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Decreto Rettore Università di Roma "La Sapienza" n. 2267/2021 del 09.08.2021

Angelo TOTO
Curriculum Vitae

Place Rome
Date 28/09/2021

Part I – General Information

Full Name	Angelo TOTO
Date of Birth	
Place of Birth	
Citizenship	Italian
Permanent Address	
Mobile Phone Number	
E-mail	
Spoken Languages	Italian, English

Part II – Education

2012 - Master's Degree in Neurobiology LM (DM 270/04) - ORDIN. 2010] (classe LM-6), Facoltà di SCIENZE MATEMATICHE, FISICHE E NATURALI, Sapienza University of Rome, 108/110

2015 - PhD in Biochemistry, Department of Biochemical Sciences, Sapienza University of Rome. Classification: Excellent.

Part III – Appointments

Start	End	Institution	Position
01/11/2012	31/10/2015	Sapienza University of Rome	PhD Student
01/01/2015	31/03/2015	Uppsala Universitet (Sweden)	Visiting PhD Student
01/11/2015	31/10/2016	Sapienza University of Rome	Post-Doc Fellow
01/11/2016	31/10/2017	Université d'Aix-Marseille (France)	Post-Doc Fellow
01/11/2017	31/10/2018	Sapienza University of Rome	Assegnista di Ricerca
01/11/2018	31/03/2020	Istituto Pasteur Italia – Sapienza University of Rome	Principal Investigator
01/04/2020	Present	Sapienza University of Rome	RTDA - SSD BIO/10

Part IV – Teaching experience

Year	Institution	Lecture/Course
2020	Sapienza University of Rome	Biologia Molecolare SSD BIO/11 3CFU corso Integrato Chimica e Propedeutica Biochimica – Corso di Laurea in Medicina HT

Part V - Editorial Boards Memberships

Year	Title
	Editorial Board member as Topic Editor, for the MDPI Journal "Life"
	Reviewer Board member for the MDPI Journal "Life"
	Editorial Board member as Review Editor for Structural Biology, for the Journal "Frontiers in Molecular Biosciences"
	Guest Associate Editor in Protein Folding, Misfolding and Degradation for the Journal "Frontiers in Molecular Biosciences"

Part VI – Financial Awards, Fellowships, Grants, Participations to National and International Research Projects

Principal Investigator - Progetto di AVVIO ALLA RICERCA Anno 2015 - prot. C26N15J4A5 "Unveiling the role of PDZ domains in cancerogenesis" 30/07/2015-29/07/2016

Participant - Progetto di Ricerca Under 40 "PDZ Domains and Cancer" Istituto Pasteur Italia, Fondazione Cenci Bolognetti, Responsabile Scientifico Prof. Stefano Gianni – 01/01/2016-31/12/2018

Principal Investigator - Fellowship "Borsa di Studio Annuale per Ricerche all'Estero – Bando 2016" Istituto Pasteur, Fondazione Cenci-Bolognetti – 01/11/2016 al 31/10/2017

Participant - Progetto di Ricerca MFAG AIRC 18701 "Dissecting the Gab2 Interactions and Their Targeting to Block Myeloid and Lymphoid Leukemogenesis" PI Prof. Stefano Gianni dal 01-01-2017 al 31-12-2019

Participant - Unveiling the role of Protein Disorder in Molecular Interaction and Signalling - Progetti di Ateneo 2016 C26A155S48 PI Prof. Stefano Gianni dal 14-02-2017 al 13-02-2020

Principal Investigator – Research Project "Targeting the interaction between the Paramyxoviral NTAIL and PxD proteins for antiviral approaches" Istituto Pasteur ITALIA, Fondazione Cenci-Bolognetti, Two-year grant "Teresa Ariaudo research project 2018" . Grant Value: 60000€ - 01/11/2018-31/10/2020

Part VII – Conferences and Presentations

06/02/2014 - **Selected presentation** at International Conference "Protein physics: structure, dynamics, and function", Brixen, Italy. Title: "The folding pathway of Frataxin"

05/02/2020 - **Selected presentation** at International Conference "Physics of biomolecules: structure, dynamics, and function", Brixen, Italy. Title: "Role of the Denatured State in the Aggregation Propensity of D76N mutant of Beta-2 Microglobulin"

05/03/2021 – **Invited Speaker** to "Seminari del di di Venere", Department of Biochemical Sciences, Sapienza University of Rome. Title: "Templated Folding of Intrinsically Disordered Proteins"

