Eur. J. Med. Chem*. **2018**, *156*, 93-102.

21. Felicetti T, Cannalire R, Nizi MG, **Tabarrini O**, Massari S, Barreca ML, Manfroni G, Schindler BD, Cecchetti V, Kaatz GW, Sabatini S. Studies on 2-phenylquinoline Staphylococcus aureus NorA efflux pump inhibitors: New insights on the C-6 position. *Eur. J. Med. Chem*. **2018**, *155*, 428-433.

22. Matthes F, Massari S, Bochicchio A, Schorpp K, Schilling J, Weber S, Offermann N, Desantis J, Wanker E, Carloni P, Hadian K, **Tabarrini O***, Rossetti G, Krauss S. Reducing Mutant Huntingtin Protein Expression in Living Cells by a Newly Identified RNA CAG Binder. *ACS Chem. Neurosci*. **2018**, *9*, 1399-1408.

23. Nkizinkiko Y, Desantis J, Koivunen J, Haikarainen T, Murthy S, Sancineto L, Massari S, Ianni F, Obaji E, Loza MI, Pihlajaniemi T, Brea J, **Tabarrini O***, Lehtiö L. 2-Phenylquinazolinones as dual-activity tankyrase-kinase inhibitors. *SciRep*. **2018**, 8:1680.

24. Iraci N, **Tabarrini O**, Santi C, Sancineto L. NCp7: targeting a multitask protein for next-generation anti-HIV drug development part 2. Noncovalent inhibitors and nucleic acid binders. *Drug Discov. Today* **2018**, 23, 687-695.

25. Cannalire R, Tarantino D, Astolfi A, Barreca ML, Sabatini S, Massari S, **Tabarrini O**, Milani M, Querat G, Mastrangelo E, Manfroni G, Cecchetti V. Functionalized 2,1-benzothiazine 2,2-dioxides as new inhibitors of Dengue NS5 RNA-dependent RNA polymerase. *Eur. J. Med. Chem*. **2018**, 143:1667-1676.

26. Sancineto L, Iraci N, **Tabarrini O**, Santi C. NCp7: targeting a multitasking protein for next-generation anti-HIV drug development part 1: covalent inhibitors. *Drug Discov. Today*. **2018**, *23*, 260-271.

27. **Tabarrini O**, Massari S. Acting on Tat-Mediated Transcription to Achieve a Long Term Control of HIV-1 Latency. *Curr. Pharm. Des*. **2017**, *doi: 10.2174/1381612823281711021114 32*.

28. Cannalire R, Machado D, Felicetti T, Santos Costa S, Massari S, Manfroni G, Barreca ML, **Tabarrini O**, Couto I, Viveiros M, Sabatini S, Cecchetti V. Natural isoflavone biochanin A as a template for the design of new and potent 3-phenylquinolone efflux inhibitors against Mycobacterium avium. *Eur. J. Med. Chem*. **2017**, *140*, 321-330.

29. Kolář MH, **Tabarrini O**. Halogen Bonding in Nucleic Acid Complexes. *J. Med. Chem*. **2017**, *60*, 8681-8690.

30. Massari S, Desantis J, Nannetti G, Sabatini S, Tortorella S, Goracci L, Cecchetti V, Loregian A, **Tabarrini O**. Efficient and regioselective one-step synthesis of 7-aryl-5-methyl- and 5-aryl-7-methyl-2-amino-[1,2,4]triazolo[1,5-*a*]pyrimidine derivatives. *Org. Biomol. Chem*. **2017**, *15*, 7944-7955.

31. Desantis J, Nannetti G, Massari S, Barreca ML, Manfroni G, Cecchetti V, Palù G, Goracci L, Loregian A, **Tabarrini O***. Exploring the cycloheptathiophene-3-carboxamide scaffold to disrupt the interactions of the influenza polymerase subunits and obtain potent anti-influenza activity. *Eur. J. Med. Chem*. **2017**, *138*, 128-139.

32. Felicetti T, Cannalire R, Burali MS, Massari S, Manfroni G, Barreca ML, **Tabarrini O**, Schindler BD, Sabatini S, Kaatz GW, Cecchetti V. Searching for Novel Inhibitors of the S. aureus NorA Efflux Pump: Synthesis and Biological Evaluation of the 3-Phenyl-1,4-benzothiazine Analogues. *ChemMedChem*. **2017**, *12*, 1293-1302.

33. Machado D, Fernandes L, Costa SS, Cannalire R, Manfroni G, **Tabarrini O**, Couto I, Sabatini S, Viveiros M. Mode of action of the 2-phenylquinoline efflux inhibitor PQQ4R against Escherichia coli. *PeerJ.* **2017**, 5:e3168.

34. Astolfi A, Felicetti T, Iraci N, Manfroni G, Massari S, Pietrella D, **Tabarrini O**, Kaatz GW, Barreca ML, Sabatini S, Cecchetti V. Pharmacophore-Based Repositioning of Approved Drugs as Novel Staphylococcus aureus NorA Efflux Pump Inhibitors. *J. Med. Chem*. **2017**, *60*, 1598-1604.

35. Massari S, Goracci L, Desantis J, **Tabarrini O**. Polymerase Acidic Protein-Basic Protein 1 (PA-PB1) Protein-protein Interaction as a Target for Next-generation Anti-influenza Therapeutics. *J. Med. Chem*. **2016**, *59*, 7699-7718.

