



AL MAGNIFICO RETTORE
DELL'UNIVERSITA' DEGLI STUDI DI MILANO

COD. ID: 4404

Il sottoscritto chiede di essere ammesso a partecipare alla selezione pubblica, per titoli ed esami, per il conferimento di un assegno di ricerca presso il Dipartimento di Bioscienze

Responsabile scientifico: dr. Moroni Anna

Caterina Ricci

CURRICULUM VITAE

INFORMAZIONI PERSONALI

Cognome	Ricci
Nome	Caterina
Data Di Nascita	23/01/1984

OCCUPAZIONE ATTUALE

Incarico	Struttura
Docente	Scuola secondaria di secondo grado Archimede Pacinotti- Roma

ISTRUZIONE E FORMAZIONE

Titolo	Corso di studi	Università	anno conseguimento titolo
Laurea Magistrale o equivalente	Fisica	Sapienza, Roma	2011
Dottorato Di Ricerca	Scienze biomolecolari	Politecnica delle Marche	2018

LINGUE STRANIERE CONOSCIUTE

Lingue	livello di conoscenza
Inglese	Ottima

PREMI, RICONOSCIMENTI E BORSE DI STUDIO

anno	Descrizione
2014	Assegno di ricerca D.R. n° 118 del 19.02.2014 - Università Politecnica delle Marche- Ancona
2017	Sibpa travel award (19 IUPAB-11 EBSA congress)
2016/2017	Tutor corso di Fisica- prof. Ortore- Università Politecnica delle Marche
2016	Biophysical Society Travel Award
2015/2016	Tutor corso di Fisica- prof. Mariani- Università Politecnica delle Marche
2015	EBSA travel award



ATTIVITÀ DI FORMAZIONE O DI RICERCA

Ho studiato gli effetti dell'influenza di agenti biochimici sui modelli di aggregazione amiloide dei peptidi coinvolti nelle malattie neurodegenerative. L'interazione di peptidi neuropatogeni con membrane modello è stata analizzata per analizzare i meccanismi alla base dell'insorgenza della neurotossicità nella malattia di Alzheimer e Parkinson. Il progetto di ricerca è stato realizzato principalmente per mezzo di scattering a piccolo angolo presso Large Scale Facilities, ma grazie a collaborazioni con differenti laboratori ha presentato un approccio sperimentale multidisciplinare.

ATTIVITÀ PROGETTUALE

Anno	Progetto
2014-2018	Partecipazione al progetto MIND: Multidisciplinary Investigations for the development of Neuro-protective Drugs- FIRB 2012 call "Future in research" RBF12SIPT

CONGRESSI, CONVEGNI E SEMINARI

Data	Titolo	Sede
24-26/06/2019	XXX SISN	Roma, Italia
1-5/10/2017	Fismat 2017	Trieste, Italia
20-21/07/2017	Biophysical approaches to protein folding and disease	Edimburgo, Regno Unito
16-20/07/2017	19th IUPAB and 11th EBSA Congress	Edimburgo, Regno Unito
01-03/03/2017	DESY research Course 2017	Hamburg, Germania
15-18/01/2017	Biology for Physics: Is there new physics in living matter? Division of Physics for Life Sciences of European Physical Society (EPS)	Barcellona, Spagna
18-21/09/2019	XXIII Sibpa	Cortona, Italia
4-9/09/2016	26CMD - Condensed Matter Division of the European Physical Society	Groningen, Olanda
27-2/03/2016	60th Annual meeting Biophysical Society	Los Angeles, USA
28-02/10/2015	Fismat 2015	Palermo, Italia
18-22/07/2015	10th European Biophysics Congress	Dresda, Germania
21-24/09/2014	XXII SIBPA	Palermo, Italia
3-4/07/2014	XXV SISN	Napoli, Italia
8-13/06/2014	SISN Summer school on Small Angle Neutron scattering and Neutron Imaging	San Giovanni in valle Aurina, Italia

PUBBLICAZIONI

Articoli su riviste
Dynamics of the intrinsically disordered protein NUPR1 in isolation and in its fuzzy complexes with DNA and prothymosin α . <i>Biochimica et Biophysica Acta (BBA)-Proteins and Proteomics</i> , 1867(11), 140252, 2019.
Inhibition of A β 1–42 Fibrillation by Chaperonins: Human Hsp60 Is a Stronger Inhibitor than Its Bacterial Homologue GroEL. <i>ACS chemical neuroscience</i> , 10(8), 3565-3574, 2019.



Mechanistic study of the nucleation and conformational changes of polyamines in presence of phosphate ions. <i>Journal of colloid and interface science</i> , 543, 335-342, 2019.
Amyloid β -Peptide Interaction with Membranes: Can Chaperones Change the Fate?. <i>The Journal of Physical Chemistry B</i> , 123(3), 631-638, 2018.
Investigation on different chemical stability of mitochondrial Hsp60 and its precursor. <i>Biophysical chemistry</i> , 229, 31-38, 2017.
Curcumin-like compounds designed to modify amyloid beta peptide aggregation patterns. <i>RSC Advances</i> , 7(50), 31714-31724, 2017.
Protein amyloidogenesis investigated by small angle scattering. <i>Current pharmaceutical design</i> , 22(26), 3937-3949, 2016.
Stability and disassembly properties of human naïve Hsp60 and bacterial GroEL chaperonins. <i>Biophysical chemistry</i> , 208, 68-75, 2016.
Quaternary structures of GroEL and naïve-Hsp60 chaperonins in solution: A combined SAXS-MD study. <i>RSC Advances</i> , 5(62), 49871-49879, 2015.

