Announcement:

Dr. Alexander Weber, Assistant Professor in the Department of Pediatrics at UBC, will be giving a talk about **Reproducible Manuscripts**, and will also be giving a short tutorial of how to make one using Quarto.

*But what are 'Reproducible Manuscripts', and why should one write their next paper as one?*

A reproducible manuscript is a document that not only reports the scientific findings, but also provides all (or almost all) the necessary data, code, and methodologies required to create those findings (i.e. data and stats) in a transparent, and organized manner. This enables others to replicate and verify the results of your study independently. This approach promotes transparency, enhances the credibility of scientific findings, and allows for further exploration and validation of the research.

*Why should you write your next paper this way?*

* **To avoid errors.** A 2016 paper by Nuijten et al. (Behavior Research Methods) scraped thousands of Psychology papers between 1985-2013, and found that roughly 10% of p-values reported were inconsistent with the reported details of the statistical test (e.g. difference between the p-value and the test statistic meant that one implied statistical significance and the other did not). Nearly half of all papers had errors in them.
* **To promote scientific and computational reproducibility.** Essentially, other people can take your data and get the same numbers that you report in your paper. Even if you don’t have errors, it can still be very hard to recover the numbers from published papers because of ambiguities in analysis.
* **To create documents that can be revised easily.** Let's say your paper comes back with some minor revisions. Your results are generally the same, but now all your values have slightly changed. This is a major hassle as you now need to go back and re-write all your results and tables (and possibly figures), leading to an incentive never to rerun analyses because it would mean re-pasting and re-illustratoring all the numbers and figures in a paper. In contrast, with a reproducible document, you can just rerun with a tweak to the code.

*Want more reasons?:*

* Single source publishing: one document can convert to HTML, ePub, Word, LaTeX, PDF, more. AND, they can be formatted to publisher specific formats automatically.
* Encourages collaboration and knowledge exchange among researchers by providing a clear framework for understanding and building upon previous work (i.e. "Oh cool! How did they make that figure? OH I SEE!").
* Saves time and resources for both authors and readers by eliminating the need to request additional information or clarification on methods and results.
* Starting to become required by funding agencies, journals, and institutions that emphasize reproducible research.
* Increases the impact and reach of the research, as reproducible studies are more likely to be cited and built upon by others in the field.

Convinced? Then join us virtually or in person on **Wednesday, June 26th, 3-4pm at BCCHR Room 3113**, when Alex will go over these points, and show you a real-world example of his first foray into this brave new world.

**Zoom**: <https://ubc.zoom.us/j/66937179215?pwd=MWRKSVY4UEtMOEpTVkQxanYvMHhNZz09>

Meeting ID: 669 3717 9215

Passcode: 763994

*Learning Goals - By the end of this journal club, you should:*

* Know what a reproducible manuscript is,
* Understand some reasons why scientists should probably be writing their manuscripts this way,
* Know what Markdown, Knitr, Pandoc, LaTeX, Jupyter Notebook, R/RMarkdown, and Quarto are,
* Know the basics of the syntax for Markdown, R and Quarto are,
* See how to integrate author information, code, equations, tables, images, and citations
* Be able to start writing your next manuscript using Quarto Manuscripts, and convert to any format you wish (html, pdf, docx), including converting to paper-specific formatting.

See you there!