

BWH Office of Research  
Careers  
*Abstract Writing Course*

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**BRIGHAM HEALTH**



BRIGHAM AND  
WOMEN'S HOSPITAL

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**BRIGHAM RESEARCH INSTITUTE**

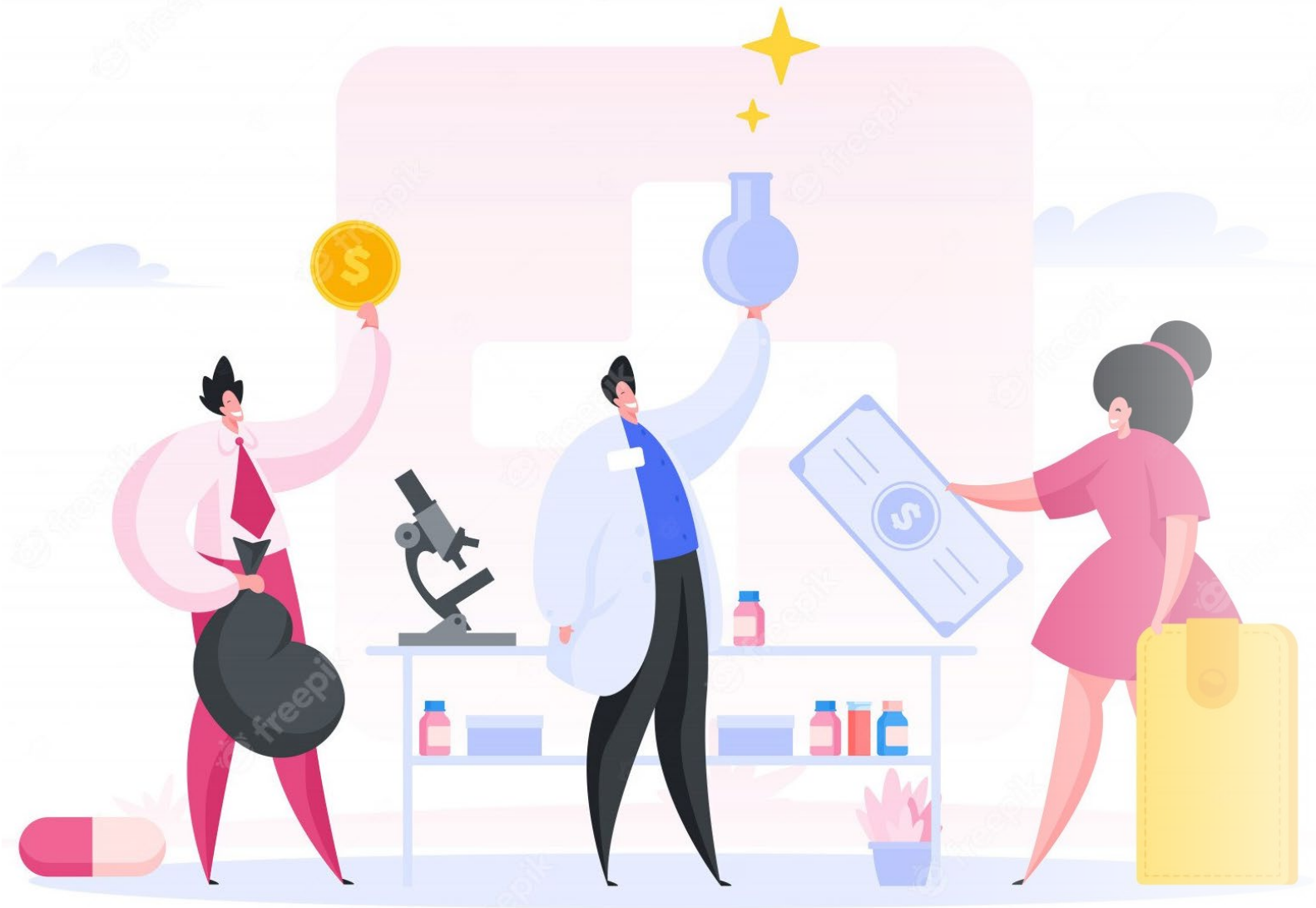


# What is an Abstract?

- Abstracts are small executive summaries of studies that you are conducting.
- In an abstract, you need to be able to describe, in usually a highly condensed way, the main takeaways of an entire study.
- Think of them as your elevator pitch
- **For the purposes of this class, we are discussing abstracts that are being submitted for scientific meetings.**

