Procedura valutativa per la copertura di n. 1 posto di Professore Universitario di prima fascia per il Settore concorsuale 03/D1 – Settore scientifico disciplinare CHIM/08 presso il Dipartimento di Chimica e Tecnologie del Farmaco – Facoltà di Farmacia e Medicina – codice concorso 2021POR075.

ALL. B

D.R. n. 3470/2021 del 16.12.2021

MARIANGELA BIAVA
Curriculum Vitae

Roma
20/12/2021

Part I – General Information

Full Name	
Date of Birth	
Place of Birth	
Citizenship	
Permanent Address	
Mobile Phone Number	
E-mail	
Spoken Languages	

Part II – Education

Type	Year	Institution	Notes (Degree, Experience)
University graduation	1983	Faculty of Pharmacy, Sapienza University of Rome	Master Degree in Pharmacy 110/110 *cum laude*
			Thesis title: Ricerche su sostanze ad attività antiblastica: Nuovi derivati correlati con la Mitomicina C
Licensure	1988	Faculty of Pharmacy Sapienza University of Rome	Licensed Pharmacist
Ph.D.	1989	Faculty of Pharmacy, Sapienza University of Rome	Ph.D in Pharmaceutical Sciences. Thesis title: Sintesi ed attività antimicrobica di composti a struttura 1,4 ed 1,5-diarilpirrolica

Part III – Appointments

IIIA – Academic Appointments

Start	End	Institution	Position
2002	present	Department of Chemistry and Technology of Drugs, Sapienza University of Rome	Associated Professor in Medicinal Chemistry (CHIM/08)
2000	2002	Department of Chemistry and Technology of Drugs, Sapienza University of Rome	Researcher in Medicinal Chemistry (CHIM/08)
1990	2000	Department of Chemistry and Technology of Drugs, Sapienza University of Rome	Tecnico Laureato (VIII livello)

IIIB – Other Academic Appointments

2021	present	Faculty of Pharmacy and Medicine Sapienza University of Rome	Vice-dean
2021	present	Faculty of Pharmacy and Medicine Sapienza University of Rome	Member of Conferenza Nazionale per le Scienze del Farmaco
2021	present	Sapienza University of Rome	Member of Comitato Tecnico Scientifico “Scienze della Salute”
2021	2021	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Examining Board Member for the Licensure as Pharmacist (2 sessions)
2020	present	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Member of Giunta di Facoltà
2020	2020	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Examining Board Member for the Licensure as Pharmacist (2 sessions)
2020	2020	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Member of the examining board of the II level Master defence in "I manager chiave nell’azienda nutraceutica e cosmeceutica ”
2018	present	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Member of the scientific and teaching board - II level master "I manager chiave nell’azienda nutraceutica e cosmeceutica ”
2018	2018	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Member of the examining board for a position of assistant professor in medicinal Chemistry (RTDB)

2017	2017	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Member of the examining board for the PhD position in Pharmaceutical Sciences XXXIII cycle
2015	2021	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Presidente del Corso di Laurea in Farmacia
2015	present	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Member of the didactic commission of the master course in Pharmacy
2014	present	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Member of Giunta di Dipartimento
2014	2014	University of Florence	Member of the examining board of the PhD defense in Pharmaceutical Science XXVI cycle
2013	2013	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Member of the examining board of the final exam of the School of “Farmacia Ospedaliera”
2012	2012	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Member of the examining board of the final exam of the School of “Farmacia Ospedaliera”
2010	Present	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Member of the board of the PhD in "Pharmaceutical Sciences"
2009	2012	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Member of the examining board of the School of “Farmacia Ospedaliera”
2009	present	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome di Roma	Tutor for the professional internship as pharmacist (more than 35 internships each year)
2009	present	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Member of Commissione qualità del corso di laurea in Farmacia
2009	2009	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Member of the examining board for the PhD positions in Pharmaceutical Sciences XXV cycle

2008	present	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Member of the board of the School of "Farmacia Ospedaliera"
2008	2009	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Member of the examining board of the final exam of the School of "Farmacia Ospedaliera"
2005	2008	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome di Roma	Member of Commissione qualità del corso di laurea in Chimica e Tecnologie Farmaceutiche
2004	2009	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome di Roma	Member of the didactic commission of the master course in Pharmaceutical Chemistry and Technology
2004	2006	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Member of the Examining Board for the Licensure as Pharmacist (6 sessions)
2002	2002	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Member of Examining Board for the Licensure as Pharmacist (2 sessions)

IIIC – Other Appointments

2020	present	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Tutor of PhD Thesis PhD student in Pharmaceutical Sciences, XXXVI cycle. Title: TBD
2018	2021	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Tutor of PhD thesis PhD student in Pharmaceutical Sciences, XXXIII cycle. Title: Development of novel antibody-drug conjugates as immunomodulators for the treatment of inflammatory-related disorders
2016	2018	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Tutor of PhD thesis PhD student in Pharmaceutical Sciences, XXXI cycle. Title: "Antimycobacterial compounds targeting MmpL3 and tryptophan biosynthetic pathway"
2011	2013	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza	Tutor of PhD thesis PhD student in Pharmaceutical Sciences, XXVII cycle - (Doctor

