Curriculum Vitae et Studiorum

Sara Passacantilli

Work experience

2018-*to date*	Internship at Azienda Ospesaliera San Giovanni Addolorata – Rome, Italy. Supervisor Dr. Alfredo Ascani.
2017	**Pharmaceutical resercher** at C4T s.r.l. (Closseum Combinatorial Chemistry Centre for Tecnology) – Rome, Italy.
2017	**Post Doc research fellow,** awarded by the Medicinal Chemistry Department (Sapienza Università di Roma).
2013-2016	**PhD Student** in Pharmaceutical Sciences, Medicinal Chemistry Department, Sapienza Università di Roma, Rome, Italy.
2007-2010	Cryo-Save srl (stem cells), Administrative assistant and call center, Rome, Italy.
2004-2007	**Law Office Assistant**, Rome, Italy.

Education and training

2017-*to date* **School hospital pharmacy specialization** (winner of competition) Sapienza Università di Roma, Rome, Italy. .

2013-2016 **PhD Student** (winner of doctorate fellowship) in Pharmaceutical Sciences, Medicinal Chemistry Department, Sapienza Università di Roma, Rome, Italy. Supervisor: Prof Romano Silvestri, Full Professor of Medicinal Chemistry at the Sapienza University of Rome, Italy. The research projects are mainly focused on the drug design and synthesis of new biologically active chemical entities in the areas of antitumor, antiviral or SNC drugs. The drug design is based on molecular models performed by either the internal unit or external research groups. New procedures for the microwave-assisted synthesis and the highly automated purification of relevant pharmaceutical molecules are also developed.

2008-2013 **Master Degree Pharmacy** Sapienza Università di Roma, Rome, Italy, (102/110).

2000-2003 13 exams **Biological Sciences** Sapienza Università di Roma, Rome, Italy.

2000 **Scientific Baccalaureate** Liceo Amedeo Avogadro, Rome, Italy.

Languages

Italian: mother tongue
English: fluent

Research Activities and Skills

Team work: Accustomed to working in groups during academic projects. Capacity to interact and collaborate with others effectively, including research team and laboratory managment, and students supervision on their internship experience.

Communication: Good communication skills as demonstrated delivering presentations and lessons as a teacher at the university and conferences.

Techinical Skills Design, synthesis and development of heterocycles endowed with potential biological activity.

The research focuses on the development of new agents for the treatment of cancer. Drugs able to modulate the microtubule assembly either by inhibition of tubulin polymerization or by blocking microtubule disassembly are of great interest in anticancer therapy.

In the search for novel small molecules as alternative modulators of cell death, the recent discovery of a new BAX activation site offered a thrilling opportunity to develop a novel class of alternative apoptosis activators.

Other research interests include the Frizzled4 (Fz4) receptor, IDO1 (Indoleamine 2,3-dioxygenase) and HIV-1 non-nucleoside transcriptase inhibitors.

Good knowledge about standard techniques of organic compound synthesis and their purification eg, gravitational and flash column chromatography (fully automated flash chromatography system - SpotII, Interchim, HPLC system (Dionex UltiMate 3000 Thermo Scientific), thin layer chromatography, crystallization, distillation.

Good experience in microwave-assisted organic synthesis (Discover S-Class, CEM corporation.

Good knowledge about use of R-210 Rotavapors (Büchi) equipped with V-850 vacuum controller (Büchi) and V-700 (~5 mbar; Büchi) and V-710 (~ 2 mbar; Büchi) vacuum pumps, Finnigan.

Good experience in the acquisition and interpretation of NMR (1H, 13C) NMR spectrometer (Bruker Avance 400 MHz FT and Varian 300 MHz) and ATR-FTIR spectrometer (SpectrumOne, Perkin Elmer).

Good knowledge of software tools: Microsoft Office (Patente Europea del Computer) (Word, Excel, Power Point, ChemBioDraw).

Teaching Activities

2013-2016 Supplementary didactic work on topics including "Pharmaceutical and Toxicological Chemistry I".
Examination assistant in "Pharmaceutical and Toxicological Chemistry I" and "Therapeutic Chemistry II", at the University of Rome "La Sapienza".

Conferences and Workshop

Posters

2014 *NPCF-8*, Atti del Congresso P-14 June 9-11, Parma, Italy, Comunicazione Poster

2014 La Regina, G.; Coluccia, A.; Passacantilli, S.; Famiglini, V.; Pelliccia, S.; Hamel, E.; Novellino, E; Silvestri, R. 3-Aroyl-1-arylpyrroles: a new class of potent inhibitors of tubulin polymerization. Fifth European Workshop in Drug Synthesis, May 18-23, 2014, Siena, Italy

2014 Passacantilli, S.; Pelliccia, S.; La Regina, G.; Famiglini, V.; Punzi, P.; Silvestri, R. Selective synthesis of 2,9-dihydro-1H-Pyrido[3,4-b]indol-1-ones. Nuove Prospettive in Chimica Farmaceutica - VIII Edizione del Meeting, Book degli Abstracts, P-32, June 9-11, 2014, Parma, Italy

2015 *XXII National Meeting on Medicinal Chemistry/NPCF9,* Comunicazione Poster, September 6-9, Salerno, Italy.