# Why Are Abstracts Important?

- The quality of an abstract could influence:
  - Whether you are invited to present your work at the conference
  - Whether you'd be chosen for an oral vs. a poster presentation
  - Whether you can get funding to attend the conference
- A strong conference abstract could also put you on the 'radar' of a more senior investigator.
- Some abstracts come up on PubMed which can be helpful in showing prior experience in an area when applying for early funding





## Why Are Abstracts So Hard to Write?

# What Goes Into an Abstract?



- Abstracts typically follow the same parallel structure as a paper:
  - Background
  - Methods
  - Results
  - Discussion (or Conclusion)
- Many conferences also ask for keywords

# Conference vs. Grant or Manuscript Abstract: Key Differences

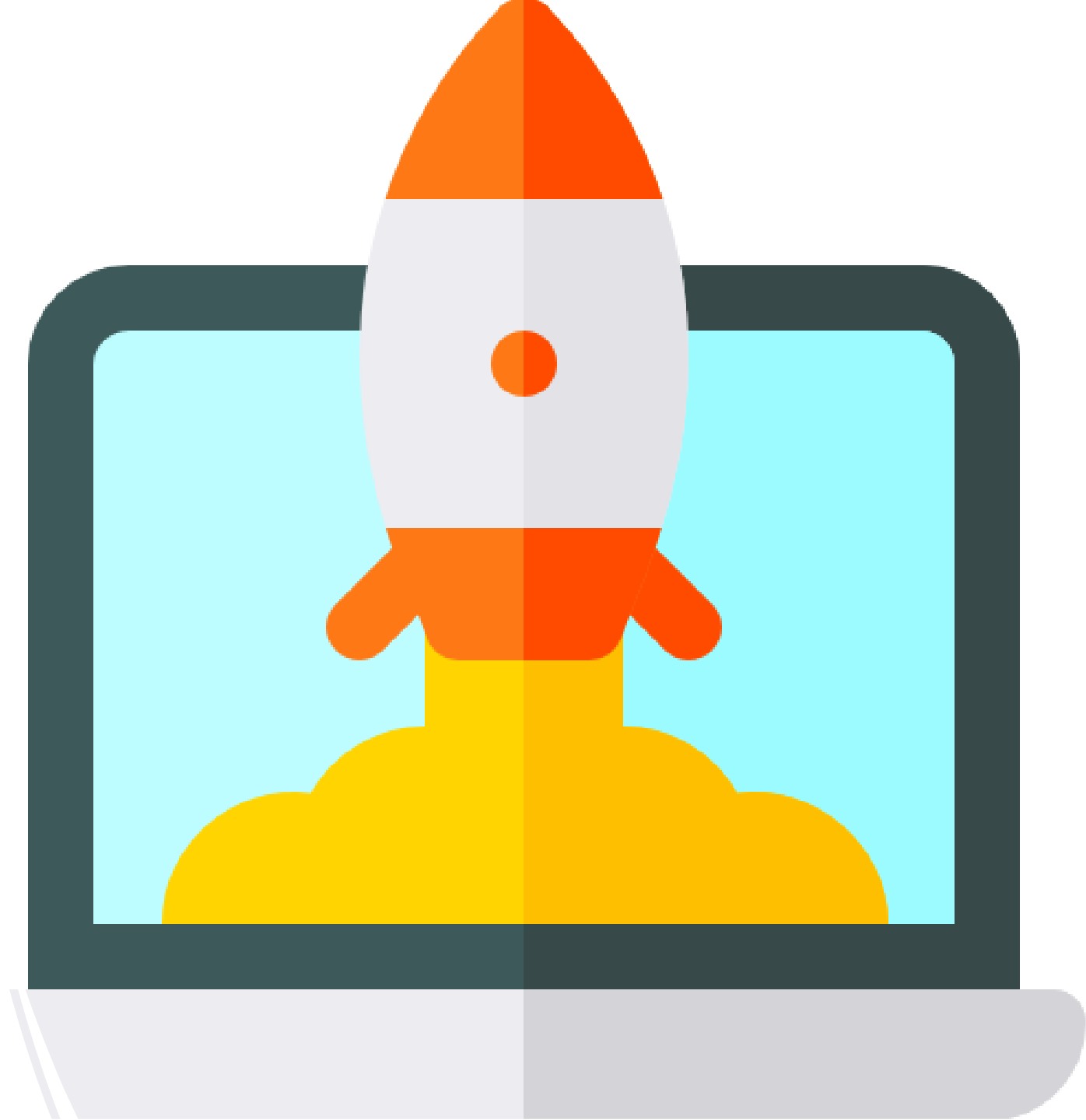


- NIH (and possibly other agency) grant abstracts ...
  - Cannot use 1<sup>st</sup> person
  - Have line rather than word limits (30 lines)
  - Pitch the significance and rigor of a project you WANT to do, not one in progress
  - Should not include article citations or URLs
- Manuscript abstracts ...
  - Often have lower word limits
  - Must focus on completed work not already published elsewhere
  - Usually do not include article citations or URLs

# How Do I Get Started?

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- Read the Instructions
- Identify scope and conference priorities
- Determine best way to align your abstract's narrative with the conference themes
- Create a plan for which data you would like to present



# Abstract title

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- Key first impression
  - Best: clear and succinct
  - Check carefully for spelling & grammar mistakes
- Follow the conference's (or journal's) instructions
  - Character or word limit
  - "Synopsis" vs. "headline" vs. topic description
- Avoid undefined abbreviations
- Aim to be catchy/compelling without being "cutesy" (or sarcastic or arrogant)