36. **Tabarrini O***, Desantis J, Massari S. Recent advances in the identification of Tat-mediated transactivation inhibitors: progressing toward a functional cure of HIV. *Future Med. Chem*. **2016**, *8*, 421-442.

37. Corona A, Desantis J, Massari S, Distinto S, Masaoka T, Sabatini S, Esposito F, Manfroni G, Maccioni E, Cecchetti V, Pannecouque C, Le Grice SF, Tramontano E, **Tabarrini O***. Studies on Cycloheptathiophene-3-carboxamide Derivatives as Allosteric HIV-1 Ribonuclease H Inhibitors. *ChemMedChem.* **2016**, *11*, 1709-1720.

38. Mercorelli B, Luganini A, Nannetti G, **Tabarrini O**, Palù G, Gribaudo G, Loregian A. Drug Repurposing Approach Identifies Inhibitors of the Prototypic Viral Transcription Factor IE2 that Block Human Cytomegalovirus Replication. *Cell Chem. Biol*. **2016**, *23*, 340-351.

39. Palomba M, Rossi L, Sancineto L, Tramontano E, Corona A, Bagnoli L, Santi C, Pannecouque C, **Tabarrini O**, Marini F. A new vinyl selenone-based domino approach to spirocyclopropyl oxindoles endowed with anti-HIV RT activity. *Org. Biomol. Chem.* **2016**, *14*, 2015-2024.

40. Sancineto L, Mariotti A, Bagnoli L, Marini F, Desantis J, Iraci N, Santi C, Pannecouque C, **Tabarrini O***. Design and Synthesis of DiselenoBisBenzamides (DISeBAs) as Nucleocapsid Protein 7 (NCp7) Inhibitors with anti-HIV Activity. *J. Med. Chem*. **2015**, *58*, 9601-9614.

41. Bochicchio A, Rossetti G, **Tabarrini O**, Krauβ S, Carloni P. Molecular View of Ligands Specificity for CAG Repeats in Anti-Huntington Therapy. *J. Chem. Theory Comput.* **2015**, *11*, 4911-4922.

42. Machado D, Cannalire R, Costa SS, Manfroni G, **Tabarrini O**, Cecchetti V, Couto I, Viveiros M, Sabatini S, Boosting Effect of 2-Phenylquinoline Efflux Inhibitors in Combination with Macrolides against Mycobacterium smegmatis and Mycobacterium avium. *ACS Infect. Dis*. **2015**, *1*, 593-603.

43. Franci G, Manfroni G, Cannalire R, Felicetti T, **Tabarrini O**, Salvato A, Barreca ML, Altucci L, Cecchetti V. Tumour cell population growth inhibition and cell death induction of functionalized 6-aminoquinolone derivatives. *Cell Prolif*. **2015**, *48*, 705-717.

44. Massari S, Nannetti G, Desantis J, Muratore G, Sabatini S, Manfroni G, Mercorelli B, Cecchetti V, Palù G, Cruciani G, Loregian A, Goracci L, **Tabarrini O***. A Broad Anti-Influenza Hybrid Small Molecule That Potently Disrupts the Interaction of Polymerase Acidic Protein-Basic Protein 1 (PA-PB1) Subunits. *J. Med. Chem*. **2015**, *58*, 3830-3842.

45. Sabatini S, Manfroni G, Barreca ML, Bauer SM, Gargaro M, Cannalire R, Astolfi A, Brea J, Vacca C, Pirro M, Massari S, **Tabarrini O**, Loza MI, Fallarino F, Laufer SA, Cecchetti V. The pyrazolobenzothiazine core as a new chemotype of p38 alpha mitogen-activated protein kinase inhibitors. *Chem. Biol. Drug Des*. **2015**, *86*, 531-545.

46. Mercorelli B, Luganini A, Muratore G, Massari S, Terlizzi ME, **Tabarrini O**, Gribaudo G, Palù G, Loregian A.The 6-Aminoquinolone WC5 Inhibits Different Functions of the Immediate-Early 2 (IE2) Protein of Human Cytomegalovirus that are Essential for Viral Replication. *Antimicrob. Agents Chemother*. **2014**, *58*, 6615-6626

47. Sancineto L, Iraci N, Barreca ML, Massari S, Manfroni G, Corazza G, Cecchetti V, Marcello A, Daelemans D, Pannecouque C, **Tabarrini O***. Exploiting the anti-HIV 6-desfluoroquinolones to design multiple ligands. *Bioorg. Med. Chem*. **2014**, *22*, 4658-4666.

48. Donalisio M, Massari S, Argenziano M, Manfroni G, Cagno V, Civra A, Sabatini S, Cecchetti V, Loregian A, Cavalli R, Lembo D, **Tabarrini O**. Ethyl 1,8-Naphthyridone-3-carboxylates Downregulate Human Papillomavirus-16 E6 and E7 Oncogene Expression. *J. Med. Chem.*, **2014**, *57*, 5649-63.

49. Barreca ML, Iraci N, Manfroni G, Gaetani R, Guercini C, Sabatini S, **Tabarrini O**, Cecchetti V. Accounting for Target Flexibility and Water Molecules by Docking to Ensembles of Target Structures: The HCV NS5B Palm Site I Inhibitors Case Study. *J. Chem. Inf. Model*. **2014**, *54*, 481-497.

