

CURRICULUM DELL'ATTIVITA' SCIENTIFICA E DIDATTICA

(redatto ai sensi degli Artt. 46 e 47 del D.P.R. 28.12.2000, n. 445)

La sottoscritta Chiara Bianca Maria Platania, nata a Catania

il 13/07/1984, residente in Gravina di Catania (CT) via Caduti del Lavoro 2, 95030.

consapevole, ai sensi dell'art. 76 del D.P.R. 445/2000, che dichiarazioni mendaci, formazione o uso di atti falsi sono puniti ai sensi del codice penale e delle leggi speciali in materia,

DICHIARA:

Current Position

(Assistant Professor of Pharmacology, RTDB) Department of Biomedical and Biotechnological Sciences. University of Catania, Italy.

Titles

European Certified Pharmacologist: EuCP 18/05/2023

Specialist in Clinical Pharmacology and Toxicology (6/10/2021 University of Catania)

National Scientific Habilitation (ASN) as Associate Professor of Pharmacology 31/05/2021-31/05/2032

PhD in Neuropharmacology. February 10th 2014

Research & work & teaching experience.

January 2022 to date: Assistant professor of Pharmacology. Department of Biomedical and Biotechnological Sciences **University of Catania, Italy.**

R&D of drugs for treatment of retinal degenerations

14-15 July 2021

Instructor for the "Course on Big-Data; Data analysis and interpretation in molecular medicine: from databases to artificial intelligence". PhD course in Translational Medicine & PhD course in Bioengineering and Bioinformatics

December 2013- 2021. Post-doctoral fellow at the laboratory of ocular pharmacology headed by Prof. Claudio Bucolo. Department of Biomedical and Biotechnological Sciences **University of Catania, Italy.**

December 2011-December 2013. PhD student at the laboratory of ocular pharmacology headed by Prof. Claudio Bucolo. **University of Catania, Italy.**

- Drug design. Characterization of structural properties of GPCRs, COXs.
- Animal models of glaucoma, age related macular degeneration, diabetic retinopathy. Corneal wound healing models.

December 2010-December 2011. PhD student at the department of Drug Sciences, group of Dr. Salvatore Guccione. **University of Catania, Italy.**

- In-silico drug design of GPCRs, Monoamine Oxidases, COXs.

February 2009-October 2010. Technician in biotechnology. **CNR- IBB** (institute of Bio-structures and Bio-images) at the department of Chemical Sciences of **University of Catania, Italy**.

- Calorimetric studies on bio-membrane models (large unilamellar vesicles of phospholipids).
- Molecular dynamics of peptides and GPCRs.

March 2008- August 2008. Visiting researcher (Erasmus Placement) at the laboratory of biochemistry headed by Prof. Rona Ramsay. Centre of BMS (BioMolecular Sciences) at the **University of St. Andrews (Scotland, UK)**.

- Spectroscopic and polarographic techniques applied to drug-activity assays. Heterologous expression, extraction and chromatographic purification of enzymes. Batch and continuous fermentation of *S.cerevisiae* and *P.pastoris* cells

Education..

2017-2020. **Residency program in Clinical Pharmacology and Toxicology.** *University of Catania, Italy.* Final Mark 70/70 with honors.

December 2013-December 2014. **II level master's degree in Drug Regulatory Affairs,** *University of Catania, Italy.* Thesis on drug patent regulation. Final Mark: 110/110.

November 2010-October 2013. **International PhD program in Neuropharmacology,** *University of Catania, Italy.* PhD thesis. Implications of dopamine D3 receptor for glaucoma: in-silico and in-vivo studies.

July 2010. **Master of Sciences in Biomolecular Chemistry.** *University of Catania, Italy.* Thesis: New insights into the human histaminergic type 4 receptor: increasing hit rates of antagonists in virtual screening by multiple focusing. (Biophysical studies) Final Mark: 110/110 with honors.

