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Position & Affiliation: Postdoc

Full Reference: Robert Lu, Alexander P Sobinoff, Christopher B Nelson, Hilda A Pickett. *Distinct modes of telomere synthesis and mitotic telomere lengthening in cancers engaging in Alternative Lengthening of Telomeres*

Conference/Meeting Name: EMBO Workshop – Telomere function and evolution in health and disease

Location: Troia, Portugal

Dates: 26/9-01/10/22

Presentation Type: Poster



The EMBO telomere conference is one of two major international telomere meetings that are held in alternative years. This meeting attracts all the major research groups in the telomere field and showcases the top telomere and associated research developments. Specifically, it covers the topics of telomere structure/function, telomere protection/replication and telomere maintenance mechanisms, telomere transcription and telomere biology disorders (genetic and in cancer).

I gained an invaluable array of knowledge on the latest work across the aforementioned telomere research topics. In particular, there was a new protein target of interest from one presenter that was of particular interest to me. This has led to future research based off their findings to follow-up on their observations.

Last day of the conference: Leaving the conference venue at Troia, Portugal but the weather was great!

My research had reached a bottleneck of pursuing new potential factors that could provide mechanistic explanation for my observations. One presenter provided novel evidence of an interaction between two proteins that is regulated during the cell

cycle. Consequently, I have a strong lead to pursue that will benefit the impact of my current research pursuit.

While the conference predominantly focusses on basic research, the conference has two sessions dedicated to telomere biology disorders and telomere maintenance in cancers. Of interest are glioblastomas of which several key histone mutations namely H3.3 G34R and ATRX mutations cooperate to inhibit KDM4B histone demethylase to promote ALT telomere maintenance. In addition to this example, the conference also highlighted other key targets in ALT that would be relevant to the wider SCP membership for treatment of gliomas.

The personal highlight for me was being able to see other lab heads in person and able to spread awareness of my new research findings to those within the ALT telomere research field.