

PERSONAL INFORMATION

Emiliano Maiani Ph.D.

Sex: M Date of birth: 08/06/1984 Nationality: Italian

CURRENT POSITION

- Oct 2022, ongoing **Fixed-term researcher type B, BIO/11, Molecular Biology.**
UniCamillus - Saint Camillus International University of Health and Medical Sciences, Rome, Italy.
- Jan 2022, ongoing **Visiting Scientist**
Cancer Structural Biology group, Danish Cancer Society Research Center, Copenhagen, Denmark.
Research Project:
Short Linear Motifs in Cell Death and Autophagy
- Jul 2022, ongoing **Research Fellow**
Oncohematology Laboratory, *IRCCS Bambino Gesù Children's Hospital*, Rome, Italy.
Research Project:
Challenging stem cell potential in brain tumor by impacting on autophagy regulators.

WORK EXPERIENCE

- 2021/2022 **Adjunct Professor**
UniCamillus - Saint Camillus International University of Health and Medical Sciences, Rome, Italy.
Teaching activity 3 CFU BIO/13 in " Applied Biology ", Degree in Medicine and Surgery.
Teaching activity 2 CFU BIO/13 in " Applied Biology ", Degree in Dentistry and Dental Prosthetics.
- Aug 2019, Dec 2021 **Senior Scientist**
Computational Structural Biology group, Danish Cancer Society Research Center, Copenhagen, Denmark.
- 2020/2021
2019/2020
2018/2019 **Adjunct Professor**
UniCamillus - Saint Camillus International University of Health and Medical Sciences, Rome, Italy.
Teaching activity 1 CFU BIO/13 in " Applied Biology ", Degree in Medicine and Surgery.
- Nov 2017, July 2019 **Postdoctoral Researcher**
Computational Biology Laboratory group, Danish Cancer Society Research Center, Copenhagen, Denmark.

- Nov 2013, Oct 2017 **Postdoctoral Researcher**
Cell Stress and Survival group, Danish Cancer Society Research Center, Copenhagen, Denmark.
- Nov 2012-Oct 2013 **Research Fellow**
University of Rome“Tor Vergata”, Rome, Italy.
Research Project:
Strategies for preserving fertility following chemotherapeutic treatments.

EDUCATION AND TRAINING

- Apr 2013 **PhD in Molecular and Cellular Biology**
University of Rome“Tor Vergata”, Rome, Italy.
Thesis title: “Above PIKKs: c-Abl promotes the triggering events that lead to DNA damage response in follicles.”
- Jul 2009 **Master in Molecular and Cellular Biology**
University of Rome“Tor Vergata”, Rome, Italy.
- Mar 2007 **Bachelor in Molecular and Cellular Biology**
University of Rome“Tor Vergata”, Rome, Italy.

PROFESSIONAL ABILITATIONS

- Feb 2022 **Abilitazione Scientifica Nazionale alle funzioni di professore universitario di Seconda Fascia nel Settore Concorsuale 05/E2**
- Jun 2011 **Abilitazione all’esercizio della professione Biologo**
University of Rome“Tor Vergata”, Rome, Italy.

ACADEMIC ACTIVITIES

- Nov 2018- Dec 2021 **Scientific Organiser of the DCRC Seminars**
Danish Cancer Society Research Center, Copenhagen, Denmark.
- Sept 2019- Sept 2021 **CARD Communication Team member**
Danish Cancer Society Research Center, Copenhagen, Denmark.
- Jun 2018- ongoing **Disprot Curator**
- Aug 2014- Nov 2017 **Member of the Danish Cancer Society Research Center Seminars**

committee

Danish Cancer Society Research Center, Copenhagen, Denmark.

2008-2009 Professional Assignment .

2007-2008 Department of Biology, University of Rome“Tor Vergata”, Rome, Italy.

 EDITORIAL ACTIVITIES

Mar 2022- ongoing Review Editor, Frontiers, Cell Growth and Division

Nov 2018- ongoing PeerJ Academic Editor

2017- ongoing Reviewer

Peer-Reviewer for several journals including Frontiers in Molecular Biosciences, Frontiers in Cell Growth and Division, PeerJ, Molecular Oncology.

 GRANTS

2022-2023 Fondazione Veronesi - Post-doctoral fellowships 2021.

Project Title:

“Exploiting the AMBRA1 expression regulation and its loss in cancer.”

