

CURRICULUM VITAE

PERSONAL INFORMATION

Name: Maria Giulia Nizi

Gender: female

ORCID: 0000-0001-6317-3687

WORK EXPERIENCE

- 01/01/2023-current (end 31/12/2023)

AIRC Fellowship for Italy Post-Doc 2022 “PARP inhibitors beyond the synthetic lethality to expand the cancer treatment”

University of Perugia, Department of Pharmaceutical Sciences, Perugia (Italy)

Supervisor: prof. Oriana Tabarrini

- 01/05/2022-30/09/2022

Fellow “Scalabilità sintetica e preparazione multi-grammo di composti neuroprotettivi per studi di farmacocinetica ed efficacia in modelli animali”

University of Perugia, Department of Pharmaceutical Sciences, Perugia (Italy)

Supervisor: prof. Maria Letizia Barreca

- 01/03/2022-30/04/2022

Grant from University of Oulu

supervisors: prof. Oriana Tabarrini and Lari Lehtiö

- Academic year 2021-2022

Teaching support in Medicinal Chemistry

University of Perugia, Department of Pharmaceutical Sciences, Perugia (Italy)

- 13/01/2020 – 31/05/2020

Visiting PhD student

University of Oulu, Department of Biochemistry and Molecular Medicine, Oulu (Finland)

Supervisor: prof. Lari Lehtiö

- 06/03/2019 – 31/05/2019

Tutoring in medicinal chemistry lab

University of Perugia, Department of Pharmaceutical Sciences, Perugia (Italy)

Supervisors: Stefano Sabatini and Ornello Rosati

- 15/02/2017 – 15/02/2018

Experimental thesis in Medicinal Chemistry

Supervised by prof. Stefano Sabatini

University of Perugia, Department of Pharmaceutical Sciences, Perugia (Italy)

Title: “Design, synthesis and biological evaluation of halogenated 3-phenylquinolone derivatives as inhibitors of the *M. avium* efflux pumps”

- 01/10/2016 – 01/04/2017

Professional training

Farmacia Dr. Storelli

Supervisor: doctor Rita Storelli

Piazza XXVI Giugno 1944, 53043, Chiusi, Siena, Italy

EDUCATION AND TRAINING

- 22/06/2022

PhD title in Medicinal Chemistry (SSD CHIM/08)

Title: “Discovery of potent and selective PARP inhibitors as valuable pharmacological tools and next generation anticancer agents”

- July, 2018

Qualification to the profession of pharmacist

- 01/11/2018 – 31/01/2022

PhD in Medicinal Chemistry

University of Perugia, Department of Pharmaceutical Sciences, Perugia (Italy)

Supervisor: prof. Oriana Tabarrini

- 15/02/2018

Master degree in Pharmacy (LM-13)

Experimental thesis, title “Design, synthesis and biological evaluation of halogenated 3-phenylquinolone derivatives as inhibitors of the *M. avium* efflux pumps”

Supervisor: Prof. Stefano Sabatini

vote: 103/110

- 09/2012 – 02/2018

Degree course in Pharmacy

University of Perugia, Department of Pharmaceutical Sciences, Perugia (Italy)

PERSONAL SKILLS AND COMPETENCE

Mother tongue: Italian

Other languages: English

Scientific skills: The research activity is mainly focused on the design and synthesis of small molecules as anti-cancer and anti-infective agents. The research activity falls within the preclinical drug discovery process, including application of various approaches to identify hit compounds, hit-to-lead optimization, structure-activity relationship studies, chemical modification to improve the chemical-physical properties of the molecules; design and synthesis of chemical probes and their conjugates to identify the targets and dissect the molecular pathways.

Competences:

- 21-23/09/2022

NMR course by Bruker

(NMR spectroscopy, quantitative NMR, Fragment Based Screening experiments, metabolomics)

Held by doctor Francesca Benevelli

University of Perugia, Department of Pharmaceutical Sciences, Perugia (Italy)

- 29/08/2022- 02/09/2022

HPLC course by Agilent

(Ion Mobility, Qtof System, MassHunter, Acquisition MH Qualitative and IM, Browser MH Profinder and Statalcal, Software platform)

Held by doctors Jos Lips and Marco Fagioni

University of Perugia, Department of Pharmaceutical Sciences, Perugia (Italy)

