

**Instructions for writing the thesis proposal (for students):**

- ❑ For proposal preparation:
  - Read essential papers of your field, and think deeply.
  - Demonstrate a solid understanding of general knowledge in the research field of the proposal
  - Familiar with the key papers/data that give rise to your proposed question
  - Clearly explain why the questions investigated in this proposal would be worth the efforts and would contribute to the field of research
  - Think about the possible approaches to address the solvable questions.
  - Formulate a hypothesis-driven mechanistic study based on preliminary or published data.
  - Preliminary results may be included but make sure all the figures and tables are of good quality and interpretable. Notably, the qualification will be decided based on your proposal not on your current progress (this is not a progress report!).
- ❑ For proposal writing:
  - Describe the rationales of why you choose the question(s) and how you would test the hypotheses and solve the problems.
  - Do not plagiarize your advisor's grant (Write your own proposal!)
  - Pick the best and avoid convoluted strategy.
  - For experimental designs
    - Aim to specifically answer one question.
    - Design appropriate experimental methods.
    - Not to be limited by familiar methodology.
    - Always include proper controls.
  - Point out the possible follow-up studies and alternative approaches.
  - Follow the format for grant writing.
  - Don't be too ambitious, aiming for a study to be done in ~3 years
- ❑ Other suggestions:
  - Seek help from all available resources (teachers, friends, library, web, etc.) on experimental methodology.
  - Not to stop bench work for more than one month to prepare for the exam.
  - Better to present the proposal to your advisor and colleagues early than late.
  - You should have the whole story when you turn in the abstract.