2020-2021 Hartmann Foundation grant.

Project Title:

“Generation of new assays for monitoring autophagy.”

2020-2021 PRACE DECI-16.

Collaborator, Proposal 16DECI0046.

Project Title:

“LC3bind.”

2019-2020 PRACE DECI-15.

Collaborator, Proposal 15DECI0383

Project Title:

“ MELMUT .”

2019-2020 ISCRA-CINECA CLASS C HPC GRANT.

Team member, Proposal HP10C0T58M

Project Title:

“Phospho-regulated short linear motifs for binding with LC3B: the optineurin case of study”

2018-2019 ISCRA-CINECA CLASS C HPC.

Team member, Proposal HP10C4LACQ

Project Title:

“A new class of intrinsically disordered ubiquitin binding motifs. Acronym disoUIM”

 PERSONAL SKILLS

Mother tongue(s) Italian

Foreign language(s)

UNDERSTANDING	SPEAKING	WRITING

	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

PUBLICATIONS

H index 16 (Scopus, 20/09/2022).

1. Montagna C, Svensson RB, Bayer ML, Rizza S, Maiani E, Yeung C-YC, et al. Autophagy guards tendon homeostasis. **Cell Death Dis.** 2022;13: 402.
2. Tiberti M, Terkelsen T, Degn K, Beltrame L, Cremers TC, da Piedade I, et al. MutateX: an automated pipeline for in silico saturation mutagenesis of protein structures and structural ensembles. **Brief Bioinform.** 2022. doi:10.1093/bib/bbac074
3. Quaglia F, Mészáros B, Salladini E, Hatos A, Pancsa R, Chemes LB, et al. DisProt in 2022: improved quality and accessibility of protein intrinsic disorder annotation. **Nucleic Acids Res.** 2022;50: D480–D487.
4. Maiani E¹, Milletti G¹, Cecconi F. The pro-autophagic protein AMBRA1 coordinates cell cycle progression by regulating CCND (cyclin D) stability. **Autophagy.** 2021;17: 4506–4508.
5. Lambrughli M, Maiani E, Aykac Fas B, Shaw GS, Kragelund BB, Lindorff-Larsen K, et al. Ubiquitin Interacting Motifs: Duality Between Structured and Disordered Motifs. **Front Mol Biosci.** 2021;8: 676235.
6. Necci M, Piovesan D, CAID Predictors, DisProt Curators, Tosatto SCE. Critical assessment of protein intrinsic disorder prediction. **Nat Methods.** 2021. doi:10.1038/s41592-021-01117-3
7. Simoneschi D, Rona G, Zhou N, Jeong Y-T, Jiang S, Milletti G, et al. CRL4 is a master regulator of D-type cyclins. **Nature.** 2021;592: 789–793.
8. Maiani E¹, Milletti G¹, Nazio F, Holdgaard SG, Bartkova J, Rizza S, et al. AMBRA1 regulates cyclin D to guard S-phase entry and genomic integrity. **Nature.** 2021;592: 799–803.
9. Klionsky DJ, Abdel-Aziz AK, Abdelfatah S, Abdellatif M, Abdoli A, Abel S, et al. Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition). **Autophagy.** 2021;17: 1–382.
10. Fas BA, Maiani E, Sora V, Kumar M, Mashkoo M, Lambrughli M, et al. The conformational and mutational landscape of the ubiquitin-like marker for autophagosome formation in cancer. **Autophagy.** 2020; 1–24.
11. Sora V¹, Kumar M¹, Maiani E, Lambrughli M, Tiberti M, Papaleo E. Structure and Dynamics in the ATG8 Family From Experimental to Computational Techniques. **Front Cell Dev Biol.** 2020;8: 420.
12. Hatos A, Hajdu-Soltész B, Monzon AM, Palopoli N, Álvarez L, Aykac-Fas B, et al. DisProt: intrinsic protein disorder annotation in 2020. **Nucleic Acids Res.** 2020;48: D269–D276.
13. Bellusci G¹, Mattiello L¹, Iannizzotto V¹, Ciccone S¹, Maiani E, Villani V, et al. Kinase-independent inhibition of cyclophosphamide-induced pathways protects the ovarian reserve and prolongs fertility. **Cell Death Dis.** 2019;10: 726.
14. Holdgaard SG¹, Cianfanelli V¹, Pupo E, Lambrughli M, Lubas M, Nielsen JC, et al. Selective autophagy maintains centrosome integrity and accurate mitosis by turnover of centriolar satellites. **Nat Commun.** 2019;10: 4176.
15. Montagna C, Rizza S, Cirotti C, Maiani E, Muscaritoli M, Musarò A, et al. nNOS/GSNOR interaction contributes to skeletal muscle differentiation and homeostasis. **Cell Death Dis.** 2019;10: 354.
16. Rizza S¹, Cardaci S¹, Montagna C¹, Di Giacomo G, De Zio D, Bordi M, et al. -nitrosylation drives cell senescence and aging in mammals by controlling mitochondrial dynamics and mitophagy. **Proc Natl Acad Sci U S A.** 2018;115: E3388–E3397.
17. Nazio F, Maiani E, Cecconi F. The cross talk among autophagy, ubiquitination, and DNA repair: An overview. Ubiquitination Governing DNA Repair - Implications in Health and Disease. **InTech;** 2018.
18. Montagna C, Rizza S, Maiani E, Piredda L, Filomeni G, Cecconi F. To eat, or Not to eat: S-nitrosylation signaling in autophagy. **FEBS J.** 2016;283: 3857–

