

Dogus M Altintas, PhD

dogus.altintas@ifom.eu | +39 389 4998939 | [LinkedIn](#) | [ResearchGate](#) | [ORCID](#)

Professional Summary

Molecular biologist specialising in cancer and ageing-associated diseases, with a focus on translational control and the Integrated Stress Response (ISR). My research investigates how chronic stress reprograms protein synthesis to drive cell fate transitions and disease evolution, uncovering therapeutic targets across age-related conditions. With international experience in France, Switzerland, and Italy, I combine high-impact publications, ERC Consolidator Grant eligibility, and expertise in advanced genetic tools, large-scale *in silico* analysis, and predictive modelling. Proven leadership in project development and mentoring supports a dynamic, interdisciplinary research vision aligned with ageing and disease plasticity.

Personal Information

Citizenship: French

Languages: Native French and Turkish; fluent English; basic German and Italian

Research Highlights

ISR as a Driver of Tumour Adaptation

- Uncovered how ISR promotes tumour resilience, invasive growth, and therapy resistance.
- Identified ISR-driven translational control of oncogenes as a novel vulnerability in cancer progression.

Translational Rewiring by Non-Coding Mutations

- Discovered cancer-specific 5'UTR mutations that hijack ISR-dependent translation.
- Defined a new class of fusion genes that rewire 5'UTR of oncogenes, enhancing expression.

Metabolic Stress & ISR in Ageing and Disease

- Revealed how phenylalanine metabolism disruption fosters age-related metabolic dysfunctions.
- Provided mechanistic insights into ISR-driven metabolic reprogramming in ageing-associated diseases.

Key Collaborators

- **University of Oxford, UK** – Collaboration with Prof. Nicola Whiffin on the identification and functional characterisation of non-coding mutations affecting stress-adaptive translation.
- **Queen Mary University of London, UK** – Partnership with Dr Gabor Czibik exploring ISR-mediated metabolic reprogramming in ageing-related conditions.
- **Consiglio Nazionale delle Ricerche, Italy** – Ongoing collaboration with Prof. Marco Foiani on the molecular mechanisms underlying chronic ISR activation.

Professional Experience

Senior Postdoctoral Fellow

IFOM ETS, Milan, Italy (2021 – Present)

- Leading independent research on *MET* oncogene and ISR-driven tumour adaptation.
- Developed CRISPR-engineered models to dissect ISR-regulated oncogene expression.
- Published in high-impact journals, contributing to novel strategies in translational oncology.

Postdoctoral Fellow

IMRB, Créteil, France (2018 – 2021)

- Investigated phenylalanine metabolism and its impact on ageing.
- First-authored a major *Circulation* paper, revealing new insights into metabolic dysregulations.

Lecturer

IMRB, Créteil, France (2019 – 2020)

- Taught Cellular & Molecular Biology, mentoring undergraduate and graduate students.
- Designed and delivered hands-on molecular biology workshops.

Postdoctoral Fellow

University of Geneva (UNIGE), Switzerland (2012 – 2015)

- Conducted foundational research on telomere biology and genome stability in ageing and replication stress.
- Developed novel yeast models to study Tbf1's role in telomere maintenance.

Education

Doctor of Philosophy (PhD) in Molecular Biology

École Normale Supérieure (ENS) Lyon, France (2006 – 2010)

- Thesis: Regulation of Transcription by the Androgen Receptor in Prostate Cancer Cells.
- Awarded highest honours for research contributions to transcriptional regulation in oncology.

Master's in Cellular and Molecular Biology & Oncology

Université Claude Bernard Lyon I, France (2004 – 2006)

Bachelor's degree in Biology

Université Claude Bernard Lyon I, France (2001 – 2004)

