Crafting the Introduction to a Scientific Presentation:

Create a mystery box
Our CLIMB curriculum of workshops on communication in scientific research:

1) Delivering scientific presentations and posters for impact: 
   *Make it stick with SUCCESs*

2) Crafting the introduction to a scientific presentation: 
   *Create a mystery box*

3) Communicating and collaborating across disciplines: 
   *Use simple words*

4) Displaying visual evidence in scientific presentations: 
   *Help viewers make valid scientific decisions*
Why are we focusing on a 10-minute presentation to a broad audience?

- to stretch your communication skills with a tough challenge:
  - to explain your research concisely and
  - to engage a broad audience
- to help you collaborate across your fields
- to provide a brief presentation for all to practice
How do you set up your intro?

The traditional introduction is boring

- background
  - full of acronyms and jargon
  - definitions (maybe)
- question
- hypothesis

This is dry and does not engage the audience.
Instead, set up a scientific story for your introduction

- A story helps to connect with a broad audience
  - they won’t be familiar with the context and jargon

- Set up a scientific story by creating a mystery box
  - Let’s view JJ Abram’s TED talk
How do you create a mystery box?

• help your audience to imagine
  ○ ex: a major problem will be solved with this new instrument

• explain why your research is significant
  ○ ex: the disease affects millions of people

• describe why your research is so fascinating
  ○ a unique or counter-intuitive research puzzle
Remember to address the *Curse of Knowledge*: make your ideas stick with SUCCESs

**S**imple: find and share the core message

**U**nexpected: get their attention – surprise or twist

**C**oncrete: help people understand – be specific

**C**redible: help people believe – give evidence

**E**motional: help people to care – inspire

**S**tories: share ideas to simulate and inspire
Communicate to **inform** and **inspire**

**Inform**
- concrete information
- visual and audio info
- details; raw data
- credible evidence

But, if you only inform, your talk may be:
- dry or flat
- random details
- lack meaning

**Inspire**
- significance
- stories & analogies
- cast a vision for future
- big picture

But, if you only inspire, your talk may be:
- vague
- ambiguous
- not concrete
The challenge is to go broad *and* deep

**speak to broad audiences:** use analogies and illustrations

**speak deeply:**
use 1 or 2 examples for the experts
For slides: pay attention to these details

- plan for 1-2 min/slide
  - for 10-min talk: 5-8 slides

- maximize the “info to ink” ratio

- don’t use serif fonts (e.g. Times New Roman)

- convert bullet lists into word tables (if possible)

- use message or question titles
Practice and get feedback

- pay attention to your physical stance
  - your posture affects your audience’s perception of you
  - and your performance as well
- View Amy Cuddy’s PopTech talk
- connect your spoken words with slides
- get feedback early and often
Your first practice: set up your intro

- select a research project with some results
- present your intro (few slides)
- explain up to your question and hypothesis

Scheduling

- Winter Quarter
  - Part 1: intro
  - Part 2: intro + design and methods
- Spring Quarter
  - Part 3: full presentations (videotaped)
  - individual mtgs for feedback