		University of Rome	Europaeus). Title: "Synthesis and biological evaluation of 1,5-diphenylpyrrole derivates as COX-2 selective inhibitors and NO-releasing agents and development of a novel BRD9 chemical probe"
			Tutor of PhD Thesis
			PhD student in Pharmaceutical Sciences, XXVII cycle. Title: "Hit active compounds against Leishmania and Tuberculosis"
2009	2012	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Tutor of PhD thesis
			PhD student in Pharmaceutical Sciences, XXV cycle (Doctor Europaeus). Title: "Development of a novel class of pharmacodynamic hybrids/NO donors that targets COX-2 selectively and a machine-assisted flow procedure for the synthesis of meclinertant, a neurotensin receptor probe"
			Tutor of PhD thesis
			PhD student in Pharmaceutical Sciences, XXV cycle (Doctor Europaeus). Title: "BM212-derived MmpL3 inhibitors enabling new possibilities for the treatment of TB and studies of mycobacterial iron assimilation as new potential target for drug discovery."
			Tutor of PhD thesis
			PhD student in Pharmaceutical Sciences, XXV cycle. Title: Development and application of in vivo and in vitro model systems for elucidation of the metabolic profile of doping drugs by advanced chromatographic-spectrometric techniques
2005	2008	Department of Chemistry and Technology of Drugs, Faculty of Pharmacy and Medicine Sapienza University of Rome	Tutor of PhD thesis
			PhD student in Pharmaceutical Sciences, XXI cycle. Title: "Novel COX-2 selective pyrrolic inhibitors"

IIID – Other Appointments

Start	End	Institution	Position
2018	2027	MIUR: ASN	Appointed full Professor in Medicinal Chemistry (Abilitazione Scientifica Nazionale (ASN) – Professore di I fascia 03/D1 CHIM 08)

Part IV – Teaching experience

Year	Institution	Lecture/Course
2018-present	Faculty of Pharmacy and Medicine Sapienza University of Rome	Teaching II Level Master "I Manager Chiave Nell'azienda Nutraceutica e Cosmeceutica"
2016-present	Faculty of Pharmacy and Medicine Sapienza University of Rome	Teaching High Formation Course for Licensure as Pharmacist
2015-present	Faculty of Pharmacy and Medicine Sapienza University of Rome	Pharmaceutical and Toxicological Chemistry I (Pharmacy course)
2015-present	Faculty of Pharmacy and Medicine Sapienza University of Rome	Marketing and Pharmaceutical Market Access (Applied Pharmaceutical Sciences course)
2001-present	Faculty of Pharmacy and Medicine Sapienza University of Rome	Tutor of more than 200 Master thesis in Pharmacy, Pharmaceutical Chemistry and technologies, and "Applied Pharmaceutical Sciences"
2019	Faculty of Pharmacy - Universidad Complutense Madrid	International Course - Hot Topics In Medicinal Chemistry-Faculty of Pharmacy – Universidad (Erasmus Plus For Teaching)
2013	Faculty of Pharmacy and Medicine Sapienza University of Rome	Marketing and Pharmaceutical Market Access (Applied Pharmaceutical Sciences course)
2008-2017	Faculty of Chemistry Sapienza University of Rome	Teaching II Level Master "Sostanze Organiche e naturali"
2008-2014	Faculty of Pharmacy and Medicine Sapienza University of Rome	Drug Analysis II (Pharmacy course)
2003-2008	Faculty of Pharmacy and Medicine Sapienza University of Rome	Pharmaceutical and Toxicological Analytical Chemistry II (Pharmaceutical Chemistry and Technology course)
2001-2003	Faculty of Pharmacy and Medicine Sapienza University of Rome	Drug Analysis I (Pharmaceutical Chemistry and Technology course)
2000-2001	Faculty of Pharmacy and Medicine Sapienza University of Rome	Analysis of Drugs and Drugs Metabolites in Biological Fluids ((Pharmaceutical Chemistry and Technology course)
1995-2003	Faculty of Pharmacy and Medicine Sapienza University of Rome	Teaching assistant in practical course of Drug Analysis II (Pharmacy course)
1990-1995	Faculty of Pharmacy and Medicine Sapienza University of Rome	Teaching assistant in practical course of Pharmaceutical and Toxicological Chemistry Analysis II (Pharmacy course)

Part V - Society memberberships, Awards and Honors

Year	Title
1990-present	Member of the Italian Chemical Society
2002	Cover page del volume 9, N. 21, November 2002 - Current Medicinal Chemistry
2008-2012	Member of the COST ACTION CM0801- New Drugs for Neglected Diseases

Part VI - Funding Information

VI A: grants as PI-principal investigator

Year	Title	Program	Grant value
2021	Novel strategies to treat TB meningitis: from new active compounds to N2B delivery	Sapienza – Grandi Progetti di Ricerca di Università Ateneo 2021 **PI**	60.787 €
2021	Piani di Orientamento e Tutorato 2021 Farmacia	POT **PI**	36.848 €
2018	Piani di Orientamento e Tutorato 2017 – 2018 Farmacia	POT **PI**	31.102,9 €
2015	Novel MmpL3 inhibitors to treat tuberculosis"	Sapienza - Grandi Progetti Universitari **PI**	20.000 €
2014	Nuovi derivati del BM635, potente composto ad attività anti-tubercolare. (Cofinanziamento del progetto: 10.000 euro	Sapienza - Progetto di Ricerca di Università Ateneo 2014 **PI**	10.000 €
2013	Hit to Lead Development for a New Class of Antimycobacterial Agents	Tres Cantos Open Lab Foundation (Glaxo, Madrid) **PI**	121.44 €
2013	1,5-Difenil pirroli come nuovi possibili agenti antitubercolari. Ottimizzazione del lead compound.	Sapienza - Progetto di Ricerca di Università Ateneo 2014 **PI**	12.000 €
2012	Derivati ammidici 1,5-difenil pirrolici quali agenti COX-2 selettivi a rilascio di ossido nitrico: loro impiego come antiinfiammatori e antitumorali"	Sapienza - Progetto di Ricerca di Università Ateneo 2012 **PI**	12.000 €
2012	Hit to Lead Development for a New Class of Antimycobacterial Agents	Tres Cantos Open Lab Foundation (Glaxo, Madrid) **PI**	51.000 €
2012	Modifica e ottimizzazione dei composti difenil pirrolici quali inibitori potenti e selettivi del *Mycobacterium tuberculosis* (MTB)	CNCCS (IRBM, Roma) **PI**	40.000 €
2011	Nuovi derivati 1,5-difenil pirrolici ad attività antitubercolare.	Sapienza - Progetto di Ricerca di Università Ateneo	12.000 €

