

Curriculum Vitae et Studiorum

Place Rome

Date 2019 October 16

Part I – General Information

Full Name Antonio Coluccia
Spoken Languages Mother tongue Italian, good knowledge of English and basic knowledge of French

Part II – Education

Type	Year	Institution	Note
Graduation	2004	Sapienza University of Rome	Experimental thesis titled: Synthesis of Non Nucleosidic Reverse Transcriptase inhibitors as anti-HIV.
PhD studies	2004-2007	Sapienza University - Istituto Pasteur Fondazione Cenci Bolognetti Rome	Title of the research project: development of Non Nucleosidic Inhibitors of HIV Reverse Transcriptase by Docking and 3-D QSAR approach
Post Doc Studies	2007-2009	Welsh School of Pharmacy of Cardiff (UK)	Design of tubulin polymerization inhibitors by docking and molecular dynamics studies

Part III – Academic Appointments

Start	End	Institution	Position
2007	2009	Welsh School of Pharmacy of Cardiff (UK)	Visitor researcher (2 years)
2010	2012	Dip. Chimica e Tecnologie del Farmaco, Sapienza University of Rome	Post Doc researcher (2 years)
2013	2014	Dip. Chimica e Tecnologie del Farmaco Sapienza University of Rome	Post Doc researcher (1 year)
2014	2015	Dip. Chimica e Tecnologie del Farmaco Sapienza University of Rome	Post Doc researcher (1 year)
2015	To date	Dip. Chimica e Tecnologie del Farmaco Sapienza University of Rome	RTD-A (3+2 years)
2017		Italian Ministry of Education Universities and Research	National Scientific qualification to function as university associate professor (II fascia)

Part IV - - Society memberships, Awards and Honors

Year	Title
2012	Awarded by Dipartimento di Scienze Matematiche, Fisiche e Naturali, Università degli studi dell'Aquila of the Nomina Culture della Materia (Chimica Farmaceutica)
Since 2005	Member of Italian Chemical Society (number14545)

Part V - Funding Information

Year	Title	Program
2008	Investigator (P.I Prof Romano Silvestri)	PRIN 2008
2010	Investigator (P.I Dr Giuseppe La Regina)	FIRB Futuro e Ricerca project code: RBFR10ZJQT_003.
2011	Investigator (P.I Prof Romano Silvestri)	Progetto di Ateneo Sapienza project code: C26A11LRTH
2012	Investigator (P.I Prof Romano Silvestri)	Progetto di Ateneo Sapienza project code: C26A12K7F2
2015	Principal investigator	Progetto di Ateneo Sapienza project code: C26A15RT82

Part VI – Educational Activity

Year	School and Degree	Course
2012 - 2014	Faculty of Scienze Matematiche, Fisiche e Naturali, Università degli Studi dell'Aquila, Bachelor Degree in Scienze e Tecnologie Chimiche e dei Materiali	Chimica Farmaceutica (8 CFU)
2015 - 2019	School of Pharmacy and Medicine, Single Cycle Degree in Pharmacy	Analisi Chimico Farmaceutica e Tossicologica con Laboratorio I. (CFU 12)
2019	Scuola di specializzazione in Farmacia Ospedaliera	Terapie delle Malattie del SNC: aspetti chimico farmaceutici (CFU 1)

Part VII - Research Activities

Keywords	Brief Description
Computer aided drug design	The focus of the research activity is the computer-aided drug design. Thus, the study of the structure, the behaviour and the binding of a small molecule to a defined biological target. The aim of the research effort is the identification of new small molecules with promising biological activity. Together with, the optimization of the pharmacodynamic and pharmacokinetic properties. The research activity takes advantage from both ligand and structure based methods. The main fields of CADD application are: the cancer and illness caused by human pathogens as viral and bacteria. A full description of the research activity is reported in an attached file signed as Attività di Ricerca.

