

Proposal Writing Series

Explaining the Project In One Paragraph



Research & Innovation Office

UNIVERSITY OF COLORADO **BOULDER**

Jim Mazzouccolo

Proposal Editor & Writing Coach

- Supports AB Nexus (Anschutz-Boulder collaborations)
- Focus on NIH & Biosciences proposals on CU Boulder campus
- Works with all bioscience associated departments across campus (including NIH proposals coming out of CEAS) on multi-disciplinary proposals
- Helps individual investigator & small teams proposals, as available
- Focus on stylistic, structural, substantive, and revision editing of research proposals from the prospective of an educated, non-SME reviewer



Agenda

- Purpose and Expectations

Session Topics

- Importance of the One Paragraph Description
- Key Questions Answered
 - ✓ What?
 - ✓ Why?
 - ✓ How?
- Components of the Paragraph
 - ✓ The Hook
 - ✓ The Problem
 - ✓ The Way Forward



Importance

- Persuasive encapsulation of your project
- Construction assists with refining the project
- Multiple applications
 - Introduction
 - Summary/Abstract
 - “Elevator pitch”
- Recycle/Reuse as appropriate



Key Questions

What?

- Problem and Need
- Establishes context and scope
- Provide specifics

Why?

- Clear statement about the criticality of addressing the “What?”
- Introduces the “Gap”

How?

- Clear statement proposing a/the way to address the problem
- Supported by the central hypothesis of the research project



Paragraph Structure

The Hook (1-2 sentences)

- Current Situation and Need expressed in the very first sentence
- Initiates answering “What?” in a compelling way
- “1-2-3” Alternative

The Problem (2-3 Sentences)

- Clear statement about the criticality of addressing the “What?”
- Briefly explains what is Known
- Introduces the “Gap”

The Way Forward (1-2 sentences)

- Clear statement proposing a/the way to address the problem
- Supported by the central hypothesis of the research project



One Paragraph Example -A

Uromycitisis is a serious infection of the lower urinary tract affecting 1% of adult males (18-45 yrs) in the United States each year which, if untreated, can cause acute renal failure and has an associated high mortality. Early urine screening and diagnosis is critical to increasing the survival rate for uromycitisis. Unfortunately, the reagent used on dipstick urinalysis tests, *soma-D*, has difficulty detecting the bacterial casts of *Costanzacoccus georgeus* (the causal pathogen for uromycitisis). As a result uromycitisis tests often produce false negatives, allowing the infection to go undiagnosed and progress. Our project involves the development multi-step chemical synthesis to produce the reagent, *ketracel-black*, which will improve the detection of *Constanzacoccus georgeus*, leading to a greater reliability of dipstick tests for the early detection – and subsequent treatment – of uromycitisis.



One Paragraph Example - B

Current urinalysis testing is unreliable in detecting the early development of uromycitisis, a serious infection of the lower urinary tract, resulting in misdiagnosis and long-term negative health outcomes for the 1% of adult males (18-45 yrs) in the United States affected each year. If untreated, uromycitisis can cause acute renal failure and has an associated high mortality. Early urine screening and diagnosis is critical to increasing the survival rate for uromycitisis. Unfortunately, the reagent used on dipstick urinalysis tests, *soma-D*, has difficulty detecting the bacterial casts of *Costanzacoccus georgeus* (the causal pathogen for uromycitisis). As a result uromycitisis tests often produce false negatives, allowing the infection to go undiagnosed and progress. Our project involves the development of a multi-step chemical synthesis to produce the reagent, *ketracel-black*, which will improve the detection of *Constanzacoccus georgeus*, leading to a greater reliability of dipstick tests for the early detection – and subsequent treatment – of uromycitisis.



One Paragraph Example -C

Re-establishing the skin's protective barrier through wound healing is significantly compromised in certain common chronic diseases such as Type II Diabetes. Open wounds lead to serious infections if not effectively treated (1). Steroids and antimicrobial hydrogels are currently the standard of care in open wounds after surgical debridement (1-3). However, these treatments result in adequate wound closure in only 32% of serious infectious wounds (3), leading to systemic complications and death in 80,000 patients yearly (4), which is not yet fully understood. The reasons for poor wound healing involve wound microenvironmental changes in pH (6); Ca^{++} and Mg^{++} (7); and alterations in microvasculature (8-10), which have not yet been studied in wound healing. This critical gap in our understanding of wound healing has been recently identified as one of the central goals of the NIDDK and the subject of NIDDK RFA 12-124. Addressing this unmet medical need will have help us better understand how wounds heal in order for researchers to identify therapeutic targets and strategies.



One Paragraph Example -D

Re-establishing the skin's protective barrier through wound healing is significantly compromised in certain common chronic diseases such as Type II Diabetes.