		2011 **PI**	
2010	Derivati pirrolici del BM212: una nuova classe di composti ad attività antimicobatterica. Progettazione, sintesi, valutazione biologica e studio del loro meccanismo d'azione	Sapienza - Progetto di Ricerca di Università Ateneo 2010 **PI**	13.500 €
2010	Selective COX-2 inhibitor/nitric oxide donor agents	Rottapharm-Madaus **PI**	30.000 €
2010-2013	Target and delivery: nuove strategie per la farmaceutica	Determinazione C0344 del 18/02/2010. (**I-Responsabile di Unità**)	57.372,93 €
2009-2012	New pyrrole derivatives of BM 212: a new class of antimycobacterial agents. Design, synthesis, biological evaluation and study of their mode of action (PI)	Istituto Pasteur-Fondazione Cenci-Bolognetti. **PI**	70.000 €
2009	Selective COX-2 inhibitor/nitric oxide donor agents interfering with MAPK activation pathway.	Rottapharm-Madaus **PI**	20.000 €
2009	Progettazione, sintesi, valutazione microbiologica e studio del meccanismo di azione di nuovi derivati del BM212, potente agente antitubercolare a struttura pirrolica.	Sapienza - Progetto di Ricerca di Università Ateneo 2009 **PI**	27.600 €
2008	Nuovi farmaci nella lotta alla tubercolosi.	PRIN (**I-Responsabile di Unità)**	21.000 €
2008	Progettazione, sintesi, valutazione microbiologica, studi di farmacocinetica e di biodisponibilità e del meccanismo di azione di nuovi derivati del BM212, agente antitubercolare a struttura pirrolica.	Sapienza - Progetto di Ricerca di Università Ateneo 2008 **PI**	11.000 €
2007	Nuovi derivati del BM212, agenti antitubercolari a struttura pirrolica: loro progettazione, sintesi, valutazione microbiologica, studi di farmacocinetica e di biodisponibilità e del meccanismo di azione.	Sapienza - Progetto di Ricerca di Università Ateneo 2007 **PI**	26.600 €
2006	Nuovi agenti antitubercolari a struttura pirrolica, derivati del BM 212: loro progettazione, sintesi, valutazione microbiologica, studi di farmacocinetica e di biodisponibilità e del meccanismo di azione.	Sapienza - Progetto di Ricerca di Università Ateneo 2006 **PI**	29.600 €
2006-2008	Sviluppo e caratterizzazione di nuovi farmaci antitubercolari con approcci chimico-informatici, microbiologici, molecolari e proteomici.	Fondazione CARIPLO (**I-Responsabile Unità)**	55.160 €

2007	Selective COX-2 inhibitor/nitric oxide donor agents agents interfering with MAPK activation pathway	Rottapharm-Madaus **PI**	30.000 €
2005	Progettazione, sintesi, valutazione microbiologica e studio del meccanismo di azione di nuovi agenti antitubercolari a struttura pirrolica, derivati del BM 212	Sapienza - Progetto di Ricerca di Università Ateneo 2005 **PI**	11.500 €
2005	New scaffolds for p38-MAPK inhibitors.	Rottapharm-Madaus **PI**	30.000 €
2005	Sviluppo di nuovi farmaci antitubercolari, valutazione della loro attività antimicobatterica e identificazione del bersaglio cellulare.	PRIN, (**I - Responsabile Unità)**	57.000 €
2004	Nuovi derivati del BM 212, potente composto ad attività antitubercolare: progettazione di nuove strutture sulla base di studi di modellistica molecolare, loro sintesi.	Sapienza - Progetto di Ricerca di Università Ateneo 2004 **PI**	9.000 €
2003	Nuovi derivati del BM 212, potente composto ad attività antitubercolare: progettazione di nuove strutture sulla base di studi di modellistica molecolare, loro sintesi, valutazione dell'attività in vitro ed in vivo e studi di farmacocinetica.	Sapienza - Progetto di Ricerca di Università Ateneo 2003 **PI**	8.000 €

Funding Information

VI B: grants as I- Investigator

2020	Nuovi derivati pirazolici come potenziali agenti anti-tubercolari	Sapienza - Progetti di Ricerca (Piccoli, Medi) - Progetti Medi
2019	Nuovi derivati tri-antranilati come potenziali agenti anti-tubercolari	Sapienza - Progetti di Ricerca (Piccoli, Medi) - Progetti Medi
2010-2011	Sistemi naturali e sintetici ad attività antitumorale	Finanziamento Prin (prot. 20105YY2HL_003)
2009	Nuovi derivati diarilpirrolici come agenti antimicobatterici"	Sapienza - Finanziamento di Facoltà (Prot. C26F098XWM)
2009	Ruolo dei canali del potassio nell'espressione della dipendenza da oppiacei	Sapienza - Finanziamento di Ateneo Federato (Prot. C26F098XWM)

