



Chiara Tammaro

WORK EXPERIENCE

 **Sapienza University of Rome, Department of Chemistry and Technologies of Drugs** – Rome, Italy

City: Rome | Country: Italy

Post-doc Research Fellow

[1 Oct 2024 – Current]

Screening and optimization of nature-inspired ligands to target microbial G-quadruplexes.

Supervisor: Prof. Andrea Calcaterra - Dep. of Chemistry and Drug Technologies

 **Sapienza University of Rome** – Rome, Italy

City: Rome | Country: Italy

Post-doc Research Fellow

[1 Dec 2023 – 30 Sep 2024]

Synthesis of new potent inhibitors of Coxsackievirus A9.

Supervisor: Prof. Mariangela Biava - Dep. of Chemistry and Drug Technologies

 **Sapienza University of Rome** – Rome, Italy

City: Rome | Country: Italy

PhD student

[1 Nov 2020 – 31 Oct 2023]

PhD (*excellent with honors*) (**18/12/2023**) in Pharmaceutical Sciences, at Sapienza University of Rome, Department of Chemistry and Drug Technologies - Thesis: "SMALL MOLECULES AS ENABLING TOOLS TO COMBAT VIRAL INFECTIONS AND TO BLOCK TRANSMISSION OF MALARIA"

 **Harvard TH Chan School of Public Health** – Boston, United States

City: Boston | Country: United States

PhD visiting student

[15 Mar 2022 – 15 Sep 2022]

PhD Visiting Student at Harvard T.H. Chan School of Public Health, Boston (MA, USA), Department of Immunology and Infectious Diseases. Research focus: in vitro and in vivo screening for the identification of novel transmission-blocking agents against *Plasmodium falciparum*.

 **University Hospital and Research Center "Policlinico Umberto I" - Sapienza University of Rome** – Rome, Italy

City: Rome | Country: Italy

Hospital Pharmacy Intern

[1 Mar 2025 – Current]

Hospital Pharmacy Internship – Postgraduate School of Hospital Pharmacy, public healthcare facility. Activities included drug management, compounding, sterile preparations, and collaboration with medical staff for safe and effective therapies.

 **Farmacia Ostiense Snc** – Rome, Italy

City: Rome | Country: Italy

Student Trainee

[Aug 2018 – Feb 2020]

Internship at Farmacia Ostiense – Gained insight into the pharmacist's role and responsibilities.

EDUCATION AND TRAINING

Resident, Postgraduate School of Hospital Pharmacy

Sapienza University of Rome – Faculty of Pharmacy and Medicine [7 Jan 2025 – Current]

Address: Pz.le Aldo Moro 5, 00185, Rome (Italy) | Field(s) of study: pharmacy and medicine

PhD (excellent with honors - 18/12/2023) in Pharmaceutical Sciences - Thesis Title: "SMALL MOLECULES AS ENABLING TOOLS TO COMBAT VIRAL INFECTIONS AND TO BLOCK TRANSMISSION OF MALARIA"

Sapienza University of Rome - Dep. of Chemistry and Drug Technologies [1 Nov 2020 – 31 Oct 2023]

City: Rome | Country: Italy | Field(s) of study: Pharmaceutical Sciences

Master's degree in Chemistry and Drug Technologies (magna cum laude) - Thesis Title: "DEVELOPMENT AND SYNTHESIS OF NEW IDRAZO-THIAZOLES WITH AN ACTIVITY FOCUSED ON Eg5 PROTEIN"

Sapienza University of Rome - Dep. of Chemistry and Drug Technologies [1 Sep 2014 – 5 Jul 2020]

Address: P.le Aldo Moro 5, 00185 Rome (Italy) | Field(s) of study: Chemistry and Drug Technologies | Final grade: 110 cum laude | Thesis: Development and synthesis of new idrazo-thiazoles with an activity focused on Eg5

In my thesis I have worked in a laboratory where the field of the research was organic synthesis. I have learned all the techniques useful for the procedures of synthesis, purification and characterization of organic compounds with a pharmaceutical activity.