Part VIII – Summary of Scientific Achievements

Product Type	Number	Database	Start	End
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Papers	57	SCOPUS	2004	2019
Total Citations			1855	
Average Citations per Product			33	
Hirsch (H) index			23	
Normalized H Index*			1,44	
*H index divided by the academic seniority (time span from graduation)				

Scientific Profiles

Database	ID
Scopus	6603024615
ISIWeb of Knowledge	K-3114-2018
Orcid	0000-0002-7940-8206

Part IX – Selected Publications and Intellectual Properties

Publications 20 items*

1. Authors: Coluccia, A.; La Regina, G.; Naccarato, V.; Nalli, M.; Orlando, O.; Biagioni, S.; De Angelis, M. L.; Baiocchi, M.; Gautier, C.; Gianni, S.; Di Pastena, F.; Di Magno, L.; Canettieri, G.; Coluccia, A. M. L.; Silvestri, R.

Title: Drug Design and Synthesis of First in Class PDZ1 Targeting NHERF1 Inhibitors as Anticancer Agents

Journal: ACS Journal Medicinal Chemistry Letters, **2019**, 10, 499-503

DOI: 10.1021/acsmchemlett

Document Type: Scientific Article; IF 2018: 3.794; Citations: 0

ISSN: 1948-5875, American Chemical Society, Washington, USA.

2. Authors: Laudette, M.; Coluccia, A.; Sainte-Marie, Y.; Solari, A.; Fazal, L.; Sicard, P.; Silvestri, R.; Mialet-Perez, J.; Pons, S.; Ghaleh, B.; Blondeau, J. P.; Lezoualc'h, F.

Title: Identification of a pharmacological inhibitor of Epac1 that protects the heart against acute and chronic models of cardiac stress.

Journal: Cardiovascular Research, **2019**, 115, 1766-1777.

DOI: 10.1093/cvr/cvz076

Document Type: Scientific Article; IF 2018: 6.290; Citations: 0

ISSN: 1755-3245, Oxford University Press, Oxford, UK.

3. Authors: Masci, D.; Hind, C.; Islam, M.K.; Toscani, A.; Clifford, M.; Coluccia, A.; Conforti, I.; Touitou, M.; Memdough, S.; Wei, X.; La Regina, G.; Silvestri, R.; Sutton, J.M.; Castagnolo, D.

Title: Switching on the activity of 1,5-diaryl-pyrrole derivatives against drug-resistant ESKAPE bacteria: Structure-activity relationships and mode of action studies

Journal: European Journal Medicinal Chemistry, **2019**, 500-514.

DOI: 10.1016/j.ejmech.2019.05.087

Document Type: Articolo Scientifico; IF 2018: 4.833; Citations: 0.

ISSN 0009-4374, Elsevier, Amsterdam, NL.

4. Authors: Da Costa, L.; Scheers, E.; Coluccia, A.; Casulli, A.; Roche, M.; Di Giorgio, C.; Neyts, J.; Terme, T.; Cirilli, R.; La Regina, G.; Mirabelli, C.; Silvestri, R.; Vanelle, P.

Title: Structure-Based Drug Design of Potent Pyrazole Derivatives against Rhinovirus Replication.

Journal: Journal of Medicinal Chemistry, **2018**, 61:8402-8416.

DOI: 10.1021/acs.jmedchem.8b00931

Document Type: Scientific Article; IF 2017: 6.253, IF 2018: 6.054; Citations: 3.

ISSN: 1520-4804, American Chemical Society, Washington, USA.

5. Authors: Saponaro, C.; Sergio, S.; Coluccia, A.; De Luca, M.; La Regina, G.; Mologni, L.; Naccarato, V.; Bonetti, D.; Gautier, C.; Gianni, S.; Vergara, D.; Salzet, M.; Fournier, I.; Bucci, C.; Silvestri, R.; Gambacorti Passerini, C.; Maffia, M.; Coluccia, A. M. L.