3869.

19. Rizza S, Montagna C, Cardaci S, Maiani E, Di Giacomo G, Sanchez-Quiles V, et al. S-nitrosylation of the Mitochondrial Chaperone TRAP1 Sensitizes Hepatocellular Carcinoma Cells to Inhibitors of Succinate Dehydrogenase. **Cancer Res.** 2016;76: 4170–4182.

20. De Zio D, Maiani E, Cecconi F. Apaf1 in embryonic development - shaping life by death, and more. **Int J Dev Biol.** 2015;59: 33–39.

21. Gonfloni S, Iannizzotto V, Maiani E, Bellusci G, Ciccone S, Diederich M. P53 and Sirt1: routes of metabolism and genome stability. **Biochem Pharmacol.** 2014;92: 149–156.

22. Montagna C¹, Di Giacomo G¹, Rizza S, Cardaci S, Ferraro E, Grumati P, et al. S-nitrosoglutathione reductase deficiency-induced S-nitrosylation results in neuromuscular dysfunction. **Antioxid Redox Signal.** 2014;21: 570–587.

23. Ciccone S, Maiani E, Bellusci G, Diederich M, Gonfloni S. Parkinson's disease: a complex interplay of mitochondrial DNA alterations and oxidative stress. **Int J Mol Sci.** 2013;14: 2388–2409.

24. Maiani E¹, Di Bartolomeo C¹, Klingler FG, Cannata SM, Bernardini S, Chateaufieux S, et al. Reply to: Cisplatin-induced primordial follicle oocyte killing and loss of fertility are not prevented by imatinib. **Nature medicine.** 2012. pp. 1172–1174.

25. Gonfloni S, Maiani E, Di Bartolomeo C, Diederich M, Cesareni G. Oxidative Stress, DNA Damage, and c-Abl Signaling: At the Crossroad in Neurodegenerative Diseases? **Int J Cell Biol.** 2012;2012: 683097.

26. Maiani E, Diederich M, Gonfloni S. DNA damage response: the emerging role of c-Abl as a regulatory switch? **Biochem Pharmacol.** 2011;82: 1269–1276.

1 equally contributing authors

CONGRESSES

Organization Scientific Organizer of the seminars at the "Danish Cancer Society Research Center": (DCRCSeminars) from 2019 to 2021.

Participation Invited speaker. The Institute for Biocomputation and Physics of Complex Systems (BIFI), Università di Saragoza, Saragoza, Spain 3-5 Feb 2020. "Structural & Computational Biology". Seminar title: "Short Linear Motifs in Autophagy and Apoptosis Under the Lens of Structural Biology".

Invited speaker. Convegno regionale AURO 13/14 Sept 2019, Rome. Session "Il carcinoma della prostata: dalla diagnostica alla terapia". Seminar title: "Genetica predittiva e biopsia liquida in urologia".

Workshop. Short Talk. Advanced school in protein structure solution, prediction and validation. Spetses, Greece. 13-17 May 2019. Seminar title: Defining a new intrinsically disordered BH3 motif.

