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# An Exploration of CRISPR

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**Interface is offering a unique opportunity for students to learn about the family of DNA sequences, CRISPR, from a Stanford University research scientist!**

The top colleges will have many STEM applicants who have done the “usual” STEM activities -- taken many AP classes, competed in STEM competitions, and carried out research.

This class will help students stand out by giving them a “specialty” to tell the colleges about – gene modification – and, if they get published, by showing the colleges that they can communicate about science. Colleges want STEM students who are not only strong in their field but are strong communicators!

Students in the program will also be advised about additional ways they can pursue their interest in gene modification to further stand out in the application pack.

**This class is not just for students who want to major in a STEM field!**

## What the Class Will Cover

The class will introduce students to a variety of aspects of CRISPR, including:

- The history of genome editing
- How CRISPR is used as part of research
- How CRISPR is applied to cells both outside and inside the body to cure disease
- Embryo editing
- Next generation CRISPR tools
- How CRISPR can be used to fight cancer
- CRISPR and the creation of human-animal chimeras

Students will have about 20-30 minutes of reading for each class. This will include choosing reading from a selection of articles, so that each student can learn more about the specific areas of CRISPR that interest them.

At the end of the class, students will write a short piece (1-2 pages) about an aspect of CRISPR that interests them. Carston will review and comment on the articles.

Susan Goodkin, a professional writer who co-runs the Interface Writer's Workshop, will edit the papers and suggest places for the students to submit their work for publication. Susan will also talk to the students about other ways to build their resume based on their interest in gene modification.

### Class schedule:

Classes will meet a for one hour on the following dates at **9:00 a.m. (China time zone)**. Please check individual time zones for exact class date and time.

Saturday, February 6<sup>th</sup>

Sunday, February 21<sup>st</sup>

Saturday, February 27<sup>th</sup>

Saturday, March 6

Saturday, March 13

Saturday, March 20

Saturday, March 27

Saturday, April 3

**Instructor:** Interface is thrilled that Carsten Charlesworth, a Stanford PhD student in Stem Cell and Regenerative Medicine, has agreed to teach the class. Carsten has worked with a pioneer in the genome editing field, Stanford's Dr Matthew Porteus, and is currently working on the development of human organs in interspecies human animal chimeras in the lab of Stanford professor Hiromitsu Nakauchi, who pioneered the scientific technique that made this kind of research possible.

**This class will be kept small to allow for a lot of discussion, so please talk to your Interface sales representative ASAP to sign up if you want to reserve a spot!**