

Alessandro Paiardini

Curriculum vitae

CONTACTS

Work Phone: 0649917700

Email address: alessandro.paiardini@uniroma1.it

EDUCATION (academic degrees)

- 2001 – Laurea cum laude in Biologia
- 2005 – PhD Thesis “Molecular Evolution of fold-type-I, PLP-dependent enzymes”.
- 2006 – Post Doctoral Fellowship (2 anni)

CAREER

- 2006 – Ricercatore (Permanent Position) SSD BIO/10 (05/E1)
- 2007 – IT Administration of Biological Sciences and Biochemistry websites
- 2015 – Abilitazione Scientifica Nazionale PA Bio10 (05/E1)
- 2015 – Abilitazione Scientifica Nazionale PA Bio11 (05/E2)
- 2017 – Professore Associato (Permanent Position) SSD BIO/10 (05/E1)
- 2017 – Abilitazione Scientifica Nazionale PO Bio10 (05/E1)

CURRENT TEACHING ACTIVITY (year 2018/19)

2015	Sapienza University of Rome	Modulo BIOINFORMATICA (SSD BIO/10; CFU:6) for the integrated course of BIOINFORMATICA E FARMACOLOGIA (1041756) SSD BIO/10, BIO/14. CFU: 12 14456-Biotecnologie [L (DM 270/04) - Ordin. 2010] - L-2 - Interfacoltà Farmacia e Medicina Scienze Matematiche, Fisiche e Naturali Medicina e Psicologia - (Chair of the Integrated Course (CFU:12) in 2015)
2016	Sapienza University of Rome	STRUCTURE BIOSYNTHESIS AND ANALYSIS OF PROTEINS SSD BIO/10. CFU: 6 28700- Genetica e Biologia Molecolare [L (DM 270/04)] - LM-6 - Scienze Matematiche, Fisiche e Naturali - (Chair of the Course in English CFU:6)
2017	Sapienza University of Rome	BIOCHEMISTRY I SSD BIO/10. CFU: 6 28613- Bioinformatics (L-2) Facoltà di Farmacia e Medicina – Ingegneria dell'informazione, informatica e statistica – Medicina e Odontoiatria - (Chair of the Course in English CFU:6)

HONORS, AWARDS AND FELLOWSHIPS (maximum 5 best)

Year	Title
2017	Awarded with the “Eccellenza per la didattica” by the Faculty of Sciences at Sapienza University, appointed to the top 5% teachers of the Faculty, Rome
2010	Awarded with the “medaglia di rappresentanza” by the President of the Italian Republic, as Outstanding Young Researcher at Sapienza University, during the Young International Forum (YIF), Rome
2001	Awarded by the Interdepartmental Research Centre for Models and Information Analysis in Biomedical Systems for the best 2000/2001 Thesis

FUNDINGS (maximum 5 best)

Year	Title	Program	Grant value
2017	20447 - “A Structure-guided Approach to Target the Aurora-A/N-Myc complex in MYCN-amplified Neuroblastoma”	My First AIRC Grant	€ 372000
2014	C26A149EC4 – “Probing the metabolic reprogramming of tumor cells by inhibition of serine hydroxymethyl transferase”	Progetto di Ateneo – Sapienza University of Rome	€ 40000
2012	“Inhibition of Enzymes Driving non-Small Cell Lung Cancer” std12-009	CASPUR Grant	*60000
2011	“Virtual Screening Approaches for the Identification of New Drugs Acting as Next-generation Antibiotics” std11-459	CASPUR Grant	*60000
2011	C26A11S2S3 – “Identification of inhibitors of serine hydroxymethyltransferase, the missing target in cancer chemotherapy”	Progetto di Ateneo – Sapienza University of Rome	€ 3500

PROFESSIONAL MEMBERSHIPS AND OTHER ACTIVITIES (maximum 100 words)

Dr. Alessandro Paiardini has a consolidated national and international reputation as an expert in Computational Structural Biology and Drug Design. His research unit is interested in many aspects of protein chemistry, including folding, evolution and structure-function relationship of proteins and macromolecular assemblies. In particular, his research interests concern protein interaction with small molecules and inhibitors. Specific binding interactions between small molecules and proteins are of pivotal importance to many biological processes. Since a great number of human diseases results from an alteration of such interactions, it is not surprising that most drugs act by binding to a target protein and modulating its activity and affinity for other ligands. In the past years, a number of protein candidates for the development of therapeutic agents has been the target of his research.