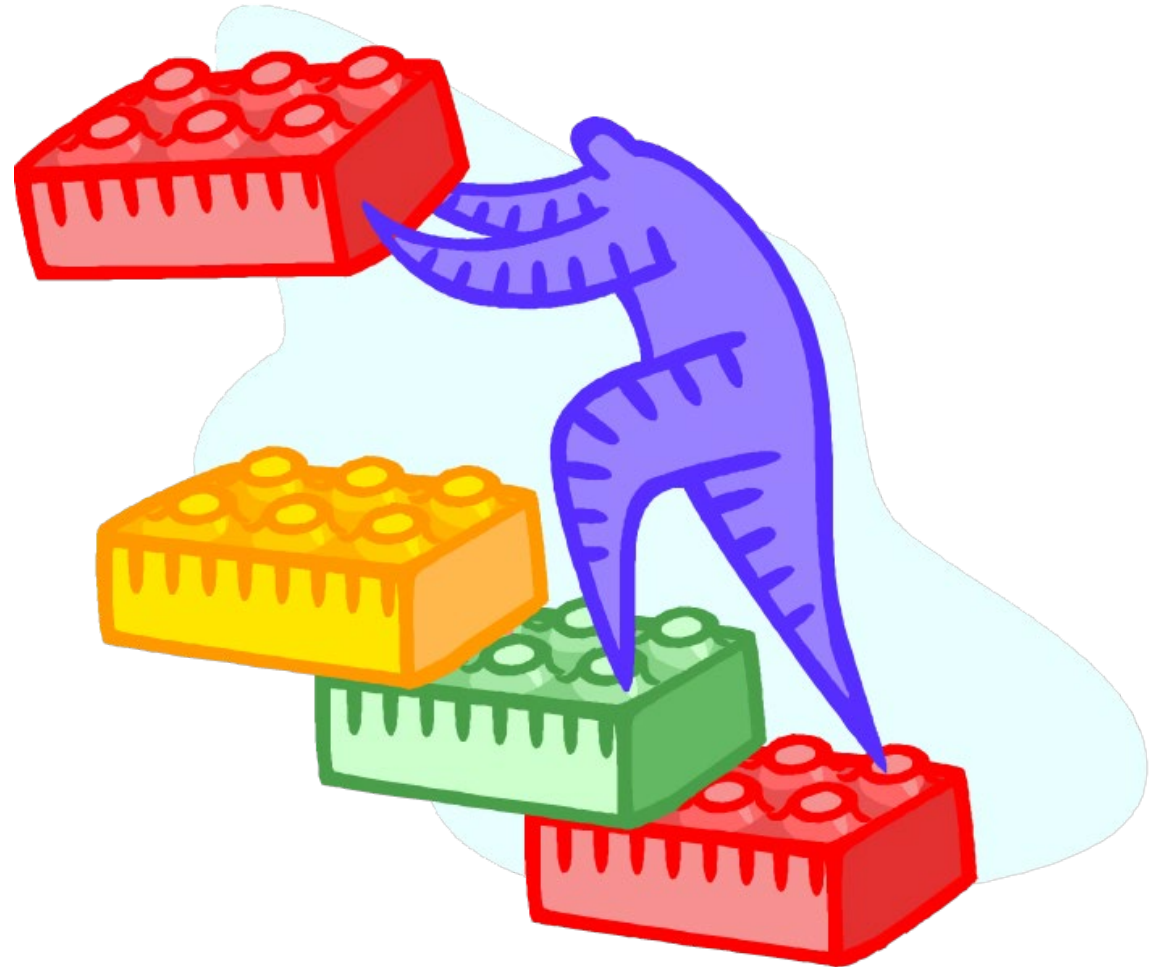




# Background

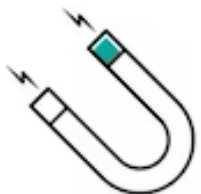
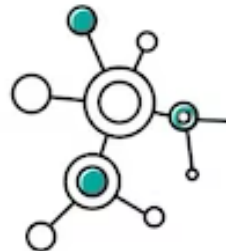
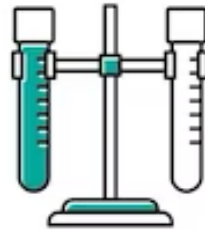
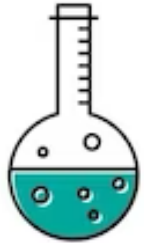
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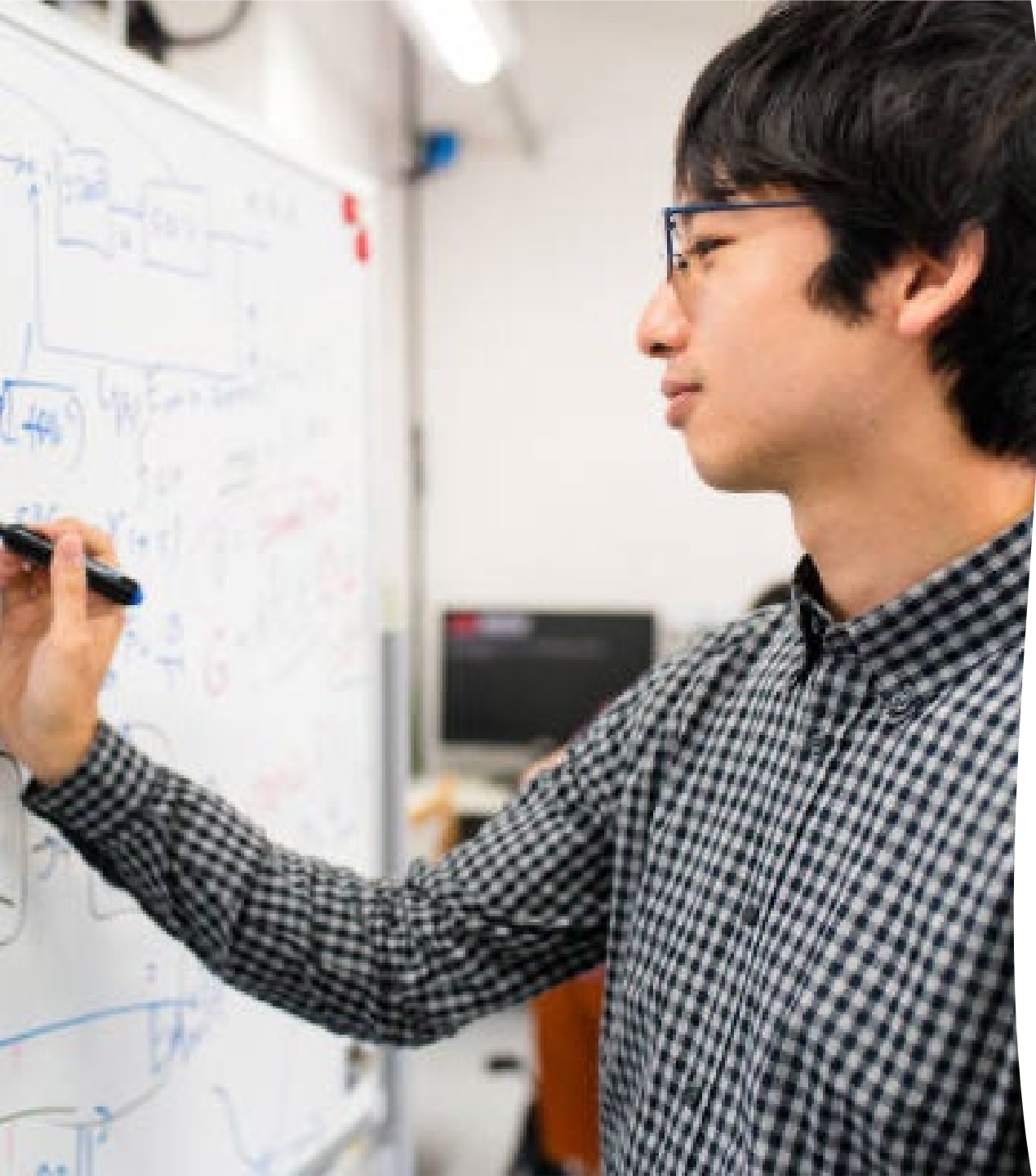
- Present an appropriate amount of information to construct the premise of your study.
- Try to answer the following two questions:
  - What is the state of current knowledge?
  - **WHY SHOULD WE CARE ABOUT IT?**
- This section should include a “**hook**” to draw readers in and make them want to keep reading.
- This section should usually end with your *hypothesis*.



# Methods

- Introduce key study design aspects.
  - This can vary depending on which conferences you are submitting to!
- Make sure that all variables you will be discussing in the next section are explained/described.
- Remember: Some aspects of your study design may not be necessary.





# Results

- Present your findings in a logical order (ideally in an order that's parallel to the description of the corresponding methods)
- Keep strictly to a description of findings (no interpretation!)
- Include enough relevant statistics/data to support your claims (but don't overload the reader!)
- If you include a table or figure, offer a qualitative/synthesizing comment about the contents of the table/figure rather than restating details that are already found in the table/figure
- Be sure to reference the table/figure in parentheses in the applicable text statements



## Discussion (or Conclusion)

- Synthesize information presented before.
- Do more than simply restating the main findings.
- Distill the main findings to a 'take-away' point
- Discuss how the findings add to current knowledge
- As applicable, briefly remind readers of key study limitations or strengths that would inform the interpretation.



Presentation Title: Adhering to the Formatting Requirements Set by the Conference Organisers

Your name, and any co-presenters' names, along with your title/s, university affiliation/s, and contact details (following the instructions of the conference organisers)