2015 *Passacantilli, S.; La Regina, G.; Coluccia, A.; Creta, M.; Hamel, E.; Novellino, E.; Silvestri, R. Synthesis of new indoles with potent tubulin polymerization inhibiting activity including Hedgehog-dependent cancer and enhanced stimulation of NK cell cytotoxic activity. XXIII National Meeting on Medicinal Chemistry - Nuove Prospettive in Chimica Farmaceutica 9° Meeting, Abstract eBook, PC145, September 6-9, 2015, Fisciano, Italy*

2015 *Passacantilli, S.; La Regina, G.; Coluccia, A.; Creta, M.; Hamel, E.; Novellino, E.; Silvestri, R. Design and synthesis of new potent tubulin polymerization inhibitors. Workshop sulla Ricerca, Abstract Book, P-21, September 21, 2015, Rome, Italy.*

2015 *La Regina, G.; Famiglini, V.; Pelliccia, S.; Passacantilli, S.; Creta, M.; Silvestri, R. Microwave-assisted synthesis of arylthioindoles and aroylindolesas potent inhibitors of tubulin polymerization. Workshop sulla Ricerca, Abstract Book, P-20, September 21, 2015, Rome, Italy*

2016 *La Regina, G.; Coluccia, A.; Famiglini, V.; Passacantilli, S.; Mazzoccoli, C.; Takikawa, O.; Silvestri, R. New Inhibitors of indoleamine 2,3-dioxygenase 1: molecular modelling studies, synthesis and biological*

evaluation. XXIV National Meeting on Medicinal Chemistry - Nuove Prospettive in Chimica Farmaceutica 10° Meeting, Abstract eBook, PC100, September 11-14, 2016, Perugia, Italy

2017 *Sara Passacantilli, Valeria Famiglini, Giuseppe La Regina, Antonio Coluccia, Domiziana Masci, José A. Esté, Giovanni Maga, Romano Silvestri. Drug design and synthesis of new indolylarylsulfones as HIV-1 non-nucleoside reverse transcriptase inhibitors. 10th Joint Meeting on Medicinal Chemistry, Book of Abstracts, P115, June 25-28, 2017, Dubrovnik, Croatia*

Others

2014 *ESMEC* European School of Medicinal Chemistry, July 2-7, Urbino, Italy.

2015 *ESMEC* European School of Medicinal Chemistry, June 28 July 5, Urbino, Italy.

2016 *ESMEC* European School of Medicinal Chemistry, June 26 July 1, Urbino, Italy.

Scientific Publication

1- La Regina, G.; Bai, R.; Coluccia, A.; Famiglini, V.; Pelliccia, S.; Passacantilli, S.; Mazzoccoli, C.; Ruggieri, V.; Sisinni, L.; Bolognesi, A.; Rensen, W. M.; Miele, A.; Nalli, M.; Alfonsi, R.; Di Marcotullio, L.; Gulino, A.; Brancale, A.; Novellino, E.; Dondio, G.; Vultaggio, S.; Varasi, M.; Mercurio, C.; Hamel, E.; Lavia, P.; Silvestri, R. New pyrrole derivatives with potent tubulin polymerization inhibiting activity as anticancer agents including Hedgehog-dependent cancer. *J. Med. Chem.* **2014**, *57*, 6531−6552 (doi: 10.1021/jm500561a; Pubmed ID: 25025991; Scopus ID: 2-s2.0-84906094556; ISI Accession Number: WOS:000340445900020; June 15, 2014; ISSN: 0022-2623, American Chemical Society, Washington, United States; IF 2016, InCites Journal Citation Reports: 6.259).

2- La Regina, G.; Famiglini, V.; Passacantilli, S.; Pelliccia, S.; Punzi, P.; Silvestri, R. New, simple and high-yielding synthesis of 2,9-dihydro-1*H*-pyrido[3,4-*b*]indol-1-ones. *Synthesis* **2014**, *46*, 2093−2097 (doi: 10.1055/s-0033-1339155; Pubmed ID: not available; Scopus ID: 2-s2.0-84904763883; ISI Accession Number: WOS:000340874800016; June 2, 2014; ISSN: 0039-7881, Georg Thieme Verlag Kg, Stuttgart, Germany, IF 2016, InCites Journal Citation Reports: 2.650).

3- Generoso, S. F.; Giustiniano, M.; La Regina, G.; Bottone, S.; Passacantilli, S.; Di Maro, S.; Cassese, H.; Bruno, A.; Mallardo, M.; Dentice, M.; Silvestri, R.; Marinelli, L.; Sarnataro, D.; Bonatti, S.; Novellino, E.; Stornaiuolo, M. Pharmacological folding chaperones act as allosteric ligands of Frizzled4. *Nat. Chem. Biol.* **2015**, *11*, 280−286 (doi: 10.1038/nchembio.1770; Pubmed ID: 25751279; Scopus ID: 2-s2.0-84924362536; ISI Accession Number: WOS:000351666500011; March 9, 2015; ISSN: 1552-4450, Nature Publishing Group, New York, United States; IF 2016, InCites Journal Citation Reports: 15.066).

