



Community Spotlight

Each Community Spotlight features an outstanding group, partner, resource, or member of our community.



Are you interested in learning about CRISPR-Cas gene editing technologies and how to implement them into your teaching?

CRISPR-Cas is precision genome editing technology that utilizes a short guide RNA molecule directing a Cas endonuclease to make a double stranded break in a specific genomic sequence. This break can then be repaired via a cell's own endogenous DNA repair machinery to make the researcher's desired genetic changes directly to the genome. What makes CRISPR-Cas so powerful is the relative simplicity of the system as compared to other genome editing methodologies. The CRISPR in the Classroom Network consists of educators who have successfully integrated CRISPR-Cas into their courses and are passionate about making CRISPR part of science education. This NSF funded project ([RCN-UBE #2120417: Bringing CRISPR-Cas9 Technologies to the Undergraduate Classroom: An Undergraduate Instructors' Network](#)) was designed to facilitate and support educators who would like to introduce this once in a generation technology into the classroom. The CRISPR in the Classroom Network can provide resources and knowledge appropriate for all levels of education, even middle and high school. Additionally, our [steering committee](#) (pictured below) has varied expertise in implementing CRISPR-Cas, and can provide the following resources:

- Hands-on CRISPR-Cas [workshops](#) to learn the theory and basic technique; the CRISPR-Cas mechanism, how to design CRISPR-base experiments and produce reagents such as repair templates and guide RNAs.
- [Kits](#) with verified CRISPR-Cas reagents and protocols to get your course up and running with straightforward and easy to use instructions to get you and your students familiar with CRISPR-based methods.
- [Mentorship](#) from fellow educators who have successfully implemented CRISPR in their courses using various popular model systems (zebrafish, C. elegans, Arabidopsis, and more) and differing pedagogies (first year students, in class activities, course-based undergraduate research).
- [Networking](#) and support from other educators who share similar goals and teaching interests involving CRISPR-Cas technologies with a goal of producing a repository of different "ready to use" resources.



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If you are interested in learning more or contributing to our CRISPR in the Classroom Network, please visit our [QUBESHub Group page](#) and consider joining our group. We are an inclusive community and welcome all who are interested in contributing at any level.

We are now accepting applications for our Summer 2023 workshop in Houston, TX. [Apply now](#) to join us here. Future workshop locations and tentative dates can be found under the [workshops tab](#). Come visit us at your next conference! We try to attend as many conferences as possible and love discussing potential collaborations and ideas. Conferences, both past and future can be found under the [networking tab](#).



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