Qualification to the profession of Pharmacist

Sapienza University of Rome

Address: P.le Aldo Moro 5, 00185 Rome (Italy)

High school diploma

Liceo statale Leonardo Da Vinci [Aug 2009 – Jun 2014]

Address: Via Pantanelle 1 , 04019 Terracina (Italy) | Field(s) of study: classical high school diploma | Final grade: 94/100

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s):

English

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

Francese

LISTENING A2 READING A2 WRITING A2

SPOKEN PRODUCTION A1 SPOKEN INTERACTION A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

SKILLS

Technical expertise

Liquid chromatography / CombiFlash / Crystallization Method / High Performance Liquid Chromatography (HPLC) / Organic synthesis / Distillation / Microsoft Office / Mestrelab - Mnova / ChemDraw professional / Mestrenova / Familiar with instrumental software: Bruker TopSpin, PeakMaster, Agilent ChemStation / Eusis / PRISMA / In-vitro culture / in vivo/in vitro tests / Zeiss Microscope / mass spectrometry / Immunohistochemistry assay knowledge / WGS: Variant calling, SV and CNV detection / UV-Infrared / Microwave Synthesis

PUBLICATIONS

[2025]

In vivo screen of Plasmodium targets for mosquito-based malaria control Research article demonstrating the potential of ELQ compounds to overcome insecticide resistance and reduce malaria transmission.

Authors: Probst, A. S., Paton, D. G., Appetecchia, F., Bopp, S., Adams, K. L., Rinvee, T. A., Tammaro, C., ... & Catteruccia, F. | **Journal Name:** Nature | **Volume, Issue and Pages:** 643, 785–793

Probst, A.S., Paton, D.G., Appetecchia, F. et al. In vivo screen of Plasmodium targets for mosquito-based malaria control. Nature 643, 785–793 (2025). <https://doi.org/10.1038/s41586-025-09039-2>

[2024]

SAR Analysis of Novel Coxsackie virus A9 Capsid Binders Research article reporting structure–activity relationships, antiviral potency, and mechanism of action of a new series of compounds against EV-B.

Authors: Tammaro, Chiara, et al. | **Journal Name:** Journal of Medicinal Chemistry | **Volume, Issue and Pages:** 67.19 (2024): 17144-17161

Tammaro, Chiara, et al. "SAR Analysis of Novel Coxsackie virus A9 Capsid Binders." Journal of Medicinal Chemistry 67.19 (2024): 17144-17161. <https://doi.org/10.1021/acs.jmedchem.4c00701>

[2024]

Mycobacterium tuberculosis inhibitors: an updated patent review (2021–present) Review article highlighting new compounds with potent anti-TB activity, including benzothiazinones, Q203 analogues, and LysRS inhibitors, against drug-sensitive and resistant strains.

Authors: Benedetta, S., Vallini, F., Guida, M., Tammaro, C., Biava, M., & Poce, G. | **Journal Name:** Expert Opinion on Therapeutic Patents | **Volume, Issue and Pages:** 34(12), 1215-1230

Benedetta, S., Vallini, F., Guida, M., Tammaro, C. ... & Poce, G. (2024) Mycobacterium tuberculosis inhibitors: an updated patent review (2021–present). Expert Opin Ther Pat, 34(12), 1215-1230. <https://doi.org/10.1080/13543776.2024.2419826>

[2023]

Direct-Acting Antivirals and Host-Targeting Approaches against Enterovirus B Infections Recent Advances Review article on novel and repurposed antiviral compounds targeting EV-B, highlighting current progress, therapeutic gaps, and future perspectives.

Journal Name: Pharmaceuticals | **Volume, Issue and Pages:** 16(2), 203

Tammaro, C, et a.l. "Direct-acting antivirals and host-targeting approaches against enterovirus B infections: recent advances." Pharmaceuticals 16.2 (2023): 203. <https://doi.org/10.3390/ph16020203>

[2024]

Amino Acid Biosynthesis Inhibitors in Tuberculosis Drug Discovery Review article summarizing novel strategies against TB through inhibition of amino acid biosynthesis, with a focus on tryptophan inhibitors as promising leads for future drug development.

