**Name: Kristine Abayon**

Current Position: Graduate student

Current affiliation: Fred Hutchinson Cancer Center

E-mail: acortez@fhcc.edu

Anticipated postdoc start date: Fall 2024

**Professional Background**

Professional degree (actual or anticipated): PhD

Year degree received (or anticipated): 2022

Graduate Adviser: Dr. Anthony Stone

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| **Top Scientific Interests** | **Major Accomplishments** |
| Cell division | Secured postdoctoral fellowship |
| Interdisciplinary studies | Strong publication record |
| Cancer Biology | Leadership role in postdoctoral association |

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| **Top 3 Publications** |
| Microtubule cross-linking slows anaphase elongation and recruits other important proteins to the spindle. *Cellular molecular biology* 00*,* 000-000 (2022), doi:00.0000/cmb.X00-00-0000-X |
| Spindle elongation is a wild ride, so proteins must find a buddy and hold on tight. *Inside the cell* 00, 000-000 (2021), doi:00.0000/itc.X00-00-0000-X |
| Tubulin dynamics require specific proteins for the formation of a bipolar spindle. *Cells doing things* 00, 000-000 (2019), doi:00.0000/cdt.X00-00-0000-X |

**Full publication list:**

**LinkedIn:**

**Biosketch (~250 words or less)**

Currently, a graduate student in the laboratory of Dr. Anthony Stone at the Fred Hutchinson Cancer Center, my research interests are in understanding cell division mechanisms to identify new, more precise cancer therapy targets. During my PhD, I became adept at molecular biology, biochemical, and high-resolution imaging techniques to examine cell division, including spindle formation and elongation. I have elucidated the mechanism of a microtubule-organizing protein required for chromosome segregation and maintaining genetic fidelity that can be examined as a target for cancer therapies. I found that modifying tubulin tails impacts the strength of interactions of proteins at the surface and causes spindles to elongate rapidly, increasing bending and breaks, leading to increased cell death. I also discovered that the spindle crosslinker is important for recruiting other proteins to the surface of the microtubule spindle, impacting the crosslinked region. Integral to this project was establishing and fostering a collaboration with a bioinformatics group to mathematically model spindle dynamics over time during cell division and identify critical protein-protein interactions that I followed up and validated experimentally. This enabled me to gain experience in collaborative, multi-disciplinary scientific approaches.

In addition to my research, I have gained leadership experience as a graduate student co-chair of the Student-Postdoc Advisory Committee and mentorship experience through the Fred Hutch Science Education Partnership. I am motivated to leverage my research background, as well as my collaborative and leadership experience, as a postdoc in the areas of cell division and cancer biology, with an interest in interdisciplinary collaborations.