

Albertomaria Moro, PhD

Tel: +39 331 1178752

Email: albertomaria.moro@outlook.com

www.linkedin.com/in/albertomaria-moro

EDUCATION/TRAINING

DEGREE	INSTITUTION AND LOCATION	FINAL DATE	FIELD OF STUDY
Postdoctoral	Yale University, School of Medicine, Cardiovascular Section (US)	5/2014 – 4/2018	Developmental / Bioinformatics (RNA biology / Vascular biology)
Ph.D.	University of Trento, Biomolecular School, (I)	11/2009-11/2013	Molecular Biology / Bioinformatics (RNA Biology)
MS	University of Padova, Department of Molecular Biology, (I)	10/2007-09/2009	Molecular Biology (Behavioral Genetics)
BS	University of Padova, Department of Molecular Biology, (I)	10/2004-10/2007	Bioinformatics (Protein folding)

PROFESSIONAL POSITIONS AND MEMBERSHIPS

May 2018-April 2019 Research Associate, Memorial Sloan Kettering Cancer Center, (US)
May 2014-May 2018 Postdoctoral Associate, Yale University, School of Medicine, (US)
Nov 2009-Nov 2013 Graduate Student, Centre for Integrative Biology (CIBIO), University of Trento, (I)
Apr 2012-May 2012 Visiting PhD, Department of Biology, University of Mainz, (D)
Oct 2007-Oct 2009 Master Student, Department of Molecular Biology, University of Padova, (I)
Nov 2008-Jul 2009 Visiting Student, Department of Genetics, University of Leicester, (UK)
Nov 2011-Jun 2012 Committee member of "PhD colloquia" seminar series, University of Trento
Sep 2014-Sept 2017 Border member of Italian Society of Yale Students and Affiliates, Yale University
Jun 2014- April 2017 Member of RNA society
Oct 2015- April 2018 Member of NAVBO
Jan 2015- present Member of ISSNAF

HONORS AND AWARDS:

Oct 2017 NAVBO 10th Anniversary Vascular Matrix Biology and Bioengineering Workshop
Nov 2013-Apr 2014 Italian Ministry of University and Research Scholarship (MIUR)
Nov 2009-Nov 2012 Italian Research Scholarship for Doctoral Studies (MIUR)
Nov 2010 EMBO Symposia Travel Grant
Nov 2008-Jul 2009 ERASMUS Scholarship (EU)

POSTER AND ORAL PRESENTATIONS AT INTERNATIONAL MEETING

Oct 2017	Selected oral presentation: NAVBO: Vascular Matrix Biology and Bioengineering Workshop VI
Oct 2016	Poster, 19th International Vascular Biology Meeting, Boston - MA (US)
May 2012	Poster, RNA F.A.T.E., Riva del Garda (I).
Sep 2011	Poster, EMBO: Protein Synthesis and Translational Control, Heidelberg (D)
Nov 2010	Poster, EMBO workshop: RNA Dynamics Workshop, Ein Gedi, Israel

LIST OF ARTICLES

Moro A*, Discroll T*, Baeyens N, Jouy C, Lee D, Zhang J, Gu M, Gerstein M, Schwartz M and Nicoli S.: *microRNA-dependent regulation of biomechanical genes establish tissue stiffness homeostasis*. Nature Cell Biology (2019)

Rossi A, Moro A, Tebaldi T, Cornella N, Gasperini L, Lunelli L, Quattrone A, Viero G, Macchi P.: *Identification and dynamic changes of RNAs isolated from RALY-containing ribonucleoprotein complexes*. NAR (2017)

Kasper DM, Moro A, Ristori E, Narayanan A, Hill-Teran G, Fleming E, Moreno-Mateos M, Vejnar C, Zhang J, Lee D, Gu M, Gerstein M, Giraldez A and Nicoli S.: *microRNAs Establish Uniform Traits during the Architecture of Vertebrate Embryos*. Dev Cell. (2017)

Narayanan A*, Hill-Teran G*, Moro A, Ristori E, Kasper DM, Roden CA, Lu J, Nicoli S.: *In vivo mutagenesis of miRNA gene families using a scalable multiplexed CRISPR/Cas9 nuclease system*. Scientific Reports (2016)

Ristori E, Lopez-Ramirez MA, Narayanan A, Hill-Teran G, Moro A, Calvo CF, Thomas JL, Nicoli S.: *A Dicer-miR-107 Interaction Regulates Biogenesis of Specific miRNAs Crucial for Neurogenesis*. Dev Cell. (2015)

Moro A*, Tenzer S*, Kuharev J, Francis AC, Vidalino L, Provenzani A, Macchi P.: *Proteome-wide characterization of the RNA-binding protein RALY-interactome using the in vivo-biotinylation-pulldown-quant (iBioPQ) approach*. J Proteome Res. (2013)

Tamburini S, Ballarini A, Ferrentino G, Moro A, Foladori P, Spilimbergo S, Jousson O.: *Comparison of quantitative PCR and flow cytometry as cellular viability methods to study bacterial membrane permeabilization following supercritical CO₂ treatment*. Microbiology. (2013)

