A Research Poster

A large sheet on which

the presenter displays (the results of) their research

in a clear, concise and visually appealing manner

Origin of scientific posters

- The first posters appeared in the late 1960's
- "Prepared cards" with pictures, graphs, diagrams and tables

- "Poster session" was introduced in the 1970's

- Nowadays, almost all conferences in different disciplines have poster sessions

Root reasons to make a poster

1. Communicate my research findings
2. Promote networking
3. Facilitate meaningful discussion among conference attendees
4. Future co-operation?

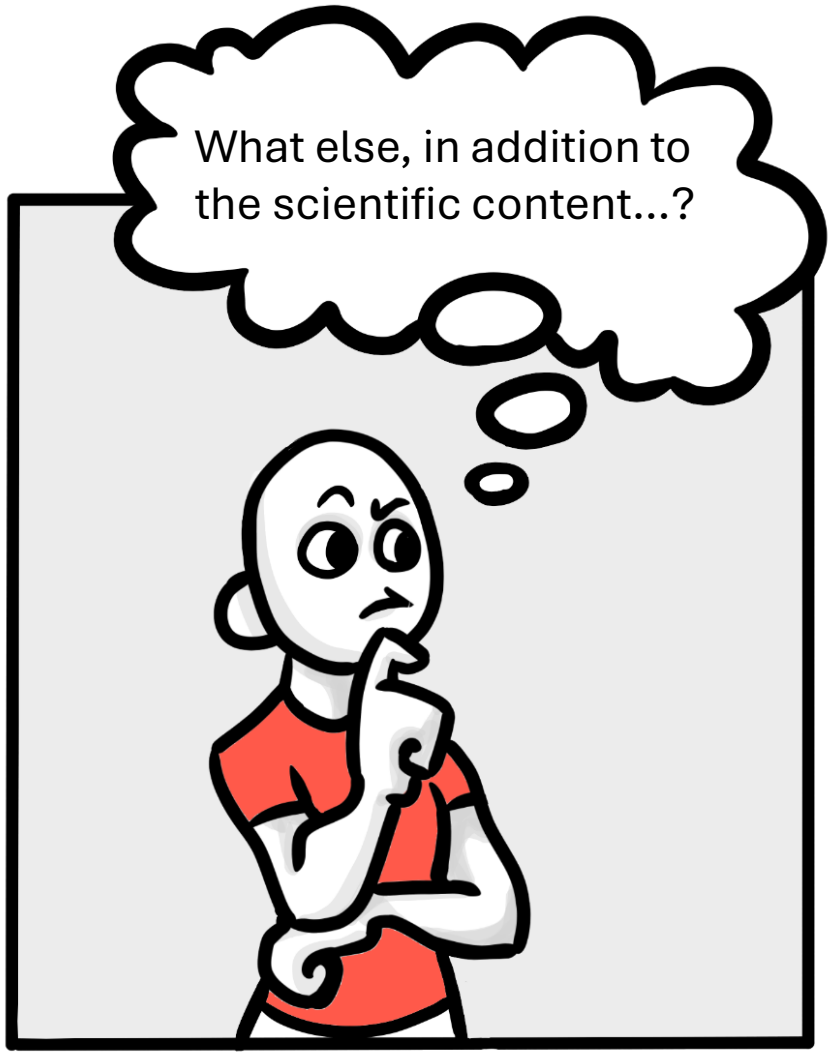
Basic questions

1. What is my **key message**?
2. What kind of **reactions** I want to evoke?
3. What kind of **audience** do I have?
4. What kind of **co-operation opportunities** you are looking for?

- What could be the most effective way to tell my key message to the target audience?

    1. Will the people notice my poster?
    2. Do they become curious and interested?
    3. Do they come and discuss?
    4. Can we do something together in the future?

Framework issues to consider



- **Size** of the poster wall, required **format**, or other limitations ?
- **Printing** (if needed) and **transport** to destination
  - Costs?
  - Does the poster fit in a suitcase, poster tube, etc.

➢ **Size and shape** of the poster
  - ➢ Poster walls are often for A0 or A1 size posters
  - ➢ Rectangular/ square / other shapes

➢ What **software** can be used?
  - PowerPoint / Adobe Illustrator / Photoshop / InDesign / Open source alternatives…

➢ Sheet **material**
  - Paper / Fabric / Something else

Once the basic message, target audience and constraints are clear, how to make the best possible poster within them?