4- Stornaiuolo, M.; La Regina, G.; Passacantilli, S.; Grassia, G.; Coluccia, A.; La Pietra, V.; Giustiniano, M.; Cassese, H.; Di Maro, S.; Brancaccio, D.; Taliani, S.; Ialenti, A.; Silvestri, R.; Martini, C.; Novellino, E.; Marinelli, L. Structure-based lead optimization and biological evaluation of BAX direct activators as novel potential anticancer agents. *J. Med. Chem.* **2015**, *58*, 2135−2148 (doi: 10.1021/jm501123r; Pubmed ID:

25668341; Scopus ID: 2-s2.0-84924664711; ISI Accession Number: WOS:000351186500007; February 10, 2015; ISSN: 0022-2623, American Chemical Society, Washington, United States; IF 2016, InCites Journal Citation Reports: 6.259).

5- La Regina, G.; Bai, R.; Coluccia, A.; Famiglini, V.; Pelliccia, S.; Passacantilli, S.; Mazzoccoli, C.; Ruggieri, V.; Verrico, A.; Miele, A.; Monti, L.; Nalli, M.; Alfonsi, R.; Di Marcotullio, L.; Gulino, A.; Ricci, B.; Soriani, A.; Santoni, A.; Caraglia, M.; Porto, S.; Da Pozzo, E.; Martini, C.; Brancale, A.; Marinelli, L.; Novellino, E.; Vultaggio, S.; Varasi, M.; Mercurio, C.; Dondio, G.; Bigogno, C.; Hamel, E.; Lavia, P.; Silvestri, R. New indole tubulin assembly inhibitors cause stable arrest of mitotic progression, enhanced stimulation of natural killer cell cytotoxic activity and repression of Hedgehog-dependent cancer. *J. Med. Chem.* **2015**, 58, 5789−5807 (doi: 10.1021/acs.jmedchem.5b00310; Pubmed ID: 26132075; Scopus ID: 2-s2.0-84939138196; ISI Accession Number: WOS:000359683700008; July 1, 2015; ISSN: 0022-2623, American Chemical Society, Washington, United States; IF 2016, InCites Journal Citation Reports: 6.259).

6- Coluccia, A.; Passacantilli, S.; Famiglini, V.; Sabatino, M.; Patsilinakos, A.; Ragno, R.; Mazzoccoli, C.; Sisinni, L.; Okuno, A.; Takikawa, O.; Silvestri, R.; La Regina, G. (corresponding Author). New inhibitors of indoleamine 2,3-dioxygenase 1: molecular modeling studies, synthesis, and biological evaluation. *J. Med. Chem.* **2016**, *59*, 9760−9773 (doi: 10.1021/acs.jmedchem.6b00718; Pubmed ID: 27690429; Scopus ID: 2-s2.0-84994853619; ISI Accession Number: WOS:000387737600010; October 3, 2016; ISSN: 0022-2623, American Chemical Society, Washington, United States; IF 2016, InCites Journal Citation Reports: 6.259).

7- La Regina, G.; Bai, R.; Coluccia, A.; Famiglini, V.; Passacantilli, S.; Naccarato, V.; Ortar, G.; Mazzoccoli, C.; Ruggieri, V.; Agriesti, F.; Piccoli, C.; Tataranni, T.; Nalli, M.; Brancale, A.; Vultaggio, S.; Mercurio, C.; Varasi, M.; Saponaro, C.; Sergio, S.; Maffia, M.; Coluccia, A. M. L.; Hamel, E.; Silvestri, R. 3-Aroyl-1,4-diarylpyrroles inhibit chronic myeloid leukemia cell growth through an interaction with tubulin. *ACS Med. Chem. Lett.* **2017**, *8*, 521−526 (doi: 10.1021/acsmedchemlett.7b00022; Pubmed ID: 28523104; Scopus ID: 2-s2.0-85018898332; ISI Accession Number: WOS:000401402900010; April 26, 2017; ISSN: 1948-5875; American Chemical Society, Washington, United States; IF 2016, InCites Journal Citation Reports: 3.746).

8- Riccio, G.; Bottone, S.; La Regina, G.; Badolati, N.; Passacantilli, S.; Rossi, G. B.; Accardo, A.; Dentice, M.; Silvestri, R.; Novellino, E.; Stornaiuolo, M. A negative allosteric modulator of WNT receptor frizzled 4 switches into an allosteric agonist. *Biochemistry* **2018**, *57,* 839−851 (doi: 10.1021/acs.biochem.7b01087; Pubmed ID: 29293331; Scopus ID: 2-s2.0-85041457316; ISI Accession Number: WOS:000424723300047; January 2, 2018; ISSN: 0006-2960; American Chemical Society, Washington, United States; IF 2016, InCites Journal Citation Reports: 2.938)

Autorizzo il trattamento dei miei dati personali ai sensi del decreto Legislativo 30/06/2003 n. 196

04/07/2018

In fede
Sara Passacantilli