2008	Progettazione, sintesi, valutazione microbiologica, studi di farmacocinetica e di biodisponibilità e del meccanismo di azione di nuovi derivati del BM212, agente antitubercolare a struttura pirrolica	Sapienza - Finanziamento di ateneo Federato (prot. C26A08RW5T)
2008	Nuovi esteri 1,5-diarilpirrolici come agenti selettivi sulla COX-2"	Sapienza - Finanziamento di Facoltà (Prot. C26F08KW9K)
2008	Progettazione, sintesi e valutazione biologica di 3-fenilalchilcromeni e cromani strutturalmente correlati a flavanoidi ad attività anti-picornavirus."	Sapienza - Finanziamento di ateneo Federato (prot. C26F085WW8)
2007	Nuovi derivati diarilpirrolici come agenti selettivi sulla COX-2	Sapienza - Finanziamento di Facoltà (Prot. C26F06AM95)
2006	Nuovi derivati diarilpirrolici come agenti selettivi sulla COX-2	Sapienza - Finanziamento di Facoltà (Prot. C26F06AM95)
2005	Nuovi derivati 1,5-diarilpirrolici-3 -acetici come agenti selettivi sulla COX-2	Sapienza - Finanziamento di Facoltà (Prot. C26F058095)

Part VII – Research Activities

Keywords	Brief Description
Tuberculosis, Medicinal Chemistry	Design, synthesis and characterization of small molecules active against M. tuberculosis hitting novel targets: MmpL3, iron chelation, tryptophan biosynthetic pathway. Hit-to-Lead development. Study of the mechanism of action.
Leishmania Medicinal Chemistry	Design, synthesis and characterization of small molecules active against Leishmania donovani.
COX-2, Medicinal Chemistry	Design, synthesis and characterization of small molecules as analgesic/anti-inflammatory agents.
Nitric oxide donors, Medicinal Chemistry	Design, synthesis and characterization of small molecules endowed with nitric oxide releasing properties as analgesic/anti-inflammatory agents.
Anti-MAO, Medicinal Chemistry	Design, synthesis and structure-activity relationships of small molecules as MAO inhibitors
Antifungal, Medicinal Chemistry	Design, synthesis and structure-activity relationships of small molecules with antibacterial and antifungal activity, against human and plant pathogenic fungi.

Part VIII – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	108	Scopus	1985	2021
Books [scientific]	1 Chapter	Scopus	2019	2020
Books [teaching]	1 Book	-	1993	1993
Books [teaching]	1 Chapter	-	2000	2000

Total Impact factor	304,4 (Journal Citation report)
Total Citations	2642 (Scopus)
Average Citations per Product	24,46 (Scopus)
Hirsch (H) index	30 (Scopus)
Normalized H index*	0,83 (Scopus)

*H index divided by the academic seniority.

Part IX– Selected Publications (Journal citation reports, 2020) and citations (Scopus)

List of the publications selected for the evaluation. For each publication report title, authors, reference data, journal IF (if applicable), citations, press/media release (if any).

1. Consalvi S, Venditti G, Zhu J, Boshoff HI, Arora K, De Logu A, Ioerger TR, Rubin EJ, **Biava M***, Poce G* 6-Fluorophenylbenzohydrazides inhibit *Mycobacterium tuberculosis* growth through alteration of tryptophan biosynthesis, Eur J Med Chem, 226, 113843, 2021.
   IF: 6.514, Q1, n. cit.: 0

2. Poce G*, Consalvi S, Venditti G, Alfonso S, Desideri N, Fernandez-Menendez R, Bates RH, Ballell L, Barros Aguirre D, Rullas J, De Logu A, Gardner M, Ioerger T, Rubin EJ, **Biava M*** Novel pyrazole containing compounds active against *Mycobacterium tuberculosis*, ACS Med Chem Letters, 10, 1423-1429, 2019.
   IF: 3,975, Q2, n. cit.: 13

3. Poce G*, Cocozza M, Alfonso S, Consalvi S, Venditti G, Fernandez-Menendez R, Bates RH, Barros Aguirre D, Ballell L, De Logu A, Vistoli G, **Biava M*** In vivo potent BM635 analogue with improved drug-like properties, Eur J Med Chem, 145, 539-550, 2018.
   IF: 4,833, Q1, n. cit.: 14

4. Poce G*, Consalvi S, Cocozza M, Fernandez-Menendez R, Bates RH, Ortega Muro F, Barros Aguirre D, Ballell L, **Biava M** Pharmaceutical salt of BM635 with improved bioavailability, Eur J Pharma Sci, 99, 17-23, 2017.
   IF: 3,466, Q2, n. cit.: 8

5. Battilocchio C, Poce G, Alfonso S, Porretta GC, Consalvi S, Sautebin L, Rossi A, Pace F, Ghelardini C, Di Cesare Mannelli L, Schenone S, Giordani A, Di Francesco L,

Patrignani P, **Biava M*** A class of pyrrole derivatives endowed with analgesic/anti-inflammatory activity. Bioorg Med Chem, 21, 3695-3701, 2013.
IF: 2,951, Q2, n. cit.: 55

6. Anzini M*, Di Capua A, Valenti S, Brogi S, Rovini M, Giuliani G, Cappelli A, Vomero S, Chiasserini L, Saga A, Poce G, Giorgi G, Calderone V, Martelli A, Testai L, Sautebin L, Rossi A, Papa G, Ghelardini C, Di Cesare Mannelli L, Benetti V, Giordani A, Anzellotti P, Dovizio M, Patrignani P, **Biava M** Novel analgesic/anti-inflammatory agents: 1,5-diarylpyrrole nitro-oxyalkyl ethers and related compounds as cyclooxygenase-2 inhibiting nitric oxide donors. J Med Chem, 56, 3191-3206, 2013.
IF: 5,48, Q1, n. cit.: 34