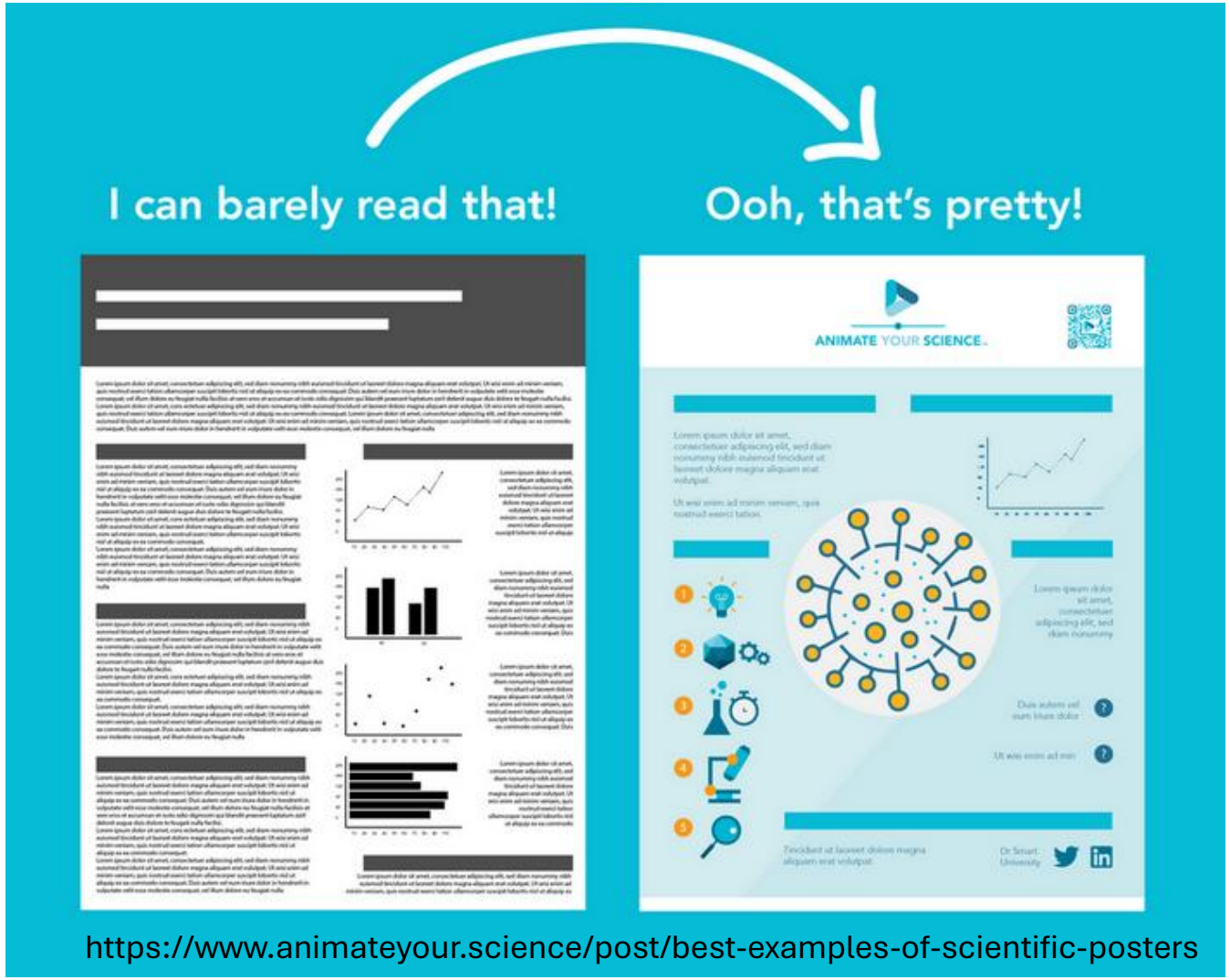
Remember

- Layout
- Content
- Readability
- Special effects
- Getting feedback

1. Introduction

What makes people come to your poster?

1. Something that looks interesting
2. Title in the list of posters
3. Poster pitch (if there's any)



https://www.animateyour.science/post/best-examples-of-scientific-posters

2. Content

Poster ≠ scientific article

- No abstract needed
- No long chapters
- Focus on the main findings
- You may add QR code that leads to supplementary information

- Key message
- Figure(s)
- Contact information

3. Readability

3.1 FONT STYLE

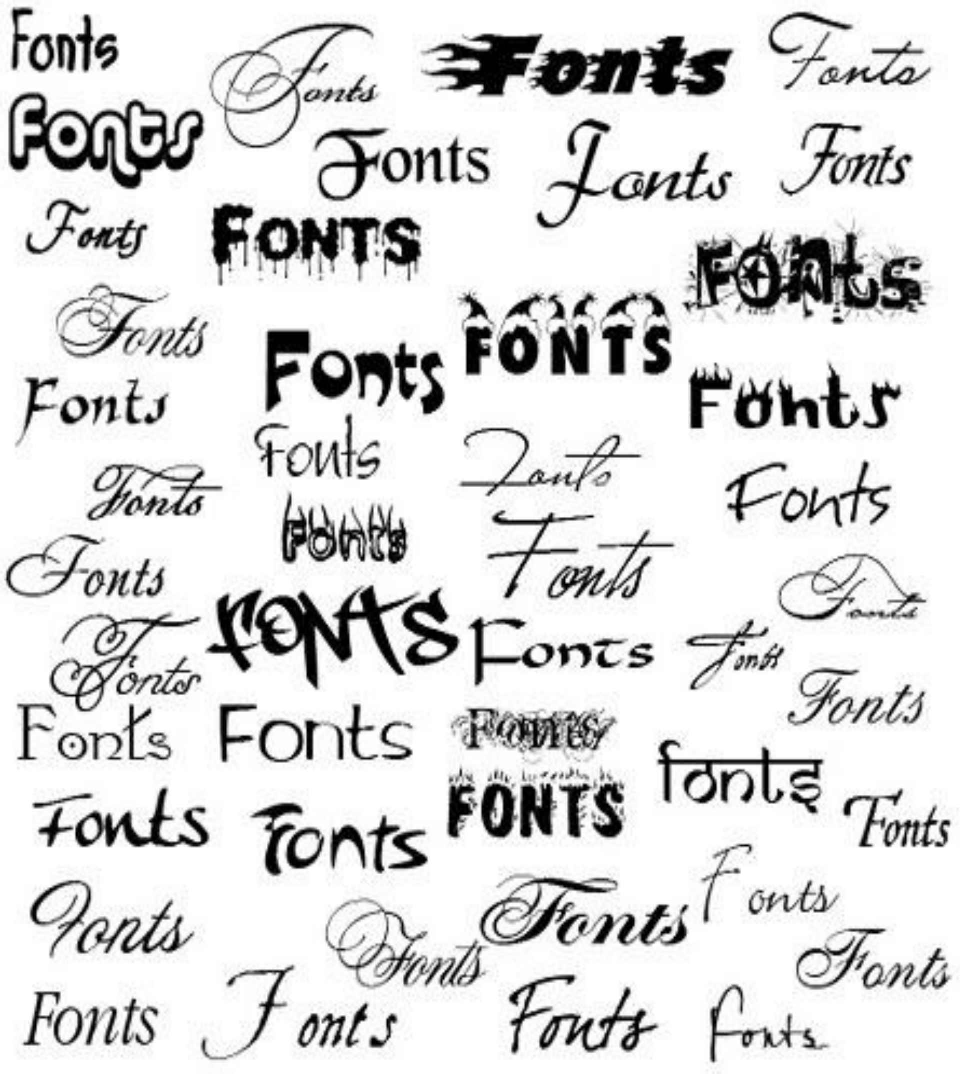
- Use easy-to-read font
- Do not use too many different fonts

3.2 FONT SIZE

- Use big enough font
- Do not use too many different font sizes

3.3 COLOURS

- Use easy-to-read colours
- Also colour blind people should be able to see and read your poster!



