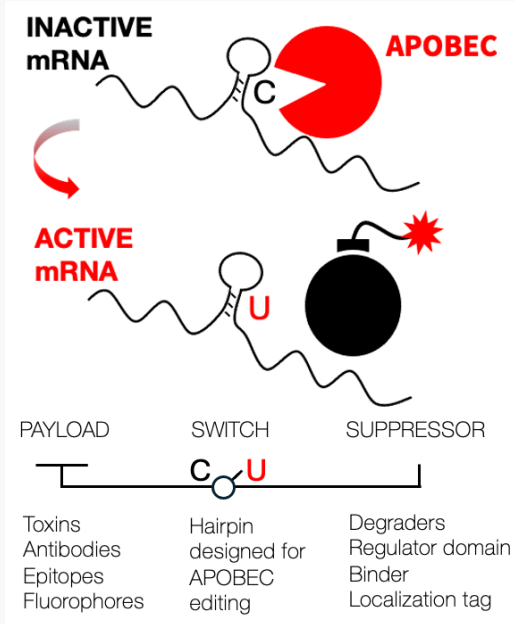
Activated mRNA Therapeutics

The Problem

- 1 in 8 cancers carry high levels of DNA damage from APOBECs.
- APOBEC-mediated DNA damage is particularly common in cancers of the bladder (>80%) and cervix (>95%), and head and neck cancers (98% of HPV+ and 76% of HPV- HNSCC) and EGFR+ NSCLC
- There are no approved treatments that target these enzymes

The Solution

- Our innovative platform delivers a synthetic lethal, cancer-selective mRNA therapeutic that spares normal tissues
- The modular nature of the system allows for a plug-and-play approach, enabling delivery of diverse payloads
- Our approach provides an in-built biomarker for patient selection



APObombs are mRNA therapies that are activated by RNA editing. Triggering the switch blocks translation of a suppressor and activates the payload

Our Program

- Progress: We have validated each modular element of our technology as well as assays to monitor activity of our APOBomb
- Next steps: preclinical models designed to test LNP mRNA delivery

We are seeking ***partnerships*** for 1) payloads for delivery to APOBEC+ cancers; 2) access to specialized delivery systems and large-scale manufacturing; 3) chemical synthesis to manufacture hybrid mRNAs

Our Team

A/Prof. Ian Majewski, Genetics and DNA damage, WEHI
Dr. Zhen Xu, Molecular biology, WEHI

Ewa Michalak, PhD, Business Development
michalak.e@wehi.edu.au