Authors: Guida, M., Tammaro, C., Quaranta, M., Salvucci, B., Biava, M., Poce, G., & Consalvi, S. | **Journal Name:** *Pharmaceutics* | **Volume, Issue and Pages:** 16(6), 725

Guida, M., Tammaro, C., Poce, G., & Consalvi, S. (2024) Amino Acid Biosynthesis Inhibitors in Tuberculosis Drug Discovery. *Pharmaceutics*, 16(6), 725. <https://doi.org/10.3390/pharmaceutics16060725>

[2022]

Malaria transmission blocking compounds: a patent review Review article on novel "chemical vaccine" strategies, highlighting small molecules, carbohydrates, and polypeptides as promising transmission-blocking agents.

Authors: Consalvi, S., Tammaro, C., Appetecchia, F., Biava, M., & Poce, G. | **Journal Name:** *Expert Opinion on Therapeutic Patents* | **Volume, Issue and Pages:** 32(6), 649-666

Consalvi, S., Tammaro, C., Appetecchia, F., Biava, M., & Poce, G. (2022). Malaria transmission blocking compounds: A patent review. *Expert Opinion on Therapeutic Patents*, 32(6), 649-666. <https://doi.org/10.1080/13543776.2022.2049239>

CONFERENCES AND SEMINARS

[21 Sep 2025 – 25 Sep 2025] Villasimius, Cagliari, Italy

XLII Convegno Nazionale della Divisione di Chimica Organica CDCO 2025 XLII Convegno Nazionale della Divisione di Chimica Organica (CDCO 2025) – *Oral Presentation entitled "Targeting G-Quadruplex Structures: A Novel Strategy Against Microbial Resistance"*

[14 May 2025 – 15 May 2025] Sapienza University of Rome, Rome, Italy

Sapienza AASTMT kick-off meeting for TNE IMPACT Sapienza AASTMT kick-off meeting for TNE IMPACT - *Oral Presentation entitled: "Targeting G-Quadruplex Structures: A Novel Strategy Against Microbial Resistance"*

[17 Oct 2024 – 18 Oct 2024] Bari, Italy

A. It. U. N. XVI annual meeting, "Novel Insights in the Pharmaceutical Field" A. It. U. N. XVI annual meeting, "Novel Insights in the Pharmaceutical Field" - *Flash Oral Presentation* entitled: "**Development and Optimization of Promising Inhibitors for Coxsackievirus-A9**"

[24 Jun 2024 – 28 Jun 2024] Rome, Italy

SYNC 2024, Young Chemists Symposium SYNC 2024, Young Chemists Symposium - *Oral Presentation* entitled: "**Hit optimization of new potent inhibitors of Coxsackievirus A9**"

RESEARCH GRANTS

Early-Stage Research Project 2024 (Type 2) - "Progetti per Avvio alla Ricerca" program - Sapienza University of Rome

Project PI: Chiara Tammaro – 2515€ Funded by Sapienza University of Rome as part of the internal "Progetti per Avvio alla Ricerca" program – Project Title "**Synthesis of novel pyrrolic derivatives with transmission-blocking activity against malaria**"

Early-Stage Research Project 2022 (Type 1) - "Progetti per Avvio alla Ricerca" program - Sapienza University of Rome

Project PI: Chiara Tammaro – 1000€ Funded by Sapienza University of Rome as part of the internal "Progetti per Avvio alla Ricerca" program – Project Title "**Design and optimization of benzylamine and benzamide derivatives with antiviral activity**"

Early-Stage Research Project 2021 (Type 1) - "Progetti per Avvio alla Ricerca" program - Sapienza University of Rome

Project PI: Chiara Tammaro – 1000€ Funded by Sapienza University of Rome as part of the internal "Progetti per Avvio alla Ricerca" program – Project Title "**Development and synthesis of benzamide derivatives with potential antiviral activity**"