



PERSONAL DATA AND ADDRESS

Birth date and place: November 22, 1980, Lungro (CS), Italy
Nationality: Italian
Address: Strada Vallisa, 63, 70122 Bari, Italy
Phone: +393297768831
e-mail: ele.capparelli@gmail.com; ele.capparelli@uniba.it; e.capparelli@unizkm.al

EDUCATION AND TRAINING

November 2017

Advanced Course in Gas Chromatography

Theoretical and practical information on the GC technique. Case studies and troubleshooting. Levanchimica srl & Order of Chemists of Bari, Italy

November 2015

Professional Chemist Qualification

January 2009-March 2012

PhD in Pharmaceutical Science and Doctor Europaeus Designation
Pharmaceutical Chemistry Department, University of Bari, Italy

Topic

"Design, synthesis and biological evaluation of new P-glycoprotein Ligands as useful tools in PET Imaging for Oncology and Early Diagnosis of Alzheimer's Disease"

September 2011-December 2011

Visiting researcher

Health & Environment Department, Molecular Medicine
Austrian Institute of Technology (AIT)
Seibersdorf (Austria)

Topic

"Development of PET Radiotracer for Imaging P-glycoprotein in Chemoresistant Tumours"

July 2008

Pharmacist Registration Qualification

April 2008

5-Year Master's degree in Chemistry and Pharmaceutical Technology,
University of Bari, Italy

Thesis title

"Synthesis and binding affinity of PB28-Siramesine hybrid σ receptor ligands"

WORK EXPERIENCE

March 2015- to date

Cosmetic Formulation and Product Development Responsible
La Cosmottega srls, Via Trento 92, Bari, Italy

November 2015-to date	Researcher /Lecturer at Catholic University "Our Lady of Good Counsel", Tirana, Albania
September 2016-December 2018	Researcher and Laboratory Responsible at Biofordrug srl Via Orabona 4, 70125, Bari, Italy
August 2013-October 2015	Post-Doc Research Fellow at Pharmacy Department University of Bari, Italy <i>Project</i> "Optimization of oncology therapy"
October 2012-July 2013	Temporary Research Fellow at Institute of Crystallography (IC) CNR-Consiglio Nazionale delle Ricerche-Via Amendola, 122/O-70126, Bari (Italy) <i>Project</i> "Crystallographic study of PET radiotracers in clinical evaluation for the Early Diagnosis of Alzheimer's Disease"
June 2012-September 2012	Term-Contract Researcher <i>Project</i> Collaborator in an R&D project focused on the Early Diagnosis of Alzheimer's Disease Biofordrug s.r.l. Via Orabona 4, 70125, Bari, Italy
September 2011-December 2011	Stage in Radiopharmaceutical Chemistry Health & Environment Department, Molecular Medicine Austrian Institute of Technology, Seibersdorf (Austria)
January 2009-December 2011	University laboratory assistant and Teaching Assistant for the Institutional Course in Pharmaceutical Chemistry Department of Pharmacy, University of Bari, Italy
September 2008-November 2008	Pharmacist "Farmacia Priore", Traversa I Loseto Valenzano, Bari, 70124, Italy
November 2006-May 2007	Internship in Medicinal Chemistry Laboratory Pharmaceutical Chemistry Department, University of Bari, Italy

TEACHING

- Academic Course in Medicinal Chemistry, at the Faculty of Pharmacy at the Catholic University "Our Lady of Good Counsel", Tirana, Albania.
- Academic Course in Chemical-Pharmaceutical and Toxicological Analyses, at the Faculty of Pharmacy at the Catholic University "Our Lady of Good Counsel", Tirana, Albania.
- Teaching assistant for the Academic Course in General and Inorganic Chemistry, at the Faculty of Pharmacy at the Catholic University "Our Lady of Good Counsel", Tirana, Albania.
- Teaching assistant for the Academic Course in Organic Chemistry, at the Faculty of Pharmacy at the Catholic University "Our Lady of Good Counsel", Tirana, Albania.
- Teaching assistant for Academic Course in Analytical Chemistry, at the Faculty of Pharmacy at the Catholic University "Our Lady of Good Counsel", Tirana, Albania.

