Allegato B

ALESSANDRO PALMA
Curriculum Vitae

Place: Rome
Date: 03/09/2024

Education

Type	Year	Institution	Notes (Degree, Experience,…)
Post-graduate studies	2016	University of Rome "Tor Vergata"	Biology (Bioinformatics – LM06)
PhD	2019	University of Rome "Tor Vergata"	Cell and Molecular Biology
Licensure 01	2018	University of Rome "Tor Vergata"	National qualification in practicing the profession of Specialist Biologist

Appointments

Academic and Research Appointments

Start	End	Institution	Position
2023	present	Sapienza University of Rome	Research Fellow (Molecular Biology)
2021	2023	Bambino Gesù Children's Hospital	Postdoctoral researcher
2019	2021	Telethon Institute of Genetics and Medicine	Postdoctoral researcher
2016	2019	University of Rome "Tor Vergata"	PhD student
2014	2016	University of Rome "Tor Vergata"	Master's degree student

Teaching experience

Year	Institution	Lecture/Course
2023	Sapienza University of Rome	Integrative teaching activities for bachelor's and master's degree students (350h/ year)
2024	Sapienza University of Rome	Integrative teaching activities for bachelor's and master's degree students (350h/ year)
2023	Sapienza University of Rome	Seminar: "Data- and network-based approaches in basics and translational research: an example from muscle circuitries"
2023	Sapienza University of Rome	Member of the Board of Examiner for the "Genomics and Molecular Biology" course, bachelor's degree in Bioinformatics (Sapienza University of Rome)
2023	Sapienza University of Rome	Member of the graduation committee for the bachelor's degree in Biotechnologies

	("Sapienza" University of Rome)

Society memberberships

Year	Title
2021-present	Member of Italian Professional Association of Biologists (FNOB Lazio/Abruzzo)
2022	Member of the Italian Society of Human Genetics (SIGU)
2023	Member of the Bioinformatics Italian Society (BITS)

Fellowships, Awards and Honours

2021	AFM Telethon post-doctoral fellowship, application n. 23547. Project title: "Dissecting the role of ER-phagy in Pompe Disease"
2021	Post-doctoral fellowship. University of Naples "Federico II", Italian Ministry of University and Research (MIUR) fellowship (POC01_0078 project, PNR 2015-2020, "Bando Proof of Concept 2018"). Title of the project: Molecular analysis of tissue samples isolated from mice treated with three different doses of the autophagy inducer Tat-Beclin1
2023	Umberto Veronesi 2023 post-doctoral fellowship. Project title: "Expanding the germline mutational spectrum of pediatric patients with high-grade glioma for improved diagnosis"

Courses and certifications

Year	Title	Provider
2024	Introduction to the Principles and Practice of Clinical Research 2023-2024	The National Institutes of Health (NHI)
2021	Certified peer reviewer Course	Elsevier
2019	Single-Cell RNA Sequencing and Data Analysis	Telethon Institute of Genetics and Medicine and 10X Genomics
2019	The use of statistics in biomedical research and applications of the R software (advanced course)	Fondazione Santa Lucia IRCCS – CNR

Editorial service

2024-present	Associate Editor for Frontiers in Molecular Bioscience – Molecular Diagnostics and Therapeutics
2024	Reviewer for Springer Nature - Journal of Hematology & Oncology
2024	Reviewer for Cell Press – Helyion
2024	Reviewer for BMC Infectious Diseases
2024	Reviewer for BMC Genomics
2024	Reviewer for Scientific Reports

2023-present	Reviewer for Research Square
2024-present	Member of the editorial board (reviewer) for Taylor & Francis – RNA biology
2024-present	Member of the editorial board (reviewer) for Taylor & Francis – All Life
2024-present	Member of the editorial board (reviewer) for Taylor & Francis – Cell Adhesion & Migration
2023-present	Review Editor for Frontiers in Molecular Bioscience - RNA Networks and Biology
2021-present	Reviewer for Cell Press – STAR Protocols
2021	Reviewer for Frontiers in Cell and Developmental Biology
2021	Reviewer for Springer Nature - BMC Bioinformatics
2021-present	Reviewer for Frontiers in Bioinformatics
2021	Reviewer for Elsevier - Gene

