BATS – preparing for your talk

A strategic guide to help you craft your BATS talk
By the BE Communication Fellows
By defining your purpose, you will get more out of your BATS experience.

What is your goal for this talk?

- Gather feedback on project direction
- Develop collaborations
- Receive critical evaluation from outside scientists
- Connect your work to other fields

Your purpose should not be to show all your data.

Example (Tony K’s talk):

*Scalable screening of drug-adjuvant pairs with microfluidics* (spring 2014)

His purpose:

Receive feedback from outside scientists (microbiologists)

How to achieve his purpose:

Present simplified version of his technique so that scientists outside the field can provide input.
Tell one story; depth is better than breadth

Your audience will only remember a few big ideas from your talk; make sure all of your details fall under 1-3 themes or concepts.

Adapted from Jean-luc Doumont, *Trees, maps, and theorems*
A single storyline helps your audience follow the talk

One storyline aids understanding

- Need high-throughput screen for drug + adjuvant combinations
  - Use droplet microfluidics
    - Making droplets
    - Barcoding droplets
    - Reading output
  - Scalable screen for large libraries

Many stories can confuse

- Need high-throughput screen for drug + adjuvant combinations
  - Cost analysis
    - Readout systems
      - Optical vs DNA
      - Color combos
      - Scalability
    - Challenges
    - Current methods
      - Use droplet microfluidics
        - Making droplets
        - Production rate
        - Merging droplets
        - Reagent cost
        - Throughput analysis
          - Robotics
          - Plate screens
Your BATS audience is diverse; engage by providing a clear context and scope

- Present a clear context: why should people care?
- Divide into logical subsections:

**STRUCTURE**

Introduction
motivate clearly (WHAT and WHY)

Main
explain methods and describe results

Conclusion
summarize results and future plan

**EXAMPLE**

- **What**: scalable screen for drug + adjuvants
- **Why**: address limited discovery of new drugs

**Using droplet microfluidics**
- Making droplets
- Barcoding droplets
- Reading output

- Scalable screen for large libraries
- Future plan for preliminary studies
Use your body and voice to connect to your audience

- SPEAK slowly and clearly
- FACE the audience
- Keep your FEET grounded but don’t be afraid to move around
- Make EYE CONTACT with the entire room
- Use a LASER POINTER, but only when needed

Be mindful of your words and movements; they can be distracting.

Adapted from www.presentermedia.com
Slide design matters; present only one concept per slide

The **title** conveys the main message of the slide (the so what)

**No frivolous additions** or unnecessary data are used – only figures that are discussed

**Don’t just copy figures** from Matlab; help the audience see what’s important from your data

The **text** serves to support the message, not act as a script (make sure font size is large enough!)

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**Optical barcoding scheme is easily scalable to ultrahigh library complexity (>384 combinations)**

- Only 9 colors needed for library of 96
- Only 11 colors needed for library of 384

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**Ask yourself:**

- **What is the point of this slide?**
- **Does the title convey the “so what”?**
- **Will I actually discuss every figure?**
- **Does my text enhance the slide, not serve as a script?**
Checklist

**Preparation**
- **2 weeks out:** prepare outline
  - Decide on topic, title, and thesis statement
  - Draft out slide titles or flowchart
  - Decide where data figures will be placed
- **1 week out:** get feedback on outline
  - Schedule BE Comm Lab appt
  - Email slides to BE Comm Fellow
- **3 days out:** schedule practice talk and make list of potential audience questions

**Slide content**
- **Intro (2-3 minutes)**
  - Attention getter
  - Preview of the presentation
  - Main message (one sentence you want your audience to remember)
- **Main (9-10 minutes)**
  - Explain methods (don’t get caught in details)
  - Describe results (were they what you expected? what do they mean?)
- **Conclusion (2 minutes)**
  - Summarize results and conclusions
  - Present your future plan
  - Stimulate audience to think ahead
- **Acknowledgements (should be brief)**
Use the BE Communication Lab early and often

BE Communication Lab

Helping you communicate effectively.
Staffed by the BE Communication Fellows, the BE Communication Lab offers writing and speaking support for scientists by scientists.

Course 20 undergraduate students, graduate students and post-docs are invited to bring in any communication-related pieces they are working on – from coursework and posters to resumes and publications.

We encourage students to book an appointment at any stage in the writing process – the sooner the better. In addition to offering coaching, the BE Communication Lab runs workshops and is building an online tool box to help you find tips and resources quickly to help you communicate more effectively.

NEW!
We are excited to now offer the BE Communication Lab Certificate to students who have shown a commitment towards improving their communication skills.

be.mit.edu/communicationlab