TECHNICAL SKILLS

- Extensive experience in design, synthesis, purification and characterization of small molecules:
 - Organic synthesis
 - Microwave-assisted synthesis
 - Analytical techniques: NMR, GC-MS, LC-MS, HPLC, TLC, FT-IR, UV-Vis, Spectrofluorimetry
- Radiochemistry: ¹¹C Radiolabelling and *ex vivo* Autoradiography experiment;
- Experience in GMP Radiopharmaceutical Laboratory;
- Analytical Expertise in Quality Control of Drugs in Medical Devices for clinical employment.

COMPUTER SKILLS

Extensive knowledge of Windows, Mac-Os, Analytical and Chemical Software.

LANGUAGE

Italian: Mother tongue
English: Professional working proficiency
French: Elementary working proficiency
Albanian: Elementary proficiency

ATTENDED MEETINGS

- IV-th Pharmaceutical Conference, Albanian Order of Pharmacists, Tirana, Albania, October 2016.
- "Approccio non convenzionale alla malattia di Alzheimer: dalla ricerca alla cura", Roma, November 2014.
- BIOECONOMY ROME-International Conference, "Nuovi approcci di medicina traslazionale applicati alle malattie neurodegenerative". November 2013
- 5th SFB35-Symposium "Transmembrane Transporters in Health and Disease", Vienna, Austria. September 2012.
- European School of Medicinal Chemistry (XXIX Advanced Course in Medicinal Chemistry and "E. Duranti" National Seminar for PhD students); Urbino, Italy . September 2009.
- European School of Medicinal Chemistry (XXX Advanced Course in Medicinal Chemistry and "E. Duranti" National Seminar for PhD students); Urbino, Italy, July 2010.
- European School of Medicinal Chemistry (XXXI Advanced Course in Medicinal Chemistry and "E. Duranti" National Seminar for PhD students); Urbino, Italy, July 2011.

POSTERS and ORAL PRESENTATIONS

E.Capparelli A combined HPLC and LC-MS approach for evaluating drug stability in elastomeric devices: a challenge for the sustainability in Pharmaeconomics IV-th Pharmaceutical Conference, Albanian Order of Pharmacists, Tirana, Albania, October 2016.

Miriam Durante, Fabio Fusi, Maria Frosini, Claudia Sticozzi, Elena Capparelli, Maria G. Perrone, Nicola A. Colabufo, Simona Saponara. Vascular toxicity risk assessment of MC18 and MC70, novel potential diagnostic tools for *in vivo* PET studies 22nd Scientific Symposium of the Austrian Pharmacological Society: Joint Meeting with the Hungarian Society for Experimental and Clinical Pharmacology Vienna, 8 – 10 September 2016.

E.Capparelli "A Benzopyrane Derivative as a P-Glycoprotein Stimulator: A Potential Agent to Decrease β -Amyloid Accumulation in Alzheimer's Disease"- 5th SFB35-Symposium "Transmembrane Transporters in Health and Disease", Vienna, Austria. 24-25 September 2012.

E.Capparelli "New conformationally restricted 6,7- dimethoxy-1,2,3,4-dimethoxy tetrahydroisoquinoline derivatives to reverse MDR" XXXI ESMEC – European School of Medicinal Chemistry – Advanced Course of Medicinal Chemistry and "E. Duranti" National Seminar for PhD Students - Urbino (Italy), July 3-8, 2011.