4. Layout

Project logo

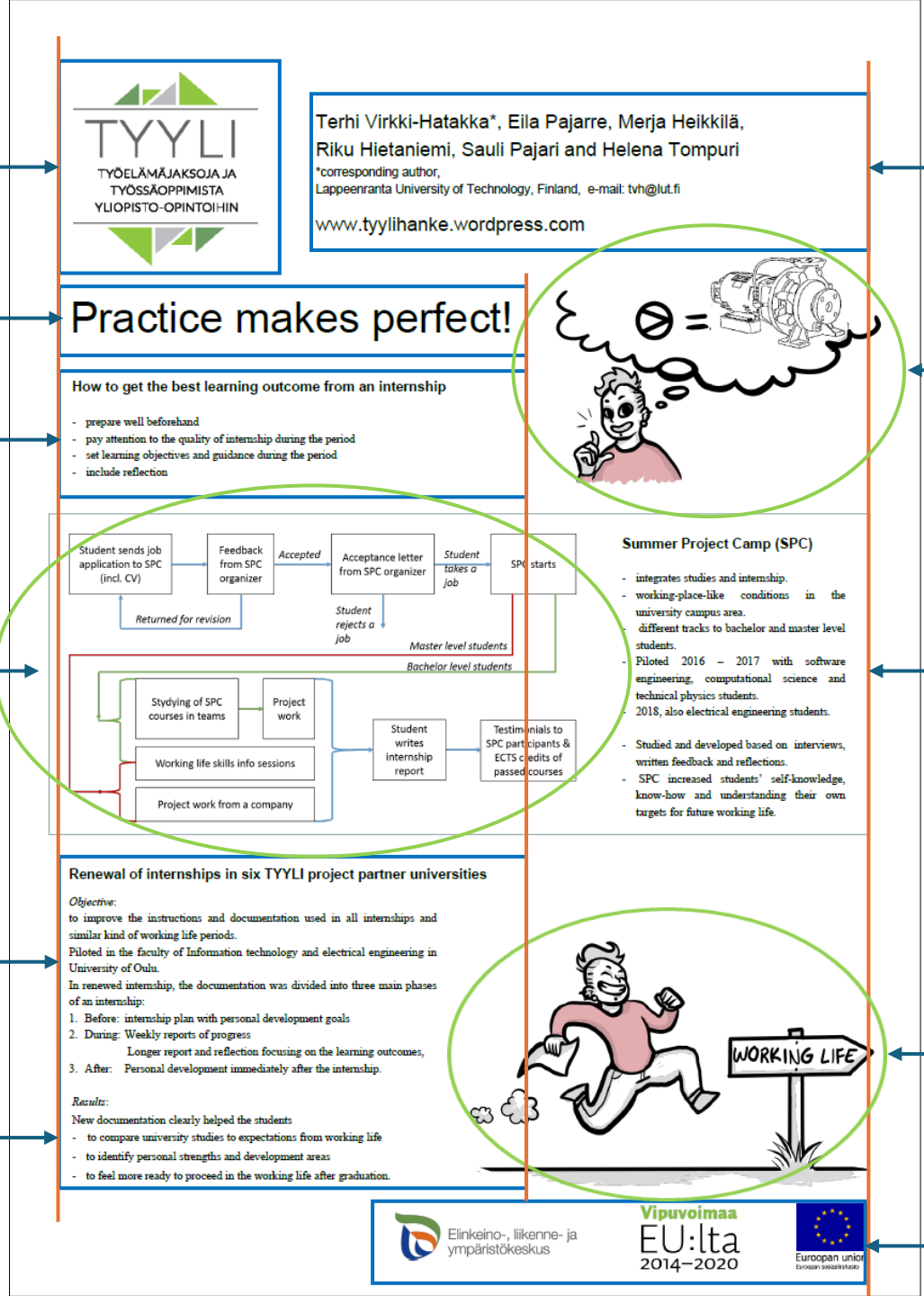
Title

Short description

Process flow chart

Objective

Results



Authors, contact information

Illustration

Pilot case explained

Illustration

Sponsor logos

Terhi Virkki-Hatakka 8.4.2025

Examples of different layouts and colour use

A topical gel for biofilm-associated respiratory tract infections- translation from bench to bedside

THE UNIVERSITY of ADELAIDE

Katharina Richter[1,2], Nicky Thomas[2], Tom Coenye[3], Sarah Vreugde[1]

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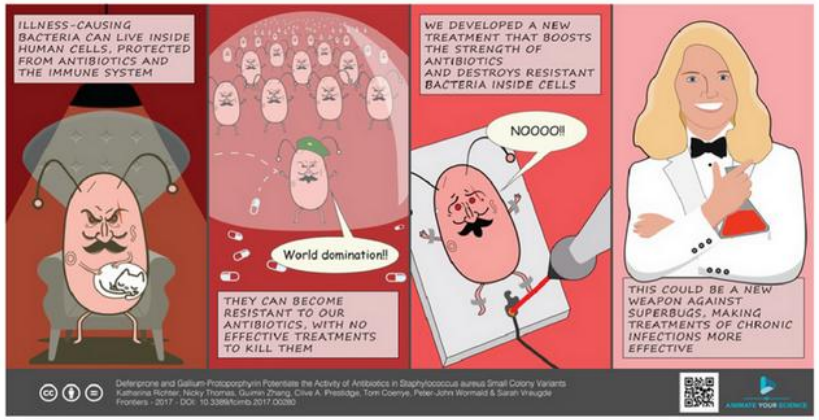
3 Laboratory of Pharmaceutical Microbiology, Ghent University, Gent, Belgium

ANIMATE YOUR SCIENCE

the hospital research foundation
finding cures improving care



Background

S. aureus forms biofilms and small colony variants (SCVs), which hide inside human cells, thereby surviving the immune attack and antibiotics[1]. Best medical care (long-term antibiotics, surgery) is ineffective resulting in recurring infections, significant healthcare costs and low quality-of-life[2].

Aim & Methods

Preclinical validation of a novel treatment comprising the iron-chelator deferiprone (Def) and the haem-analogue gallium-protoporphyrin (GaPP) against antibiotic-resistant S. aureus biofilms and SCVs[3].