LIST OF PUBLICATIONS

- 1) Maria Giulia Nizi, Chiara Sarnari, Oriana Tabarrini “Privileged Scaffolds for Potent and Specific Inhibitors of Mono-ADP-Ribosylating PARPs” **2023 *Molecules* (IF 2023: 4.6)**
- 2) Sudarshan Murthy, **Maria Giulia Nizi**,* Mirko M. Maksimainen, Serena Massari, Juho Alaviuhkola, Barbara E. Lippok, Chiara Vagaggini, Sven T. Sowa, Albert Galera-Prat, Yashwanth Ashok, Harikanth Venkannagari, Renata Prunskaitė-Hyyryläinen, Elena Dreassi, Bernhard Lüscher, Patricia Korn, Oriana Tabarrini, Lari Lehtiö * **co-first author** “[1,2,4]Triazolo[3,4-b]benzothiazole Scaffold as Versatile Nicotinamide Mimic Allowing Nanomolar Inhibition of Different PARP Enzymes” **2023 *J. Med. Chem.* (IF 2023: 7.3)**
- 3) **Maria Giulia Nizi**, Mirko M. Maksimainen, Lari Lehtiö, Oriana Tabarrini “Medicinal Chemistry Perspective on Targeting Mono-ADP-Ribosylating PARPs with Small Molecules” **2022 *J. Med. Chem.* (IF 2022: 8.039)**
- 4) **Maria Giulia Nizi**, Lentjee Persoons, Angela Corona, Tommaso Felicetti, Giada Cernicchi, Serena Massari, Giuseppe Manfroni, Laura Vangeel, Maria Letizia Barreca, Francesca Esposito, Dirk Jochmans, Jessica Milia, Violetta Cecchetti, Dominique Schols, Johan Neyts, Enzo Tramontano, Stefano Sabatini, Steven De Jonghe, Oriana Tabarrini “Discovery of 2-Phenylquinolines with Broad-Spectrum Anti-coronavirus Activity” **2022 *ACS Med. Chem. Lett.* (IF 2022: 4.632)**
- 5) **Maria Giulia Nizi**, Mirko M. Maksimainen, Sudarshan Murthy, Serena Massari, Juho Alaviuhkola, Barbara E. Lippok, Sven T. Sowa, Albert Galera-Prat, Renata Prunskaitė-Hyyryläinen, Bernhard Lüscher, Patricia Korn, Lari Lehtiö, Oriana Tabarrini “Potent 2,3-dihydrophthalazine-1,4-dione derivatives as dual inhibitors for mono-ADP-ribosyltransferases PARP10 and PARP15” **2022, *Eur. J. Med. Chem.* (IF 2022: 6.514)**
- 6) Maria Chiara Pismataro, Tommaso Felicetti, Chiara Bertagnin, **Maria Giulia Nizi**, Anna Bonomini, Maria Letizia Barreca, Violetta Cecchetti, Dirk Jochmans, Steven De Jonghe, Johan Neyts, Arianna Loregian, Oriana Tabarrini, Serena Massari “1,2,4-Triazolo[1,5-a]pyrimidines: Efficient one-step synthesis and functionalization as influenza polymerase PA-PB1 interaction disruptors” **2021 *Eur. J. Med. Chem.* (IF 2021: 6.514)**
- 7) Serena Massari, Chiara Bertagnini, Maria Chiara Pismataro, Anna Donnadio, Giulio Nannetti, Tommaso Felicetti, Stefano Di Bona, **Maria Giulia Nizi**, Leonardo Tensi, Giuseppe Manfroni, Maria Isabel Loza, Stefano Sabatini, Violetta Cecchetti, Jose Brea, Laura Goracci, Arianna Loregian, Oriana Tabarrini “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” **2021 *Eur. J. Med. Chem.***
- 8) Serena Massari, Jenny Desantis, **Maria Giulia Nizi**, Violetta Cecchetti, Oriana Tabarrini “Inhibition of Influenza Virus Polymerase by Interfering with Its Protein-Protein Interactions” **2021 *ACS Infect. Dis.* (IF 2021: 5.578)**
- 9) Maria Giulia Nizi, Jenny Desantis, Yoshio Nakatani, Serena Massari, Maria Angela Mazzarella, Gauri Shetye, Stefano Sabatini, Maria Letizia Barreca, Giuseppe Manfroni, Tommaso Felicetti, Rowena

- Rushton-Green, Kiel Hards, Gniewomir Latacz, Grzegorz Satała, Andrzej J Bojarski, Violetta Cecchetti, Michal H Kolář, Jadwiga Handzlik, Gregory M Cook, Scott G Franzblau, Oriana Tabarrini “Antitubercular polyhalogenated phenothiazines and phenoselenazine with reduced binding to CNS receptors” **2020** *Eur.J.Med.Chem* (IF 2020: 6.514)
- 10) Tommaso Felicetti, Rolando Cannalire, **Maria Giulia Nizi**, Oriana Tabarrini, Serena Massari, Maria Letizia Barreca, Giuseppe Manfroni, Bryan D. Schindler, Violetta Cecchetti, Glenn W. Kaatz, Stefano Sabatini "Studies on 2-phenyl quinoline Staphylococcus aureus NorA efflux pump inhibitors" **2018** *Eur. J. Med. Chem.* (IF 2018: 4.833)