Open wounds lead to serious infections if not effectively treated (1). Steroids and antimicrobial hydrogels are currently the standard of care in open wounds after surgical debridement (1-3). However, these treatments result in adequate wound closure in only 32% of serious infectious wounds (3), leading to systemic complications and death in 80,000 patients yearly (4), which is not yet fully understood. The reasons for poor wound healing involve wound microenvironmental changes in pH (6); Ca^{++} and Mg^{++} (7); and alterations in microvasculature (8-10), which have not yet been studied in wound healing. This critical gap in our understanding of wound healing has been recently identified as one of the central goals of the NIDDK and the subject of NIDDK RFA 12-124.

Addressing this unmet medical need will help us better understand how wounds heal in order for researchers to identify therapeutic targets and strategies.

To address this need we will develop a new microfluidic platform which mimics the microenvironmental changes in pH, Ca^{++} , and Mg^{++} associated with poor wound healing.



Brainstorming the Paragraph

What is the problem?

What is the need?

What is the current situation/knowns?

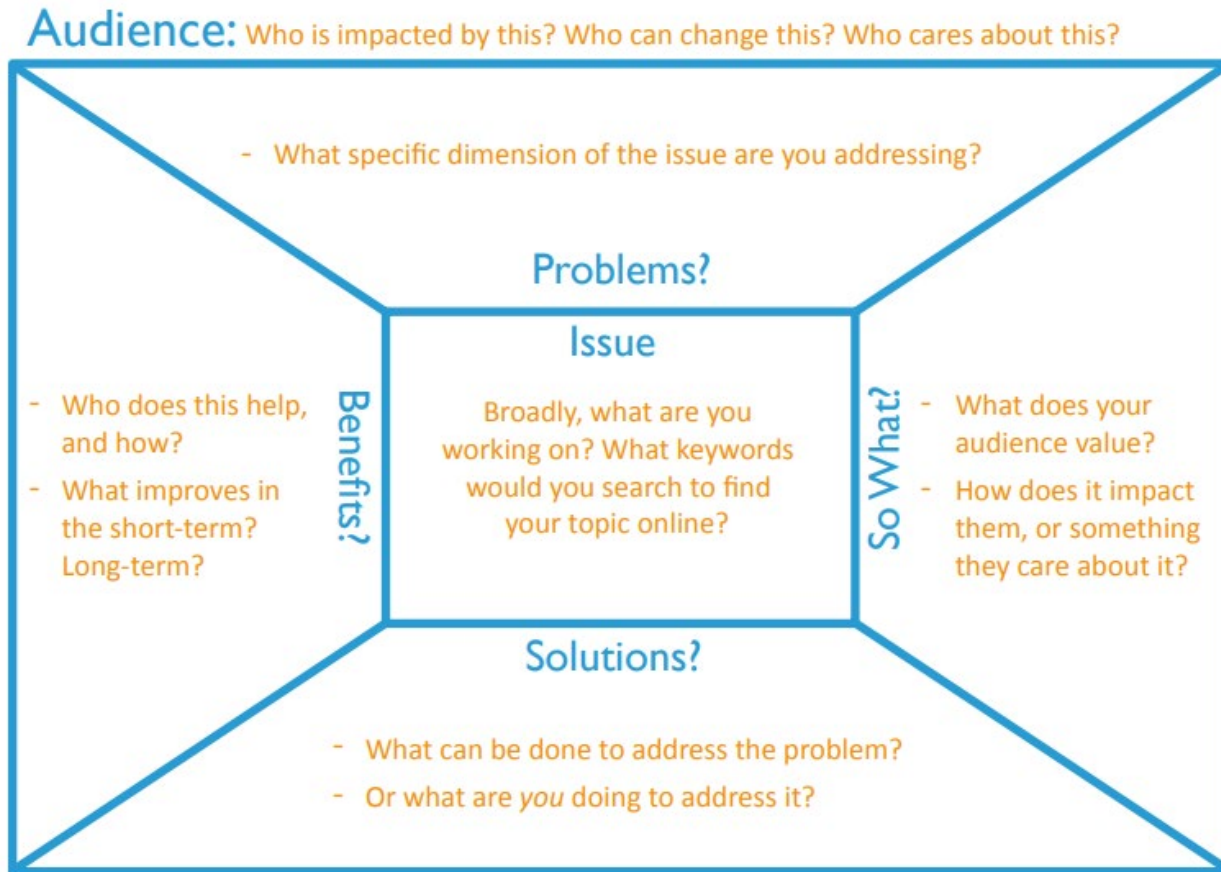
What is the gap between the current situation and the ideal situation?

What is the impact of the gap?

How will you fill in the gap?



Message Box Alternative



Message Box



Research & Innovation Office

UNIVERSITY OF COLORADO **BOULDER**

RIO Grant Writing Series

[Jim Mazzoucolo](#)

Proposal Editor & Writing Coach

[PGP](#): [he/him/his](#)

[Research & Innovation Office](#) – [Request Proposal Support](#)

6/16: [Writing a One-Page Project Summary](#)

6/23: [Keeping the Narrative Simple](#)

6/30: [Sustaining Your Argument](#)