These opening sentences summarise the current state of knowledge on your topic. They describe what researchers already know, with reference to the literature (Reference, Year; Reference, Year). These opening remarks are not as comprehensive as a full literature review of course, but they bring readers quickly up to speed. However, we (researchers) don't know everything; so this next part segues into a brief discussion of the gaps or limitations in current knowledge. Fortunately, your presentation addresses these gaps and limitations, and you clearly state the purpose of your presentation here. Now you need to explain how you conduct your research (or *will* conduct, or *have* conducted, depending on your stage of research). This section briefly describes your methodology in broad terms so that readers can have some confidence in the rigour of your work. This next part will differ depending on your stage of research; it will either give your hypothesis, or your findings (either preliminary or final); but either way, it describes what you have found, or what you expect to find. This section will take up a bit more of your word count, since it describes the meat of your research. It will be written at a level that is well-pitched to the expertise of your expected audience, whether they be highly specialised researchers, or educated laypeople. Finally, you will need to comment on the significance and/or implications of your research, in order to leave readers with an understanding of why your work is important.

CONTEXT

PURPOSE

METHODS

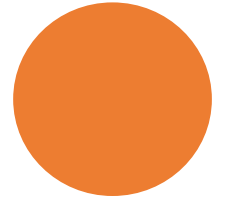
FINDINGS

SIGNIFICANCE

**Keywords:** keyword or phrase 1; keyword or phrase 2; keyword or phrase 3

# Who Is My Audience?

- For conference submissions, your abstract is generally reviewed by the “Program Committee” for a given meeting.
- Depending on the conference you are applying to, the reviewers could have varying degrees of knowledge for your subject
- Bear in mind that your goal is not to wow the reviewers with how smart or knowledgeable you are
- **You want to help them to recognize the merits of your project and its relevance to the meeting themes.**





# Be Considerate of your Audience

- Most members of the program committee are reading several abstracts at a time.
- All members on the program committees are volunteers
- The longer (or more effort) it takes them to read and understand your work, the lower your score likely will be!
- Do your best to make it easy for them to appreciate your work

# Things to Avoid

- Assumptions of knowledge
- Excessive jargon or abbreviations
- Long and/or run-on sentences
- Passive rather than active voice
- Spelling or grammatical errors
- Non-committal hypothesis statements
- Conclusions not supported by data you present
- Robotic or disjointed flow
- Imbalance across sections
- Cryptic wording or casual expressions (this is not your lab notebook!)
- Generic conclusions or over-promising







How long  
does it take  
to write an  
abstract?

**2 months to deadline**






"Oh, this will be easy. It's just 250 words. I don't have to do it right now."





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5 minutes to deadline		*Cries, presses submit button*
1 day after deadline		"Due to overwhelming interest, the conference organisers have decided to extend the submission deadline by two weeks."





# Helpful Tips

- Read the Instructions.
- Read the INSTRUCTIONS.
- Don't wait to start – your collaborators will thank you!
- Solicit feedback early and often
- Read the text out loud to yourself
- Ask a friend/family member to read it for you

# Frequently Asked Questions

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- Can I talk about works in progress or can I only talk about work that is completed?
- How much does my abstract have to line up with what I eventually present on my poster?
- Can I recycle an abstract from a meeting I attended at an earlier stage of the project (how much different would it have to be)?
- Can I use an abstract that I wrote for a manuscript draft if the word limits and structure align?



## TITLE: A Prospective Analysis of Long-Term Pre- and Post-Diagnostic Weight / Body Mass Index (BMI) and the Survival of Multiple Myeloma Patients in Nurses' Health Study (NHS) and Health Professionals' Follow-up Study (HPFS)

Multiple myeloma (MM) is still an incurable hematologic lethal malignancy, imposing the physical, mental and financial burdens on patients and the society. Obesity is known to be the only known modifiable risk factor of MM and some studies have suggested that a high BMI has a positive association with MM risk and even with its mortality.

However, recent studies indicated that patients with higher BMI at diagnosis had a favorable prognosis compared with healthy-weight or underweight patients and weight loss of more than 10% of baseline in one year before diagnosis was associated with increased mortality. These recent studies didn't have data with which to evaluate weight or BMI more than one year prior to diagnosis. The interrelationship of pre-diagnosis weight / BMI change, weight / BMI at diagnosis and post-diagnostic weight / BMI over the long time period is not known. In addition, currently not enough prevention strategies or relatively inexpensive approaches to prolong survival among MM are available for clinicians and patients.