Flash Poster Presentation. "4th NGP-NET symposium on non-globular proteins", Conference Centre Grand Spa Lietuva, Druskininkai, LT, from September 11 to September 14, 2018. Seminar title: Defining a new intrinsically disordered BH3 motif

Selected Talk. 5th Annual Conference of the Nordic Autophagy Network, Keflavik, Iceland 31 Aug- 2 Sept 2016. Session "Autophagy and cancer". Seminar title: "The role of AMBRA1 in DNA damage response and its implications in chemotherapy".

Posters **Maiani, E.** Lambrugh, M., Toth, A., Nygaard, M., Fas, B.A., Kragelund, B.B., Papaleo, P. Defining a new intrinsically disordered BH3 motif. Protein.DTU & Linderstrøm-Lang Symposium, 16 Nov2018, Copenhagen, Denmark

Maiani, E. Lambrugh, M., Prestel, A., Toth, A., Nygaard, M., Fas, B.A., Kragelund, B.B.,

Papaleo, P. Defining a new intrinsically disordered BH3 motif. Protein.DTU & Linderstrøm-Lang Symposium, 17 Nov2017, Copenhagen, Denmark

Maiani, E., Montagna, C., De Zio, D., Cecconi, F. The role of Ambra1 in DNA damage response and its implications in chemotherapy. EMBO Research Conference, Autophagy signalling and progression in health and disease, 9-12 2015 Sept Chia (IT)

Maiani, E., Mathiassen, S.G., Montagna, C., De Zio, D., and Cecconi, F. Unravelling Ambra1 functions in genomic stability and tumorigenesis. 4th annual Nordic Autophagy Meeting, 5-7 Giugno 2015, Helsinki, (Finland).

Montagna, C., Rizza, S., **Maiani, E.**, De Zio, D., Cecconi, F. and Filomeni, G. Study of S-nitrosylation dynamics in autophagy networks. 4th annual Nordic Autophagy Meeting, 5-7 Giugno 2015, Helsinki, (Finland).

Montagna, C., Di Giacomo, G., Rizza, S., **Maiani, E.**, Muscoli, C., Bonaldo, P., Cecconi, F. and Filomeni, G. S-nitrosylation due to S-nitrosoglutathione reductase (GSNOR) deficiency results in neuromuscular dysfunction. Gordon Research Conference, Nitric Oxide Signaling and Therapeutics 2015, Ventura (California)

Maiani, E., Mathiassen, S.G., Cianfanelli, V., De Zio, D. and Cecconi F. Unraveling the role of AMBRA1 in genomic stability. First Joint Meeting of Nordic, Spanish & French Autophagy Networks. September 15-18 Sept 2014. Toulouse (France).

Maiani, E., Bellusci, G., Ciccone, S., Maina, F., De Costanzo, I., Iannizzotto, V. and Gonfloni, S.. Targeting DNA Damage Stress Response In Female Germ Cells. The 6th p63/p73 Workshop, 15–18 Sept 2013. Kazusa Akademia Park, Chiba, Japan

Maiani, E., Di Bartolomeo, C., Klinger F.G., Cannata, S.M., Bernardini, S., Chateauvieux, S., Mack, F., Mattei, M., De Felici, M., Diederich, M., Cesareni G. and Gonfloni S. DNA-damage stress response in female germ cells: the emerging role of c-Abl as a regulatory switch. 20th Euroconference on Apoptosis “From Death to Eternity”. 14-17 Sept 2012. Rome (Italy)

Maiani, E., Di Bartolomeo, C., Maina, F., Sacco F., Cesareni, G., Diederich M. and Gonfloni S.. DNA-damage stress response in female germ cells: is Abl a fine tuner or a dangerous amplifier? Structural Biology and DNA repair. 16-18 Oct 2011, Amsterdam (Netherlands)

Maiani, E., Di Bartolomeo, C., Maina, F., Sacco, F., Cesareni, G., Diederich M. and Gonfloni, S. DNA damage response in female germ cells: c-Abl as a regulatory switch? 19th Euroconference on Apoptosis “Metabolism, Epigenetics and Cell Death”. 14-17 Sept 2011 Stockholm, (Sweden)

Caldarola, C., Gismondi, A., **Maiani, E.**, and Loreni, F. Mechanisms of regulation in ribosome biosynthesis. RibosomeSynthesis. Meeting 26 –30 Agosto 2009. Regensburg (Germany) Congresso internazionale.