50. Manfroni G, Manvar D, Barreca ML, Kaushik-Basu N, Leyssen P, Paeshuyse J, Cannalire R, Iraci N, Basu A, Chudaev M, Zamperini C, Dreassi E, Sabatini S, **Tabarrini O**, Neyts J, Cecchetti V. New Pyrazolobenzothiazine Derivatives as Hepatitis C Virus NS5B Polymerase Palm Site I Inhibitors. *J. Med. Chem*. **2014**, *57*, 3247-3262.

51. Royle CM, Tsai MH, **Tabarrini O**, Massari S, Graham DR, Aquino VN, Boasso A. Modulation of HIV-1-induced activation of plasmacytoid dendritic cells (pDCs) by 6-desfluoroquinolones. *AIDS Res. Hum. Retroviruses*. **2014**, *30*, 345-354.

52. Manfroni G, Cannalire R, Barreca ML, Kaushik-Basu N, Leyssen P, Winquist J, Iraci N, Manvar D, Paeshuyse J, Guhamazumder R, Basu A, Sabatini S, **Tabarrini O**, Danielson UH, Neyts J, Cecchetti V. The versatile nature of the 6-aminoquinolone scaffold: identification of submicromolar hepatitis C virus NS5B inhibitors. *J. Med. Chem*. **2014**, *57*, 1952-1963.

53. Massari S, Nannetti G, Goracci L, Sancineto L, Muratore G, Sabatini S, Manfroni G, Mercorelli B, Cecchetti V, Facchini M, Palù G, Cruciani G, Loregian A, **Tabarrini O***. Structural Investigation of Cycloheptathiophene-3-carboxamide Derivatives Targeting Influenza Virus Polymerase Assembly. *J. Med. Chem*. **2013**, *56*, 10118-10131.

54. Sancineto L, Iraci N, Massari S, Attanasio V, Corazza G, Barreca ML, Sabatini S, Manfroni G, Avanzi NR, Cecchetti V, Pannecouque C, Marcello A, **Tabarrini O***. Computer-Aided Design, Synthesis and Validation of 2-Phenylquinazolinone Fragments as CDK9 Inhibitors with Anti-HIV-1 Tat-Mediated Transcription Activity. *ChemMedChem*. **2013**, *8*, 1941-1953.

55. Barreca M L, Manfroni G, Leyssen P, Winquist J, Kaushik-Basu N, Paeshuyse J, Krishnan R, Iraci N, Sabatini S, **Tabarrini O**, Basu A, Danielson UH, Neyts J, Cecchetti V. Structure-based discovery of pyrazolobenzothiazine derivatives as inhibitors of hepatitis C virus replication. *J. Med. Chem*. **2013**, *56*, 2270-2282.

56. Sancineto L, Massari S, Iraci N, **Tabarrini O***. From Small to Powerful: The Fragments Universe and its "Chem-Appeal". *Curr. Med. Chem*. **2013**, *20*, 1355-1381.

57. Martelli A, Manfroni G, Sabbatini P, Barreca ML, Testai L, Novelli M, Sabatini S, Massari S, **Tabarrini O**, Masiello P, Calderone V, Cecchetti V. 1,4-Benzothiazine ATP-sensitive potassium channel openers: modifications at the C-2 and C-6 positions. *J. Med. Chem*. **2013**, *56*, 4718-4728.

58. Sabatini S, Gosetto F, Iraci N, Barreca ML, Massari S, Sancineto L, Manfroni G, **Tabarrini O**, Dimovska M, Kaatz GW, Cecchetti V Re-evolution of the 2-phenylquinolines: ligand-based design, synthesis, and biological evaluation of a potent new class of Staphylococcus aureus NorA efflux pump inhibitors to combat antimicrobial resistance. *J. Med. Chem*. **2013**, *56*, 4975-4989.

59. Massari S, Mercorelli B, Sancineto L, Sabatini S, Cecchetti V, Gribaudo G, Palù G, Pannecouque C, Loregian A, **Tabarrini O***. Design, synthesis, and evaluation of WC5 analogues as inhibitors of human cytomegalovirus Immediate-Early-2 protein, a promising target for anti-HCMV treatment. *ChemMedChem.* **2013**, *8*, 1403-1414.

60. Massari S, Sabatini S, **Tabarrini O***. Blocking HIV-1 Replication by Targeting the Tat-Hijacked Transcriptional Machinery. *Curr. Pharm. Des.* **2013**, *19*, 1860-1879.

61. Pieroni M; Sabatini S, Massari, S, Kaatz, G , Cecchetti V, **Tabarrini O***. Searching for innovative quinolone-like scaffolds: synthesis and biological evaluation of 2,1-benzothiazine 2,2-dioxide derivatives. *MedChemComm.* **2012**, *3*, 1092-1097.

62. **Tabarrini O*,** Sabatini S, Massari S, Pieroni M, Franzblau SG, Cecchetti V. 6-Hydrogen-8-methylquinolones active against replicating and non-replicating Mycobacterium tuberculosis. *Chem. Biol. Drug Des.* **2012**, *5*, 781-786.

63. Sabatini S, Gosetto F, Serritella S, Manfroni G, **Tabarrini O**, Iraci N, Brincat JP, Carosati E, Villarini M, Kaatz GW, Cecchetti V**.** Pyrazolo[4,3-*c*][1,2]benzothiazines 5,5-dioxide: a promising new class of Staphylococcus aureus NorA efflux pump inhibitors. *J. Med. Chem.* **2012**, *55*, 3568-3572.

