

## Aya Awad

Postdoctoral Scholar, Stanford Cancer Institute

 Curriculum Vitae available Online

### Bio

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#### BIO

I am a postdoctoral fellow at the Stanford Cancer Institute in the laboratory of Steven Artandi, where my research focuses on telomere biology and telomerase regulation in cancer. My work integrates molecular genetics, biochemistry, and cell-based approaches to understand how dysregulation of telomere maintenance promotes genome instability and tumorigenesis.

I received my PhD in Genetics from the Hebrew University of Jerusalem, where my doctoral research examined the molecular mechanisms by which telomerase activity and telomere structure are regulated at chromosome ends. Through mechanistic studies combining patient-derived cells and molecular analyses, I contributed to defining how telomere elongation and overhang dynamics are controlled.

At Stanford, my research centers on identifying regulatory pathways that control telomerase RNA maturation and activity, with a particular interest in discovering and characterizing small-molecule inhibitors targeting the telomerase pathway as potential cancer therapeutics. More broadly, I aim to translate fundamental insights in telomere biology into strategies for selectively targeting telomere maintenance mechanisms in cancer.

#### HONORS AND AWARDS

- STEP–GTP Fellowship for joint Israeli–Palestinian graduate training, Hebrew University of Jerusalem (2019–2021)
- Navon Fellowship for PhD Students from the Periphery, The Hebrew University of Jerusalem (2018–2021)
- Mochrik Award of Excellence in Genetics, Hebrew University of Jerusalem (2020)

#### BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Board Member, Science Training Encouraging Peace (STEP) (2023 - present)

#### PROFESSIONAL EDUCATION

- Doctor of Philosophy, Hebrew University Of Jerusalem (2022)
- Bachelor of Science, Birzeit University (2013)
- Master of Science, Bethlehem University (2016)
- Diploma in Science Teaching, Birzeit University (2013)
- BSc in Biology, Birzeit University (2013)
- MSc in Biotechnology, Bethlehem University (2016)
- PhD in Genetics, The Hebrew University of Jerusalem , Telomeres, Telomere Biology diseases (2022)
- Postdoctoral Training, Stanford Cancer Institute , Telomere Biology, Telomerase Regulation, and Cancer Therapeutics

#### STANFORD ADVISORS

- Steven Artandi, Postdoctoral Faculty Sponsor

## Publications

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### PUBLICATIONS

- **The many faces of the helicase RTEL1 at telomeres and beyond.** *Trends in cell biology*  
Hourvitz, N., Awad, A., Tzfati, Y.  
2024; 34 (2): 109-121
- **Science bridges political barriers.** *Cell*  
Awad, A.  
2023; 186 (6): 1088-1091
- **Inherited human Apollo deficiency causes severe bone marrow failure and developmental defects.** *Blood*  
Kermasson, L., Churikov, D., Awad, A., Smoom, R., Laine, E., Touzot, F., Audebert-Bellanger, S., Haro, S., Roger, L., Costa, E., Mouf, M., Bottero, A., Oleastro, et al  
2022; 139 (16): 2427-2440
- **An RTEL1 Mutation Links to Infantile-Onset Ulcerative Colitis and Severe Immunodeficiency.** *Journal of clinical immunology*  
Ziv, A., Werner, L., Konnikova, L., Awad, A., Jeske, T., Hastreiter, M., Mitsialis, V., Stauber, T., Wall, S., Kottlarz, D., Klein, C., Snapper, S. B., Tzfati, et al  
2020; 40 (7): 1010-1019
- **Full length RTEL1 is required for the elongation of the single-stranded telomeric overhang by telomerase.** *Nucleic acids research*  
Awad, A., Glousker, G., Lamm, N., Tawil, S., Hourvitz, N., Smoom, R., Revy, P., Tzfati, Y.  
2020; 48 (13): 7239-7251
- **Human RTEL1 stabilizes long G-overhangs allowing telomerase-dependent over-extension.** *Nucleic acids research*  
Porreca, R. M., Glousker, G., Awad, A., Matilla Fernandez, M. I., Gibaud, A., Naucke, C., Cohen, S. B., Bryan, T. M., Tzfati, Y., Draskovic, I., Londoño-Vallejo, A.  
2018; 46 (9): 4533-4545