PATENTS

- 1) Lari Lehtiö, Mirko M. Maksimainen, Sudarshan Murthy, Oriana Tabarrini, **Maria Giulia Nizi**, Serena Massari “Compounds for use in the treatment of cancer and inflammatory conditions.” FI20225073, **Jan, 22, 2022.**

ORAL COMMUNICATIONS

- 1) “Progress on potent and specific PARP inhibitors: a SAR study around the [1,2,4]triazolo[3,4-b]benzothiazole scaffold” **XVIII National Meeting on Medicinal Chemistry Chieti (Italy) 17/09/2023-20/09/2023**
- 2) “Discovery of potent and selective PARP inhibitors as valuable pharmacological tools” **XI Paul Ehrlich Euro PhD Network Barcelona (Spain) 14/07/2022- 16/07/2022** Maria Giulia Nizi
- 3) “Exploiting a proprietary compound library to fight SARS-CoV-2: identification of 2-phenylquinolines with pan-anticoronavirus activity” **5TH IAAASS, Cagliari (Italy) 22/09/2021 – 24/09/2021** Maria Giulia Nizi, Leentje Persoons, Angela Corona, Tommaso Felicetti, Serena Massari, Giuseppe Manfroni, Laura Vangeel, Dirk Jochmans, Jessica Milia, Violetta Cecchetti, Johan Neyts, Stefano Sabatini, Steven De Jonghe, and Oriana Tabarrini
- 4) "Discovering selective Poly (ADP-ribose) Polymerase (PARP) Inhibitors to expand the precision medicine approach” **Paul Ehrlich Euro-PhD Network Virtual meeting 2021 26/07/2021 – 28/07/2021** Maria Giulia Nizi, Mirko M. Maksimainen, Sudarshan Murthy, Serena Massari, Albert Galera-Prat, Sven T. Sowa, Alaviuhkola, J.; Lari Lehtiö, and Oriana Tabarrini
- 5) “Halogenated phenothiazines targeting the *M. Tuberculosis* type II of the NADH dehydrogenase” **Paul Ehrlich Euro-PhD Network & MuTaLig COST Action meeting Catanzaro (Italy) 13/06/2019 – 15/06/2019** Maria Giulia Nizi, Serena Massari, Maria Angela Mazzarella, Sang Hyun Cho, Rui Ma, Baojie Wan, Scott G. Franzblau, and Oriana Tabarrini
- 6) “Halogenated phenothiazines with anti-tb activity through the NDH-II inhibition” **XXVI NMMC2019, Milan (Italy) 16/07/2019 – 19/07/2019** Maria Giulia Nizi, Serena Massari, Maria Angela Mazzarelli, Sang Hyun Cho, Rui Ma, Baojie Wan, Violetta Cecchetti, Scott G. Franzblau, and Oriana Tabarrini
- 7) “The antitubercular effect of halogenated phenothiazines that inhibit the NDH-II dehydrogenase” **WSeS-8 Perugia (Italy) 30/05/2019 – 01/06/2019** Maria Giulia Nizi, Serena Massari, Maria Angela Mazzarella, Giuseppe Manfroni, Sang Hyun Cho, Rui Ma, Baojie Wan, Violetta Cecchetti, Scott G. Franzblau, and Oriana Tabarrini
- 8) “Methoxylated 2-phenylquinoline blocking the *S. aureus* NorA efflux pump” **MEYCS, Rimini (Italy) 19/11/2018 – 21/11/2018** Maria Giulia Nizi, Tommaso Felicetti, Rolando Cannalire, Serena Massari, Oriana Tabarrini, Violetta Cecchetti, and Stefano Sabatini

CONTRIBUTION TO ORAL COMMUNICATIONS

- 1) “2-Phenylquinolines as promising broad spectrum anti-Coronaviruses agents” **XI Paul Ehrlich Euro PhD Network Barcelona (Spain) 14/07/2022- 16/07/2022** Giada Cernicchi, Maria Giulia Nizi, Erika

- Primavera, Leentje Persoons, Angela Corona, Enzo Tramontano, Steven De Jonghe, Violetta Cecchetti, Stefano Sabatini, Oriana Tabarrini
- 2) “New potent and safer functionalized 3- phenylquinolones as efflux pumps inhibitors of *Mycobacterium avium*” **XXV NMMC2018, Palermo (Italy) 17/07/2018 – 20/07/2018** Tommaso Felicetti, Rolando Cannalire, Diana Machado, [Maria Giulia Nizi](#), Serene Massari, Giuseppe Manfroni, Miguel Viveiros, Violetta Cecchetti, and Stefano Sabatini
 - 3) “Novel methoxy-2-phenylquinoline derivatives as potent and safe NorA efflux pump inhibitors of *Staphylococcus aureus*” **P.Ehrlich Med.Chem., Porto (Portugal) 12/07/2018 – 14/07/2018** Tommaso Felicetti, Rolando Cannalire, [Maria Giulia Nizi](#), Giuseppe Manfroni, Maria Letizia Barreca, Serene Massari, Oriana Tabarrini, Glenn W. Kaatz, Violetta Cecchetti, and Stefano Sabatini