64. **Tabarrini O***, Massari S, Sancineto L, Daelemans D, Sabatini S, Manfroni G, Cecchetti V, Pannecouque C. Structural Investigation on naphthyridone scaffold: identification of 1,6-naphthyridone derivative with potent and selective anti-HIV activity. *ChemMedChem.* **2011**, *85*, 1392-1397.

65. Sabatini S, Gosetto F, Manfroni G, **Tabarrini O**, Kaatz GW, Patel D, Cecchetti**.** Evolution from a natural flavones nucleus to obtain 2-(4-Propoxyphenyl)quinoline derivatives as potent inhibitors of the S. aureus NorA efflux pump. *J. Med. Chem*. **2011**, *54,* 5722-5736.

66. Natalini B, Sardella R, Massari S, Ianni F, **Tabarrini, O**, Cecchetti, V. Synthesis and chromatographic enantioresolution of anti-HIV quinolone derivatives **2011**, *6*, 1249-57.

67. Manfroni G, Meschini F, Costantino F, **Tabarrini O**, Cecchetti V. *N*-Benzoyl-*N*-methylsulfonylanthranilates: unexpected cyclization reaction to 4-alkoxy-2,1-benzothiazines. *Arkivoc* **2011**, *9*, 165-176.

68. **Tabarrini O***, Massari S. Daelemans D, Meschini F, Manfroni G, Bottega L, Gatto B, Palumbo M, Pannecouque C, Cecchetti V. Studies on anti-HIV transcription inhibitor quinolones: Identification of potent N1-vinyl derivatives. *ChemMedChem.* **2010**, *5*, 1880-1892.

69. **Tabarrini O***, Massari S, Cecchetti V. 6-Desfluoroquinolones as HIV-1 Tat-Mediated Transcription Inhibitors. *Future Med. Chem*. **2010**, *2*, 1161-1180.

70. Loregian A, Mercorelli B, Muratore G, Sinigalia E, Pagni S, Massari S, Gribaudo G, Gatto B, Palumbo M, **Tabarrini O**, Cecchetti V, Palù, G. The 6-aminoquinolone WC5 inhibits human cytomegalovirus replication at an early stage by interfering with the transactivating activity of viral immediate-early 2 protein. *Antimicrob. Agents Chemother.* **2010**, *54*, 1930-1940.

71. Massari S, Daelemans D, Barreca M.L, Knezevich A, Sabatini S, Cecchetti V, Marcello A, Pannecouque C, **Tabarrini O***. A 1,8-Naphthyridone Derivative Targets the HIV-1 Tat-Mediated Transcription and Potently Inhibits the HIV-1 Replication. *J. Med. Chem.* **2010**, *53*, 641-648.

72. Massari S, Daelemans D, Manfroni G, Sabatini S, **Tabarrini O***, Pannecouque C, Cecchetti V. Studies on Anti-HIV Quinolones: New Insights on the C-6 Position. *Bioorg. Med. Chem*. **2009**, *17*, 667-674.

73. Mercorelli B, Muratore G, Sinigalia E, **Tabarrini O**, Biasolo MA, Cecchetti V, Palu G, Loregian A. A 6-Aminoquinolone Compound, WC5, with Potent and Selective Anti-Human Cytomegalovirus Activity. *Antimicrob. Agents Chemother.* **2009**, *53*, 312-315.

74. Manfroni G, Gatto B, **Tabarrini O**, Sabatini S, Cecchetti V, Giaretta G, Parolin C, Del Vecchio C, Calisti A, Palumbo M, Fravolini, A. Synthesis and Biological Evaluation of 2-Phenylquinolones Targeted at Tat/TAR Recognition *Bioorg. Med. Chem. Lett.* **2009**, *19*, 714-717.

75. Manfroni G, Paeshuyse J, Massar S, Gatto B, Zanoli S, Maga G, **Tabarrini O***, Cecchetti V, Fravolini A, Neyts J. Inhibition of Subgenomic Hepatitis C Virus RNA Replication by Acridone Derivatives: Identification of an NS3 Helicase Inhibitor. *J. Med. Chem.* **2009**, *52*, 3354-3365.

76. Gatto B, **Tabarrini O**, Massari S, Giaretta G, Sabatini S, Del Vecchio C, Parolin C, Fravolini A, Palumbo M, Cecchetti V. 2-Phenylquinolones as Inhibitors of the HIV-1 Tat/TAR Interaction. *Chem. Med. Chem.* **2009**, *4*, 935-938.

77. Spogli R, Sabatini S, Manfroni G, **Tabarrini O**, Cecchetti, V. Synthesis of 2-(Arylamino)ethanethiols via Lewis Acid catalyzed Aminolysis of 2,2-Dimethylthiirane as Precursors of the 1,4-Benzothiazine Nucleus. *Synthesis* **2009**, *9*, 1513-1519.

78. Calderone V, Spogli R, Martelli A, Manfroni G, Testai L, Sabatini S, **Tabarrini O**, Cecchetti V. Novel 1,4-Benzothiazine Derivatives as Large Conductance Ca^{2+}-Activated Potassium Channel Openers. *J. Med. Chem*. **2008**, *51*, 5085-5092.