Results

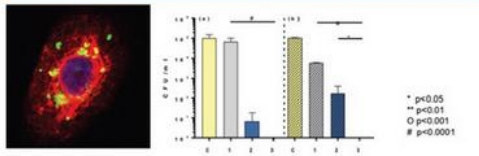


Fig. 1: Intracellular SCVs (green) in a human cell (red-blue). Infection assay: **Def-GaPP-Gentamicin eradicated intracellular (a) and extracellular (b) SCVs.** C: untreated control. Treatment 1: gentamicin (Gent), 2: Def-GaPP, 3: Def-GaPP-Gent.

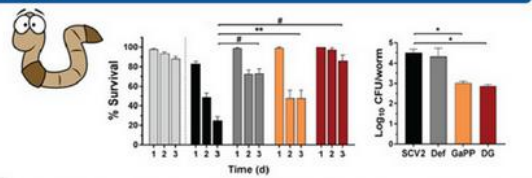


Fig. 2: C. elegans infection model: **Def-GaPP significantly increased the survival of worms infected with SCVs**. Uninfected controls (light grey). Worms infected with SCVs (black) and treated with Def (dark grey), GaPP (orange) or Def-GaPP (red). **GaPP and Def-GaPP significantly reduced the bacterial load per worm.**

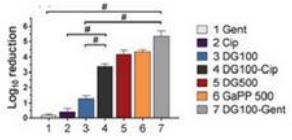


Fig. 3: Colony biofilm model: **Def-GaPP potentiated the antibiofilm activity of Gentamicin and Ciprofloxacin against resistant S. aureus.**

Conclusion

Def-GaPP showed significant activity against S. aureus biofilms and intracellular SCVs, and potentiated the potency of Cip and Gent against resistant strains[3]. **Delivered in a wound healing gel, Def-GaPP progressed to a first-in-human pilot study for the treatment of chronic rhinosinusitis at The Queen Elizabeth Hospital in Adelaide, Australia.**

References

1 Garcia LG, et al. J Antimicrob Chemother 2013;68(7):1455-64.
2 Chronic respiratory diseases in Australia. Australian Institute of Health and Welfare, 2015.
3 Richter K, et al. Front Cell Infect Microbiol 2017;7(280).

Acknowledgements

Funded by The Hospital Research Foundation and the National Health and Medical Research Council, Australia [grant number NHMRC: GNT1090898].
KR and SV hold a patent on Def-GaPP for topical antimicrobial applications.

adelaide.edu.au THE UNIVERSITY of ADELAIDE University of South Australia GHENT UNIVERSITY seekLIGHT

Logo **Title offset 2/3 to the right**
obeys the rule of thirds!

Authors and affiliations

Logo QR code Logo

Graphical abstract
the bigger the better!

Banner heading 1 | Banner heading 2

Text | Text

Banner heading 3

Figures and legends

Banner heading 4

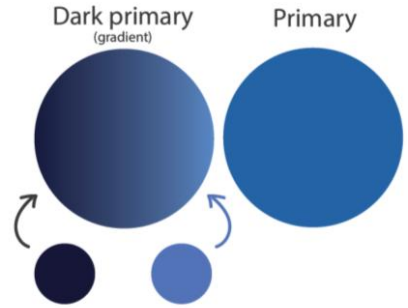
Text

Banner heading 5 | Banner heading 6

Text | Text

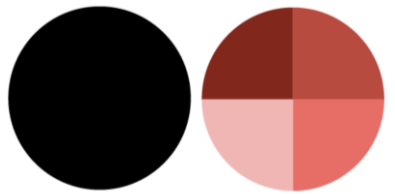
Other logos

Colour palette



Background

Text Accents



SIZING UP THE CRAB INVADERS!

Morphometrics for *Carcinus* spp. can assess population variability & may assist with species identification

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@reneecampbellart

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CRUSTACEAN DOMINATION

European shore crabs - some of the most widespread marine invasive species worldwide. Two species in the genus:

Carcinus maenas (Atlantic) & *C. aestuarii* (Mediterranean)

Prey on native & commercial species = impacts!

WHICH CRAB IS WHICH?

Taxonomy & population biology: may assist management
Morphometrics: quantitative analysis of shape & form

Carcinus species not confirmed in South Australia

Can assess taxonomic ID & local population variability

Populations: Variation due to life-history or plasticity

Species ID: Potential insight into hybridisation, adaptation or source populations

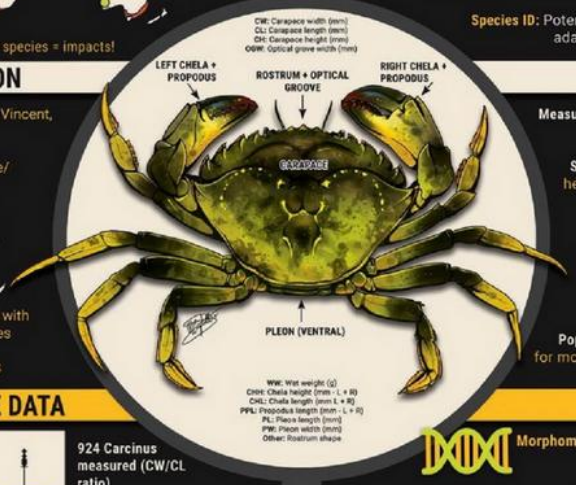
CRAB COLLECTION

Field sites: Coast of Gulf St Vincent, South Australia

Habitat regions: Rocky shore/ estuary, port & mangroves

Specimens: Crabs collected with baited traps & time searches

Seasonal from 2012 - 2018



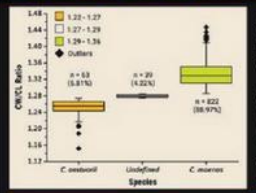
MEASUREMENTS

Measurements: Digital callipers used for morphometrics

Species ID: Carapace ratios can help identify species (based on previous literature)

Population: Multivariate analyses for morphometrics between regions & sex assessed

A LOOK AT SOME DATA

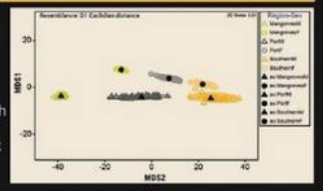


924 Carcinus measured (CW/CL ratio)

Higher proportions of *C. maenas* than *C. aestuarii* ($p < 0.05$)

Species not certain as female ratios are more variable

MDS + bootstrap averages for 12 morphometric features



Differences for both sex & region - male crabs most distinct in mangroves

CW & CL - strongest drivers behind these differences
Mangrove crabs tend to be larger = more distinct grouping in MDS

SIMPER Analysis

Mangroves mean similarity	Port mean similarity	Rocky shore mean similarity
88.85%	84.92%	79.69%

Major contributions - carapace width (~18%), carapace length (~14.5%), right chela length (~9.5%)

WHAT'S NEXT?