Title: β -catenin knockdown promotes NHERF1-mediated survival of colorectal cancer cells: implications for a double-targeted therapy

Journal: *Oncogene*, **2018**, 37, 3301-3316

DOI: 10.1038/s41388-018-0170-y

Document Type: Scientific Article; IF 2017: 6.854, IF 2018: 6.634; Citations: 5

ISSN 1476-5594, Springer Nature, Berlin, Germany.

6. Authors: La Regina, G.; Bai, R.; Coluccia, A.; Naccarato, V.; Famiglioni, V.; Nalli, M.; Masci, D.; Verrico, A.; Rovella, P.; Mazzoccoli, C.; Da Pozzo, E.; Cavallini, C.; Martini, C.; Voltuggio, S.; Dondio, G.; Varasi, M.; Mercurio, C.; Hamel, H.; Lavia, P.; Silvestri, R.

Title: New 6- and 7-heterocyclyl-1H-indole derivatives as potent tubulin assembly and cancer cell growth inhibitors

Journal: *European Journal of Medicinal Chemistry*, **2018**, 152, 283-297.

DOI: 10.1016/j.ejmech.2018.04.042

Document Type: Scientific Article; IF 2017: 4.816, IF 2018: 4.833; Citations: 3.

ISSN 0009-4374, Elsevier, Amsterdam, NL.

7. Authors: Famiglioni, V.; La Regina, G.; Coluccia, A.; Masci, D.; Brancale, A.; Badia, R.; Riveira-Muñoz, E.; Esté, J.A.; Crespan, E.; Brambilla, A.; Maga, G.; Catalano, M.; Limatola, C.; Formica, F.R.; Cirilli, R.; Novellino, E.; Silvestri, R.

Title: Chiral Indolylarylsulfone Non-Nucleoside Reverse Transcriptase Inhibitors as New Potent and Broad Spectrum Anti-HIV-1 Agents

Journal: *Journal of Medicinal Chemistry*, **2017**, 60 (15), 6528-6547.

DOI: 10.1021/acs.jmedchem.6b01906

Document Type: Scientific Article; IF 2016: 6.259, IF 2017: 6.253; Citations: 5.

ISSN: 1520-4804, American Chemical Society, Washington, USA.

8. Authors: Di Cesare, E.; Verrico, A.; Miele, A.; Giubettini, M.; Rovella, P.; Coluccia, A.; Famiglioni, V.; La Regina, G.; Cundari, E.; Silvestri, R.; Lavia, P.

Title: Mitotic cell death induction by targeting the mitotic spindle with tubulin-inhibitory indole derivative molecules

Journal: *Oncotarget*, **2017**, 8 (12), 19738-19759.

DOI: 10.18632/oncotarget.14980

Document Type: Scientific Article; IF 2016: 5.186, IF 2017: nd; Citations: 17

ISSN: 1949-2553, Impact Journals, New York, USA

9. Authors: Da Costa, L.; Scheers, E.; Coluccia, A.; Rosetti, A.; Roche, M.; Neyts, J.; Terme, T.; Cirilli, R.; Mirabelli, C.; Silvestri, R.; Vanelle, P.

Title: Heterocyclic pharmacology of new rhinovirus antiviral agents: A combined computational and experimental study

Journal: *European Journal of Medicinal Chemistry*, **2017**, 140, 528-541.

DOI: 10.1016/j.ejmech.2017.09.036

Document Type: Scientific Article; IF 2016: 4.519, IF 2017: 4.816; Citations: 6.

ISSN 0009-4374, Elsevier, Amsterdam, NL.

10. Authors: Coluccia, A.; Passacantilli, S.; Famiglioni, V.; Sabatino, M.; Patsilnakos, A.; Ragno, R.; Mazzoccoli, C.; Sisinni, L.; Okuno, A.; Takikawa, O.; Silvestri, R.; La Regina, G.

Title: New Inhibitors of Indoleamine 2,3-Dioxygenase 1: Molecular Modeling Studies, Synthesis, and Biological Evaluation

Journal: Journal of Medicinal Chemistry, **2016**, 59 (21), 9760-9773.