Vidalino L, Monti L, Haase A, Moro A, Acquati F, Taramelli R, Macchi P.: *Intracellular trafficking of RNASET2, a novel component of P-bodies*. Biol Cell. (2012)

SELECTED SKILLS:

- **Computer Science** - Bash, HPC, UNIX, MySQL, Windows, MS Office
- **Statistical and data analysis** - R (Bioconductor and Shiny), Python, Machine Learning, Excel VBA
- **High-throughput genomics** - HITS-CLIP, RNA/sRNA-seq, High-throughput qPCR
- **NGS analysis** - Bowtie2, Noalign, STAR, Salmon, edgeR, DESeq, Piranha, HiSat2
- **Molecular Biology** - RT-qPCR, Western Blot, 2D-PAGE, Polyribosome profiling, Microarray
- **Cell culture and animal model** - HeLa, Hek293T, MCF7, HUVEC, HUAEC, *D. rerio*, *D. melanogaster*
- **Fundraising and budget administrator** – Collected fund and organized 1 seminar series
- **Leadership** - Mentored and trained graduate students, taught three academic classes

EXPERIENCE

Aboca SPA, Sansepolcro, IT
Bioinformatic Scientist

January 2020 – Present

- Improved computational pipelines for different OMICs studies associate with product development, formulation, and marketing restyling.
- Analyzed clinical study datasets to validate product development.
- Implement busines IT infrastructure in the field of biology, biomedicine and agriculture.

Memorial Soan Kettering Cancer Center, New York, USA
Research Associate (Department of Developmental biology)

May 2018 – April 2019

- Improved computational pipelines for different OMICs studies, from microarray to RNA-seq, with special attention to miRNA-mRNA interactive network.
- Analyzed different sets of OMICs data using custom R and Python script and pipeline to provide statistical analysis, data mining (via machine learning techniques) and credible data visualization.
- Guided 2 data analysis team during the investigation of different biomedical dataset.

Yale University, New Haven, USA
Postdoctoral Associate (Internal medicine Department)

May 2014 – April 2018

- Developed custom script and improve pipeline for genome-wide RNA and microRNA expression in different environmental condition.¹
- Planned and coordinated involved in several RNAseq, sRNAseq and HITS-CLIP sequencing and other bioinformatics project.^{1,3,4}
- Developed R script to provide statistical analysis for gene differential expression and fluorecence microscopy analysis.³
- Integrated javaScript macro and R script to improve the efficiency and speed of analysis for microscopy images.
- Planned and coordinated seminar and lecture events.
- Authored of one paper and co-authored of four scientific papers.

Centre for integrative biology (CIBIO), Trento, Italy
Graduate Student (Molecular and Cellular Neurobiology)

Nov 2009 – Nov 2013

- Developed protein-mRNA pulldown in immortalized cell line (iBioPQ).⁵
- Designed and performed microarray assay and data analysis after polyribosome profiling.²
- Acquired sponsor and administered budget for seminar events.
- Contacted international speakers and programmed visit and seminar.
- Mentored and trained 3 master students for their degree dissertation.
- Authored of one paper and co-authored of two scientific papers.

University of Leicester, Leicester, UK
Predoctoral Researcher (Department of Genetics and Genome Biology)

Nov 2008-July 2009

- Performed *in vivo hybridization* in *Drosophila melanogaster* brain.

University of Padova, Padova, Italy
Premaster Researcher (BioComputing)

May 2007 – Sep 2007

- Benchmarked software for proteomic prediction increasing the efficiency of home-made software by 25%.

VOLUNTEER EXPERIENCES

New York Academy of Science

Project CTO in the development career strategy goup

May 2019 - present

Alumni UniPD – chapter New York

Member of constituent board and database manager of organization membership

May 2016 - present

Yale Center for RNA Science and Medicine

Oct 2015 – Nov 2016

Responsible for organizing scientific events and seminars

Italian Scientists and Scholars in North America Foundation Jan 2015 – Nov 2015

Responsible of organization membership database cleaning and reorganizing

Italian society of Yale Student and Scholar

Oct 2014 – Sep 2017

Member of the board and responsible for Italian culture promotion events

ADDITIONAL TRAINING

Memorial Sloan Kettering Cancer Center, (courses):

Patent Law and Tech Transfer Course

Software Best Practices for Reproducible Science

Yale University, (courses):

Writing Effective R Code

Using Git for Source Code Control

Data Analysis with Python

Introduction to HPC

Financial Markets with Robert Shiller

Alexion Pharmaceuticals (course series):

Essentials of the BioPharma Industry

Coursera, (On-line courses):

Introduction to Probability and Data

Inferential Statistics

Linear Regression and Modeling

Conference series:

- Planned and coordinated a series of 6 seminars with title "PhD colloquia"
- Planned and coordinated 8 seminars for the YALE RNA CLUB series

Teaching:

- Molecular Biology laboratory teacher at University of Trento, Italy in 2012 and 2013

LANGUAGES

Italian: native speaker

English: professional writing and speaking

Spanish: basic understanding

SIGNATURE