5 BEST PUBLICATIONS (since 2009):

2019 - The moonlighting RNA-binding activity of cytosolic serine hydroxymethyltransferase contributes to control compartmentalization of serine metabolism (01a Articolo in rivista)

2018 - A novel bacterial l-arginine sensor controlling c-di-GMP levels in *Pseudomonas aeruginosa* (01a Articolo in rivista)

2017 - Identification of small molecule inhibitors of the Aurora-A/TPX2 complex (01a Articolo in rivista)

2017 - PyMod 2.0: improvements in protein sequence-structure analysis and homology modeling within PyMOL (01a Articolo in rivista)

2016 - Differential 3-bromopyruvate inhibition of cytosolic and mitochondrial human serine hydroxymethyltransferase isoforms, key enzymes in cancer metabolic reprogramming. (01a Articolo in rivista)

BIBLIOMETRIC DATA

ORCID ID:<https://orcid.org/0000-0001-9078-7545>

(SCOPUS database)

Total publications: 90

Total citations: 1000

H-index: 21

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CONTATTI

Telefono studio: 0649917700

Indirizzo email: alessandro.paiardini@uniroma1.it

TITOLI DI STUDIO (laurea e post-laurea)

- 2001 – Laurea cum laude in Biologia
- 2005 – PhD Thesis “Molecular Evolution of fold-type-I, PLP-dependent enzymes”.
- 2006 – Post Doctoral Fellowship (2 anni)

CARRIERA PROFESSIONALE

- 2006 – Ricercatore (Permanent Position) SSD BIO/10 (05/E1)
- 2007 – IT Administration of Biological Sciences and Biochemistry websites
- 2015 – Abilitazione Scientifica Nazionale PA Bio10 (05/E1)
- 2015 – Abilitazione Scientifica Nazionale PA Bio11 (05/E2)
- 2017 – Professore Associato (Permanent Position) SSD BIO/10 (05/E1)
- 2017 – Abilitazione Scientifica Nazionale PO Bio10 (05/E1)

ATTIVITA' DIDATTICA ATTUALE (anno 2018/19)

2015	Sapienza University of Rome	Modulo BIOINFORMATICA (SSD BIO/10; CFU:6) for the integrated course of BIOINFORMATICA E FARMACOLOGIA (1041756) SSD BIO/10, BIO/14. CFU: 12 14456-Biotecnologie [L (DM 270/04) - Ordin. 2010] - L-2 - Interfacoltà Farmacia e Medicina Scienze Matematiche, Fisiche e Naturali Medicina e Psicologia - (Chair of the Integrated Course (CFU:12) in 2015)
2016	Sapienza University of Rome	STRUCTURE BIOSYNTHESIS AND ANALYSIS OF PROTEINS SSD BIO/10. CFU: 6 28700- Genetica e Biologia Molecolare [L (DM 270/04)] - LM-6 - Scienze Matematiche, Fisiche e Naturali - (Chair of the Course in English CFU:6)
2017	Sapienza University of Rome	BIOCHEMISTRY I SSD BIO/10. CFU: 6 28613- Bioinformatics (L-2) Facoltà di Farmacia e Medicina – Ingegneria dell'informazione, informatica e statistica – Medicina e Odontoiatria - (Chair of the Course in English CFU:6)

RICONOSCIMENTI, PREMI E BORSE DI STUDIO (massimo 5 migliori)

Year	Title
2017	Awarded with the “Eccellenza per la didattica” by the Faculty of Sciences at Sapienza University, appointed to the top 5% teachers of the Faculty, Rome
2010	Awarded with the “medaglia di rappresentanza” by the President of the Italian Republic, as Outstanding Young Researcher at Sapienza University, during the Young International Forum (YIF), Rome
2001	Awarded by the Interdepartmental Research Centre for Models and Information Analysis in Biomedical Systems for the best 2000/2001 Thesis

FINANZIAMENTI (massimo 5 migliori)

Year	Title	Program	Grant value
2017	20447 - “A Structure-guided Approach to Target the Aurora-A/N-Myc complex in MYCN-amplified Neuroblastoma”	My First AIRC Grant	€ 372000
2014	C26A149EC4 – “Probing the metabolic reprogramming of tumor cells by inhibition of serine hydroxymethyl transferase”	Progetto di Ateneo – Sapienza University of Rome	€ 40000
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2011	C26A11S2S3 – “Identification of inhibitors of serine hydroxymethyltransferase, the missing target in cancer chemotherapy”	Progetto di Ateneo – Sapienza University of Rome	€ 3500

ISCRIZIONI PROFESSIONALI E ALTRE ATTIVITA' (massimo 100 parole)

Il Dott. Alessandro Paiardini ha una consolidata reputazione nazionale e internazionale come esperto in Biologia strutturale e Drug Design. La sua unità di ricerca è interessata a molti aspetti della chimica delle proteine, tra cui il folding, l'evoluzione e la relazione struttura-funzione delle

proteine. In particolare, i suoi interessi di ricerca riguardano l'interazione proteica con piccole molecole e inibitori. Interazioni di legame specifiche tra piccole molecole e proteine sono di fondamentale importanza per molti processi biologici. Poiché un gran numero di malattie umane deriva da un'alterazione di tali interazioni, non sorprende che la maggior parte dei farmaci agisca legandosi a una proteina bersaglio e modulando la sua attività e affinità con altri ligandi. Negli anni passati, un numero di candidati proteici per lo sviluppo di agenti terapeutici è stato l'obiettivo della sua ricerca.

5 MIGLIORI PUBBLICAZIONI (dal 2009):

2019 - The moonlighting RNA-binding activity of cytosolic serine hydroxymethyltransferase contributes to control compartmentalization of serine metabolism (01a Articolo in rivista)

2018 - A novel bacterial l-arginine sensor controlling c-di-GMP levels in *Pseudomonas aeruginosa* (01a Articolo in rivista)

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