DOI: 10.1021/acs.jmedchem.6b00718

Document Type: Scientific Article; IF 2015: 5.589, IF 2016: 6.259; Citations: 13.
ISSN: 1520-4804, American Chemical Society, Washington, USA.

11. Authors: Massarotti, A.; Coluccia, A.

Title: An in-silico approach aimed to clarify the role of Y181C and K103N HIV-1 reverse transcriptase mutations versus Indole Aryl Sulphones

Journal: Journal of Molecular Graphics and Modelling. **2016**, 63, 49-56.

DOI: 10.1016/j.jmgm.2015.11.013

Document Type: Scientific Article; IF 2015: 1.674, IF 2016: 1.754; Citations: 2.
ISSN: 1093-3263; Elsevier, Amsterdam, NL

12. Authors: La Regina, G.; Coluccia, A.; Famiglini, V.; Pelliccia, S.; Monti, L.; Vullo, D.; Nuti, E.; Alterio, V.; De Simone, G.; Monti, S.M.; Pan, P.; Parkkila, S.; Supuran, C.T.; Rossello, A.; Silvestri, R.

Title: Discovery of 1,1'-Biphenyl-4-sulfonamides as a New Class of Potent and Selective Carbonic Anhydrase XIV Inhibitors

Journal: Journal of Medicinal Chemistry, **2015**, 58 (21), 8564-8572.

DOI: 10.1021/acs.jmedchem.5b01144

Document Type: Scientific Article; IF 2014: 5.447, IF 2015: 5.589; Citations: 19.
ISSN: 1520-4804, American Chemical Society, Washington, USA.

13. Authors: 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.; Bigogno, C.; Dondio, G.; Hamel, E.; Lavia, P.; Silvestri, R.

Title: 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

Journal: Journal of Medicinal Chemistry, **2015**, 58 (15), 5789-5807.

DOI: 10.1021/acs.jmedchem.5b00310

Document Type: Scientific Article; IF 2014: 5.447, IF 2015: 5.589; Citations: 27.
ISSN: 1520-4804, American Chemical Society, Washington, USA.

14. Authors: 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.

Title: Structure-Based Lead Optimization and Biological Evaluation of BAX Direct Activators as Novel Potential Anticancer Agents.

Journal: Journal of Medicinal Chemistry, **2015**, 58 (5), 2135-2148.

DOI: 10.1021/7jmc501123r

Document Type: Scientific Article; IF 2014: 5.447, IF 2015: 5.589; Citations: 14.
ISSN: 1520-4804, American Chemical Society, Washington, USA.

15. Authors: Famiglini, V.; La Regina, G.; Coluccia, A.; Pelliccia, S.; Brancale, A.; Maga, G.; Crespan, E.; Badia, R.; Riveira-Muñoz, E.; Esté, J.A.; Ferretti, R.; Cirilli, R.; Zamperini, C.; Botta, M.; Schols, D.; Limongelli, V.; Agostino, B.; Novellino, E.; Silvestri R.

Title: Indolylarylsulfones Carrying a Heterocyclic Tail as Very Potent and Broad Spectrum HIV-1 Non-nucleoside Reverse Transcriptase Inhibitors.

Journal: Journal of Medicinal Chemistry, **2014**, 57 (23), 9945-9957.

DOI: 10.1021/jmc5011622

Document Type: Scientific Article; IF 2013: 5,480, IF 2014: 5.589 Citations: 27.
ISSN: 1520-4804, American Chemical Society, Washington, USA.

16. Authors: 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.

Title: New pyrrole derivatives with potent tubulin polymerization inhibiting activity as anticancer agents including hedgehog-dependent cancer.

Journal: Journal of Medicinal Chemistry, **2014**, 4, (15), 6531-6552.

DOI: 10.1021/jmc500561

Document Type: Scientific Article; IF 2013: 5,480, IF 2014: 5.589; Citations: 41.

ISSN: 1520-4804, American Chemical Society, Washington, USA.