79. **Tabarrini**, **O***, Massari S, Daelemans D, Stevens M, Manfroni G, Sabatini S, Balzarini J, Cecchetti V, Pannecouque, C, Fravolini A. Structure-Activity Relationship Study on Anti-HIV 6-Desfluoroquinolones. *J. Med. Chem*. **2008**, *51*, 5454-5458.

80. Paeshuyse J, Inge Vliegen I, Coelmont L, Leyssen P, **Tabarrini O**, Herdewijn P, Mittendorfer H, Easmon J, Cecchetti V, Bartenschlager R Puerstinger, G.; Neyts, J.

Comparative in vitro anti-hepatitis C virus activities of a selected series of polymerase, protease, and helicase inhibitors. *Antimicrob. Agents Chemother.* **2008**, *52*, 3433-3337.

81. Stevens M, Pollicita M, Pannecouque C, Verbeken E, **Tabarrini O**, Cecchetti V, Acquaro S, Perno CF, Fravolini A, Schols D, De Clercq E; Balzarini, J. A Novel *in vivo* Model for the Study of HIV-1 Transcription Inhibitors: Evaluation of New 6-Desfluoroquinolone Derivatives (6-DFQs). *Antimicrob. Agents Chemother*. **2007**, *4*, 1407-1413.

82. Cecchetti V, **Tabarrini O**, Sabatini S. From cromakalim to different structural classes of K_{ATP} channel openers. *Curr. Top. Med. Chem.* **2006**, *6*, 1049-1068.

83. **Tabarrini O***, Manfroni G, Fravolini A, Cecchetti V, Sabatini S, De Clercq E, Rozenski J, Canard B, Dutartre H, Paeshuys J, Neyts J. Synthesis and anti-BVDV activity of acridones as new potential antiviral agents. *J. Med. Chem*. **2006**, *49*, 2621-2627.

84. Dirk D, Pannecouque C, Pavlakis GN, **Tabarrini O**, De Clercq E. A novel and efficient approach to discriminate between pre- and post-transcription HIV inhibitors. *Mol. Pharmacol*. **2005**, *67*, 1574-1580.

85. Minelli A, Bellezza I, Siciliano E, Liguori L, **Tabarrini O**, Cecchetti V, Fravolini A. Inhibition of cell growth and induction of apoptosis in human prostate cancer cell lines by 6-aminoquinolone WM13. *Oncol. Rep.* **2005**, *13*, 1113-1120.

86. Carosati E, Lemoine H, Spogli R, Grittner D, Mannhold R, **Tabarrini O**, Sabatini S, Cecchetti V. Binding studies and GRIND/ALMOND-based 3D QSAR analysis of benzothiazine type K_{ATP}-channel openers. *Bioorg. Med. Chem*. **2005**, *13*, 5581-5591.

87. Stevens M, Balzarini J, **Tabarrini O**, Andrei G, Snoeck R, Cecchetti V, Fravolini A, De Clercq E, Pannecouque C. Cell-dependent interference of a series of new 6-aminoquinolone derivatives with viral (HIV/CMV) transactivation. *J. Antimicrob. Chemother*. **2005**, *56*, 847-855.

88. Richter S, Gatto B, **Tabarrini O**, Fravolini A, Palumbo M. Antiviral 6-aminoquinolones: Molecolar basis for potency and selectivity. *Bioorg. Med. Chem. Lett*. **2005**, *15*, 4247-4251.

89. Stevens M, **Tabarrini O**, Cecchetti V, De Clercq E, Fravolini A, Pannecouque C. Cell-dependent interference with viral transactivation by 6-aminoquinolone derivatives. *Antiviral Res.* **2005**, *65*, A55.

90. **Tabarrini O**, Stevens M, Cecchetti V, Sabatini S, Dell'uomo M, Manfroni G, Palumbo M, Pannecouque C, De Clercq E, Fravolini A. Structure modifications of 6-aminoquinolones with potent anti-HIV activity. *J. Med. Chem*. **2004**, *47*, 5567-5578.

91. Viola G, Facciolo L, Dall'Acqua S, Di Lisa F, Canton M, Vedaldi D, Fravolini A, **Tabarrini O**, Cecchetti V. 6-Aminoquinolones: Photostability, Cellular Distribution and Phototoxicity. *Toxicol. in Vitro*, **2004**, *18*, 581-592.

92. Cecchetti V, Calderone V, **Tabarrini O**, Sabatini S, Filipponi E, Testai L, Spogli R, Martinotti E, Fravolini A. Highly Potent 1,4-Benzothiazine Derivatives as K_{ATP}-Channel Openers. *J. Med. Chem*. **2003**, *46*, 3670-3679.

93. Miolo G, Vedaldi D,Dall'Acqua F, Fravolini A, **Tabarrini O**, Cecchetti V. In vitro phototoxic properties of new 6-desfluoro-8-methylquinolones. *Toxicol. in Vitro*. **2002**, *16*, 683-693.

94. Filipponi E, Cruciani G, **Tabarrini O**, Cecchetti V, Fravolini A. 3D-QSAR study of anti-HIV quinolone library. *J. Comput. Aided Mol. Des.* **2001**, *15*, 203-217.