Morphometrics - influenced by sex, so species ID inconclusive

Population: Morphology distinct across regions + sex

Potential adaptations to habitats + life history (dispersal)

Population genetics will be assessed - connectivity & gene flow

Species ID: CW/CL ratios suggest both species are present in SA

Sex & intraspecific variability can influence ratios - unreliable?

DNA: species being confirmed with DNA barcoding (COI gene)

IMPLICATIONS

SA's Mediterranean climate - ideal for *C. aestuarii* establishment, or plasticity for *C. maenas*

Habitat use & potential range expansion - concerns for management of this global invader

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Photo

Twitter handle

Catchy main title

Subtitle and authors

Logo

Email

Banner heading #1

Figures and text

Banner heading #2

Figures and text

Banner heading #3

Figures and text

Banner heading #4

Figures and text

Big crab!

Banner heading #5

Figures and text

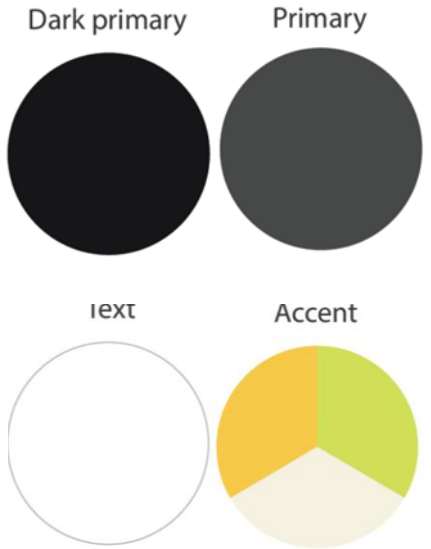
Banner heading #6

Figures and text

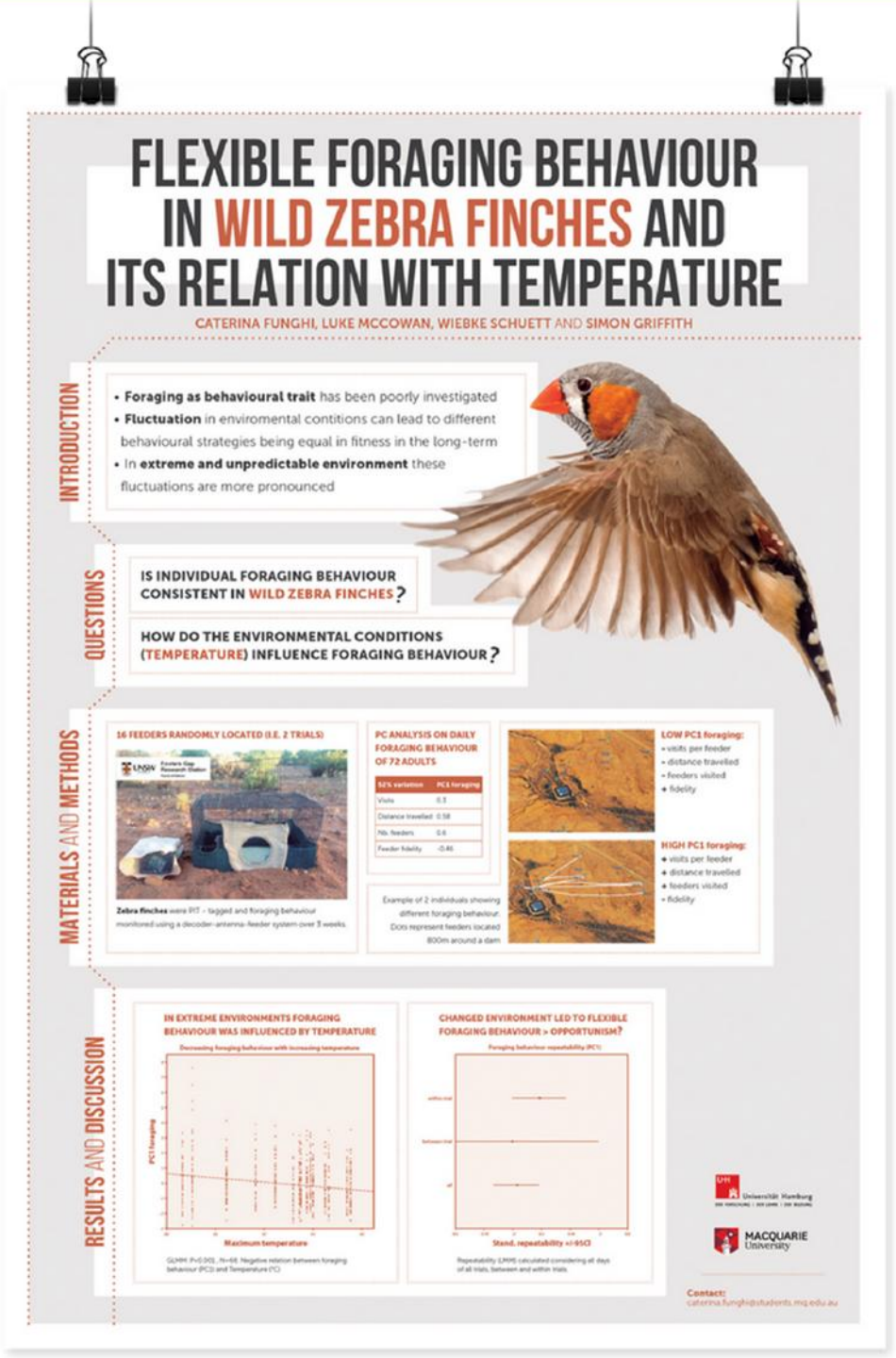
Text

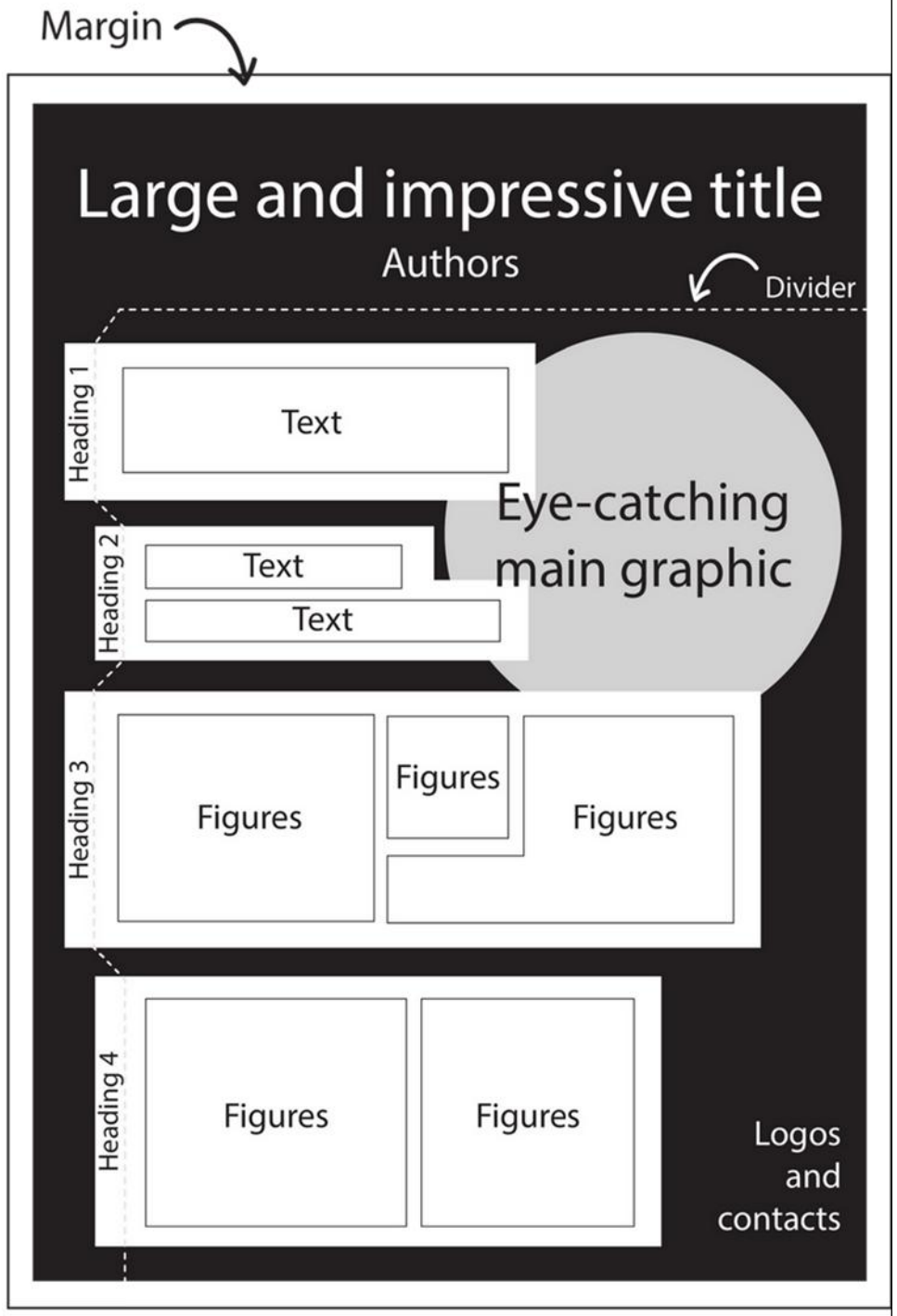
Text

Colour palette



https://www.animateyour.science/post/best-examples-of-scientific-posters





Colour palette

Dark primary

Primary

Text

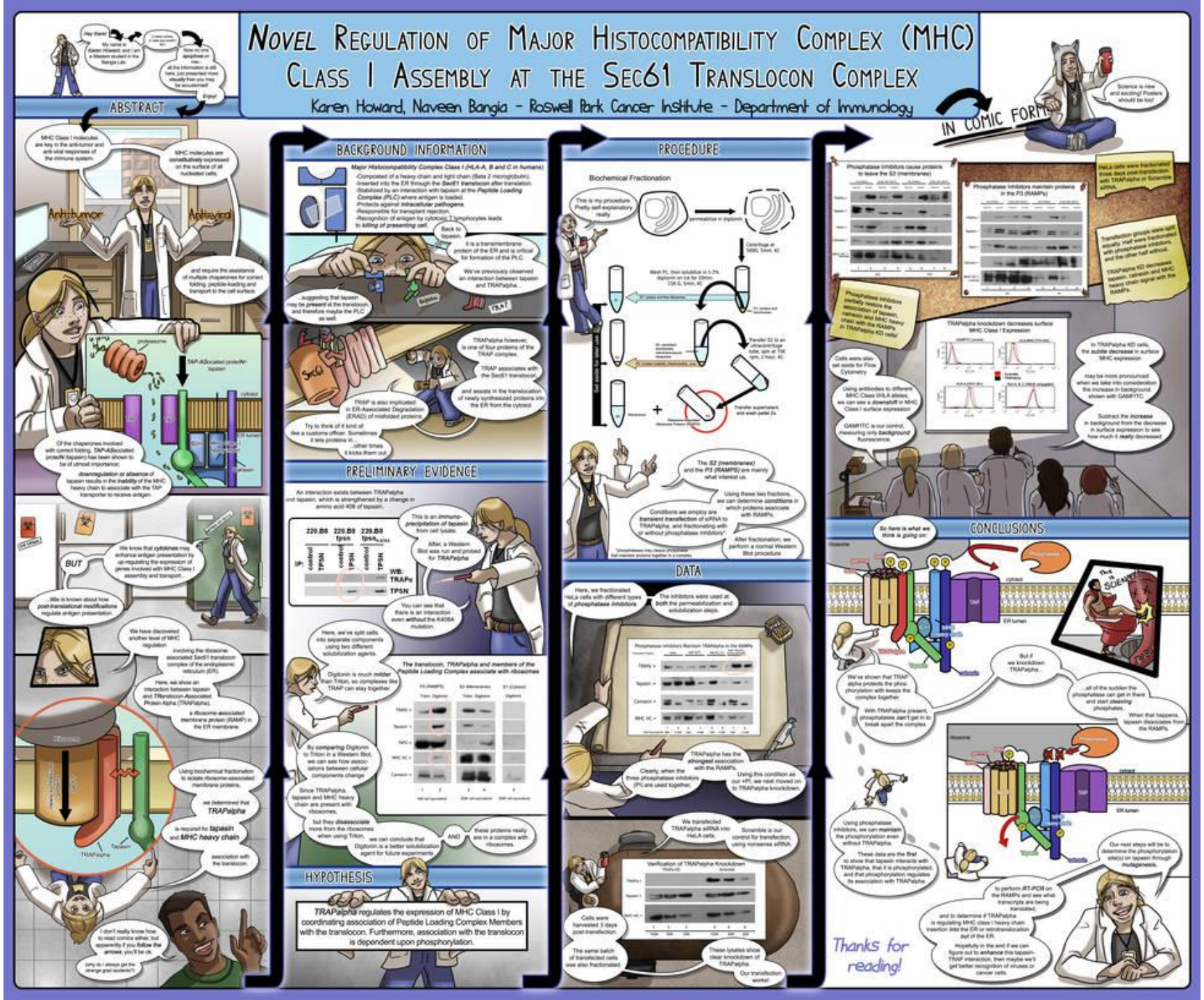
Accent

https://www.animateyour.science/post/best-examples-of-scientific-posters

Something attention grabbing:

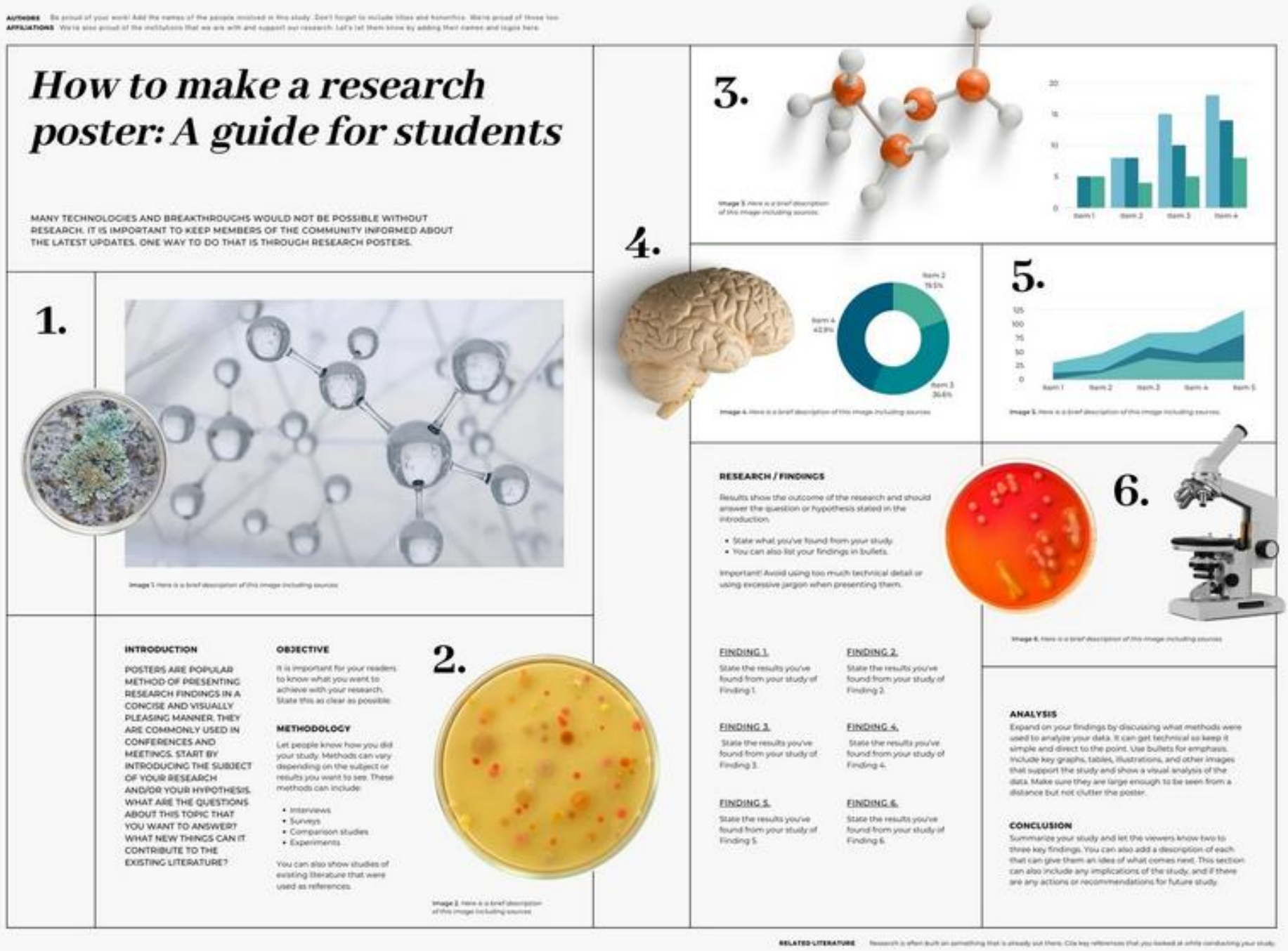
Poster in comic form

https://www.deviantart.com/kezhound/art/Comickly-Scientific-Poster-169670945



Ready-made templates

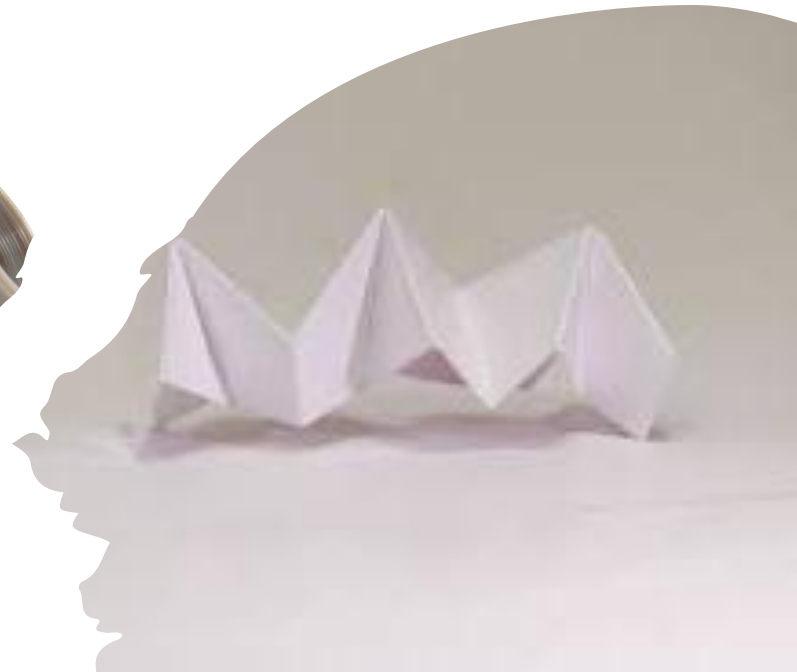
- A lot of different ones can be found
- Consider if they are suitable for you or not
- Think about your key message first!

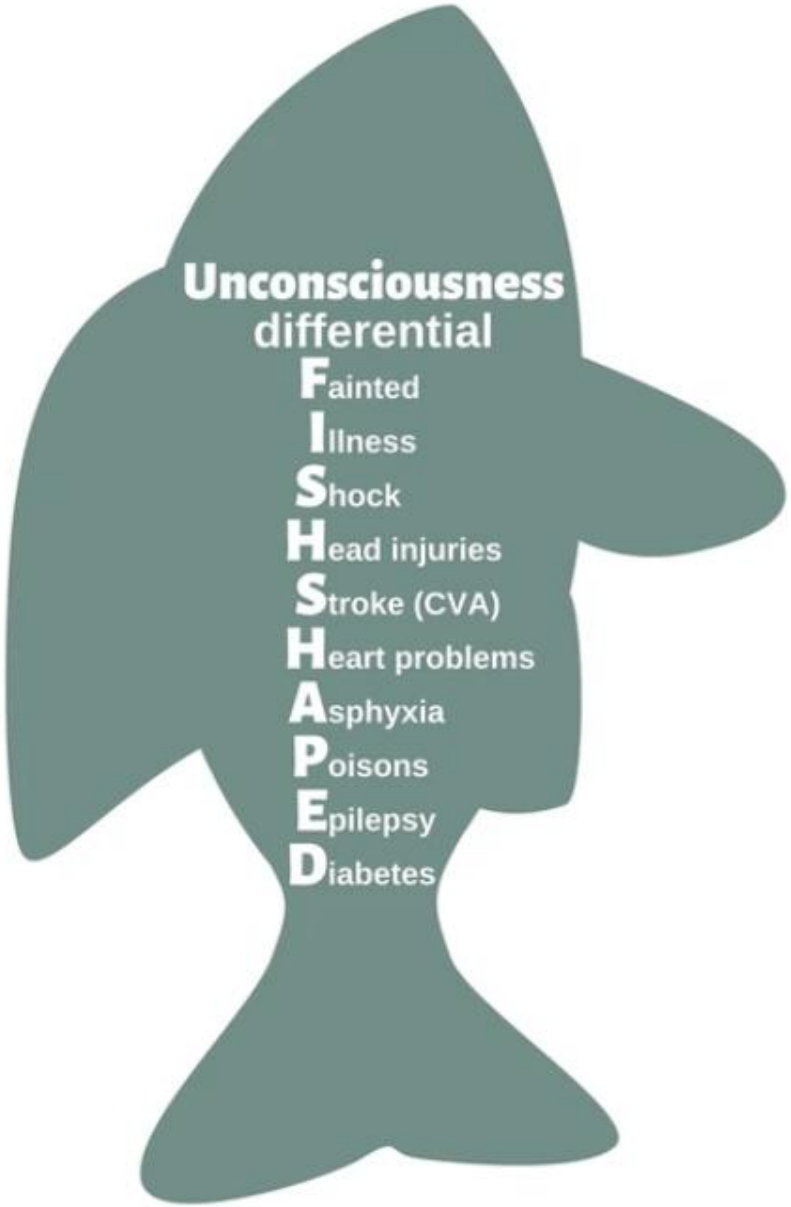


https://www.canva.com/templates/EAEgsNRnEyw-white-contemporary-editorial-landscape-university-research-poster/

5. Effects that highlight your message

- Shape of your poster
- 3 dimensional objects





5.1. Shape of the poster

- The usual way
  - Rectangular
    => A0, A1, square or something else
    => landscape or portrait?

- Shape your message
  - Other than rectangular
    => partly or as a whole
  - Shape itself is an essential message

5.2. Three-dimensional objects included

- Something to touch and feel

- Describing 3D shapes

https://cosmoaims.wordpress.com/2011/12/07/radical-research-vi-thinking-outside-the-box-with-a-3d-poster/

6. Presenting and Feedback

- Discussions
  - Do not only explain your research, ask others what they are doing
- Peers
- New contacts
- Co-operation

Road map to an outstanding academic poster

1. Before starting
   - What is my **key message**?
   - What kind of **audience** do I have?
   - What kind of **co-operation** I'm looking for?
   - What kind of **limitations** exist?

2. While making a poster, consider
   - Size and shape
   - Software use
   - Material
   - Content
   - Layout
   - Readability
   - Special effects, e.g. 3D objects
   - Feedback

LUT DS conference framework for posters

- Conference organizer will **print** the posters
- Send your poster between **22 April and 4 May** via the Eventos system
- **Instructions will be sent** to students by 22 April at the latest
- Canvas size **max A1**
- **pdf format**
- File size max **10MB**
- Posters printed by LUT will be in poster stands when the event starts
- Students can also print it out (etc.) and bring their poster with them to the event.