Communicating Research: The Three Minute Thesis

Dr. Dennis R. Livesay
Professor of Bioinformatics and Genomics
Director, Bioinformatics and Computational Biology PhD Program
Director, Charlotte Research Scholars
Web: http://coitweb.uncc.edu/~drlivesa/
Email: drlivesa@uncc.edu
FROM THE UNIVERSITY OF QUEENSLAND WEBSITE: Three Minute Thesis (3MT®) is a research communication competition developed by The University of Queensland which challenges research higher degree students to present a compelling oration on their thesis and its significance in just three minutes in language appropriate to a non-specialist audience.

http://threeminutethesis.org/index.html

An 80,000 word thesis would take 9 hours to present. Their time limit...3 minutes.
Distill your research to its simplest level by answering the following questions:

-- What is the motivation behind your work?
-- Why is it an important problem?
-- Why should anyone care?

When communicating research, these are the important questions that you must absolutely convey to your audience.

Much of this content is shamelessly plagiarized from James Hayton’s excellent blog ([http://3monththesis.com/communicating-research-three-minute-thesis](http://3monththesis.com/communicating-research-three-minute-thesis)).
Remember, **first impressions count!** Your chances of leveraging your CRS experience into positive outcomes (i.e., getting a job or getting into graduate school) critically depend on your ability to clearly explain **why** and **what** you have done.

**NOTICE:** “How?” is not one of the important questions. Focus on the big picture and (mostly) leave out the technical details, which are reserved for follow-up discussion.

Much of this content is shamelessly plagiarized from James Hayton’s excellent blog ([http://3monththesis.com/communicating-research-three-minute-thesis](http://3monththesis.com/communicating-research-three-minute-thesis)).
Better than anything than I can tell you, the following examples do a great job of demonstrating what a good 3MT® looks like.

-- *Suspects, Science and CSI* by Matthew Thompson, University of Queensland ([http://www.youtube.com/watch?v=pvjPzsLlyGw&](http://www.youtube.com/watch?v=pvjPzsLlyGw&))

-- *Revolt, Revolution and Imagination* by Serbulent Turan, University of British Columbia ([http://www.youtube.com/watch?v=WdDGGgEhOrY&](http://www.youtube.com/watch?v=WdDGGgEhOrY&))

-- *Nanocantilevers and Medical Diagnostics* by Jennifer Campbell, University of Queensland ([http://www.youtube.com/watch?v=kuRw_4VSp44&](http://www.youtube.com/watch?v=kuRw_4VSp44&))
Typical research presentations
Or, what not to do!

Traditional 50-minute research presentations typically follow this sequence...

-- Overview of core principles
-- Brief summary of the relevant literature
-- Introduction to the methodology and analysis to be used
-- Results
-- Finally, conclusions

**MEANING, IT TOOK THE SPEAKER 45+ MINUTES JUST TO GET TO THE PUNCH LINE!**

While logical, most listeners will be bored to tears, especially when speaking to a general non-specialized audience.

This the problem with building a talk around a PowerPoint presentation instead of viewing it as a conversation with an audience.

You know when you’ve got it wrong when nobody but the chairperson asks a question at the end (because everyone else is thinking about lunch).

Much of this content is shamelessly plagiarized from James Hayton’s excellent blog ([http://3monththesis.com/communicating-research-three-minute-thesis](http://3monththesis.com/communicating-research-three-minute-thesis)).
The elements of a successful 3MT® presentation are:

-- Everyone in your audience should understand your presentation, without being familiar with the work beforehand

-- You can’t explain everything, so don’t try. The idea is to make them want to ask questions

-- Don’t just list what you did. It has to make sense as a conversation

-- If you were to stop after 3 minutes, they should know why your research is important, original and interesting

-- They should know, roughly, what you did and what the result was

Much of this content is shamelessly plagiarized from James Hayton’s excellent blog (http://3monththesis.com/communicating-research-three-minute-thesis).
Cut, cut, cut…

It can be useful to start by writing down what you want to say.

Your goal is to explain your research in less than 200 words.

It’s not easy, but be willing to cut, cut, and cut again until you can cut no more.

Much of this content is shamelessly plagiarized from James Hayton’s excellent blog (http://3monththesis.com/communicating-research-three-minute-thesis).
Judging criteria

**COMPREHENSION:**

-- Did the presentation provide an understanding of the background to the research question being addressed and its significance?

-- Did the presentation clearly describe the key results of the research including conclusions and outcomes?

-- Did the presentation follow a clear and logical sequence?

**ENGAGEMENT:**

-- Did the oration make the audience want to know more?

-- Was the presenter careful not to trivialize or generalize their research?

-- Did the presenter convey enthusiasm for their research?

-- Did the presenter capture and maintain their audience's attention?
**COMMUNICATION:**

-- Was the thesis topic, key results and research significance and outcomes communicated in language appropriate to a non-specialist audience?

-- Did the speaker avoid scientific jargon, explain terminology and provide adequate background information to illustrate points?

-- Did the speaker have sufficient stage presence, eye contact and vocal range; maintain a steady pace; and have a confident stance?

-- Did the presenter spend adequate time on each element of their presentation - or did they elaborate too long on one aspect or was the presentation rushed?
One key difference

In the formal 3MT® competition, presenters are allowed only a single slide to encapsulate what they are doing.

While maintaining the key elements of both, we are essentially creating a hybrid between the 3MT® and traditional poster session formats.

When talking to the judges, you will use the 3MT® format (three uninterrupted minutes) to summarize your research to the judges. This will be repeated for each judge.

In each case, you will an additional five minutes for technical Q&A.

Your discussions with other attendees will be less formalized, just like normal poster sessions.