95. **Tabarrini O**, Cecchetti V, Temperini A, Filipponi E, Lamperti MG, Fravolini A. Velnacrine Thiaanalogues as Potential Agents for Treating Alzheimer's Disease. *Bioorg. Med. Chem*. **2001**, *9*, 2921-2928.

96. Filipponi E, Cecchetti V, **Tabarrini O**, Bonelli D, Fravolini A. Chemometric Rationalization of the Structural and Physicochemical Basis for Selective Cyclooxygenase-2 Inhibition: Toward More Specific Ligands. *J. Comput. Aided Mol. Des.* **2000**, *14*, 277-291.

97. Cecchetti V, Schiaffella F, **Tabarrini O**, Fravolini A. (1,4-Benzothiazinyloxy)alkylpiperazine Derivatives as Potential Antihypertensive Agents. *Bioorg. Med. Chem. Lett*. **2000**, *10*, 465-468.

98. Hua M, Cecchetti V, **Tabarrini O**, Fravolini A. New 1,8-peri-Annellated Tricyclic Quinolone Antibacterials. *J. Heterocycl. Chem.* **2000**, *37*, 297-301.

99. Cecchetti V, Parolin C, Moro S, Pecere T, Filipponi E, Callistri A, **Tabarrini O**, Gatto B, Palumbo M, Fravolini A, Palù G. 6-Aminoquinolones as New Potential Anti-HIV Agents. *J. Med. Chem.* **2000**, *43*, 3799-3802.

100. **Tabarrini O**, Sissi C, Fravolini A, Palumbo M. 6-Hydroxy Derivative as New Desfluoroquinlone (DFQ): Synthesis and DNA-binding Study. *Nucleosides Nucleotides Nucleic Acids* **2000**, *19*, 1327-1336.

101. **Tabarrini O**, Cecchetti V, Fravolini A, Nocentini G, Barzi A, Sabatini S, Miao H, Sissi C. Design and Synthesis of Modified Quinolones as Antitumoral Acridones. *J. Med. Chem.* **1999**, *42*, 2136-2144.

102. De Sarro A, Cecchetti V, Fravolini A, **Tabarrini O**, Naccari F, De Sarro G. Effects of Novel 6-Desfluoroquinolones on Pentylentetrazole-induced Seizures in Mice. *Antimicrob. Agents Chemother*. **1999**, *43*, 1729-1736.

103. Sabatini S, Cecchetti V, **Tabarrini O**, Fravolini A. 8-Methyl-7-substituted-1,6-naphthyridine-3-carboxylic Acids as New 6-Desfluoroquinolone Antibacterials. *J. Heterocycl. Chem.* **1999**, *36*, 953-957.

104. Cecchetti V, **Tabarrini O**, Sabatini S, Miao H, Filipponi E, Fravolini A. Studies on 6-Aminoquinolones: Synthesis and Antibacterial Evaluation of 6-Amino-8-ethyl- and 6-Amino-8-methoxyquinolones. *Bioorg. Med. Chem.* **1999**, *7*, 2465-2471.

105. Cecchetti V, Fravolini A, Sabatini S, **Tabarrini O**, Xin T. Dibenzo[1,6]naphthyridinediones as Modified Quinolone Antibacterials. *Eur. J. Med. Chem.* **1998**, *33*, 899-903.

106. Cecchetti V, Filipponi E, Fravolini A, **Tabarrini O**, Bonelli D, Clementi M, Cruciani G, Clementi S. Chemometric Methodologies in a Quantitative Structure-Activity Relationship Study: the Antibacterial Activity of 6-Aminoquinolones. *J. Med. Chem.* **1997**, *40*, 1698-1706.

107. Cecchetti V, Cruciani G, Filipponi E, Fravolini A, **Tabarrini O**, Xin T. Synthesis and Antibacterial Evaluation of [1,3]Benzothiazino[3,2-*a*]quinoline and [3,1]Benzothiazino[1,2-*a*]quinoline-6-carboxylic Acid Derivatives. *Bioorg. Med. Chem.* **1997**, *5*, 1339-1344.

108. Carbone M, Fera MT, Cecchetti V, **Tabarrini O**, Losi E, Cusumano V, Teti G. In Vitro Activities of New Quinolones Against *Helicobacter pylori*. *Antimicrob. Agents Chemother.* **1997**, *41*, 2790-2792.

109. Cecchetti V, Fravolini A, Lorenzini MC, **Tabarrini O**, Terni P, Xin T. Studies on 6-Aminoquinolones: Synthesis and Antibacterial Evaluation of 6-Amino-8-methylquinolones. *J. Med. Chem.* **1996**, *39*, 436-445.

110. Cecchetti V, Fravolini A, Palumbo M, Sissi C, **Tabarrini O**, Terni P, Xin T. Potent 6-Desfluoro-8-methylquinolones as New Lead Compounds in Antibacterial Chemotherapy. *J. Med. Chem.* **1996**, *39*, 4952-4957.

111. Cecchetti V, Clementi S, Cruciani G, Fravolini A, Pagella PG, Savino A, **Tabarrini O**. 6-Aminoquinolones: A New Class of Quinolone Antibacterials? *J. Med. Chem*. **1995**, *38*, 973-982. 56

112. Wise R, Pagella PG, Cecchetti V, Fravolini A, **Tabarrini O**. *In Vitro* Activity of MF 5137, a New Potent 6-aminoquinolone. *Drugs* **1995**, *49*, 272-273.

