**How to design a scientific poster**

* General principles for communicating science
  + Keep the audience in mind
    - Accessibility!
  + Keep the medium in mind
  + Storytelling

DESIGNING A POSTER – THE BASICS

* Content structure:
  + Introduction
    - motivation for study
    - explicitly stated research question
  + Methods
    - Graphics & bulletpoints to describe task, setup, etc.
  + Results
    - Data plots of results
    - Few bullet points if necessary
  + Conclusions
  + Acknowledgements, references, contact
* Graphical structure:
  + Check formatting instructions
    - Portrait vs. Landscape
    - Maximum size
  + Break up space
  + Follow natural flow
    - Left-to-right, top-to-bottom
  + Large title that gives away main message
  + Graphics > text
    - Plots with predictions for Introduction
    - Drawings, diagrams for methods
    - Data plots for results

GRAPHICAL DESIGN

* Color
  + Help make your story easier to follow
    - one color per concept, condition, ...
    - Intelligibility > visual appeal
  + Accessibility for the color-blind
    - use redundancy, color should not be the only thing to convey certain meanings
    - check with color-blindness simulators: <https://www.color-blindness.com/coblis-color-blindness-simulator/>
* Scale and proportions:
  + Text-to-figure ratio
  + Large enough fonts
    - Title: 70-100 pt
    - Headings 40-60 pt
    - Body of text 30-40 pt
    - Figure descriptions, references 20-25pt
  + Whitespace between sections and graphics
* Simplicity:
  + Simple color schemes
  + Common fonts

TOOLS

* For the poster
  + PowerPoint
  + Google Slides
  + Adobe Illustrator
  + Markdown languages (RmarkDown, LaTeX)
* For diagrams and illustrations:
  + Inkscape
* Graphics databases:
  + <https://biorender.com/>
  + https://thenounproject.com/
* Data graphics
  + R, Matlab, Python
  + Excel
* Printing
  + Arrange ahead of time
  + Choice of materials:
    - Paper (prettier, harder to transport)
    - Fabric (easy to transport)
* Transport

PRESENTING

* + Be ready to walk visitors through your poster
    - 2-5min full story
    - „elevator pitch“
    - Practice
* Sources and further reading
  + <https://blog.addgene.org/guide-to-designing-the-scientific-poster>
  + <https://www.calliechappell.com/blog/scientific-poster>