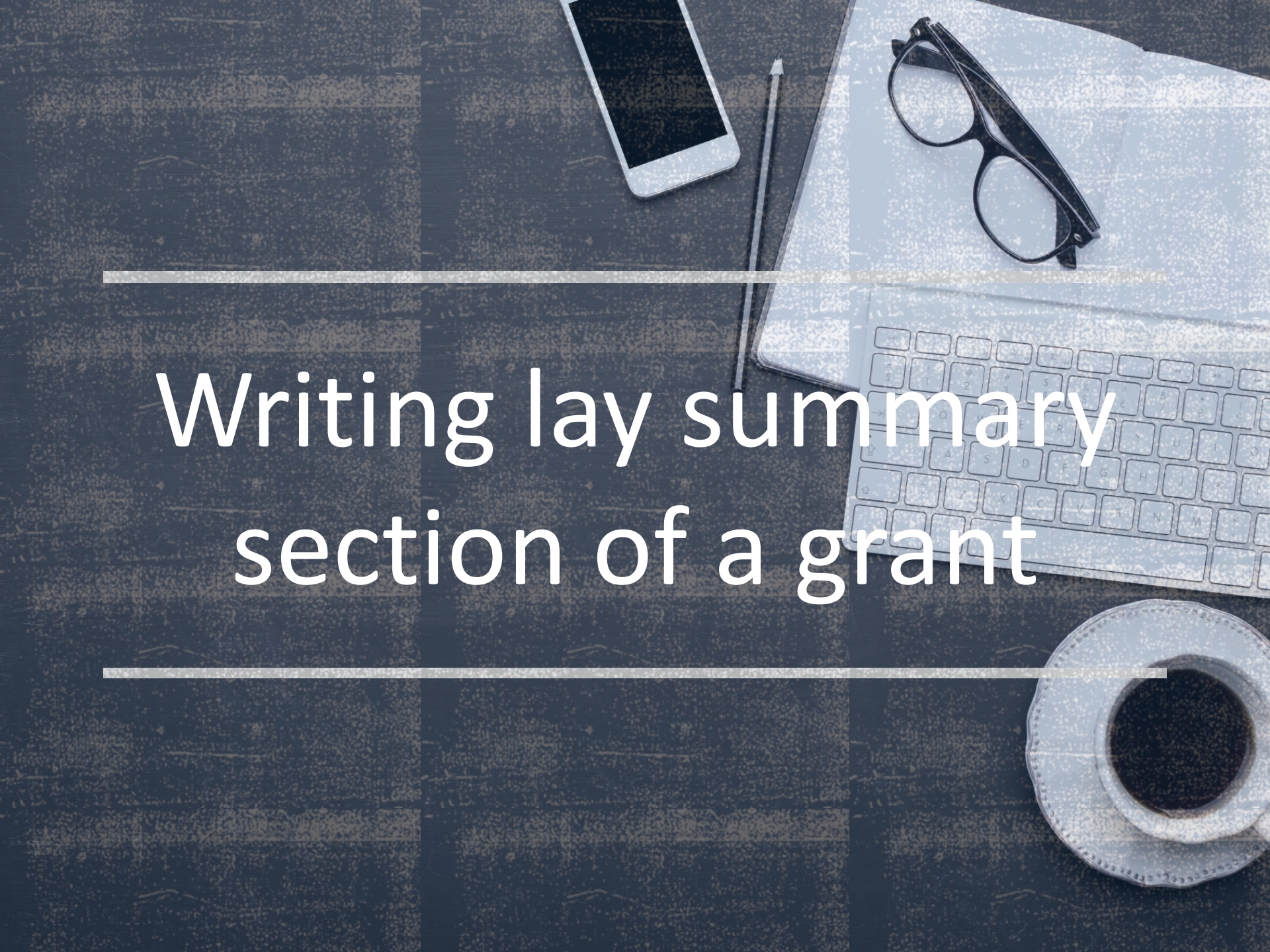


Writing lay summary section of a grant

Lay summary: main points to include

What	Problem/issue being addressed How does it fit into the bigger picture (i.e. what are you trying to do?) What are the gaps in research/knowledge
Why	Why is this work important? Why is it important to fill in these gaps? What is the potential for impact?
How	What will you do to address problem? How will you test your research questions?