113. Cecchetti V, Fravolini A, Pagella PG, **Tabarrini O**, Temperini A. 7-(Disubstituted Thiazolyl)-3,5-dihydroxy-6-Heptenoic/Hepatanoic Acid Derivatives as HMG-CoA Reductase Inhibitors. *Bioorg. Med. Chem.* **1994**, *2*, 799-806.

114. Cecchetti V, Fravolini A, Schiaffella F, **Tabarrini O**, Bruni G, Segre G. *o*-Chlorobenzenesulfonamidic Derivatives of (Aryloxy)propanolamines as β-Blocking/Diuretic Agents. *J. Med. Chem*. **1993**, *36*, 157-161.

115. Cecchetti V, Fravolini A, Pagella PG, Savino A, **Tabarrini O**. Quinoline Carboxylic Acids. 3. Synthesis and Antibacterial Evaluation of 2- Subsituted-7-oxo-2,3-dihydro-7*H*-pyrido[1,2,3-*de*][1,4]benzothiazine-6-carboxylic Acids Related to Rufloxacin. *J. Med. Chem*. **1993**, *36*, 3449-3454.

116. Cecchetti V, Fravolini A, Fringuelli R, Schiaffella F, Lorenzini MC, **Tabarrini O**. 4*H*-1,4-Benzothiopyran-4-one-3-carboxylic Acids and 3,4-Dihydro-2*H*-isothiazolo[5,4-*b*][1]benzothiopyran-3,4-diones as Quinolone Antibacterial Analogs. *J. Heterocycl. Chem.* **1993**, *30*, 1143-1148.

117. Cecchetti V, Fravolini A, Pagella PG, **Tabarrini O**, Zhou W.1,4-Benzothiazine-2-carboxylic Acids 1-Oxide as Analogue of Antibacterial Quinolones. *J. Heterocycl. Chem.* **1992**, *29*, 375-382.

118. Cecchetti V, Schiaffella F, **Tabarrini O**, Zhou W, Fravolini A, Goi A, Bruni G, Segre G. Symbiotic approach to drug design: *N*-[(4-chloro-3-sulfamoylbenzamido)-ethyl]propanolamine derivatives as β-adrenergic blocking agents with diuretic activity. *Eur. J. Med. Chem*. **1991**, *26*, 381-386.

PATENTS

A. Loregian A, Palù G, Muratore G, Cruciani G, Tabarrini O. New inhibitors of influenza A and B viruses acting by disrupting PA and PB1 subunit interactions of heterotrimeric viral RNA polymerase. WO2013123974-A1, Aug, 29, **2013**.

B. Loregian, A., Palù, G., Mercorelli, B., Tabarrini, O., Cecchetti, V. Compositions and methods for the treatment of the pathological condition(s) associated to cytomegalovirus infection" US provisional Application No 61/374.320 filing date Aug, 17, **2010**.

C. Cecchetti, V.; Fravolini, A.; Tabarrini, O.; Terni, P.; Xin, T. Derivati Chinolonici non Fluorurati e Loro Impiego come Agenti Antibatterici. Brev. Italiano MI95A001593, **1995**.

D. Cecchetti, V.; Fravolini, A.; Terni, P.; Pagella, P.G.; Tabarrini, O. 6-Aminoquinolones, their Synthesis and their Use as Antibacterial Agents. Eur. Pat. Appl. EP 531,958; Chem. Abstr. 119, **1993**, 139267.

SCIENTIFIC HIGHLIGHTS

- The review "Inhibition of Influenza Virus Polymerase by Interfering with Its Protein-Protein Interactions. Massari, S.; Desantis, J.; Nizi, M.G.; Cecchetti, V.; Tabarrini, O. *ACS Infect. Dis.* **2020**, *7*,1332-1350." of which I'm the corresponding author was selected for the Front Cover Picture of the Special Issue "Antiviral Therapeutics" in ACS Infectious Disease (https://pubs.acs.org/toc/aidcbc/7/6)
- The article " Broad Anti-influenza Hybrid Small Molecule That Potently Disrupts the Interaction of Polymerase Acidic Protein-Basic Protein 1 (PA-PB1) Subunits. *J Med Chem*. 58, 3830-42, 2015" of which I'm the corresponding and senior author, was highlighted "of special interest" in Naesens L. et al "Antiviral therapies on the horizon for influenza". *Current Opinion in Pharmacology*, **2016**, *30*, 106-115.
- The poster entitled "Design and synthesis of potent anti-influenza small molecules that disrupt the RNA polymerase PA-PB1 subunits interaction ", of which I'm the senior author, was awarded at the "First WG Meeting COST ACTION CA15135 Multi-target paradigm for innovative ligand identification in the drug discovery process (MuTaLig)", - Budapest (Ungary) dal 19-11-2016 al 20-11-**2016**.
- The article: "Studies on Cycloheptathiophene-3-carboxamide Derivatives as Allosteric HIV-1 Ribonuclease H Inhibitors. *ChemMedChem*. **2016**, *11*, 1709-20, of which I'm the corresponding and senior author, was selected for the front cover picture of the journal.
- The article "Studies of Anti-HIV Transcription Inhibitor Quinolones: Identification of Potent N1-Vinyl Derivatives" *ChemMedChem*. **2011**, *6 Special Issue: 1249-1257*, of which I'm the first and corresponding author, was mentioned in the front cover picture of the journal.
- The article "A 1,8-Naphthyridone Derivative Targets the HIV-1 Tat-Mediated Transcription and Potently Inhibits the HIV-1 Replication". *J. Med. Chem.* 2010, *53*, 641-64" of which I'm the corresponding and senior author, was mentioned in Science-business eXchange (BioCentury-Nature), 7.01.**2010**, vol3/number 1 (page 13).
- The article "Studies on anti-HIV transcription inhibitor quinolones: Identification of potent N1-vinyl derivatives" *ChemMedChem* **2010**, *5*, 1880-1892, of which I'm the corresponding author, was selected for the inside cover picture of the journal.

