

Curriculum Vitae

General Information

Full Name Anna La Teana
Date of Birth 01.10.1963
Place of Birth Cosenza
Citizenship Italian
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Spoken Languages English (fluent), German (basic)
Current position Associate Professor of Molecular Biology (BIO11)
Department of Life and Environmental Science
Università Politecnica delle Marche

Education

1987 - University graduation at Università degli Studi della Calabria
Thesis: "Organizzazione molecolare del nucleoide procariotico: Caratterizzazione di una variante di una proteina istone-simile di E. coli" (110/110 cum laude)

1986 - Pre-graduate experience at Università degli Studi di Camerino
"Corso teorico-pratico di clonaggio molecolare"

1992 - Post-graduate experience: NATO/FEBS ASI (Spetses, Greece)
Course on "Post-transcriptional control of gene expression"

1992 - Post-graduate experience at the Department of Biochemistry, Brown University, Providence, USA
Experience in "Characterization of rRNA mutants"

1993-1994 - Post-graduate experience at Max-Planck-Institut für Molekulare Genetik, Berlin (Germany)
Experience in "Structural analysis of translation initiation complexes"

1995 - Post-graduate experience EMBO (Umea, Sweden)
Course on "Advanced eubacterial genetics "

1.11.1991-31.10.1995 PhD at Università degli Studi di Camerino
Thesis: "Eventi precoci e tardivi nell'inizio della traduzione procariotica"

Appointments

Accademic Appointments

01.11.1994 28.02.2002 Researcher BIO/18 (Genetics)
Università Politecnica delle Marche

01.03.2002 To date Associate Professor BIO11 (Molecular Biology)
Università Politecnica delle Marche

Other Appointments

1987- 1991 Max-Planck-Institut für Molekulare Genetik, Berlin (Germany)
Recipient of a fellowship, project: Structural and functional studies on
prokaryotic translation initiation

02.05.2007

20.08.2007 Visiting Scientist at Department of Biochemistry, Brown University,
Providence (USA)

01.07.2011

31.07.2011 Visiting Scientist at Max-Planck-Institut for Terrestrial Microbiology, Marburg
(Germany)

01.07.2017

31.07.2017 Visiting Scientist at Max F. Perutz Laboratories, Vienna Biocenter (Austria)

Teaching experience

1991 and 1992 Practical course for undergraduate students on “In vitro gene
expression” at the University of Witten-Herdecke (Germany)

1994 to date Teaching activity for undergraduate and PhD students at the
Università Politecnica delle Marche with the following courses:
Molecular Biology, Advanced Molecular Biology, Molecular Genetics,
Mechanisms of gene expression regulation, Nutrigenomics

1994- to date Supervision of more than 50 Bachelor thesis, 25 Master thesis, 6 PhD
thesis, 3 Assegni di Ricerca, 2 Fellowships.

Awards

1994 SIBBM (Italian Society of Biophysics and Molecular Biology) Award for
the best article published in 1993 in the field of Molecular Biology and
Biophysics by a young researcher.

Funding

Local coordinator of PRIN projects financed by MIUR in the following years:

2000 Studio della interazione IF2-ribosoma e della interazione ribosoma-leaderless
mRNA.

2001 Regolazione dell'espressione del fattore d'inizio della traduzione IF3.

2002 Analisi comparativa della struttura e della funzione dei fattori d'inizio della
Traduzione IF1/aIF1A e bSUI1/aSUI1 in Batteri e Archei

2003 Identificazione dei determinanti molecolari dell'interazione fra il fattore d'inizio della

traduzione batterica IF2 e il ribosoma.

2005 Dinamica dell'interazione tra i fattori IF1 e IF2 e i ribosomi durante l'inizio della traduzione

2017 Progetto Strategico d'Ateneo "In the hunt of new antibiotics: active compounds from both chemical synthesis and natural sources"

1995- to date

Annual grant "Ricerca Scientifica di Ateneo" from Università Politecnica delle Marche

Research Activities

Research activity has been focused on the study of the mechanism and regulation of translation initiation in prokaryotes providing a contribution to the clarification of this fundamental step of gene expression through analysis of interactions among the various components of the translation apparatus using in vitro systems ("cell-free") and techniques to study of RNA-RNA, RNA-protein and protein-protein interaction ("cross-linking", "chemical probing", "time resolved chemical probing", FRET).

The interest was recently extended to the mechanism of translation initiation and to the protein factors involved in this process in Archaea with a double goal: to clarify evolutionary aspects of the translation process in the attempt to identify the possible components of an ancestral protein synthesis machinery, and to investigate the possibility of using Archaea as a model system to study the process of translation in eukaryotes since the eukaryotic translation factors share with the corresponding proteins of Archaea a high degree of homology.

The interest has been focused on characterization on some of the initiation factors shared by Archaea and Eukarya: aIF2/5B, aIF6 / eIF6 and aIF5A / eIF5A.

In particular work on aIF6 / eIF6 has shown that the protein binds to the large ribosomal subunit and is involved in human cells in migration and invasiveness through modulation of the expression of a specific group of proteins, while research activity on aIF5A / eIF5A, which is characterized by a unique post-translational modification (the transformation of a lysine in hypusine), is currently underway, both in the model Archaea *Sulfolobus solfataricus* and in human cell lines.

Scientific evaluation:

Co-author of 36 publications in international journals and 6 chapters in scientific books.

Number of Citations received: **1353**

H-Index: **19**

Total Impact Factor: **157.187**