17. Authors: Marzaro, G.; Coluccia, A.; Ferrarese, A.; Brun, P.; Castagliuolo, I.; Conconi, M.T.; La Regina, G.; Bai, R.; Silvestri, R.; Hamel, E.; Chilin, A.

Title: Discovery of biarylaminopyrimidines as novel tubulin polymerization inhibitors.

Journal: Journal of Medicinal Chemistry. **2014**, 12, (11), 4598-4605.

DOI: 10.1021/jmc500034j

Document Type: Scientific Article; IF 2013: 5,480, IF 2014: 5.589; Citations: 16.

ISSN: 1520-4804, American Chemical Society, Washington, USA.

18. Authors: Famiglini, V.; La Regina, G.; Coluccia, A.; Pelliccia, S.; Brancale, A.; Maga, G.; Crespan, E.; Badia, R.; Clotet, B.; Esté, J.A.; Cirilli, R.; Novellino, E.; Silvestri, R.

Title: New indolylarylsulfones as highly potent and broad spectrum HIV-1 non-nucleoside reverse transcriptase inhibitors.

Journal: European Journal Medicinal Chemistry, **2014** 10;80:101-111.

DOI: 10.1016/j.ejmc.2014.04.027

Document Type: Scientific Article; IF 2013: 3.432, IF 2014: 5.589; Citations: 15.

ISSN 0009-4374, Elsevier, Amsterdam, NL.

19. Authors: La Pietra, V.; La Regina, G.; Coluccia, A.; Famiglini, V.; Pelliccia, S.; Plotkin, B.; Eldar-Finkelman, H.; Brancale, A.; Ballatore, C.; Crowe, A.; Brunden, K.R.; Marinelli, L.; Novellino, E.; Silvestri, R.

Title: Design, synthesis, and biological evaluation of 1-phenylpyrazolo[3,4-e]pyrrolo[3,4-g]indolizine-4,6(1H,5H)-diones as new glycogen synthase kinase-3 β inhibitors.

Journal: Journal Medicinal Chemistry, **2013**, 27, (24), 10066-10078.

DOI:10.1021/jm401466v

Document Type: Scientific Article, IF 2012: 5,614, IF 2013: 5.580; Citations: 19.

ISSN: 1520-4804, American Chemical Society, Washington, USA.

20. Authors: Mead, R.J.; Higginbottom, A.; Allen, S.P.; Kirby, J.; Bennett, E.; Barber, S.C.; Heath, P.R.; Coluccia, A.; Patel, N.; Gardner, I.; Brancale, A.; Grierson, A.J.; Shaw, P.J.

Title: S[+] Apomorphine is a CNS penetrating activator of the Nrf2-ARE pathway with activity in mouse and patient fibroblast models of amyotrophic lateral sclerosis.

Journal: Free Radical Biology & Medicine, **2013**, 19 438-452

DOI: 10.1016/j.freeradbiomed.2013.04.018

Document Type: Scientific Article, IF 2012: 5.271, IF 2013: 5.710; Citations: 34.

ISSN: 0891-5849, Elsevier, Amsterdam, NL

Intellectual Properties

Patent

1. Autors: Laudette, M.; Coluccia, A.; Blondeau, J.B.; Lezoualc'h, F.

Title: Thieno [2,3-B]pyridine derivatives as EPAC inhibitors and their pharmaceutical uses.