ORAL COMUNICATIONS

- "Exploting a proprietary compound library to fight SARS-CoV-2: identification of 2-phenylquinolines with pan-anticoronavirus activity" Online meeting , 5th Innovative Approaches for Identification of Antiviral Agents Summer School, September, 22-24, **2021**, ***OP35***
- "Cycloheptathiophene-3-carboxamide as useful sulfur-containing scaffold for inhibiting essential targets of HIV-1 and influenza virus" VII Encontro sobre Enxofre, Selenio e Telurio and 7th Workshop of SeS Redox and catalysis, September 2-6, **2018**, Santa Maria (Brasil), ***ML***.

- "Exploiting the Anti-HIV 6-Desfluoroquinolones to Design Multiple Ligands". V EWDSy: European Workshop in Drug Synthesis. Maggio 18-23, **2014**, Siena, Italy, ***OP***.
- "Targeting CDKs to inhibit the HIV-1 Tat-mediated transcription" XXII National Meeting on Medicinal Chemistry. September 10-13, **2013**, Roma – Italy, ***OP-28***
- "HIV-1 Transcription Inhibitors for an Innovative Chemotherapeutic Intervention. XX National Meeting on Medicinal Chemistry". Padova, Italy, September 12-16, **2010**, ***ML-13***.
- "Nuovi agenti anti-HIV: 6-aminochinoloni come inibitori del processo di transattivazione Tat-mediato". XVI Convegno Nazionale (Divisione di Chimica Farmaceutica, SCI)". Sorrento, Italy, September 18-22, **2002**, ***L-48***.

invited by Research institutes/ Universities

- "Cycloheptathiophene-3-carboxamide as useful scaffold for inhibiting essential targets within the influenza virus and HIV-1 replicative cycles." November, 9, **2018**. *Trinity College of Dublin* (Ireland).
- "HIV-1 Tat-mediated transcription as attractive intervention site for small molecules". *German Research School for Simulation Sciences GmbH, Julich* (Germany), October, 17-19, **2011**.
- "Quinolones as Tat-mediated transcription inhibitors. *Institut Cochin, Paris*, March, 19, **2007**.
- "New anti-HIV agents". International Centre for Genetic Engineering and Biotechnology (ICGEB), Trieste, Italy, March, 14, **2007**.

CONGRESS ORGANIZER

2019 VIII workshop of the network of multidisciplinary research "SeS Redox and Catalysis" Perugia, May 30-June 1st 2019

2016 XXIV National Meeting in Medicinal Chemistry and the 10th Young Medicinal Chemists Symposium "Nuove Prospettive in Chimica Farmaceutica", Perugia, September 2016

2015 IV workshop of the network of multidisciplinary research "SeS Redox and Catalysis" Perugia, 20 and 21 April 2015

2014 III workshop of the network of multidisciplinary research "SeS Redox and Catalysis" Perugia, September,15-17, 2014

2011 XXX TUMA, Perugia, Italy, June 30-July 1, 2011 (*Organizer and Scientific Committee*)

Chair of sessions of "Meeting of the Paul Ehrlich Euro-PhD Network": July **2021** (virtual meeting), July **2018** (VII Ed, Porto, Portogallo), July **2015** (V Ed, Cracovia, Polonia).

EDITORIAL AND REFEREE ACTIVITIES

2020 Editor of *Molecules*, https://www.mdpi.com/journal/molecules/editors.

Editor of the special issue: "RNA: Still an Under-Exploited Drug Target" *Molecules*, section "Medicinal Chemistry", still open for submission. https://www.mdpi.com/journal/molecules/special_issues/RNA_Drug_Target

2016 Editor of the special issue entitled "Acting on Tat-mediated transcription to achieve a long term control of HIV-1 latency". *Current Pharmaceutical Design",* Volume 23, Issue 28, 2017 DOI: 10.2174/1381612823281711021114322016

2016 Editor of the *"Open medicinal chemistry Journal*" ISSN: 1874-1045. https://www.benthamopen.com/TOMCJ/editorial-board

Referee of journals: Journal of Medicinal Chemistry, European Journal of Medicinal Chemistry, Bioorganic and Medicinal Chemistry, Bioorganic and Medicinal Chemistry Letters, Current Medicinal Chemistry, ChemMedChem, Amino Acids, ChemPharmBull, Future Medicinal Chemistry, Chemical Biology and Drug Design, Antiviral Research, Future Medicine, Chemistry Open, Biology, Letters of Organic Chemistry, Oncotarget, ACS Medicinal Chemistry Letters, Monatshefte für Chemie-Chemical Monthly, Journal of Enzyme Inhibition Medicinal Chemistry, Molecules.