April 2007. **Bachelor's in chemistry.** *University of Catania, Italy.* Thesis. Synthesis and characterization of novel peptide fragments of Prion Protein. (Synthesis of peptides, HPLC-MS characterization). Final Mark: 110/110

Editorial activity

Member of the Editorial Board of:

- *Frontiers in Pharmacology - Translational Pharmacology* (ISSN: 1663-9812)
- *Frontiers in Neuroscience – Neurodegeneration* (1662-453X)

Redattore per SIF (Società Italiana di Farmacologia) Magazine, rivista online della SIF dedicata al cittadino. (*Attività di divulgazione scientifica – public engagement*)

Author of the book chapter "Ocular Allergies" Reference Module in Biomedical Sciences - Elsevier Ocular Allergies C.Bucolo; **C.B.M.Platania**; F.Drago; S.Salomone Reference Module in Biomedical Sciences – Elsevier <https://doi.org/10.1016/B978-0-12-801238-3.05189-8> xPharm: The Comprehensive Pharmacology Reference, 2007, Pages 1-8

Author of the Chapter 14 of the book "Allostery, 978-1- 0716-1153-1" in *Methods Molecular Biology*, Vol. 2253 "Molecular Dynamics Simulation Techniques as Tools in Drug Discovery and Pharmacology: A Focus on Allosteric Drugs" *Methods Molecular Biology*, Vol. 2253, Luisa Di Paola and Alessandro Giuliani (Eds): *Allostery, 978-1-0716-1153-1, 416370_1_En*, (Chapter 14)

Courses

- Advances & Progress in Drug Design. 18th-19th February 2013. London (UK)
- 2014 ECNP Workshop for Junior Scientists in Europe. 6th -9th March 2014. Nice (France).
- Getting the most from Big Data Sets: Where to find them and how to use them effectively.
- On-line course (Association for Research in Vision and Ophthalmology) 22th December 2020
- Introduction to Systematic Review and Meta-Analysis, by Johns Hopkins University. =n-line course Coursera. September 2021
- Revisioni sistematiche e meta-analisi: metodologie di produzione e reporting. Fondazione GIMBE Bologna. May&June 2023

Other professional activities

- 2019 Organizing Committee member of IT-ARVO 2019 meeting “Advanced Therapies in Ophthalmology” 15th-16th February 2019.
- SEGRETERIA ORGANIZZATIVA - congresso “Nuove Prospettive nella Terapia della Malattia di Parkinson”. Catania, 5 Aprile 2018 – Congresso Nazionale
- From 2014 SCF “Studio di Consulenza Farmacologica”, Catania Italy. Scientific support for Patent Regulation, Medical Writing, Common Technical Document submission

Honors – Grants

- IT-ARVO travel grant for attendance to ARVO 2013 annual meeting.
- Young Investigator travel grant for attendance to AOPT 2017 annual meeting.
- Award SIF Assogenerici 2017 “Appropriatezza ed economicità nella scelta dei farmaci nella realtà ospedaliera: l’uso dei biosimilari presso il Policlinico Vittorio Emanuele di Catania”
- Young Investigator travel grant for attendance to AOPT 2019 annual meeting. Foundation Fighting Blindness
- Award SIF Farindustria 2020 “Novel indole derivatives targeting HuR-mRNA complex to counteract high glucose damage in retinal endothelial cells - Biochemical Pharmacology 2020”

Speaker

- Exploring ligands selectivity toward human P2X7 receptor: application to drug discovery in ophthalmology. May 2th 2016. Seattle, USA. ARVO annual meeting. Pharmacology section
- P2X7 receptor as pharmacological target in diabetic retinopathy February 17 2017. Florence, Italy. Association for Ocular Pharmacology and Therapeutics AOPT annual meeting. Session: Young Investigator.
- Retinal bioavailability of curcumin after oral administration October 27th 2017. Rimini, Italy. 38° Congresso SIF (Società Italiana di Farmacologia).
- Appropriateness and cost-effectiveness in drugs selection in the hospital setting: use of biosimilars at the University Hospital of Catania. - Borsa SIF Assogenerici 2017 September

