

Future Fund Impact report

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Phoebe Snow

Dear Funders,

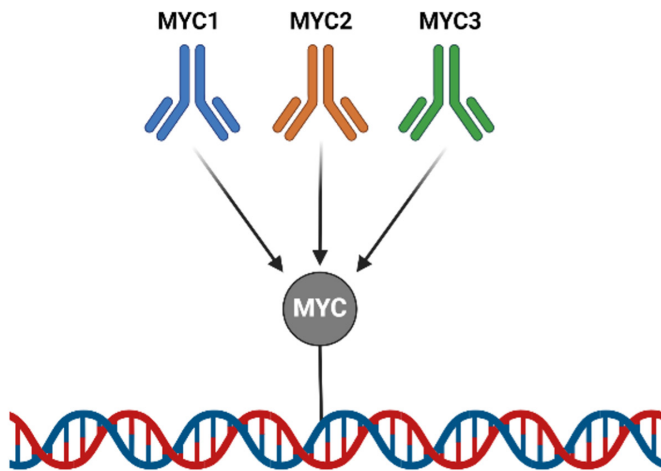
I am pleased to provide an update on the progress of my PhD research, made possible by your generous support. The initial aim of my research is to identify where my protein of interest, MYC, binds on the DNA.

To do this, I have been optimising a new technique which allows me to find where MYC is binding on DNA. To do this, I need an antibody that will find and bind to MYC. Central to the success of this experiment is finding an antibody that only binds MYC – a task made challenging by the novelty of the technique and the absence of any validated antibodies.

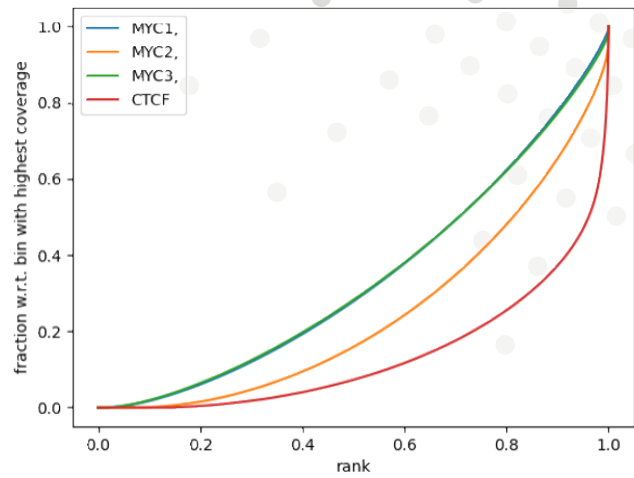
With your funding, I have been able to test three candidate antibodies (as illustrated in the left figure on the next page). My analysis, shown by the fingerprint plot on the right, indicates antibody success. A good profile is shown in red, and this was generated using an antibody that we know works well, but this binds a different protein.

The MYC2 antibody (depicted in orange) presents a profile with a noticeable elbow, telling us that it has worked better compared to MYC1 and MYC3 (depicted in green and blue overlapping) which show straighter profiles.





Candidate MYC Antibodies



Fingerprint plot showing MYC2 as best candidate

Based on these findings, I am continuing to improve the protocol by starting with different numbers of patient cells and adding different amounts of the MYC2 antibody. I look forward to sharing further developments with you as my research progresses.

We also have a lab X/Twitter account that we post to regularly if you wanted to follow and receive more updates: @LJRussell_Lab

Best wishes,

Phoebe Snow



Me preparing samples for sequencing in the lab