

Top tips: how to get your paper published

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First, some health warnings

- Writing a paper is hard work
- Takes a long time
- Expect a lot of edits from your supervisor
- Even at the end of all that, rejection is the norm

STAR WARS

7 ACADEMY AWARDS
— including —
BEST VISUAL EFFECTS
and
BEST ORIGINAL SCORE



Starring **MARK HAMILL HARRISON FORD CARRIE FISHER**
PETER CUSHING and **ALEC GUINNESS**
Written and Directed by **GEORGE LUCAS** Produced by **GARY KURTZ** Music by **JOHN WILLIAMS**

Filmed in **BLAUFRONZ**™
TECHNICOLOR®
Original soundtrack double album on 20th Century Records and Tapes.
Read the sensational novel in Sphere paperbacks.



May the force be with you



Sound Recorded with the



Good movies are about storytelling

- What is Star Wars about?

Good movies are about storytelling

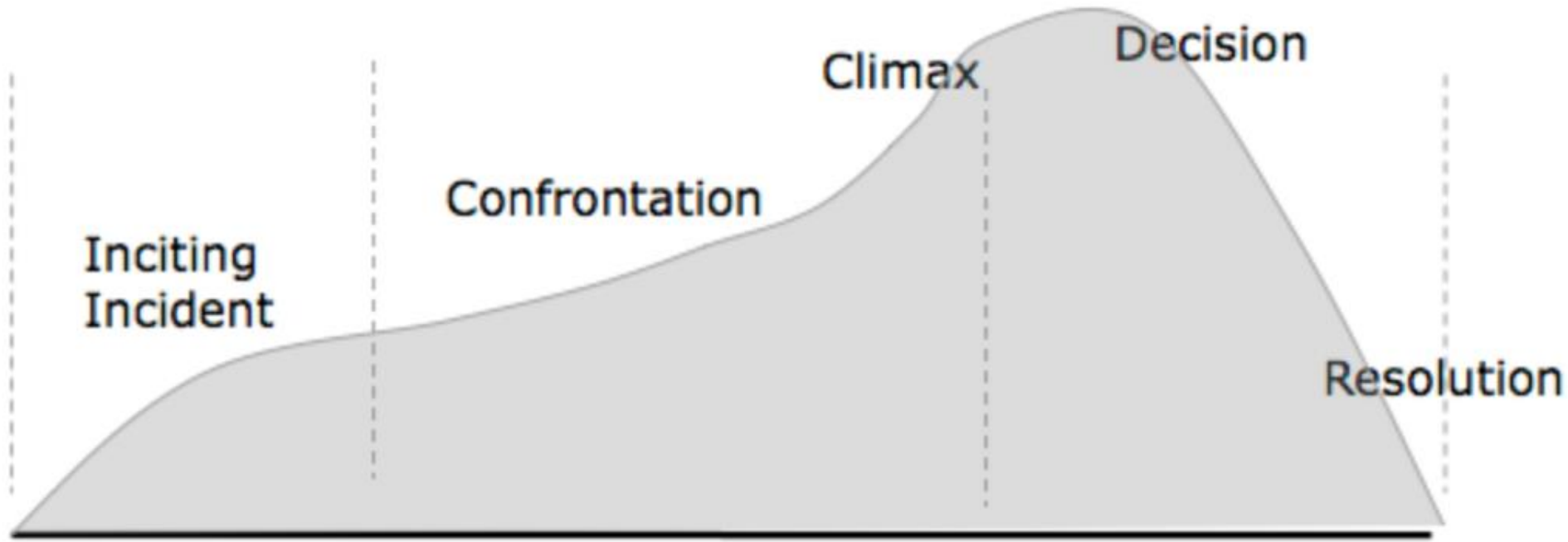
- What is Star Wars about?
 - The Imperial Forces, under orders from cruel Darth Vader, hold Princess Leia hostage. Luke Skywalker and Han Solo work together with a pair of droids to rescue the beautiful princess, help the Rebel Alliance and restore freedom and justice to the Galaxy.