Thus in our study, we aim to identify the most informative weight / BMI variable, among at various time points or in different time scales, which shows the association with MM survival.

We performed prospective analyses in the NHS and HPFS cohorts, which together comprise more than 173,000 persons who have been followed by biennial questionnaires for more than 25 years. The cohort population is registered nurses and health professionals, who are suitable for study as they provide a high degree of accuracy and highly motivated to participate the study in a long term. The disease diagnosis and death status are confirmed with medical record review. Therefore, the strength of our study is our ability to examine long-term pre- and post-diagnostic weight / BMI in relation to MM mortality in a combined sample size of at least 400 incident MM cases and 330 MM deaths till August in 2013. **[NOTE: a table was included]**

In this abstract, we report the pre-diagnostic weight / BMI part in NHS cohort. The analyses of post-diagnostic part and HPFS cohorts are ongoing and will be available by the time of the ASH conference.

Sample Abstract:  
Can you spot any  
flaws?



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Long & potentially confusing title

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Mashup of methods, results (??) and "pseudo" conclusions

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Sample Abstract:  
Can you spot any flaws?



**TITLE:** A Prospective Analysis of Body Mass Index (BMI), Weight Change and Survival of Multiple Myeloma in the Nurses' Health Study (NHS) and Health Professionals Follow-up Study (HPFS)

**Purpose:** Obesity is positively associated with multiple myeloma (MM) risk, whereas two studies have reported longer survival of patients with a higher body mass index (BMI) at MM diagnosis, and one also noted poorer survival with acute pre-diagnosis weight loss. Thus, we evaluated survival in MM patients in relation to pre-diagnosis obesity and weight change in the Nurses' Health Study (NHS) and Health Professionals Follow-up Study (HPFS) cohorts.

**Methods:** Each cohort assessed current weight and medical diagnoses on biennial questionnaires. Through 2012 or 2013 we confirmed MM diagnoses in 296 NHS women and 180 HPFS men (respectively) with no history of other cancers. We calculated survival time from MM diagnosis through the date of death, August 2013 (NHS) or June 2015 (HPFS). In the combined MM patients, we used multivariable Cox proportional hazards models to calculate hazard ratios (HR) and 95% confidence intervals (CI) for MM-specific or all-cause mortality by category of pre-diagnosis BMI or weight change.

**Results:** We ascertained 327 MM-specific and 383 total deaths in 2286.8 years of follow-up. Weight change from the second closest to closest pre-diagnosis questionnaire was inversely associated with MM-specific mortality (p-trend=0.01). Patients with  $\geq 1$ kg gain had 20% lower mortality (HR, 95% CI: 0.8, 0.6-1.1) whereas those who lost  $\geq 1$  kg had 30% increased mortality from MM (HR, 95% CI: 1.3, 1.0-1.6) compared to patients with stable weight during this period. The difference in median survival between patients gaining  $\geq 5$ kg versus those losing  $\geq 5$ kg was  $\sim 3$  years. We observed similar MM-specific mortality results for  $\geq 1$  kg gain (HR, 95% CI: 0.8, 0.6-1.1) but null results for  $\geq 1$  kg loss between the third closest and closest pre-diagnosis follow-up cycles (p-trend=0.11). Neither current nor maximum pre-diagnosis BMI was associated with MM-specific mortality. All-cause mortality findings resembled those for MM mortality.

**Conclusions:** The modest inverse findings for pre-diagnosis weight change and null findings for BMI suggest that previous reports of better survival in MM patients with higher BMI at diagnosis reflect reverse causation related in part to differing influences of less versus more aggressive MM progression on pre-diagnosis weight.

Sample Abstract:  
Revised, accepted for  
a meeting poster  
presentation



# A Few Resources

- <https://www.enago.com/academy/important-tips-for-writing-an-effective-conference-abstract/>
- <https://www.exordo.com/blog/how-to-write-an-abstract-for-a-conference/>
- <https://blogs.lse.ac.uk/impactofsocialsciences/2015/01/27/how-to-write-a-killer-conference-abstract/>