- 20th, 2018. Bresso, Italy. Seminario dottorandi e assegnisti SIF (Società Italiana di Farmacologia).
- Therapeutic Potential of Nitric Oxide Modulation in Ocular Diseases: A Focus on Novel NO-Releasing Molecules. October 3th, 2018. Siena, Italy. Convegno monotematico SIF (Società Italiana di Farmacologia): Therapeutic Applications of Nitric Oxide in Cancer and Inflammatory-related Disorders.
 - Integrated in-silico, in-vivo and clinical approach for identification of miRNA's as biomarkers and pharmacological targets for retinal neurodegenerative diseases 15 April 2018 Heidelberg. EMBO workshop “Integrating system Biology from Network to Mechanism of Models-Flash Talk.
 - Approccio bioinformatico e ricerca avanzata su farmaci antiglaucoma. IT-ARVO 2019 meeting. February 15th-16th, 2019. Catania, Italy.
 - Computational systems pharmacology approach: identification of novel biomarkers and pharmacological targets for diagnosis and treatment of diabetic retinopathy Firenze, Italy. November 20th 2019 - Seminar on Pharmacology for PhD Students, Fellows, Post Doc and Specialist Congresso Nazionale SIF.
 - Identification and validation of miRNAs as novel biomarkers of retinal diseases. Firenze, Italy. November 23th 2019 – Symposium “Novel insights in neuroinflammation and angiogenesis to target retinal diseases” Congresso Nazionale SIF.
 - Small molecules to treat angiogenesis and inflammation in an in-vitro model of diabetic retinopathy. May 2020. Baltimora, USA. ARVO annual meeting. Virtual presentation due to COVID-19 emergency. Pharmacology section
 - “Innovative Approaches to Identify New Pharmacological Targets for Diabetic Retinopathy” – Session - Diabetic Retinopathy: New Pharmacological Targets. March 5th 2021. Association for Ocular Pharmacology and Therapeutics AOPT XV biennial meeting – Online.
 - Novel indole derivatives targeting HuR-mRNA complex to counteract high glucose damage in retinal endothelial cells. 11th March 2021. Congresso Nazionale SIF- Digital Edition. –
 - Relatore congresso: The role of TGFβ1 in diabetic retinopathy. Congresso Nazionale SIF. Roma 2022

Selected publications

<https://www.scopus.com/authid/detail.uri?authorId=55356038400>

1,527 Citations by 1,198 documents

55 Documents

27 h-index (excluding self-citations 27 h-index)