7. Poce G*, Bates HR, Alfonso S, Cocozza M, Porretta GC, Ballel L, Rullas J, De Logu A, Agus E, La Rosa V, Pasca MR, De Rossi E, Wae B, Franzblau SJ, Manetti F, Botta M, **Biava M*** Improved BM212 MmpL3 inhibitor analogue shows efficacy in acute murine model of tuberculosis infection. Plos One, 8, e56980, 2013.
IF: 3.534, Q1, n. cit.: 72

8. La Rosa V, Poce G, Ortiz Canseco J, Buroni S, Pasca MR, **Biava M**, Raju RM, Porretta GC, Alfonso S, Battilocchio C, Javid B, Sorrentino F, Ioerger TR, Sacchettini JC, Manetti F, Botta M, De Logu A, Rubin EJ*, De Rossi E* MmpL3 is the cellular target of the antitubercular pyrrole derivative BM212. AAC, 56, 324–331, 2012.
IF: 4,565, Q1, n. cit.: 167

9. **Biava M***, Porretta GC, Poce G, Battilocchio C, Alfonso S, Rovini M, Valenti S, Giorgi G, Calderone V, Martelli A, Testai L, Sautebin L, Rossi A, Papa G, Ghelardini C, Di Cesare Mannelli L, Giordani A, Anzellotti P, Bruno A, Patrignani P, Anzini M Novel analgesic/anti-inflammatory agents: diarylpyrrole acetic esters endowed with nitric oxide releasing properties. J Med Chem, 54, 7759−7771, 2011.
IF: 5,248, Q1, n. cit.: 32

10. **Biava M***, Porretta GC, Poce G, Battilocchio C, Manetti F*, Botta M, Sautebin L, Rossi A, Pergola C, Ghelardini C, Norcini M, Makovec F, Anzellotti P, Cirilli R, Ferretti R, Patrignani P, Anzini M Novel ester and acid derivatives of the 1,5-diarylpyrrole scaffold as anti-inflammatory and analgesic agents. Synthesis, in vitro and in vivo biological evaluation. J Med Chem, 53, 723-733, 2010.
IF: 5,207, Q1, n. cit.: 39

11. **Biava M***, Porretta GC, Poce G, De Logu A, Saddi M, Meleddu R, Manetti F*, De Rossi E, Botta M. 1,5-Diaryl-2-ethyl pyrrole derivatives as antimycobacterial agents: design, synthesis, and microbiological evaluation. Eur J Med Chem, 44, 4734–4738, 2009.
IF: 5,572, Q1, n. cit.: 68

12. Anzini M*, Rovini M, Cappelli A, Vomero S, Manetti F, Botta M, Sautebin L, Rossi A, Ghelardini C, Norcini M, Giordani A, Makovec F, Anzellotti P, Patrignani P, **Biava M** Synthesis, biological evaluation, and enzyme docking simulations of 1,5-diarylpyrrole-3-alkoxyethyl ethers as highly selective COX-2 inhibitors endowed with anti-inflammatory and antinociceptive activity. J Med Chem, 51, 4476-4481, 2008.
IF: 4,898, Q1, n. cit.: 47

13. **Biava M***, Porretta GC, Poce G, De Logu A, Saddi M, Meleddu R, Manetti F*, De Rossi E, Botta M 1,5-Diphenyl pyrrole derivatives as antimycobacterial agents. Probing the influence on antimycobacterial activity of lipophilic substituents at the phenyl rings. J Med Chem, 51, 3644-3648, 2008.
IF: 4,898, Q1, n. cit.: 73

14. **Biava M***, Porretta GC, Poce G, Supino S, Cappelli A, Vomero S, Manetti F*, Botta M, Sautebin L, Rossi A, Ghelardini C, Vivoli E, Makovec F, Anzellotti P, Patrignani P, Anzini M Cyclooxygenase-2 inhibitors. 1,5-Diarylpyrrole-3-acetic esters with enhanced inhibitory activity toward Cyclooxygenase -2 and improved Cyclooxygenase -2/Cyclooxygenase -1 selectivity. J Med Chem, 50, 5403-5411, 2007.
IF: 4,895, Q1, n. cit.: 51

15. **Biava M***, Porretta GC, Poce G, Supino S, Deidda D, Pompei R, Molicotti P, Manetti F*, Botta M Antimycobacterial agents. Novel diarylpirrole derivatives of BM212 endowed with high activity toward *Mycobacterium tuberculosis* and low cytotoxicity. J Med Chem, 49, 4946-4952, 2006.
IF: 5,115, Q1, n. cit.: 108

16. **Biava M***, Porretta GC, Cappelli A, Vomero S, Botta M, Manetti F, Giorni G, Sautebin L, Rossi A, Makovec F, Anzini M* 1,5-Diarylpyrrole-3-acetic acids and esters as novel classes of potent and selective COX-2 inhibitors. J Med Chem, 48, 3428-3432, 2005.
IF: 5,076, Q1, n. cit.: 50