20/05/2021 - **Member of the Scientific Committee** and Organizer of the Conference “WebPro2021”, SIB, Società Italiana di Biochimica e Biologia Molecolare

24/09/2021 – **Invited Chairperson** for the 61st SIB Congress (Società Italiana di Biochimica e Biologia Molecolare), Scientific session: “Structural and molecular bases of pathologies”

Part VII – Research Activities

Keywords	Brief Description
Protein Folding	My Research activity has mainly focused on the biophysical and biochemical characterization of the mechanism of folding of globular and intrinsically disordered proteins , as well as on the study of the mechanism of recognition of ligands by proteins (small molecules, peptides etc.), and protein-protein interactions . The expertise acquired during the years allow me to produce and purify proteins from bacterial hosts, perform site-directed mutagenesis by PCR, clone genes into bacterial vectors, characterize protein folding and stability by circular dichroism and fluorescence, and, in particular, to resolve fast and ultrafast kinetics of folding and binding reactions through the use of stopped-flow and temperature-jump apparati .
Protein Biochemistry	
Protein-Protein interactions	
Intrinsically disordered proteins	

Part VIII – Summary of Scientific Achievements

Angelo Toto is author of 39 papers published on peer-reviewed international journals (of which 1 accepted manuscript) and 1 chapter book.

Product type	Number	Data Base	Start	End
Papers [international]	39	38 (SCOPUS) + 1 accepted manuscript	2013	2021
Papers [national]				
Book chapters	1	SCOPUS	2013	2021
Books [teaching]				

Total Impact factor	193.012
Total Citations	410
Average Citations per Product	10.51
Hirsch (H) index	10
Normalized H index*	1

*H index divided by the academic seniority.

Part IX– Selected Publications

List of the publications selected for the evaluation. For each publication report title, authors, reference data, journal IF (if applicable), citations, press/media release (if any).

1.

Giri, R.; Morrone, A.; **Toto, A.**; Brunori, M.; Gianni, S. Structure of the Transition State for the Binding of C-Myb and KIX Highlights an Unexpected Order for a Disordered System. *Proc. Natl. Acad. Sci. U.S.A.* 2013, *110* (37), doi: 10.1073/pnas.1307337110..

Impact Factor: 9.809

Citations (SCOPUS): 78

2.

Gianni, S.; Camilloni, C.; Giri, R.; **Toto, A.**; Bonetti, D.; Morrone, A.; Sormanni, P.; Brunori, M.; Vendruscolo, M.

Understanding the Frustration Arising from the Competition between Function, Misfolding, and Aggregation in a Globular Protein. *Proc. Natl. Acad. Sci. U.S.A.* 2014, *111* (39), doi:10.1073/pnas.1405233111.

IMPACT FACTOR: 9.674

Citations (SCOPUS): 35

3.

Bonetti, D.; **Toto, A.**; Giri, R.; Morrone, A.; Sanfelice, D.; Pastore, A.; Temussi, P.; Gianni, S.; Brunori, M.

The Kinetics of Folding of Frataxin. *Phys Chem Chem Phys* 2014, *16* (14), doi: 10.1039/c3cp54055c

(CO)FIRST AUTHOR

Impact Factor: 4.493

Citations (SCOPUS): 12

4.

Toto, A.; Camilloni, C.; Giri, R.; Brunori, M.; Vendruscolo, M.; Gianni, S. Molecular Recognition by Templated Folding of an Intrinsically Disordered Protein. *Sci Rep* 2016, *6*, 21994. doi: 10.1038/srep21994

FIRST AUTHOR

IMPACT FACTOR: 4.259

Citations (SCOPUS): 67

5.

Malgieri, G.; D'Abrosca, G.; Pirone, L.; **Toto, A.**; Palmieri, M.; Russo, L.; Sciacca, M. F. M.; Tatè, R.; Sivo, V.; Baglivo, I.; et al. Folding Mechanisms Steer the Amyloid Fibril Formation Propensity of Highly Homologous Proteins. *Chem Sci* 2018, *9* (13), 3290–3298. doi: 10.1039/c8sc00166a

IMPACT FACTOR: 9.556

Citations (SCOPUS): 12

6.