PUBLICATIONS

- Spinelli F, Capparelli E, Abate C, Colabufo NA, Contino M. Perspectives of Cannabinoid type 2 receptor (CB2R) ligands in neurodegenerative disorders: Structure Affinity Relationship (SAfIR) and Structure Activity Relationship (SAR) Studies. *J. Med. Chem.*, 2017, 60 (24), 9913–9931; doi: 10.1021/acs.jmedchem.7b00155
- Marialessandra Contino, Elena Capparelli, Nicola A. Colabufo and Ashley I. Bush. Editorial: The CB2 Cannabinoid System: A New Strategy in Neurodegenerative Disorder and Neuroinflammation. *Frontiers in Neuroscience*, **2017**, 11, 196. doi:10.3389/fnins.2017.00196
- Capparelli E, Contino M, Perrone MG, Berardi F, Perrone R, Leopoldo M, Colabufo NA. Functionalized Coumarine Fragment to Obtain Fluorescent and Selective P-Glycoprotein Ligands. *Arch Pharm*, **2016**, 349,161-7. doi: 10.1002/ardp.201500325
- Nardulli P, Capparelli E, Perrone MG, Ferraiuolo S, Laforgia MR, Crapolicchio C, Colabufo NA. A Combined HPLC and LC-MS Approach for Evaluating Drug Stability in Elastomeric Devices: A Challenge for the Sustainability in Pharmacoconomics. *J Pharmacovigilance* **2014**, 3:1.

- Capparelli E, Zinzi L, Cantore M, Contino M, Perrone MG, Luurtsema G, Berardi F, Perrone R, Colabufo NA. SAR Studies on Tetrahydroisoquinoline Derivatives: The Role of Flexibility and Bioisosterism To Raise Potency and Selectivity toward P-glycoprotein. *J Med Chem.* **2014**, 57(23), 9983-94.
- Altomare A, Capparelli E, Carrieri A, Colabufo NA, Moliterni A, Rizzi R, Siliqi D. Crystallographic study of PET radiotracers in clinical evaluation for early diagnosis of Alzheimer's. *Acta Crystallogr Sect E Struct Rep Online.* **2014**, 70, o1149–o1150
- Zinzi L, Contino M, Cantore M, Capparelli E, Leopoldo M, Colabufo NA. ABC transporters in CSCs membranes as a novel target for treating tumor relapse. *Front Pharmacol.* **2014**, 5, 163.
- Zinzi L, Capparelli E, Cantore M, Contino M, Leopoldo M, Colabufo NA. Small and Innovative Molecules as New Strategy to Revert MDR. *Front Oncol.*, **2014**, 4, 2.
- Colabufo NA, Contino M, Cantore M, Capparelli E, Perrone MG, Cassano G, Gasparre G, Leopoldo M, Berardi F, Perrone R. Naphthalenyl derivatives for hitting P-gp/MRP1/BCRP transporters. *Bioorg Med Chem.* **2013**, 21, 1324-1332.
- Mairinger S, Wanek T, Kuntner C, Doenmez Y, Strommer S, Stanek J, Capparelli E, Chiba P, Müller M, Colabufo NA, Langer O. Synthesis and preclinical evaluation of the radiolabeled P-glycoprotein inhibitor [(11)C]MC113. *Nucl Med Biol.* **2012**, 39, 1219-25.
- Contino M, Cantore M, Capparelli E, Perrone MG, Niso M, Inglese C, Berardi F, Leopoldo M, Perrone R, Colabufo NA. A Benzopyrane Derivative as a P-Glycoprotein Stimulator: A Potential Agent to Decrease β -Amyloid Accumulation in Alzheimer's Disease. *Chem Med Chem.* **2012**, 7, 391-395.
- Cantore M, Capparelli E, Berardi F, Perrone R, Colabufo NA. Clinical Pharmacokinetic and Metabolism of PET Radiotracers for Imaging P-glycoprotein in Chemoresistant Tumor of Colorectal Cancer. *Curr Drug Metab.* **2011**, 12, 985-988.
- Colabufo NA, Berardi F, Perrone MG, Capparelli E, Cantore M, Inglese C, Perrone R. Substrates, Inhibitors and Activators of P-glycoprotein: Candidates for Radiolabeling and Imaging Perspectives. *Curr Top Med Chem.* **2010**, 10 (17), 1703-14.