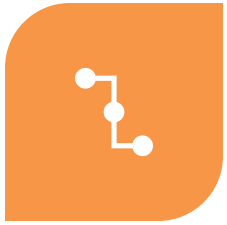
A couple of tips from AMS

ANSWER WHAT, WHERE, WHEN, WHY, AND HOW

KEEP IT SHORT

IMAGE HAVING A CONVERSATION WITH THE READER

PITCH IT FOR THE ‘LAY’ READER



TRY TO CONNECT WITH THE READER

Guidance see here

Real examples here

"He's not the man I married...he used to be so calm."

"Every little thing seems to make me angry."

"I'm afraid to leave the children with him."

I am a neurologist, and these words are directly from my patients with severe head injuries and their families.

Behavioural problems and poor emotional function, such as being more irritable, frequent anger and even physical violence, are common after head injury. They are a major reason why patients lose their jobs, experience relationship breakdown and become socially isolated.

I want to investigate why head injury patients experience poor emotional function and behavioural problems.

An area at the top of the brainstem is the major source of noradrenaline in the brain. White matter connections carry information between this area and the rest of the brain. These connections are particularly important for emotional function and thinking. White matter damage is very common after severe head injury. Therefore, one possible reason for behavioural problems is that damage to these white matter connections leads to abnormal function of the noradrenergic circuits and poor emotional function.

I will assess white matter damage with MRI scans, and activity of the noradrenergic circuits by measuring pupil size and heart rate. I will test if these measures relate to measures of emotional function (assessed with computer-based tasks and questionnaires)

There are currently no specific treatments for these devastating problems. I hope the results of this project will help us develop targeted treatments, for example, with drugs or non-invasive brain stimulation.

Text broken up

Background/ connection with researcher/ inspirations

What

How

Why

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"Every little thing seems to make me angry."

"I'm afraid to leave the children with him."

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Indication of future research & impact

Person centered → connections

Short(ish) sentences

Personal pronouns

Simplistic and/or emotive language; explanations

Pooja Basnett: Developing environment friendly, safe, antiviral-antibacterial coatings for the personal protective Equipment (PPE)

Examples from Life Sciences

Personal protective equipment (PPE) such as gowns, masks, gloves, aprons and face shields is meant to protect healthcare workers from the infectious agents. Gloves and aprons are generally disposed of after each patient contact, but gowns or coveralls may be worn for longer periods, depending on the clinical activity being undertaken. However, bacterial and viral droplets may cling to the surface of PPE, increasing the risk of inadvertent exposure during discarding or other general practices. Thus, novel solutions for reducing the spread of disease such as COVID19 disease within healthcare settings are needed for now and for the future. In this project, we will aim to develop sustainable, environmentally friendly antiviral/antibacterial polymers. The polymers will be sustainably produced by bacteria using waste oils. Compounds that have proven to be effective against virus and bacteria will be combined with the polymer using known chemistry methods to keep them active for longer period. This antiviral/antibacterial polymer will be used to coat PPE gown to add an additional layer of protection and minimize inadvertent indirect transmission of infectious agents during disposal.

Adele McCormick: Human lung-on-a-chip as a tool for screening antiviral properties of approved drugs for the treatment of COVID-19: a model system suited to future viral pandemics.

Examples from Life Sciences

Viral pandemics such as COVID-19 require a rapid response to reduce spread of the virus and anti-viral therapy is the fastest approach to combat this crisis. We propose a pilot study using a "lung-on-a chip" system to model the human lung in the laboratory, consisting of human lung cells that express receptors and enzymes for SARS-CoV-2 infection, to study the usefulness of existing antiviral drugs on the airway cells that we will infect with a safe form of the virus that has all of the important features of SARS-CoV-2 virus but which can only undergo a single round of replication in the cell and we can undertake experiments in a low containment (BSL-2) laboratory. Infections caused by viruses that attack the respiratory tract such as SARS-CoV-2 are studied using cultured cell lines, tissue derived human cells or animal models which have limitations, such as cell cultures lacking enzymes for viral replication and animal models are not natural hosts for SARS-CoV-2. Thus, there is an urgent need for alternative preclinical models that mimic human lung responses to viral infections so that drug efficacy can be ascertained. Data generated from this study is important for repurposing existing drugs and newer drugs in development to treat COVID-19, and the "lung-on-a-chip" model can be used to screen antivirals for future pandemics.