Toto, A.; Troilo, F.; Visconti, L.; Malagrino, F.; Bignon, C.; Longhi, S.; Gianni, S. Binding Induced Folding: Lessons from the Kinetics of Interaction between NTAIL and XD. *Arch. Biochem. Biophys.* 2019. doi: 10.1016/j.abb.2019.07.011

FIRST AUTHOR

IMPACT FACTOR: 3.391

Citations (SCOPUS): 2

7.

Visconti, L.; Malagrino, F.; Brogini, L.; De Luca, C. M. G.; Moda, F.; Gianni, S.; Ricagno, S.; **Toto, A.** Investigating the Molecular Basis of the Aggregation Propensity of the Pathological D76N Mutant of Beta-2 Microglobulin: Role of the Denatured State. *Int J Mol Sci* 2019, 20 (2). doi: 10.3390/ijms20020396

LAST AUTHOR

IMPACT FACTOR: 4.556

Citations (SCOPUS): 2

8.

Visconti, L.; Malagrino, F.; Gianni, S.; **Toto, A.** Structural Characterization of an On-Pathway Intermediate and Transition State in the Folding of the N-Terminal SH2 Domain from SHP2. *FEBS J.* 2019. doi: 10.1111/febs.14990

LAST AUTHOR and CORRESPONDING AUTHOR

IMPACT FACTOR: 4.392

Citations (SCOPUS): 3

9.

Toto A, Malagrino F, Visconti L, Troilo F, Gianni S. Unveiling the Molecular Basis of the Noonan Syndrome-Causing Mutation T42A of SHP2. *Int J Mol Sci.* 2020 doi: 10.3390/ijms21020461

FIRST AUTHOR and CORRESPONDING AUTHOR

IMPACT FACTOR: 5.923

Citations (SCOPUS): 1

10.

Toto A, Malagrino F, Visconti L, Troilo F, Pagano L, Brunori M, Jemth P, Gianni S. Templated Folding of Intrinsically Disordered Proteins". *J Biol Chem.* 2020 doi: 10.1074/jbc.REV120.012413

FIRST AUTHOR

IMPACT FACTOR: 5.157

Citations (SCOPUS): 20

11.

Visconti L, Malagrino F, Pagano L, **Toto A.** Understanding the Mechanism of Recognition of Gab2 by the N-SH2 Domain of SHP2. *Life (Basel).* 2020;10(6):E85. Published 2020 Jun 11. doi:10.3390/life10060085

LAST AUTHOR and CORRESPONDING AUTHOR

IMPACT FACTOR: 3.817

Citations (SCOPUS): 3

12.

Gautier C, Troilo F, Cordier F, Malagrino F, **Toto A,** Visconti L, Zhu Y, Brunori M, Wolff N, Gianni S. Hidden kinetic traps in multidomain folding highlight the presence of a misfolded but functionally competent intermediate. *Proc Natl Acad Sci U S A.* 2020;117(33):19963-19969. doi:10.1073/pnas.2004138117

IMPACT FACTOR: 11.205

Citations (SCOPUS): 5

13.

Toto A, Ma S, Malagrino F, Visconti L, Pagano L, Stromgaard K, Gianni S. Comparing the binding properties of peptides mimicking the Envelope protein of SARS-CoV and SARS-CoV-2 to the PDZ domain of the tight junction-associated PALS1 protein. *Protein Sci.* 2020;10.1002/pro.3936.

doi:10.1002/pro.3936

FIRST AUTHOR

IMPACT FACTOR: 6.725

Citations (SCOPUS): 13

14.

Visconti L, Malagrino F, Troilo F, Pagano L, **Toto A**, Gianni S. Folding and misfolding of a PDZ tandem repeat. *J Mol Biol.* 2021 Feb 1:166862. doi: 10.1016/j.jmb.2021.166862.

CO-CORRESPONDING AUTHOR

IMPACT FACTOR: 5.157 (2020)

Citations (SCOPUS): 2

15.

Pagano L, Malagrino F, Visconti L, Troilo F, Pennacchietti V, Nardella C, **Toto A**, Gianni S. Probing the Effects of Local Frustration in the Folding of a Multidomain Protein. *J Mol Biol.* 2021 Jun 3;433(15):167087. doi: 10.1016/j.jmb.2021.167087.

CO-CORRESPONDING AUTHOR

IMPACT FACTOR: 5.469 (2020)

Citations (SCOPUS): 0

Luogo e Data

Roma, 28/09/2021

Firma