Hollywood: Three Act Structure

Act 1: Setup

Act 2: Conflict

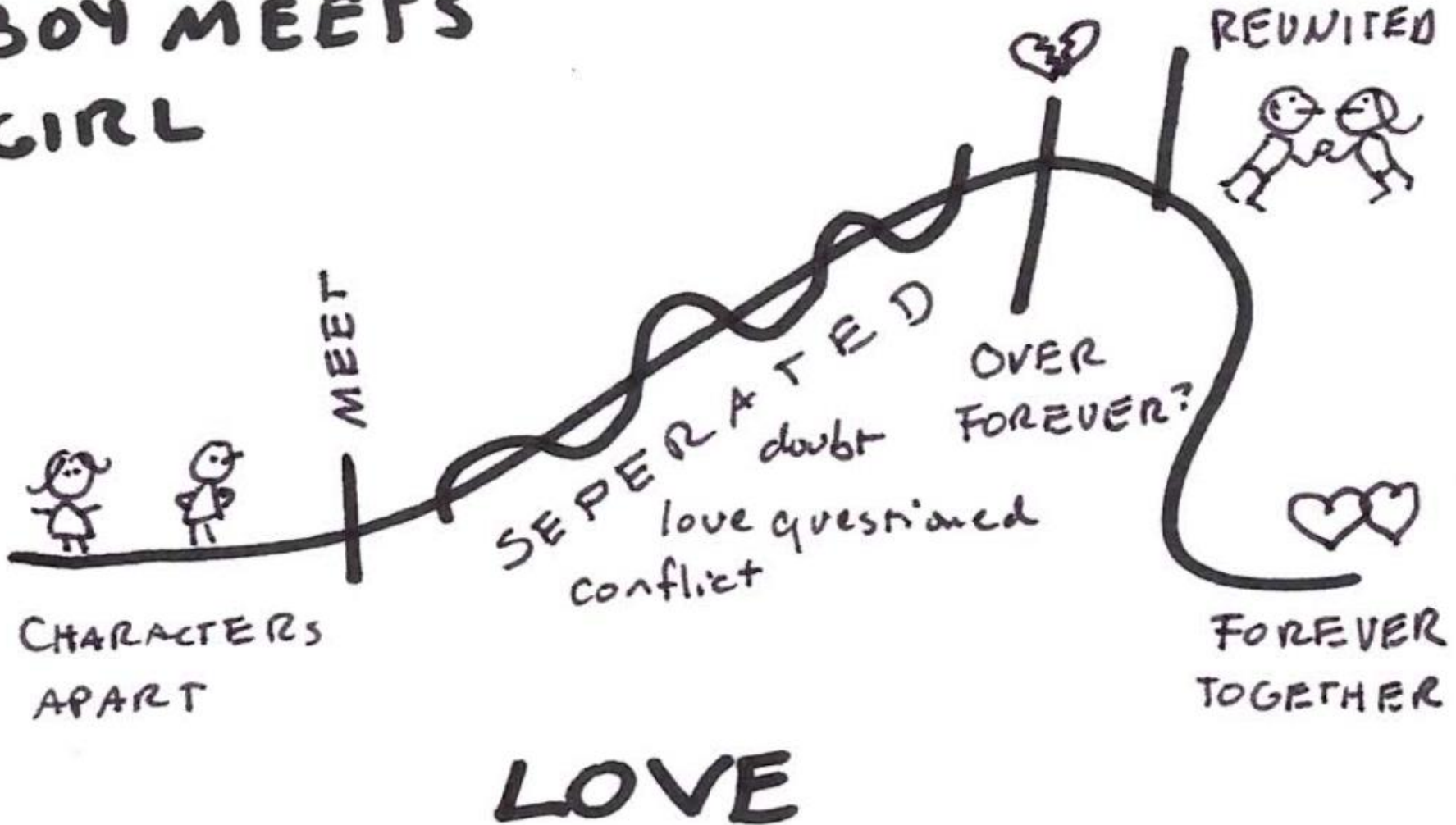
Act 3: Resolution



Hollywood: Three Act Structure

BOY MEETS
GIRL

@cwootke



You need to tell a story... with a predictable structure

- Highlight the question early on
- Get readers engaged (“the hook”)
- Clarity/pace/structure of storytelling
- Make people care about the outcome

