Ten simple rules for

Making a (great great) PIB at BiRC!

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Introduction

This is a quick guide; very much inspired by the famous 10 rules series of PLoS Computational Biology.

We still think it is a good read!
10 Simple rules ?!

Well, first & foremost...

The code is more of what you'd call “guidelines” than actual rules.
10 simple ...
Rule 1: Find a good match: project and supervisor(s)

- There are no good/bad supervisors but there can be good/bad match.
- Find a project topic that matches your interest so you can have some drive for the next 4-5 months.
Rule 2: Sketch the project and the contract

Is it going to be a Theory? Data Analysis? project??

• Be (crystal) clear about that
• Are the essential building blocks (eg data) available?
• Is this a project you can write clearly about? (2 paragraphs)
• If not ... think again ...
Cluster or no cluster?

- Do you need the use of the cluster for your project?
- Pros and Cons
- If you do not have much previous experience, time to get started ASAP
¿ Github or not Github?

- a worthy skill
- can be a PIB goal
- take the time to get used to Git
- ask around ..

Many tutorials and lots of R / python IDEs interfacing it
Rule 3: Start early

Nobody counts when you started your project but everything stops by end of May/December
So:

• Start early ..
• Read / write for yourself
• Ask Qs
Rule 4 Summarize your work, start to write early

- The more you keep electronic notebooks the easier it will be to “put it all together”
- Writing early about your stuff forces you to check how much you have digested / understood
Rule 5: Ask for help.. earlier than later

- Google it
- Ask Your fellow students, BiRC PhDs and post docs
- and your supervisor(s) off course
Rule 6: Monitor your own progress together

• Use your supervisor for regular meeting but
• More importantly use yourself and your fellow students. The more you present to each other formally / informally the more you can see clearly where you are going .. and where to go next ..
• Remember the mantra : “Remain Focused on Your Hypothesis While Avoiding Being Held Back (aka Rule 6)
Rule 7: Captivate your audience

- Prove your Scientific Independence!
- Do not worry so much about size (of the report)
- Write for a specific audience (aka the censor...)
To reiterate …

• Explain to someone proficient in bioinformatics but a complete stranger to your topic …

• Explain the context, the state of the art and “what is missing” (this is where you pitch in with your project topic).
Rule 8: Make nice figures and tables

The key to your bright future in academia / industry:
https://www.science.org/content/blog-post/2021-year-graphics
Rule 9. Have fun

Do we need to elaborate :0) ?

Hang the code, and hang the rules!
They’re more like guidelines anyway!
simple ...
Rule 10: think ahead … the MSc thesis