X: Selected conference communications/seminars

X-A: Communications as invited speaker

1. Biava M, invito a tenere una plenary lecture al "third editon of the Medicinal Chemistry Ireland Conference", July 3rd, 2020, vedi allegato, rinviata causa Covid al 2021 (vedi allegato) (Plenary lecture)
2. Biava M, "BM635 analogs as new attractive chemical entities for the treatment of TB" COST action "First training school CM 1407", Belgrade, 24-26 September 2016. (Keynote lecture).
3. Biava M, "BM212-derived MmpL3 inhibitors as a new attractive possibility for the treatment of TB" Towards New Therapeutics for Diseases of the Developing World. Madrid, 11-13 May 2014. (Keynote lecture)
4. Biava M, Poce G, Porretta GC, Alfonso S, Cocozza M, De Logu A, De Rossi E, Ballel L, Franzblau S, Rubin EJ, Manetti F, Botta M. "Identification of a new chemical series of potent antimycobacterial compounds derived from BM 212: design, synthesis, biological evaluation and study of their mode of action", XXIInd International Symposium on Medicinal Chemistry (EFMC-ISMC), Berlino 2-6 Settembre 2012. (Oral communication)
5. Biava M, Poce G, Porretta GC, Alfonso S, Cocozza M, De Logu A, De Rossi E, Ballel L, Franzblau S, Rubin EJ, Botta M. "Analogs of BM 212: a new chemical class of antimycobacterial agents acting upon a new target", 21st National Meeting on Medicinal Chemistry, Palermo 17-20 Luglio 2012. (Keynote lecture)
6. Biava M, "New pyrrole derivatives of BM 212: a new class of antimycobacterial agents. Design, synthesis, biological evaluation and study of their mode of action", Giornate

Scientifiche Fondazione Cenci-Bolognetti, Ponzano, 18-19 Novembre 2011 (Oral communication)

7. Biava M, "New pyrrole derivatives of BM 212: a new class of antimycobacterial agents. Design, synthesis, biological evaluation and study of their mode of action", 1st iDDi Work shop in Neglected and Orphan Diseases, Siena 29 Maggio-1 Giugno 2010. (Keynote lecture)
8. Biava M, Porretta GC, Poce G, Pompei R, De Logu A, Manetti F, Botta M "Derivatives of BM 212: synthesis and biological evaluation of new derivatives with improved antimycobacterial activity". 10th Drug Development Seminar in conjunction with the COST Action CM0801, Rauischholzhausen Castle, 19 -21 Marzo 2009 (Oral communication)
9. Biava M, Porretta GC, Poce G, Pompei R, De Logu A, Manetti F, Botta M "New derivatives of BM 212 with improved antimycobacterial activity". 2nd World Conference on Magic Bullets Celebrating the 100th Anniversary of the Nobel Prize Awarded to Paul Ehrlich. Nürnberg, 3th September 2008 (Oral communication)
10. Biava M, Porretta GC, Poce G, Supino S, Pompei R, Manetti F, Botta M "New 1,5-diphenyl pyrrole derived from BM 212: a new class of antimycobacterial Agents", Tuberculosis 2006, Kololi, 23 Aprile-2 Maggio 2006. (Keynote lecture)
11. Biava M, Porretta GC, Poce G, "Pyrrole Derivatives as new antimycobacterial class: synthesis, S.A.R., molecular modelling considerations and microbiological activity". Conferenza sulla Ricerca Scientifica. Facoltà di Farmacia. "Dalle Molecole agli Organismi", Roma, 9-10 dicembre 2004 (Oral communication)
12. Biava M, Porretta GC, Pompei R, Laconi S, Manetti F, Botta M "New pyrrole derivatives of BM 212: a new class of antimycobacterial agents". Workshop COST D-28 "Natural product, a source for discovery synthesis and application of new Pharmaceuticals." Siena, 21-23 October 2004 (Oral communication)
13. Biava M, Porretta GC, Pompei R, Laconi S, Manetti F, Botta M "New pyrrole derivatives of BM 212: a new class of antimycobacterial agents. World Conference on Magic Bullets Celebrating Paul Ehrlich's 150th birthday". Nürnberg, 9-11 September 2004 (Oral communication)

X-B: Seminars as invited speaker

1. Biava M, "New trends in TB treatment and drug discovery", Dipartimento di Farmacia, Università di Parma, 15 October 2013.
2. Biava M, "New trends in Tuberculosis", Dipartimento di Scienze Farmaceutiche, Università di Firenze, 13 February 2012.
3. Biava M, "New trends in TB treatment and drug discovery", IRBM, Pomezia, 15 October, 2012.
4. Biava M, "Nuovi Coxib NO-donors a struttura diaril pirrolica", Rottapharm, Monza, 30 May 2011.
5. Biava M, "New pyrrole derivatives of BM 212, a new class of antimycobacterial agents", Genextra, Milano, 7 October 2007.
6. Biava M, "Nuovi inibitori COX-2 selettivi a struttura pirrolica", Rottapharm, Monza, 25 September 2006.

X-C: Communications

1. Biava M, Porretta GC, Poce G, De Logu A, Saddi M, Botta M "New 1,5-diarylpyrroles with improved antimycobacterial activity". XVIII Convegno Nazionale della Divisione di Chimica Farmaceutica della Società Chimica Italiana. Chieti, 16-20 September 2007.

2. Biava M, Fioravanti R, Porretta GC, Mencarelli P, Sleiter G, "Study of the Mannich reaction: beta-ammino-methylation of N-Aryl and N-azaheteroaryl-substituted 2,5-dimethylpyrroles, compounds with potential biological activity". Atti del VI Meeting Strutture Eterocicliche nella Ricerca Farmaceutica. Palermo, 15-18 May 1994.