You need to **learn** to tell a story...

- Screenwriters watch lots of films to learn the craft
- You need to read (then write) lots of papers to learn the craft

Everything starts with the question you were trying to answer and clearly summarizing what you found and what you think it means

Practice pitching your scientific story

- This is the question we had
- This is what we did
- This is what we found
- This is what it means

So before writing a paper, or even doing a study...

- Read a lot
 - What has been done in your field, what has not been done?
- Define the question
- Figure out the best way of answering it
- Write a 'concept note' / analysis plan
 - Consider publishing online, e.g. OSF
 - *Essential* for systematic reviews
- Consider a conceptual framework

So now you are ready...

- You have done your study
- You have cleaned your data
- You have analyzed your data (correctly!)
- What next?
 - How to begin writing a paper?

Suggested approach

- Try to understand the data
- What are the main findings?
- Has it actually answered your question?
- Is this
 - Not a paper yet
 - A single paper
 - Several papers
 - Definitely a paper but could be even better with more data

Start with the tables and figures

- Summarize all the data
- Most major articles: 5 tables or figures
- Short reports: 1-2 figures/tables

Let's assume you've done a study

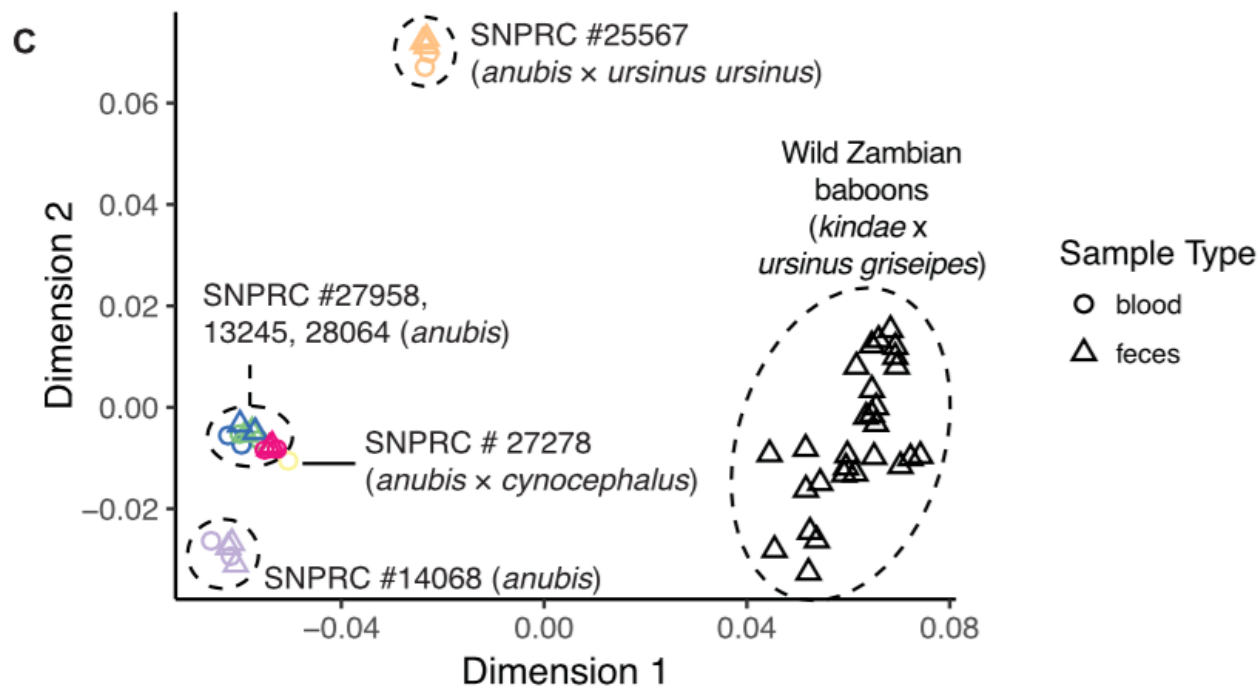
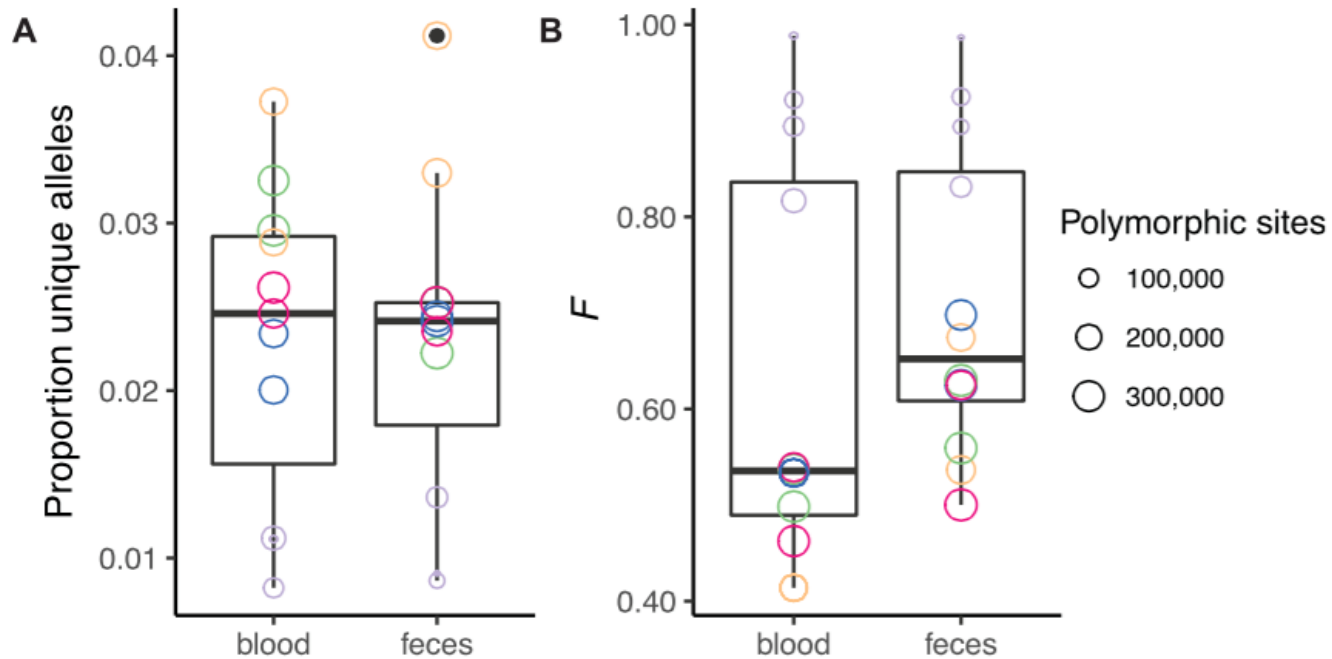
- Recruited a cohort of children with severe acute malnutrition, age 6-59mo
- Want to describe morbidity, mortality, growth over the following year
- Key question: how do these outcomes differ in HIV-positive and HIV-negative children
- Where would you start?