Application number: EP18305685.2

Priority date: 06/06/2018

Part X - Congress Presentations and Organization

Presentation and Product Type

Oral Communications

Title	Congress	Date
Drug Design and Synthesis of PDZ1 targeting NHERF1 inhibitors as anticancer agents	VI Computer Driven Drug Discovery. Rome	March, 28-29 2019
Application of Virtual Screening methodologies to get new Drugs	Workshop sulla Ricerca 2015 Dip. Chimica e Tecnologie del Farmaco	Sept, 21 2015
Mycobacterium Tuberculosis PknB inhibitors by in-silico approach.	XXII National meeting on Medicinal Chemistry. Rome	Sept, 13-16 2013
Computational Studies of Colchicine site compounds.	II Computer Driven Drug Discovery. Genova	Feb, 4-6 2013
Indolylarylsulfones as HIV-1 Non-Nucleoside RT Inhibitors	V Nuove Prospettive in Chimica Farmaceutica. Trieste	Sept, 13-16 2012
Molecular Modeling studies on the Indolyl Aryl Sulphones (IASs) as HIV-1 Non-Nucleotidic Reverse transcriptase inhibitors.	III Nuove Prospettive in Chimica Farmaceutica. Castelvecchio Pascoli (LU).	Feb. 13-14 2009
Indolyl aryl sulphones as HIV-1 reverse transcriptase inhibitors: docking and 3D QSAR	I Nuove Prospettive in Chimica Farmaceutica. Salerno.	Feb 22-23 2007.

He also was co-authors of many poster presentations at national and international congress. 2019 posters contributions are listed below:

Poster

1. Authors: Esposito, C.; Bufano, M.; Coluccia, A.

Poster Title: Evaluation of pharmacophoric models at colchicine binding site by ROC curves

Congress: VI Computer Driven Drug Discovery. Rome; 2019, March, 28-29.

2. Authors: Naccarato, V.; Coluccia, A.; La Regina, G.; Silvestri, R.

Poster Title: New NHERF1 PDZ1 domain inhibitors as anticancer agents

Congress: 3rd International StaPa Retreat. Rome, June 12-15 2019

3. Authors: La Regina, G.; Naccarato, V.; Masci, D.; Puxeddu, M.; Nalli, M.; Coluccia, A.; Negri, R.; Silvestri, R.

Poster Title: Small molecule inhibitors of kdm5 histone demethylases increase the radiosensitivity of breast cancer cells overexpressing JARID1B.

Congress: XXVI National Meeting in Medicinal Chemistry - XII Young Medicinal Chemists' Symposium, July 16-19, 2019, Milan, Italy.

4. Authors: La Regina, G.; Naccarato, V.; Masci, D.; Puxeddu, M.; Bufano, M.; Nalli, M.; Coluccia, A.; Orlando, V.; Canettieri, G.; Gianni, S.; Silvestri, R.

Poster Title: Design, synthesis and biological evaluation of PDZ1 targeting NHERF1 inhibitors as anticancer agents.

Congress: XXVI National Meeting in Medicinal Chemistry - XII Young Medicinal Chemists' Symposium, July 16-19, 2019, Milan, Italy.

5. Authors: La Regina, G.; Naccarato, V.; Puxeddu, M.; Bufano, M.; Nalli, M.; Coluccia, A.; Silvestri, R.

Poster Title: First in class pdz1 targeting NHERF1 inhibitors as anticancer agents.

Congress: 12th European Workshop in Drug Design, May 19-24, 2019, Siena, Italy.

6. Authors: La Regina, G.; Coluccia, A.; Naccarato, V.; Silvestri, R.

Poster Title: New anti-cancer agents through an interaction with tubulin. New Diagnostic and Therapeutic Tools against Multidrug-Resistant Tumours.

Congress: First Working-Group Meeting, Abstract Book, January 30-31, 2019, Turin, Italy.

Congress Organization

- II Workshop sulla Ricerca, July 12, 2018, Rome, Italy. Member of scientific and organizing committee; webmaster.
- Chimicapisce, June 8, 2018, Rome, Italy. Member of local organizing committee.
- Young Research Ideas in Chemistry, June 7, 2018, Rome, Italy. Member of local organizing committee.
- Y-Rich young research ideas in Chemistry, June 10, 2016 Rome, Italy. Member of local organizing committee.
- Y-Rich young research ideas in Chemistry, December 15, 2014, Rome, Italy. Member of local organizing committee.
- XXII National Meeting on Medicinal Chemistry Roma Italy, September 13-16, 2013 member of organizing committee and webmaster.

I authorize to whom it may concern for using my personal data according with actual and current law.

16/10/19

In fede
Antonio Coluccia