Research Activities

Keywords	Brief Description
Neurodegeneration Macrophages Transcriptomics	Research activities focused on the analysis of the role of long non-coding RNAs and protein-coding genes in the context of neurodegenerative disorders, including amyotrophic lateral sclerosis, Parkinson's disease, Alzheimer's disease, Frontotemporal dementia, and aging. The activities have been carried out through the use of cell and molecular biology techniques, as well as bioinformatics approaches. A particular focus has been given to the role of microglia/macrophages in neurodegeneration and neuroinflammation.
Neuromuscular diseases	Research activities implemented through the course of the doctoral degree and post-doctoral experience, focused on the cell and molecular mechanisms governing the muscle regeneration process and the crosstalk between the distinct cell types in the muscle niche.
Neuroscience and oncology	Research and diagnostics activities on pediatric brain tumors, with a focus on high-grade gliomas. Analysis of growth and invasion mechanisms on tumor-derived primary cell lines cultured in 2D and as spheroids. Use of single-cell and imaging techniques to characterize the tumor heterogeneity, with a focus on astro/glial cells and cancer stem cells. Diagnostics activities on brain tumor predisposition syndrome through the use of exome sequencing.
Autophagy	Research activities on the selective autophagy of distinct cell organelles in the framework of lysosomal storage disorders. The activities have been implemented through the use of cell and molecular biology techniques, as well as computational approaches.

Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	25	Scopus	2016	2024

Total Impact factor	186.8 (JCR 2024)
Total Citations	684 (Scopus)
Average Citations per Product	28.5
Hirsch (H) index	13 (Scopus)
Normalized H index*	1.625

*H index divided by the academic seniority.

Current scientific scores/thresholds for the National Scientific Qualification (ASN) to associate professor

	Settore Scientifico-disciplinare	Settore concorsuale	Numero articoli 5 anni	Numero citazioni 10 anni	Indice H 10 anni
Biologia Applicata	BIO/13	05/F1	**23**/8	**684**/307	**13**/8
Anatomia comparata E citologia	BIO/06	05/B2	**23**/9	**684**/240	**13**/9
Biologia Molecolare	BIO/11	05/E2	**23**/8	**684**/284	**13**/9
Genetica	BIO/18	05/I1	**23**/10	**684**/362	**13**/9

Conferences and seminars

Jun 2023: Poster presentation at "SIBBM 2023 conference – Frontiers in Molecular Biology" – Bari (IT). Poster title: "Integration of transcriptomic data to dissect the role of long non coding RNAs in amyotrophic lateral sclerosis".

Jun 2023: Poster presentation at "BITS 2023 conference" – Bari (IT). Poster title: "Integration of transcriptomic data to dissect the role of long non coding RNAs in amyotrophic lateral sclerosis".

Feb 2023: Seminar at "Sapienza University of Roma" – Rome (IT). Seminar title: *"Data- and network-based approaches in basics and translational research: an example from muscle circuitries".*

Sept 2022: Poster presentation at "BraYn Conference" – Rome (IT). Poster title: "Inter and Intra-tumor Heterogeneity of Pediatric-type Diffuse High-Grade Glioma Revealed by High-Dimensional Single-Cell Proteomics".

June 2022: Poster presentation at "The 20th International Symposium on Pediatric Neuro-Oncology ISPNO 2022" – Hamburg (DE). Poster titles:

1. "Unraveling and Targeting the stem-regulatory network driving invasion in Diffuse hemispheric glioma, H3G34-mutant".

2. "Inter and Intra-tumor Heterogeneity of Pediatric-type Diffuse High-Grade Glioma Revealed by High-Dimensional Single-Cell Proteomics".

3. "Abrogation of exosome biogenesis significantly affects cell motility in heterogenous sub-populations of paediatric-type diffuse high-grade glioma".

