

## ◆先輩からのアドバイス◆

### How to write your first research paper

Your first research paper is always nerve-racking. The best way to start a research paper is to not overthink it. Start by scheduling your time for writing. Writing takes time and the more time you have; the more time can organize yourself and write. Once you have settled down, start by outlining your paper contents. Generally, following the IMRaD (Introduction, Materials & methods, Results and Discussions) rule should not go wrong. But if you're unsure, you could also follow the format requirements of your journal. Start by outlining what you want to include in each section. If you're stuck, try asking yourself questions. For example, why is this research important? What are your hypotheses and objectives? It can be a struggle to some people to start with Introduction first, so you could always start with Materials and methods. This is because everything you did during your experiments should already be in your lab notebook. When it comes to Results, always have a clear idea on how you want to present your results whether it's in form of a graph, chart, table etc. That way it becomes easier for you to refer when writing in text form. Presenting your results in an effective way also helps you to write your Discussions better. Remember to ask questions again, why did you get such results? Try comparing your results with other published papers. Conclude your Discussions by summarizing your answers to the research questions you asked in Introduction. Then indicate the importance of your work by stating applications, recommendations, and implications. If you're still unsure about your paper, ask and discuss with your advisor and peers. Submitting the paper may be another different process, but for now, let's celebrate the end of writing a research paper.

(Graduate School of Science and Engineering, D2)