Publications

1. Cerqua, M.; Foiani, M.; Boccaccio, C.; Comoglio, P.M.; **Altintas, D.M.** The integrated stress response drives MET oncogene overexpression in cancers. *The EMBO journal* **2025**,
2. Sawaki, D.; Zhang, Y.; Mohamadi, A.; Pini, M.; Mezdari, Z.; Lipskaia, L.; Naushad, S.; Lamendour, L.; **Altintas, D.M.**; Breau, M.; et al. Osteopontin promotes age-related adipose tissue remodeling through senescence-associated macrophage dysfunction. *JCI Insight* **2023**, 8,
3. **Altintas, D.M.**; Comoglio, P.M. An Observatory for the MET Oncogene: A Guide for Targeted Therapies. *Cancers (Basel)* **2023**, 15,
4. **Altintas, D.M.**; Cerqua, M.; De Laurentiis, A.; Trusolino, L.; Boccaccio, C.; Comoglio, P.M. An mTOR feedback loop mediates the 'flare' ('rebound') response to MET tyrosine kinase inhibition. *Sci Rep* **2023**, 13, 1378.
5. Cerqua, M.; Botti, O.; Arigoni, M.; Gioelli, N.; Serini, G.; Calogero, R.; Boccaccio, C.; Comoglio, P.M.; **Altintas, D.M.** MET Δ 14 promotes a ligand-dependent, AKT-driven invasive growth. *Life Sci Alliance* **2022**, 5,
6. **Altintas, D.M.**; Gallo, S.; Basilico, C.; Cerqua, M.; Bocedi, A.; Vitacolonna, A.; Botti, O.; Casanova, E.; Rancati, I.; Milanese, C.; et al. The PSI Domain of the MET Oncogene Encodes a Functional Disulfide Isomerase Essential for the Maturation of the Receptor Precursor. *Int J Mol Sci* **2022**, 23,
7. **Altintas, D.M.**; Czibik, G.; Mezdari, Z.; Brehat, J.; Pini, M.; d'Humieres, T.; Delmont, T.; Radu, C.; Breau, M.; Liang, H.; et al. Dysregulated Phenylalanine Catabolism Plays a Key Role in the Trajectory of Cardiac Aging. *Circulation* **2021**, 144, 559-574.
8. Styles E. B.; Founk K. J.; Zamparo L. A.; Sing T. L.; **Altintas D. M.**; Ribeyre C.; Ribaud V.; Rougemont J.; Mayhew D.; Costanzo M.; et al. Exploring Quantitative Yeast Phenomics with Single-Cell Analysis of DNA Damage Foci. *Cell Syst.* **2016**;3:264-277 e210.
9. Mattarocci S.; Shyian M.; Lemmens L.; Damay P.; **Altintas D. M.**; Shi T.; Bartholomew C. R.; Thoma N. H.; Hardy C. F.; Shore D. Rif1 controls DNA replication timing in yeast through the PP1 phosphatase Glc7. *Cell Rep.* **2014**;7:62-69.
10. **Altintas D. M.**; Allioli N.; Decaussin M.; de Bernard S.; Ruffion A.; Samarut J.; Vlaeminck-Guillem V. Differentially expressed androgen-regulated genes in androgen-sensitive tissues reveal potential biomarkers of early prostate cancer. *PLoS One.* **2013**;8:e66278.
11. **Altintas D. M.**; Shukla M. S.; Goutte-Gattat D.; Angelov D.; Rouault J. P.; Dimitrov S.; Samarut J. Direct cooperation between androgen receptor and E2F1 reveals a common regulation mechanism for androgen-responsive genes in prostate cells. *Mol Endocrinol.* **2012**;26:1531-1541.
12. **Altintas D. M.**; Vlaeminck V.; Angelov D.; Dimitrov S.; Samarut J. Cell cycle regulated expression of NCoR might control cyclic expression of androgen responsive genes in an immortalized prostate cell line. *Mol Cell Endocrinol.* **2011**;332:149-162.

Last Five Years:

Total Active Impact Factor: 74.799

Average Active Impact Factor: 12.466

Manuscripts

1. Cerqua, M.; Comoglio, P.M.; **Altintas, D.M.** Untranslated rewiring: *MET* reveals a novel class of translationally activating fusions. Under revision at *Nature*.
2. Cerqua, M. et al.; & **Altintas, D.M.** Cancer-specific *MET* 5'UTR mutations hijack the Integrated Stress Response. Manuscript in preparation.

Grants & Fellowships

ERC Consolidator Grant candidate – project in preparation for 2025 submission.

AIRC-IG (Scientific Coordinator) | 1,407,000€ | 2021 – Present

Novel *MET* genetic alterations: unexpected roles in cancer progression and resistance to therapies.

Barts Charity Grant (co-PI) | £74,000 | 2024

Investigating ISR-driven phenylalanine metabolism in obstructive sleep apnea.

Fondazione Umberto Veronesi Fellowships | 33,000€/year | 2023 – 2025

Translational control of the *MET* oncogene.

French Ministry of Research PhD Fellowship | 45,000€ | 2007 – 2010

Funded doctoral studies on androgen receptor signalling in prostate cancer.

Mentorship and Leadership

- Supervised many postdocs, PhD and Master's students, guiding them in experimental design, data analysis, and manuscript preparation.
- Coordinated interdisciplinary collaborations across molecular biology, bioinformatics, and oncology.

Public Engagement & Science Communication

- Delivered invited talks at Lycée Stendhal Milano Science Forum and Outreach Series, focusing on the relevance and impact of research in human biology, oncology, and molecular biology.

Reviewer for Peer-Reviewed Journals

Actively review for peer-reviewed journals, including *Nature Publishing Group* and *Cell Press*.

Technical Skills

Domain	Expertise
Molecular & Cell Biology	CRISPR-Cas9 editing, RNA-seq, immunoprecipitation, FACS, molecular cloning, reporter assays
Genetics & Model Systems	Yeast models (<i>S. cerevisiae</i>), mouse models (<i>in vivo</i> ageing and tumour studies)
Computational Biology & Artificial Intelligence	Data mining (TCGA, GENIE, DepMap), motif discovery, predictive modelling, machine learning (e.g., Random Forest) and unsupervised clustering (e.g., hierarchical, UMAP), integration of clinical and molecular datasets