

Creative Ways to Advance Student Research

Data Literacy

- Provide representative data to practice data analysis skillset by creating figures to encompass literature they've read or their project overview.
- Brainstorm novel ways to present data.
- Partnering undergraduate with graduate students for data analysis, which may lead to authorship.
- Develop coding skills (i.e. R, Python) to do more in-depth statistical analysis and make intricate graphs

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Technical Skills

- Video demonstrations including: bench techniques from current graduate students; research skills; lab equipment and protocols; how-to interact with participants; JoVE videos; how-to convey a research project.
- Create standard operating procedures.
- Host short, virtual workshops on a topic of interest (ie. CRISPR) to break down the purpose of the experiment, have a protocol take place and explain the procedure.
- Create an undergraduate manual for when entering a research lab.

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Primary Literature

- Review papers for undergraduate-graduate journals.
- Journal clubs for students to explain how to search for appropriate journals, how to review literature, organize it (i.e. Zotero folders), and write a literature review.
- How to search for appropriate funding sources; how-to formulate their own research question.
- Create forums/discussion groups for overall brainstorming opportunities.
- Have students find evidence-based information to update lectures.

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Knowledge Translation

- Creation of infographics
- Writing skills for the lay audience
- Virtual outreach activities
- Blog posts
- Short videos to highlight collaborative projects
- Workshops centered around creating presentations
- Connect with community organizations to develop community-driven projects



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Continued Learning

- Online workshops (i.e. LinkedIn Learning, Bioinformatics.ca)
- Ethics training
- EDI training
- Bioinformatics mentoring and workshops
- Interview and presentation skill workshops, including in an online environment (i.e. Zoom)