

SZ-SHD

*Follow our official account if you
are intrested!*



**SZ-SHD is an iGEM high school
team composed of students from both
Suzhou Dulwich International High School and Suzhou
High School(SSIP). It was set up in 2019.**

In 2021, our team were the high school 1st runner up. This year, our research focuses on the modification of *Escherichia coli* to secrete the outer membrane vesicle OMV-Ag-mFc carrying colon tumor antigens on its surface, so as to activate the immune system. In order to avoid immune tolerance caused by long-term antigen stimulation, it is planned to utilize the SulAp UV inducible promoter to control the release of vesicles, and to develop a matching miniature swallowable programmed UV light source to trigger expression at the desired location. We aim to solve problems with leaky expression of the SulAp promoter by using directed evolution to improve the ontogenetic element of SulAp. To address bio safety concerns, bacterial self-lysis will be induced using arabinose after treatment is completed.