XI: Other scientific achievements

XI-A: Invitation for writing review and perspectives:

1. Consalvi S, Poce G, Ghelardini C, Di Cesare Mannelli L, Patrignani P, Bruno A, Anzini M, Calderone V, Martelli A, Testai L, Giordani A, **Biava, M** Therapeutic potential for coxibs-nitric oxide releasing hybrids in cystic fibrosis, Eur. J Med Chem, 2020, 112983
2. Consalvi S, Poce G, Scarpecci C, **Biava M** Overcoming drug resistance in TB: an update, Future Microbiology, 2020 https://doi.org/10.2217/fmb-2020-0089
3. **Biava M**, Poce G. Overcoming drug resistance for tuberculosis. Future Microbiology, 10, 1735–1741, 2015.
4. Consalvi S, **Biava M**, Poce G. COX inhibitors: a patent review (2011 - 2014). Expert Opin Ther Pat 25, 1357-71, 2015.
5. **Biava M**, Porretta GC, Poce G, Battilocchio C, Alfonso S, De Logu A, Manetti F, Botta M. Developing pyrrole-derived antimycobacterial agents: a rational lead optimization approach. Chem Med Chem, 64, 593-599, 2011.
6. **Biava M**, Porretta GC, Poce G, Battilocchio C, Botta M, Manetti F, Rovini M, Cappelli A, Sautebin L, Rossi A, Pergola C, Ghelardini C, Galeotti N, Makovec F, Giordani A, Anzellotti P, Tacconelli S, Patrignani P, Anzini M. Enlarging the NSAIDs family: ether, ester and acid derivatives of the 1,5-diarylpyrrole scaffold as novel anti-inflammatory and analgesic agents. Current Med Chem, 18, 1540-1554, 2011.
7. Poce G, Zappia G, Porretta GC, Botta B, **Biava M**. New oxazolidinone derivatives as antibacterial agents with improved activity. Exp Opinion Ther Patents, 18, 97-121, 2008.
8. **Biava M**, Porretta GC, Poce G, Supino S, Sleiter G. New pyrroles with potential antimycobacterial, antifungal and COX-2 selective inhibiting activities. Synthetic methodologies. Curr Org Chem, 11, 1092-1112, 2007.
9. **Biava M**, Porretta GC, Manetti F. New derivatives of BM 212, a class of antimycobacterial compounds based on the pyrrole ring as a scaffold. MRMC, 1, 65-78, 2007.
10. **Biava M**, Porretta GC, Deidda D, Pompei R. New trends in development of antimycobacterial compounds. Infectious Disorders: Drug Targets, 6, 159-172, 2006.
11. **Biava M**, BM 212 and its derivatives as a new class of antimycobacterial active agents. Current Med Chem, 9, 1859-1869, 2002.

XI-B: Session Chairman

1. Session "Antibacterials - New and innovative approaches to discover and develop antimicrobials - Part III " 2nd World Conference on Magic Bullets Celebrating the 100th Anniversary of the Nobel Prize Awarded to Paul Ehrlich. Norimberga, September 3-5, 2008.

XI-C: Editorial Board Member

1. Editorial Board member of Current Medicinal Chemistry (ISSN: 0929-8673) IF: 4.530.

2. Editorial Board member of Molecules (ISSN: 1420-3049)
   IF: 4.412.
3. Editorial Board member of Madridge Journal of Novel Drug Research (ISSN: 2641-5232)

XI-D: Patent

1. Giordani A, **Biava M**, Anzini M, Calderone V, Rovati LC (2012). Preparation of 1,5-diaryl-2-alkylpyrrole-3-substituted nitro esters as selective COX-2 inhibitors and nitric oxide donors WO 2012032479.
2. **Biava M**, Botta M, Deidda D, Manetti F, Pompei R, Porretta GC (2011). Derivatives of 1-{[1,5-bis(4-chlorophenyl)-2-methyl-1H-pyrrol-3-yl]methyl}-4-methylpiperazine, synthesis process and uses thereof. United States Patent and Trademark Office Granted Patent US 08012970-07910581
3. **Biava M**, Botta M, Deidda D, Manetti F, Pompei R, Porretta GC (2010). Derivatives of 1-{[1,5-bis(4-chlorophenyl)-2-methyl-1H-pyrrol-3-yl]methyl}-4-methylpiperazine, synthesis process and uses thereof. 21 pp. European Patent Application EP 2172451
4. **Biava M**, Porretta GC, Pompei R, Botta M, Manetti F, De Logu A (2010). Pyrrole compounds as inhibitors of mycobacteria, synthesis thereof and intermediates thereto Eur. Pat. Appl. 21pp. European Patent Application EP 2195289
5. **Biava M**, Porretta GC, Pompei R, Botta M, Manetti F, De Logu A (2009). Pyrrole compounds as inhibitors of mycobacteria, synthesis thereof and intermediates thereto Eur. Pat. Appl. 21pp. European Patent Application EP 2045237
6. **Biava M**, Porretta GC, Pompei R, Botta M, Manetti F, De Logu A (2009). Pyrrole compounds as inhibitors of mycobacteria, synthesis thereof and intermediates thereto. PCT Int. Appl. 31pp. WO 2009040755.
7. Cappelli A, Anzini M, **Biava M**, Makovec F, Giordani A, Caselli G, Rovati LC (2009), 3-substituted-1,5-diaryl-2-alkyl-pyrroles highly selective and orally effective COX-2 inhibitors. (Rottapharm S.p.A., Italy). European Patent Application EP 2059504
8. Cappelli A, Anzini M, **Biava M**, Makovec F, Giordani A, Caselli G, Rovati LC (2008), 3-substituted-1,5-diaryl-2-alkyl-pyrroles highly selective and orally effective COX-2 inhibitors. (Rottapharm S.p.A., Italy). PCT Int. Appl. WO2008014821
9. **Biava M**, Botta M, Deidda D, Manetti F, Pompei R, Porretta GC (2007). 4-Fluorophenyl derivatives of 1-[[1,5-bis(4-Chlorophenyl)-2-Methyl-1H-Pyrrol-3-ylmethyl]-4-Methyl piperazine, Synthesis Process and uses thereof European Patent Application EP 1866283
10. **Biava M,** Botta M, Deidda D, Manetti F, Pompei R, Porretta GC (2006). Derivatives of 1-{[1,5-bis(4-chlorophenyl)-2-methyl-1H-pyrrol-3-yl]methyl}-4-methylpiperazine, synthesis process and uses thereof. PCT Int. Appl. WO2006092822.
11. **Biava M**, Botta M, Deidda D, Manetti F, Pompei R, Porretta GC. (2005). Derivati del 1-{[1,5-di(4-clorofenil)-2-metil-1H-3-pirrolil]metil}-4-metilpiperazina (BM 212), procedimento per la loro produzione e uso di essi come antitubercolari. RM2005A000094.

