

# Hints for PhD Defenses

## (from the Medicine perspective)

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You are the expert and know more about the subject that you studied than anyone else in the room. Although your supervisor will be very knowledgeable, you have had the luxury to concentrate your efforts in the last several years largely in one area.

PhD defenses are generally not fully public (depends on the Faculty/Department), although members of the lab/office group often attend. Sometimes a family member attends but that can be a mixed blessing. It is nice to have their support but it might make you more self conscious and nervous.

### **The “Defense” consists of several parts:**

- 1) The Candidate and other members of the public present are asked to step out of the room so that the Pro-Dean and committee members can have a pre-defense meeting to determine the order of questioners, and they go over the portfolio of the candidate ensuring that he/she completed the necessary course work etc.
- 2) The candidate and members of the public are allowed back in the room and the pro-Dean introduces the candidate and committee
- 3) The candidate introduces his/her topic and then presents a summary of her/his work, 20 minutes in length, which can be interrupted by questions re: clarity from the committee. The candidate should indicate if they would be comfortable with interruptions.  
No more than 20 slides, plus a couple of "back up" slides with additional material in case of questions. The most effective way of not impressing your committee members mad is to come unprepared with a really long presentation and then madly skip through it as you run out of time.
- 4) Questions from the committee are largely based on the thesis although one or two might be based on the presentation. There can be one or at most two rounds of questions with each questioner having 8-10 minutes. More often the candidate is asked to look at figure X on page XX and then answer a question. There is generally an order to the questioners which is predetermined but traditionally the questions from the external are asked last and by the supervisor.
- 5) After the questioning, the committee meets in private to discuss the presentation and dissertation and comes up with a consensus evaluation.
- 6) The Pro-Dean then asks the candidate to come back in the room and he/she is presented with the outcome.
- 7) The candidate will gather all copies of the thesis and then in the coming couple of weeks make the modifications necessary that are recommended by the committee. These generally will be largely in the form of clarifications and corrections of minor typographical errors.

## Roles of the committee members

- The chair of the committee is the **Pro-Dean** and that person is usually from a different discipline/Faculty and is there to be on the student's side. He/she will make sure that no one monopolizes the questioning and that the student is treated fairly. The identity of the Pro-Dean is generally not known by the candidate until the defense. He/she may or may not have read your thesis, but will have read the abstract and acknowledgment.
- **External examiner.** Under the new McGill policy, you will know the name of your external (to the University, for a PhD) examiner. He/she almost never comes to the defense but does send in his/her written evaluation with a list of questions to be addressed. These are almost always asked last and by the supervisor. The supervisor can re-phrase the question if it is felt that the question is not clear. Often these questions are pretty specific to the field.
- **Internal examiner.** The person is usually from the Department/Faculty in question and may or may not have served on the advisory committee. He/she provides a written evaluation of the student. Suggestions for his/her name are submitted by the supervisor when the thesis is deposited. He/she is expected to be an expert in the area and topic of the thesis, though not necessarily to the same extent as the external examiner. He/she attends the defense and usually asks his/her questions second from last, but this depends on the department. Expect thoughtful questions as he/she will have read the thesis thoroughly.
- **Other examiners.** Two other examiners from the candidate's faculty are included in the defense. One is either the Chair of the Department or his/her representative. The other examiner will likely be from the Department but not a member of the thesis committee. They may/may not necessarily be an expert in all the subject matter covered in the thesis but likely will be knowledgeable about a component. The number depends on the department's norms.
- **Supervisor.** The supervisor often does not ask any questions other than those from the external examiner. However he/she can and sometimes does ask a question phrased in such a way to reveal that the candidate does know the answer to something asked by one of the other members but where the candidate either did not understand the question or got side tracked by something in the question so that the question was not answered clearly.

**Note:** While most of the committee will have read most of your thesis, you cannot assume that everyone has read every chapter.

The committee needs to be able to assess impact and depth of the work conducted. Usually, the committee has some idea of this before the defense, but whatever the student can say to make this assessment easier, perhaps just through emphasis, is likely to make the defense go much more smoothly.

Generally, the whole defense will not take more than two hours, but should take considerably less time. Part of the challenge of a defense is to convince the committee that you can summarize the important points of your work in a very limited time.

- Your presentation (and thesis) needs to address the following:
  - What is the **problem** you are studying?
  - Why is it **important**?
  - What **results** have you achieved?
- The most common types of questions are:

- For clarification of the figures in your thesis. Don't be offended when an examiner has multiple stickies throughout his/her copy of the thesis. These are often just to get something explained better.
- Something from the examiner's particular expertise. Looking up what your examiners (other than the external examiner) work on in PubMed or Google Scholar often gives you a heads up on this.
- What it is that the candidate is doing next.
- A big picture question. For example, you are working on a mouse model of a parasitic disease....  
"What is the impact of your study on children in Africa?"
- If not indicated in the thesis, some committee members will want to know if the work has been published and where and how it was received.
- Have a list of your thesis-related publications as a slide at the very end. Indicate any awards that a paper may have received. For most people, it's easier to list some honor than "brag" about it in person.
- If you have presented your work in a conference or at job talks, be sure to anticipate and address the most common questions you were asked there...as they just might recur at the defense.
- When presenting your contributions, be sure to use "I" and not "we" so that the committee will know what aspects of the work were yours, and which were group projects.
- Keep discussions of related work very brief, but be prepared to answer questions of the "how does this differ from so-and-so's work" succinctly.
- If you have multiple parts in your dissertation, consult with your supervisor as to what is the most important to present in the 20 minutes. If you are only presenting a portion of your work, indicate that at the start of your presentation so that the committee is prepared.

**Finally** - Expect a totally unexpected, out of the blue, question. Remember if you don't know the answer indicate that you don't, but that you might take a reasoned guess at a possibility.