Oct 2018: Oral speech at "IIM meeting 2018: pathogenesis and therapies of neuromuscular diseases" – Assisi (IT). Speech title: Myo-REG: a new web portal for exploring inter- and intra-cellular interactions in muscle regeneration.

July 2017: Poster presentation at "ISW 2017:2nd interdisciplinary signaling workshop" – Visegràd (Hungary). Poster title: "Myo-REG: a new web portal for exploring inter- and intra-cellular interactions in muscle regeneration"

June 2017: Poster presentation at "BITS meeting 2017" (Bioinformatics Italian Society) – Cagliari (IT). Poster title: "Myo-REG: a new web portal for exploring inter- and intra-cellular interactions in muscle regeneration".

Sept 2016: Poster presentation at "The modularity of signaling proteins and network" – Seefeld (Austria). Poster title: "SIGNOR a database of causal relationships between biological entities".

Publications

1. **Unveiling microglial heterogeneity from single-cell transcriptomics in neurodegenerative diseases**
   A. Palma. *bioRxiv. 2024, https://doi.org/10.1101/2024.08.23.609299*
2. **Integration of single-cell datasets depicts profiles of macrophages and fibro/adipogenic progenitors in dystrophic muscle**
   A. Vitaliti, A. Reggio, …, A. Palma. *Experimental Cell Research. 2024 Aug 5;442(1):114197. doi: 10.1016/j.yexcr.2024.114197*
3. **Sestrin2 drives ER-phagy in response to protein misfolding**
   C. De Leonibus, M. Maddaluno, et al. *Developmental Cell. 2024 Aug 19;59(16):2035-2052.e10. doi: 10.1016/j.devcel.2024.07.004*
4. **Transcriptional profiling of human brain cortex identifies novel lncRNA-mediated networks dysregulated in amyotrophic lateral sclerosis**
   A. Palma, M. Ballarino. *bioRxiv. 2024 doi: 10.1101/2024.03.18.585481.*
5. **Inhibition of exosome biogenesis affects cell motility in heterogeneous sub-populations of paediatric-type diffuse high-grade gliomas**
   G. Pericoli, et al. *Cell & Bioscience. 2023 Nov 13;13(1):207. doi: 10.1186/s13578-023-01166-5.*
6. **Exploring the landscape of tools and resources for the analysis of long non-coding RNAs**
   M. Ballarino, A. Palma. *Computational and Structural Biotechnology Journal. 2023, 09, 21. https://doi.org/10.1016/j.csbj.2023.09.041*
7. **A New Insight into MYC Action: Control of RNA Polymerase II Methylation and Transcription Termination**
   F. Scagnoli, et al. *Biomedicines. 2023, 11(2), 412; https://doi.org/10.3390/biomedicines11020412*
8. **An Update on Circular RNA in Pediatric Cancers**
   A. Galardi, et al. *Biomedicines. 2023, 11, 36. https://doi.org/10.3390/ biomedicines11010036*
9. **Inter and Intra-tumour Heterogeneity of Paediatric-type Diffuse High-Grade Glioma Revealed by Single-Cell Mass Cytometry**
   L. L. Petrilli, et al. *Frontiers in Oncology. 2022 Dec 08. doi: 10.3389/fonc.2022.1016343*
10. **Phosphorylation of FAM134C by CK2 controls starvation induced ER-phagy**
    G. Di Lorenzo, F. Iavarone, et al. *Science Advances. 2022 Sep 2;8(35):eabo1215. doi: 10.1126/sciadv.abo1215*
11. **Ejection of damaged mitochondria and their removal by macrophages ensure efficient thermogenesis in brown adipose tissue**
    M. Rosina, et al. *Cell metabolism. 2022 Apr 5;34(4):533-548.e12. doi: 10.1016/j.cmet.2022.02.016*
12. **Crosstalk between cilia and autophagy: implication for human diseases**
    M. Morleo, et al. *Autophagy. 2022 May 25;1-20. doi: 10.1080/15548627.2022.2067383*
13. **MAPK15 Protects from Oxidative Stress-Dependent Cellular Senescence by Inducing the Mitophagic Process**
    L. Franci, et al. *Aging Cell. 2022 Jun 1;e13620. doi: 10.1111/acel.13620*
14. **Skeletal Muscle Subpopulation Rearrangements upon Rhabdomyosarcoma Development through Single-Cell Mass Cytometry**
    L. L. Petrilli, et al. *Journal of Clinical Medicine. 2021, 10(4), 823; https://doi.org/10.3390/jcm10040823*
15. **SCA-1 micro-heterogeneity in the fate decision of dystrophic fibro/adipogenic progenitors**
    G. Giuliani, et al. *Cell Death and Disease. 2021 12, 122. https://doi.org/10.1038/s41419-021-03408-1*
16. **Integrating Patient-Specific Information into Logic Models of Complex Diseases: Application to Acute Myeloid Leukemia**
    A. Palma, M. Iannuccelli, et al. *Journal of Personalized Medicine. 2021 11(2), 117; https://doi.org/10.3390/jpm11020117*
17. **Adipogenesis of Skeletal Muscle Fibro/Adipogenic Progenitors is Controlled by the WNT5a/GSK3/β-Catenin Axis**
    A. Reggio, M. Rosina, A. Palma, et al. *Cell Death and Differentiation. 2020 Oct;27(10):2921-2941. doi: 10.1038/s41418-020-0551-y*
18. **Regulation of autophagosome biogenesis by OFD1-mediated selective autophagy**