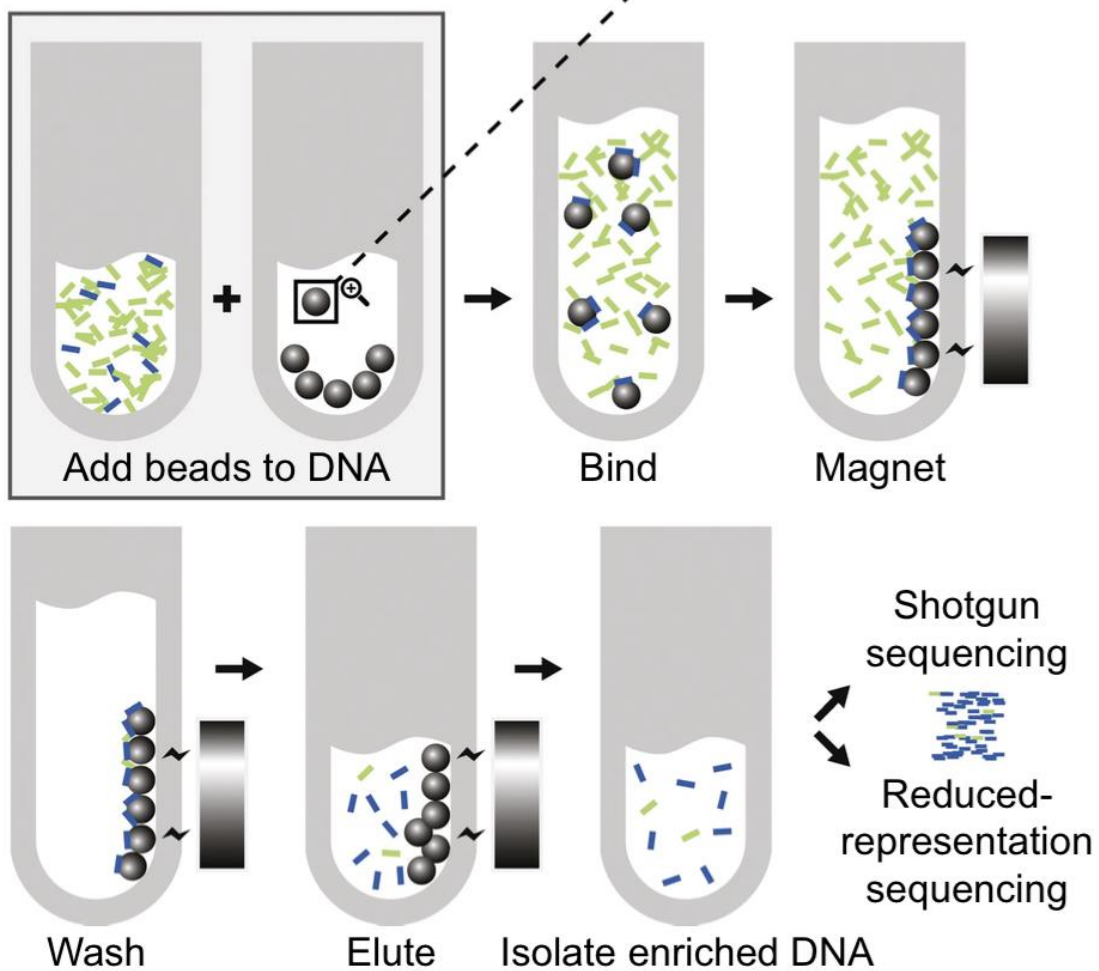
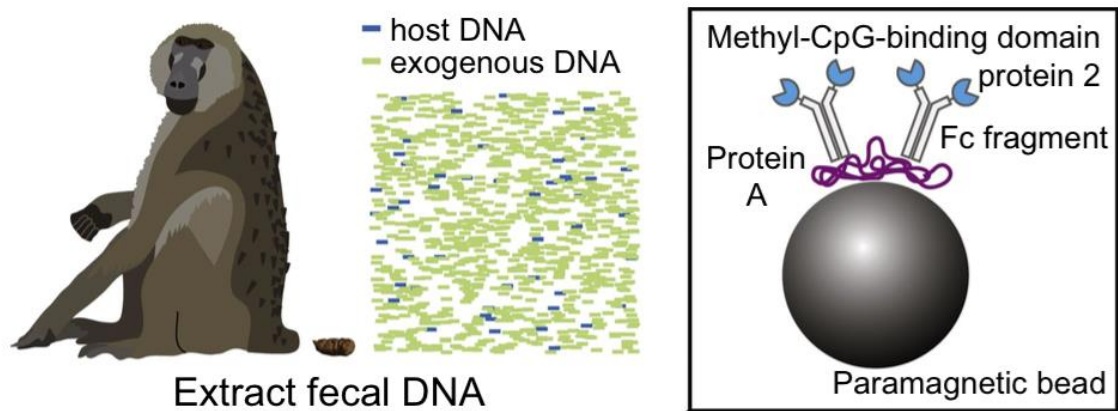
Suggested approach