1. **Biochem Pharmacol** 2022 Apr;198:114942. doi: 10.1016/j.bcp.2022.114942. Epub 2022 Feb 5. The P2X7 receptor as a new pharmacological target for retinal diseases. [Chiara Bianca Maria Platania](#), [Filippo Drago](#), [Claudio Bucolo](#). **IF: 6.100**
2. **Cell Death Dis.** 2021 Oct 5;12(10):905. doi: 10.1038/s41419-021-04165-x. Targeting the miRNA-155/TNFSF10 network restrains inflammatory response in the retina in a mouse model of Alzheimer's disease. Chiara Burgaletto*, **Chiara Bianca Maria Platania***, Giulia Di Benedetto, Antonio Munafò, Giovanni Giurdanella, Concetta Federico, Rosario Caltabiano, Salvatore Saccone, Federica Conti, Renato Bernardini, Claudio Bucolo, Giuseppina Cantarella. *co-first **IF: 9.696**
3. **Front Pharmacol.** 2021 Sep 17. doi: 10.3389/fphar.2021.718902. eCollection 2021. Fingolimod and Diabetic Retinopathy: A Drug Repurposing Study. Carlo Gesualdo *, Cornel Balta *, **Chiara Bianca Maria Platania ***, Maria Consiglia Trotta, Hildegard Herman, Sami Gharbia, Marcel Rosu, Francesco Petrillo, Salvatore Giunta Alberto Della Corte, Paolo Grieco, Rosa Bellavita, Francesca Simonelli, Michele D'Amico, Anca Hermenean, Settimio Rossi, Claudio Bucolo. *co-first **IF: 5.988**
4. **Int J Mol Sci.** 2020 Dec 15;21(24):9558. doi: 10.3390/ijms21249558. TGF- β Serum Levels in Diabetic Retinopathy Patients and the Role of Anti-VEGF Therapy. Vincenza Bonfiglio*, **Chiara Bianca Maria Platania ***, Francesca Lazzara, Federica Conti, Corrado Pizzo, Michele Reibaldi, Andrea Russo, Matteo Fallico, Elina Ortisi, Francesco Pignatelli, Antonio Longo, Teresio Avitabile, Filippo Drago, Claudio Bucolo. *co-first **IF: 5.924**
5. **Biochem Pharmacol.** 2020 Aug;178:114110. doi: 10.1016/j.bcp.2020.114110. Epub 2020 Jun 20. Effects of protein-protein interface disruptors at the ligand of the glucocorticoid-induced tumor necrosis factor receptor-related gene (GITR). **Chiara Bianca Maria Platania**, Simona Ronchetti, Carlo Riccardi, Graziella Migliorati, Maria Cristina Marchetti, Luisa Di Paola, Francesca Lazzara, Filippo Drago, Salvatore Salomone, Claudio Bucolo. **IF: 5.858**
6. **Biochem Pharmacol.** 2020 May;175:113908. doi: 10.1016/j.bcp.2020.113908. Epub 2020 Mar 19. Novel indole derivatives targeting HuR-mRNA complex to counteract high glucose damage in retinal endothelial cells. **Chiara Bianca Maria Platania**, Valeria Pittalà, Alessia Pascale, Nicoletta Marchesi, Carmelina Daniela Anfuso, Gabriella Lupo, Martina Cristaldi, Melania Olivieri, Francesca Lazzara, Luisa Di Paola, Filippo Drago, Claudio Bucolo. **IF: 5.858**
7. **Biochem Pharmacol.** 2019 Oct;168:249-258. doi: 10.1016/j.bcp.2019.07.010. Epub 2019 Jul 11. Blood-retinal barrier protection against high glucose damage: The role of P2X7 receptor. **Chiara Bianca Maria Platania**, Francesca Lazzara, Annamaria Fidilio, Claudia Giuseppina Fresta, Federica Conti, Giovanni Giurdanella, Gian Marco Leggio, Salvatore Salomone, Filippo Drago, Claudio Bucolo. **IF: 4.960**
8. **Br J Pharmacol.** 2019 Jul;176(13):2179-2194. doi: 10.1111/bph.14665. Epub 2019 May 9. Retinal and circulating miRNA expression patterns in diabetic retinopathy: An in silico and in vivo approach. **Chiara Bianca Maria Platania**, Rosa Maisto, Maria Consiglia Trotta, Michele D'Amico, Settimio Rossi, Carlo Gesualdo, Giovanbattista D'Amico, Cornel Balta, Hildegard Herman, Anca Hermenean, Franca Ferraraccio, Iacopo Panarese, Filippo Drago, Claudio Bucolo. **IF: 7.730**
9. **Drug Deliv.** 2019 Dec;26(1):237-243. doi: 10.1080/10717544.2019.1574936. Novel ophthalmic formulation of myriocin: implications in retinitis pigmentosa. **Chiara Bianca Maria Platania**, Michele Dei Cas, Simona Cianciolo, Annamaria Fidilio, Francesca Lazzara, Rita Paroni, Rosario Pignatello, Enrica Strettoi, Riccardo Ghidoni, Filippo Drago, Claudio Bucolo. **IF: 4.902**
10. **Biochem Pharmacol.** 2018 Dec;158:13-26. doi: 10.1016/j.bcp.2018.09.016. Epub 2018 Sep 15. Computational systems biology approach to identify novel pharmacological targets for

diabetic retinopathy. **Chiara Bianca Maria Platania**, Gian Marco Leggio, Filippo Drago, Salvatore Salomone, Claudio Bucolo. **IF: 4.825**

11. Front Pharmacol. 2018 Jun 22;9:670.doi: 10.3389/fphar.2018.00670. eCollection 2018.

Retinal Protection and Distribution of Curcumin in Vitro and in Vivo. **Chiara B M**

Platania, Annamaria Fidilio, Francesca Lazzara, Cateno Piazza, Federica Geraci, Giovanni Giurdanella, Gian Marco Leggio, Salvatore Salomone, Filippo Drago, Claudio Bucolo. **IF: 3.845**

12. Biochem Pharmacol 2017 Aug 15;138:130-139. doi: 10.1016/j.bcp.2017.05.001. Epub

2017 May 4. P2X7 receptor antagonism: Implications in diabetic retinopathy. **Chiara**

Bianca Maria Platania, Giovanni Giurdanella, Luisa Di Paola, Gian Marco Leggio, Filippo Drago, Salvatore Salomone, Claudio Bucolo. **IF: 4.235**

Membership

- Società Italiana di Farmacologia
- Association for Research in Vision and Ophthalmology ARVO
- Association for Ocular Pharmacology and Therapeutics (AOPT)

Il sottoscritto dichiara di essere informato, ai sensi del decreto legislativo 196/2003, che i dati sopra riportati verranno utilizzati nell'ambito del procedimento per il quale la presente dichiarazione viene resa.

Catania, Gennaio 2023

Il dichiarante



Chiara B. M. Platania