M. Morleo, et al. *EMBO Journal. 2020 Dec 28;e105120. doi: 10.15252/embj.2020105120*

19. **High-Dimensional Single-Cell Quantitative Profiling of Skeletal Muscle Cell Population Dynamics during Regeneration**
    L. L. Petrilli, F. Spada, et al. *Cells. 2020 Jul 18;9(7):1723. doi: 10.3390/cells9071723*
20. **SIGNOR 2.0, the SIGnaling Network Open Resource 2.0: 2019 update**
    L. Licata, et al. *Nucleic Acids Research. 2020 Jan 8;48(D1):D504-D510. doi: 10.1093/nar/gkz949*
21. **Metabolic reprogramming of Fibro/Adipogenic Progenitors facilitates muscle regeneration**
    A. Reggio, M. Rosina, et al. *Life Sci Alliance. 2020 Feb 4;3(3):e202000646. doi: 10.26508/lsa.202000660*
22. **Janus effect of glucocorticoids on differentiation of muscle fibro/adipogenic progenitors**
    A. Cerquone Perpetuini, et al. *Scientific Reports. 2020; 10: 5363 DOI: 10.1038/s41598-020-62194-6*
23. **Myo-REG: a web portal for muscle regeneration**
    A. Palma, et al. *Frontiers in Physiology September 2019.* DOI*: 10.3389/fphys.2019.01216*
24. **Critical nodes reveal peculiar features of human essential genes and protein interactome**
    A. Celestini, et al. *Proceedings - 2019 IEEE International Conference on Bioinformatics and Biomedicine, BIBM 2019. DOI: 10.1109/BIBM47256.2019.8983221*
25. **CancerGeneNet: linking driver genes to cancer hallmarks**
    M. Iannuccelli, E. Micarelli, et al. *Nucleic Acids Research. 2019 Oct 10. pii: gkz871. DOI: 10.1093/nar/gkz871*
26. **Gene regulatory network modeling of macrophage differentiation corroborates the continuum hypothesis of polarization states**
    A. Palma, et al. *Frontiers in Physiology 2018; 9: 1659.* DOI*: 10.3389/fphys.2018.01659*
27. **Statistical ensemble of gene regulatory networks of macrophage differentiation**
    F. Castiglione, et al. *BMC Bioinformatics. 2016; 17(Suppl 19): 506.* DOI*: https://doi.org/10.1186/s12859-016-1363-4*