- Table 1 – baseline data
 - Who are these children?
 - Split by HIV+ and HIV-
 - How do they differ in key factors?
- Fig 1 – often a flow chart
 - How were they recruited?
 - Did any drop out?
 - Is this a substudy?
 - (For trials, CONSORT flow chart)

Suggested approach

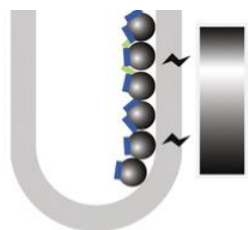
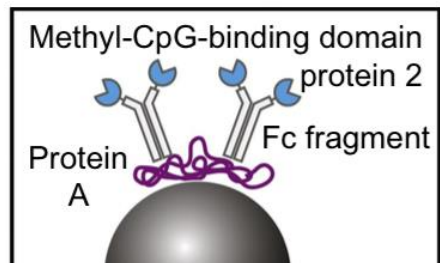
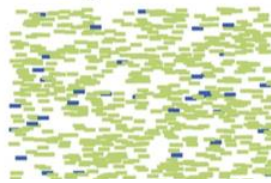
- Results – “show don’t tell”
 - Table versus figure
 - Single figure versus multi-panel



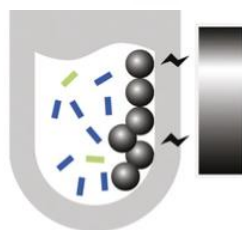




— host DNA
— exogenous DNA



Wash



Elute



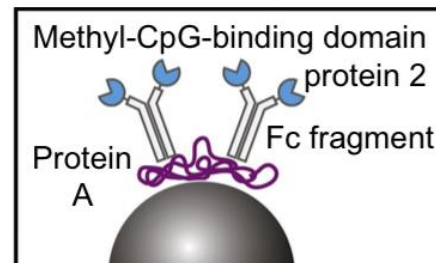
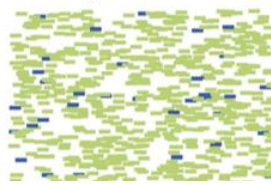
Isolate enriched DNA



Reduced-representation sequencing



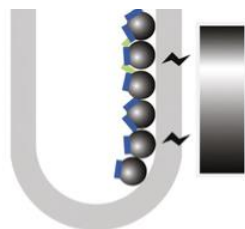
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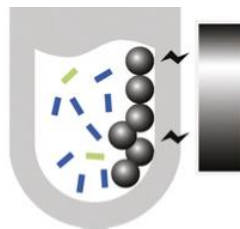
Journal removes poop drawing with Donald Trump's face — but offers no explanation



Scientific Reports issues correction noting 'there were unusual aspects' to the fecal illustration



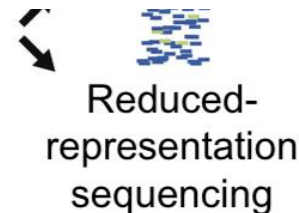
Wash



Elute



Isolate enriched DNA



Reduced-representation sequencing

Do you need to show all data?