XI-E Scientific book chapter

1. Poce, G, Consalvi S, Venditti G, Scarpecci C, **Biava M** Chapter 3 Development of MmpL3 inhibitors for tuberculosis treatment, Annual Reports in Medicinal Chemistry, 2019, 52, pp. 71–96

XI-F Teaching book

1. **Biava M**, Fioravanti R, Porretta GC, Esercizi di Analisi Farmaceutica di Composti Farmaceutici, Ed CISU, 1993, Roma

XI-G Teaching book chapter

1. **Biava M** "Metodi Ottici di Analisi", capitolo 6, Analisi di Composti Farmaceutici, Ed CISU, 2000, Roma

XI-H: Peer reviewer for international Journal

1. ACS Medicinal Chemistry Letters
2. Bioorganic and Medicinal Chemistry
3. Bioorganic and Medicinal Chemistry Letters
4. Chem Med Chem
5. Current Medicinal Chemistry
6. Current Pharmaceutical Design
7. European Journal of Medicinal Chemistry
8. European Journal of Physical Science
9. Expert Opinion On Drug Discovery
10. International Journal of Medicinal Chemistry
11. Journal of Medicinal Chemistry
12. Journal of the Serbian Chemical Society
13. Medicinal Chemistry
14. Medicinal Chemistry Communications
15. Molecules
16. Pharmaceuticals

XI-I Peer reviewer for international research projects

1. 2009: Research Grant Application. The Israel Science Foundation on the mechanistic and therapeutic implications of inhibitors of cyclooxygenase-2 (COX-2).
2. 2007: Evaluation of Research Proposal, Biomedical Research Council (BMRC) in Singapore on the lead optimization of novel anti-mycobacteria compounds
3. 2005: Research Grant application for Fonds zur Förderung der wissenschaftlichen Forschung, on anti-TB lead compounds from the bryophytes

XI-J Reviewer for international PhD thesis

1. 2017: University of Cape Town: PhD thesis on the identification of new compounds active on *Mycobacterium tuberculosis*
2. 2014: Sydney University: PhD thesis on the identification of new compounds active on chronic pulmonary bacterial infections

XI-K: International collaborations

1. Prof. S. Ley, University of Cambridge, UK
2. Prof. Eric J. Rubin, Harvard University, Boston, USA
3. Prof. Scott Franzblau, University of Illinois at Chicago, Chicago, USA
4. Dott. Lluis Ballell, TresCantos, GSK, Madrid, Spain

5. Prof. Tanya Parish, Queen Mary University of London, London, UK
6. Prof. Celia Goulding, Fort Collins, University of California, Irvine, USA
7. Prof. Mary Jackson, Colorado State University, Fort Collins, USA
8. Vanessa Yardley, London School of Hygiene & Tropical Medicine, London, UK
9. Dott.ssa Matilde Yáñez, Departamento de Farmacologia, Facultad de Farmacia, Universidad de Santiago de Compostela, Santiago de Compostela (La Coruna), Spain

XI-L National collaborations

1. Prof. Maurizio Botta, Università degli Studi di Siena, Siena, Italia
2. Prof. Raffaello Pompei, Università degli Studi di Cagliari, Cagliari, Italia
3. Prof. Alessandro De Logu, Università degli Studi di Cagliari, Cagliari, Italia
4. Prof.ssa Edda De Rossi, Università degli Studi di Pavia, Pavia, Italia
5. Prof.ssa Lidia Sautebin, Università degli Studi di Napoli Federico II, Napoli, Italia
6. Prof.ssa Carla Ghelardini, Università degli Studi di Firenze, Firenze, Italia
7. Prof.ssa Paola Patrignani, Università degli Studi di Chieti G. d'Annunzio, Chieti, Italia
8. Prof.ssa Concettina La Motta, Università di Pisa, Pisa, Italia.
9. Dott. Roberto Cirilli, Istituto Superiore di Sanità (ISS), Roma, Italia
10. Dott. Antonio Giordani, Rottapharm Madaus, Monza, Italia
11. Prof.ssa Manuela Marcoli, Università degli Studi di Genova, Genova, Italia
12. Prof.ssa Claudia Crestini, Università di Tor Vergata, Roma, Italia
13. Prof. Stefano Alcaro, Università Magna Græcia di Catanzaro, Campus Universitario S. Venuta, Catanzaro, Italia
14. Prof.ssa Nicoletta Desideri, Sapienza, Università di Roma, Italia
15. Prof. Vincenzo Summa, Università degli Studi di Napoli Federico II, Napoli, Italia

XI-M Organization of Workshop and Meeting

1. 2021: Member of the organizing Committee of the Work-Shop "Novel frontiers in nanocarriers preparation and characterization", Rome, June 7, 2022.
2. 2013: Member of the Organizing Committee of the XXII Meeting Nazionale della SCI, Rome, September 10-13, 2013.
3. 2003/2004 Member of the Organizing Committee of the Work-Shop Job-Meeting "Sbocchi professionali per i laureati della Facoltà di Farmacia", Sapienza University of Rome.
4. 2004/2005: Member of the Organizing Committee of the Work-Shop Job-Meeting "Sbocchi professionali per i laureati della Facoltà di Farmacia", Sapienza University of Rome.

Roma, 21/12/2021

Mariangela Biava