Atti di convegni
Effect of membrane-protein interaction on lipid bilayers- XXX SISN- Rome, Italy 2019
Study of membrane phase transition in bacterial vesicles- Nanomedicine 2018- Rome, Italy, 2018
The effect of amyloid beta peptide (1-40) on the lipid membrane: a neutron scattering study-19 IUPAB-11 EBSA congress-Edinburgh, Scotland, 2017
Hsp60: a study of stability and structure to understand its function and potentialities. Fismat 2017-Trieste, Italy, 2017
HEWL amyloid aggregates effects on model lipid membranes. Fismat 2017-Trieste, Italy, 2017
SAXS investigations of intrinsically disordered proteins, Fismat 2017-Trieste, Italy, 2017
Conformational disorder of beta-amyloid: analysis with small angle X-ray scattering-19 IUPAB-11 EBSA congress-Edinburgh, Scotland, 2017
Abeta amyloid folding and interactions investigated by Small Angle X-ray Scattering- EPS congress, Barcelona, Spain, 2016
Hsp60 role in protein folding and beta amyloid aggregation- XXIII SIBPA, Cortona, Italy, 2017
Hsp60 in solution structure and stability, a comparison with its bacterial homologue GroEL- 26 CMD- Groningen, Holland, 2016
Conformational disorder of beta-amyloid: analysis with small angle X – ray scattering. 26 CMD- Groningen, Holland, 2016
Curcumin-like compounds designed to modify amyloid beta peptide aggregation patterns, <i>Biophysical Journal</i> , 110(3), 203a, 2016.
Structure and stability of Hsp60 and GroEL in solution. <i>Biophysical Journal</i> , 110(3), 213a-214a, 2016.
Investigation on Structural Features and Antiaggregation Properties of Chaperonins and Chaperon Like Molecules. <i>Biophysical Journal</i> , 110(3), 213a-214a, 2016.
Quaternary structure of GroEL and Hsp60 chaperones, In <i>EUROPEAN BIOPHYSICS JOURNAL WITH BIOPHYSICS LETTERS</i> (Vol. 44, pp. S174-S174). 233 SPRING ST, NEW YORK, NY 10013 USA: SPRINGER.
GroEL and Hsp60: conformational equilibrium and stability in presence of Guanidine Hydrochloride, 10th European Biophysics Congress, Dresden, Germany, <i>EUROPEAN BIOPHYSICS JOURNAL WITH BIOPHYSICS LETTERS</i> (Vol. 44, pp. S209-S209). 233 SPRING ST, NEW YORK, NY 10013 USA: SPRINGER. 2015
Quaternary structure of GroEL and Hsp60 chaperones, 10th European Biophysics Congress, Dresden,



Germany, 2015
Stability and disassembly of the bacterial chaperonin protein GroEL and of its human homolog Hsp60. XXII Sibpa, Palermo, Italy, 2014
Hsp60 can modify amyloid beta peptide aggregation: a preliminary study. XXV SISN, Napoli, Italy, 2014
Investigating stability and disassembly of the bacteria chaperonin protein GroEL and its human homolog Hsp60, Annual Report 2013 of Austrian SAXS beamline (Elettra-Sincrotrone Trieste, Italy and TU-Graz, Austria), 2013.

ALTRE INFORMAZIONI

ALBA Synchrotron light source (Barcellona): Measurements sessions 2_4 March 2018
Elettra Synchrotron Facility (Graz-Trieste): Measurements sessions: 1_5 February 2018
Elettra Synchrotron Facility (Graz-Trieste): Measurements sessions: 1_8 August 2017
Elettra Synchrotron Facility (Graz-Trieste): Measurements sessions: 31 January_4 February 2017
Insitute Leue Langevin Grenoble: Measurements Sessions: 14_15 November 2016
Elettra Synchrotron Facility (Graz-Trieste): Measurements sessions: 15_18 July 2016
European Synchrotron Radiation Facility Grenoble: Measurements Sessions: 12_13 February 2016
European Synchrotron Radiation Facility Grenoble: Measurements Sessions: 28_30 June 2015
Elettra Synchrotron Facility (Graz-Trieste): Measurements sessions: 3_7 August 2014

Le dichiarazioni rese nel presente curriculum sono da ritenersi rilasciate ai sensi degli artt. 46 e 47 del DPR n. 445/2000.

Il presente curriculum, non contiene dati sensibili e dati giudiziari di cui all'art. 4, comma 1, lettere d) ed e) del D.Lgs. 30.6.2003 n. 196.

Luogo e data: Roma, 11/11/2019

FIRMA