- Can any of your data be moved to supplementary results?
 - Validation of methods
 - Multiple models
 - Sensitivity analyses

Tables

- Look at journal formatting
- Be consistent with decimal places
- Think about correct precision of numbers
 - 9.11% of women HIV-positive
- Show uncertainty ranges (e.g. 95%CI)
- Unadjusted and adjusted results together
- Footnotes are important
 - Defining variables
 - Show covariates in adjusted models

Things to consider at this stage

- What to do about missing data?
 - Many journals require denominators: 3/30 (10%)
- Were people included and not included in your study different in any way?
 - Consider a supplementary table that shows baseline characteristics of those included and not included

Once you have all your data

- Meet with your supervisor
- Go through all the results
 - Are they shown in the clearest possible way?
 - Is it telling the story?
 - Is further analysis needed?
 - Are you ready to start writing?

How to start writing

- Start with the Results section
- Talk through the Tables/Figures *in turn*
- Identify the journal/audience you are writing for
- Look at the journal style

How to avoid the blank page

- Write *anything*
- It doesn't have to be perfect, or even good at this stage
- Bullet points, notes
- Write first, edit later

How to avoid the blank page

- Write *anything*
- It doesn't have to be perfect, or even good at this stage
- Bullet points, notes
- Write first, edit later
- “Apply the seat of the pants to the seat of the chair” (Mark Twain)

Find the order you prefer to write in

- Introduction
 - Keep it short and punchy
 - Introduce the topic and brief literature
 - State your question (and ideally hypothesis)
- Methods
- Discussion
 - Longer than the introduction

Tips for Discussion

- First paragraph which summarizes what you did and key findings
 - “There were 3 key findings...”
- Dig into each finding in turn and put them in the context of other literature
- Strengths/weaknesses paragraph
 - Be honest
- Conclusions paragraph – emphasize the key message(s) and what it means

Abstract

- Hard to write and takes time!
- For a trial, all CONSORT criteria need to be in there
- Make sure it matches the manuscript
- Conclusion is the most important part of the whole paper to craft well
 - Often the only thing people will read!

Cover letter

- Surprisingly important
- “Sell your paper” – point out the gaps in the literature, and strengths of your paper
- Check specific requirements
- Pre-submission enquiries for some journals

Choice of journal

- Which audience?
- Look at previous papers
- Impact factor (but choose several)
- Open access (SHERPA)
- Open data requirements
- Reviewing style

Top tips

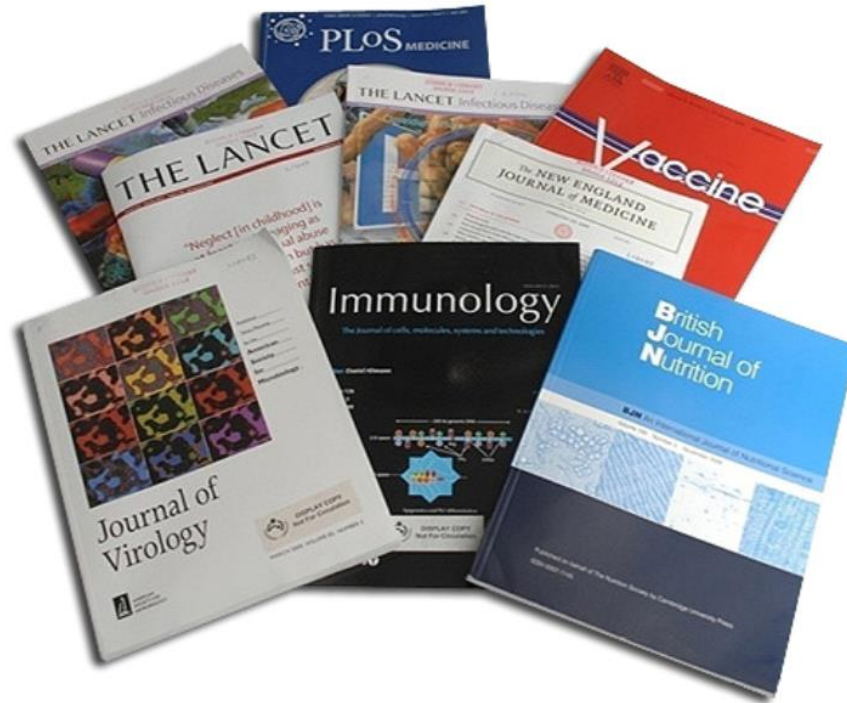
- Writing is a skill and takes practice
 - Learn by doing
- Don't try to get a paper to the perfect stage before sending it to your supervisor – share at 60% stage: is it taking shape?
- Learn from what your supervisor edited
- Learn scientific language/words
- Art of brevity – chop chop chop
- Avoid 'flowery' or literary language