POSTERS

- 1) “[1,2,4]Triazol[3,4-b]benzothiazole-based analogues as inhibitors of PARPs subfamilies” **XII Paul Ehrlich Euro PhD Network Tesseloniki (Greece) 16/07/2023-18/07/2023** Chiara Sarnari, [Maria Giulia Nizi](#), Juho Alaviuhkola, Serene Massari, Giuseppe Manfroni, Lari Lehtiö, Oriana Tabarrini
- 2) “From an in-house library of 2-phenylquinolines to broad-spectrum anticoronavirus agents” **XXVII NMMC2022 Bari (Italy) 11/09/2022-14/09/2022** [Maria Giulia Nizi](#), Persoons Lentjee, Corona Angela, Felicetti Tommaso, Cernicchi, Giada, Massari, Serene, Manfroni, Giuseppe, Vangeel, Laura, Barreca, Maria Letizia, Esposito Francesca, Jochmans, Dirk, Milia Jessica, Cecchetti, Violetta, Schols, Dirk, Neyts Johan, Tramontano Enzo, Sabatini Stefano, De Jonghe Steven, Tabarrini Oriana
- 3) “OUL35 analogues as selective PARP10 and PARP15 inhibitors” **40 ESMEC, Urbino (Italy) 28/06/2021 – 01/07/2021** [Maria Giulia Nizi](#)
- 4) “Discovering selective Poly (ADP-ribose) Polymerase (PARP) Inhibitors to expand the precision medicine approach” **NPCF XIII, Florence (Italy) 26/04/2021 – 29/04/2021** [Nizi Maria Giulia](#), Maksimainen Mirko; Murthy Sudarshan; Massari Serene; Galera-Prat, Albert; Sowa, Sven; Alaviuhkola, Juho; Lehtiö, Lehtio; and Tabarrini Oriana
- 5) “Cycloheptathiophene-3-carboxamide protein-protein interaction inhibitors possess potent anti-influenza activity and a high barrier to drug resistance” **XXVI NMMC2019, Milan (Italy) 16/07/2021 – 19/07/2021** Serene Massari, [Maria Giulia Nizi](#), Chiara Bertagnin, Giulio Nannetti, Stefano Sabatini, Arianna Loregian, and Oriana Tabarrini
- 6) “Design, synthesis, and biological evaluation of functionalized 3-phenylquinolones to block efflux machinery in non-tuberculous mycobacteria” **XXV NMMC2018, Palermo (Italy) 17/07/2018 – 20/07/2018** Rolando Cannalire, Tommaso Felicetti, [Maria Giulia Nizi](#), Serene Massari, Oriana Tabarrini, Giuseppe Manfroni, Miguel Viveiros, Violetta Cecchetti, and Stefano Sabatini
- 7) “2-Phenylquinoline C-6 position functionalization by alkoxyamino chains to obtain new *S.aureus* NorA efflux pumps inhibitors” **MYCS 2017, Milano Marittima (Italy) 13/11/2017 – 15/11/2017** [Maria Giulia Nizi](#), Rolando Cannalire, Tommaso Felicetti, Serene Massari, Giuseppe Manfroni, Stefano Sabatini, and Violetta Cecchetti

AWARDS

September, 17th, 2023: Award of fellowship for XXVIII National Meeting on Medicinal Chemistry by Italian Chemical Society, Chieti, Italy

July, 16th, 2022: Award of excellence Paul Ehrlich MedChem Euro PhD network at Med Chem 2022-Paul Ehrlich, Barcelona, Spain

July, 26th, 2021: Award of best flash communication at Med Chem 2021-Paul Ehrlich virtual meeting

April, 11th, 2019: Award of fellowship for XXVI National Meeting on Medicinal Chemistry by Italian Chemical Society, Milan, Italy

SCIENTIFIC DISSEMINATION

November, 12nd 2023: Intervention at “Il concerto per la ricerca 2023” organized by AIRC divisione Umbria

February, 28th, 2022: Oral presentation at “International day of women and girls in Science; Scienze Farmaceutiche: La ricerca al femminile” organized by Soroptimist International club Perugia

Autorizzo il trattamento dei miei dati personali presenti nel CV ai sensi dell’art. 13 d. lgs. 30 giugno 2003 n. 196 - “Codice in materia di protezione dei dati personali” e dell’art. 13 GDPR 679/16 - “Regolamento europeo sulla protezione dei dati personali” ai soli fini del concorso

Perugia, 11.12.2023