

# Elements of a Successful Proposal

---

Edward L. Clennan  
Department of Chemistry  
University of Wyoming



# TIME



# Elementary Steps in Proposal Generation

---

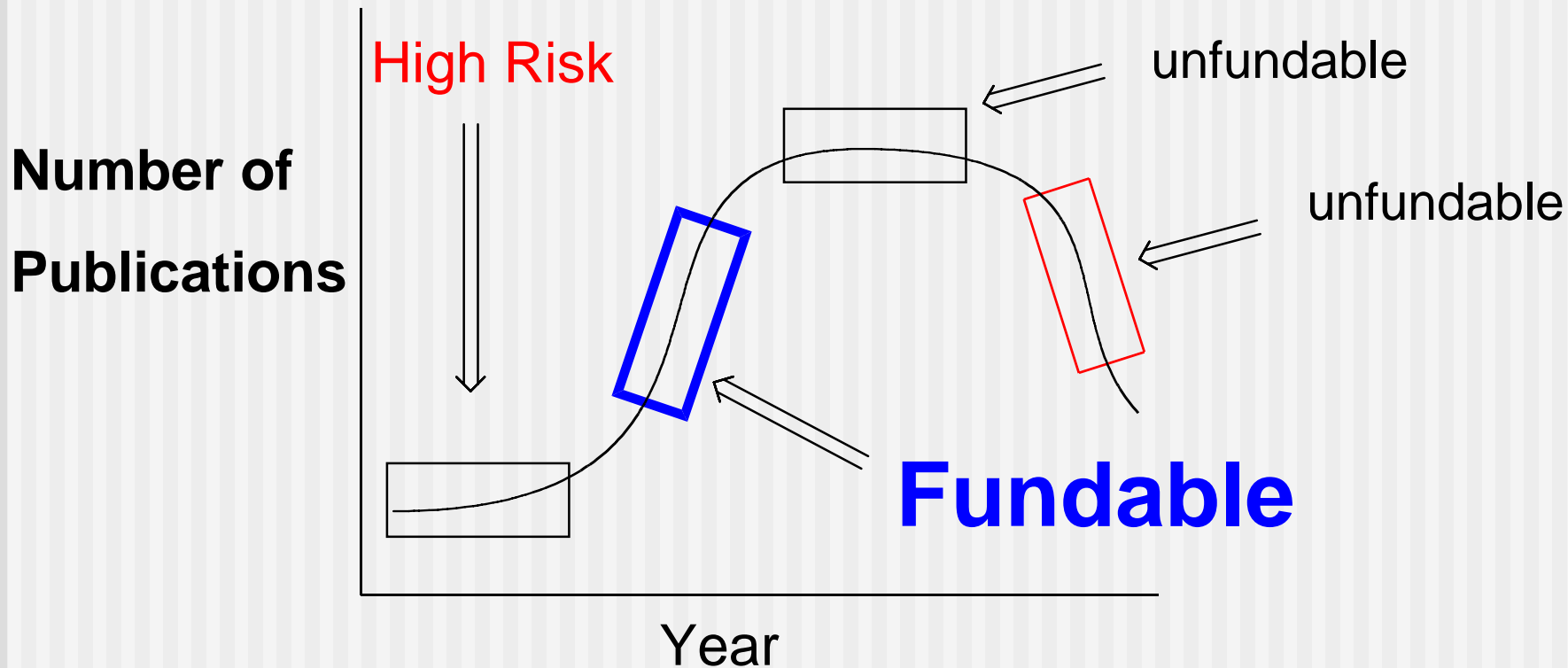
I. Preparation

II. Writing

III. Preliminary Review

# I. Preparation

## A. Identify Research Area



# I. Preparation

---

## B. Generate a specific idea in the fundable area

- must fill a gap in knowledge and lead to demonstrated benefits
- must be a vertical not horizontal idea
- must be an original unique idea you can make your own
- must be an idea you are equipped to solve

educational background

access to resources

# I. Preparation

---

## C. 4 stages of idea generation

**Moshe F. Rubinstein** - Dept. of Civil and Environmental Engineering, University of California Los Angeles

- **Background collection and evaluation**
  - **incubation**
  - **inspiration**
  - **verification**

# I. Preparation

---

- Background Collection and Evaluation
  - What is known?
  - Is it reliable?

# I. Preparation

---

- Incubation

- **“Sleep on it” stage**



# I. Preparation

---

## ■ Verification

- **Will this idea significantly impact the research area?**
- **Will I be able to convince the reviewers that this is an exciting and doable idea?**

# I. Preparation

---

D. Identify a Funding Agency

E. Understand the Agency Funding Criteria

# I. Preparation

---

## Funding Criteria PRF New Directions Grant

- 1. The extent to which the proposed research represents a new or independent area of investigation for the lead principal investigator.**
- 2. The overall quality, significance, and scientific merit of the proposed research, including the extent to which it will increase basic knowledge and/or stimulate additional research.**
- 3. The impact of PRF funding the research, including the effect on the principal investigator's overall research program.**
- 4. The qualifications or potential of the principal investigator(s) and adequacy of the facilities to conduct research.**
- 5. The extent to which advanced scientific education will be enhanced through the involvement of students in the research.**

# I. Preparation

---

## Funding Criteria NSF

**1. Intellectual Merit**

**2. Broader Impact**

# I. Preparation

---

## Funding Criteria NIH

- 1. Significance**
- 2. Approach**
- 3. Innovation**
- 4. Environment**

# II. Writing

---

## Goals

**Convey enthusiasm to convert a reviewer who HAS to read your proposal into a reviewer who WANTS to read your proposal**

- **Write clearly with compelling logic**
- **Admit potential problems**
- **Convey flexibility and adaptability to respond to unexpected results (provide alternative approaches)**

# II. Writing

---

## Goals (continued)

- **Write assertively**
- **Be brief but also explain thoroughly**
- **Make proposal user friendly**

# II. Writing

---

## User Friendly Benchmarks

- 1. Do not use complicated sentences**
- 2. Do not use undefined acryonms**
- 3. Do not forget to use a spell checker**
- 4. Do not exceed the page limit or word count defined by the granting agency**
- 5. Do not use a font size smaller than recommended by the granting agency**



# II. Writing

---

## User Friendly Benchmark (continued)

6. Do not use smaller margins than recommended by the granting agency
7. Use the section headings recommended by the granting agency
8. Design easy to read schemes and figures
9. Place schemes and figures in close proximity to where it is discussed in the text
10. Do not make excessive use of italic and boldface text

# II. Writing

---

## Develop an Outline

**I. Introduction**

**II. Project Description**

**III. Conclusion**

**IV. Budget**

# II. Writing

---

## I. Introduction

- **Statement of Topic**
- **Current Status (what is known)**
- **What is not known**
- **Your long term goal in the topic area**
- **Goal of this proposal**
- **Hypothesis and alternatives**
- **Plan of action**
- **Anticipated outcomes**
- **Impact**

# III. Preliminary Review

---

- Put your proposal aside for a day or two then come back and read it.
- Ask a trusted colleague to read your proposal and make comments

# B. Patrick Sullivan, 1949-2008

---



**Department of Chemistry, University of Wyoming**