Pitfalls and traps!

- Assuming causality in observational data
 - Talk about associations, not causation
- Using a technical term wrongly
 - Rate, significant, random
- Reference everything properly
 - Primary papers better than reviews
- Only discuss things you showed: don't start to introduce new data in Discussion

The Pathway to Publishing:

A Guide to Quantitative Writing in the Health Sciences



Steve Luby
Dorothy Southern

Revised
August 2017

B10. Specifying the contents of a questionnaire	36
B11. Naïve theories of change	37
B11a. Recommending a massive increase in funding.....	37
B11b. Ignoring incentives and barriers.....	38
B11c. Assuming weak states can implement.....	39
B12. An insufficiently focused Introduction	40
B13. Failure to clarify key sample size assumptions	40
B14. A high level outline that is not high level	41
B15. Specifying software used for routine data analysis	42
B16. Presenting rationale in the last sentence of the Introduction	43
C. Mechanics of writing	44
C1. Using non-standard abbreviations	44
C2. Using non-standard spaces	44
C3. Improper spelling	46
C4. Capitalization problems	46
C4a. USING ALL CAPITAL LETTERS.....	46
C4b. Capitalizing non-proper nouns.....	47
C5. Failure to spell out an isolated numeral < 10	47
C6. Starting a sentence with a numeral	47
C7. Not indenting paragraphs	48
C8. Not aligning text to the left	48
C9. Problems with parentheses	48
C10. Not recognizing when an abbreviation has become a name	49
C11. Misplaced commas in large numbers	50
C12. Varying fonts within the narrative	50
C13. Using bulleted lists rather than sentences	50
C14. Uninformative document names	51
D. Grammatical structures and stylistic strategies	52
D1. Using present rather than past tense	52
D2. Failure to use definite and indefinite articles	52
D3. Excessive use of passive voice	53
D4. Improper use of “we”	54
D5. Writing from a psychological perspective	55
D6. Using sub-headings in the discussion section	55
D7. Misplaced modifiers	56

Things to agree with your supervisor

- Timelines
 - Stick to them
- What is a realistic turnaround time for comments?
- Labeling drafts
 - Never just call a document “Table” or “Manuscript”
 - Agree a dating convention and stick to it
 - NEVER call a document final!

Submission process

- Always check Guidelines for Authors and stick to them
- Submission process takes time
- Check for author forms, copyright forms etc
- Responding to reviewer comments is another process to learn from your supervisor

Most importantly...

- You have done the hard work, you have a story to tell...
- Learn how to tell a story well
- Read a lot of examples
- Learn from comments you receive back
- Be true to the data, and have attention to detail
- Perseverance and resilience are key
- Don't be dejected if you get rejected
 - You WILL find a home for your work!