

A decorative network diagram in the top-left corner, featuring a complex web of interconnected nodes and lines. Some nodes are highlighted with blue circles, and others with blue dots. The lines are thin and grey, creating a mesh-like structure.

# Clinical Trial Mapper Proposal

*Team 038 - The Real Yellow Jackets*

A decorative network diagram in the bottom-right corner, similar to the one in the top-left. It shows a cluster of nodes connected by lines, with several nodes highlighted in blue.

A decorative network diagram in the top-left corner, featuring a cluster of interconnected nodes. Some nodes are represented by solid grey circles, while others are open circles with grey outlines. These nodes are connected by thin, light-grey lines, forming a complex web-like structure.

1.

# **Heilmeier Questions (Expected Innovations)**

## Introduction (Q1 & Q2)

- ◎ *What are we trying to do?*

**Develop an innovative and user-friendly visualization tool for the clinicaltrials.gov website**

- ◎ Increasing volume and complexity of data
- ◎ Relationship between clinical trials not emphasized
- ◎ Currently visuals on the site are static

## What's new in our approach? (Q3)

Visualization of interconnecting map of clinical trials

# Limited visual interaction

NIH U.S. National Library of Medicine

**ClinicalTrials.gov**

[Find Studies](#) ▾

[About Studies](#) ▾

[Submit Studies](#) ▾

[Resources](#) ▾

[About Site](#) ▾

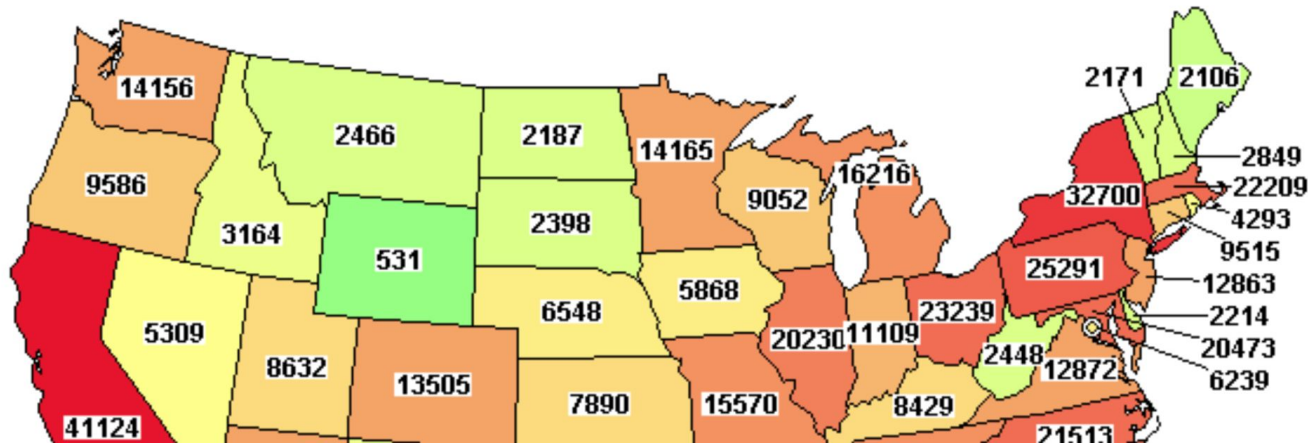
[PRS Login](#)

[Home](#) > [Find Studies](#) > [See Studies on Map](#)

## See Studies on Map

### Map of All Studies on ClinicalTrials.gov

On the map below, click on a region to show a more detailed map (when available) or see a list of studies with locations in that region (when a detailed map is not available).



# ClinicalTrials.gov recognizes the need to improve

Welcome to the beta website! Look around, [learn more](#), [give feedback](#), or [return to the classic website](#).

NIH National Library of Medicine  
National Center for Biotechnology Information

PRR Login

**BETA** ClinicalTrials.gov Resources About

**Find Studies** **About Studies** **Submit Studies** **Resources** **About Site**

**Find a study** (all fields optional)

**Status** ⓘ

☐ Recruiting and not yet recruiting studies

☒ All studies

**Condition or disease** ⓘ (For ex... Choose to limit search to only recruiting studies or to search all studies

**See listed clinical studies related to the coronavirus disease (COVID-19)**

ClinicalTrials.gov is a resource provided by the U.S. National Library of Medicine.

**IMPORTANT:** Listing a study does not mean it



## Beneficiary profile and the difference it will make (Q4 / Q5)

- ◎ Health care professionals and Researchers
- ◎ Patients involved in trials and Interested public
- ◎ ClinicalTrials.org

## Risk Involved (Q6)

- ◎ Increasing complexity and size of data

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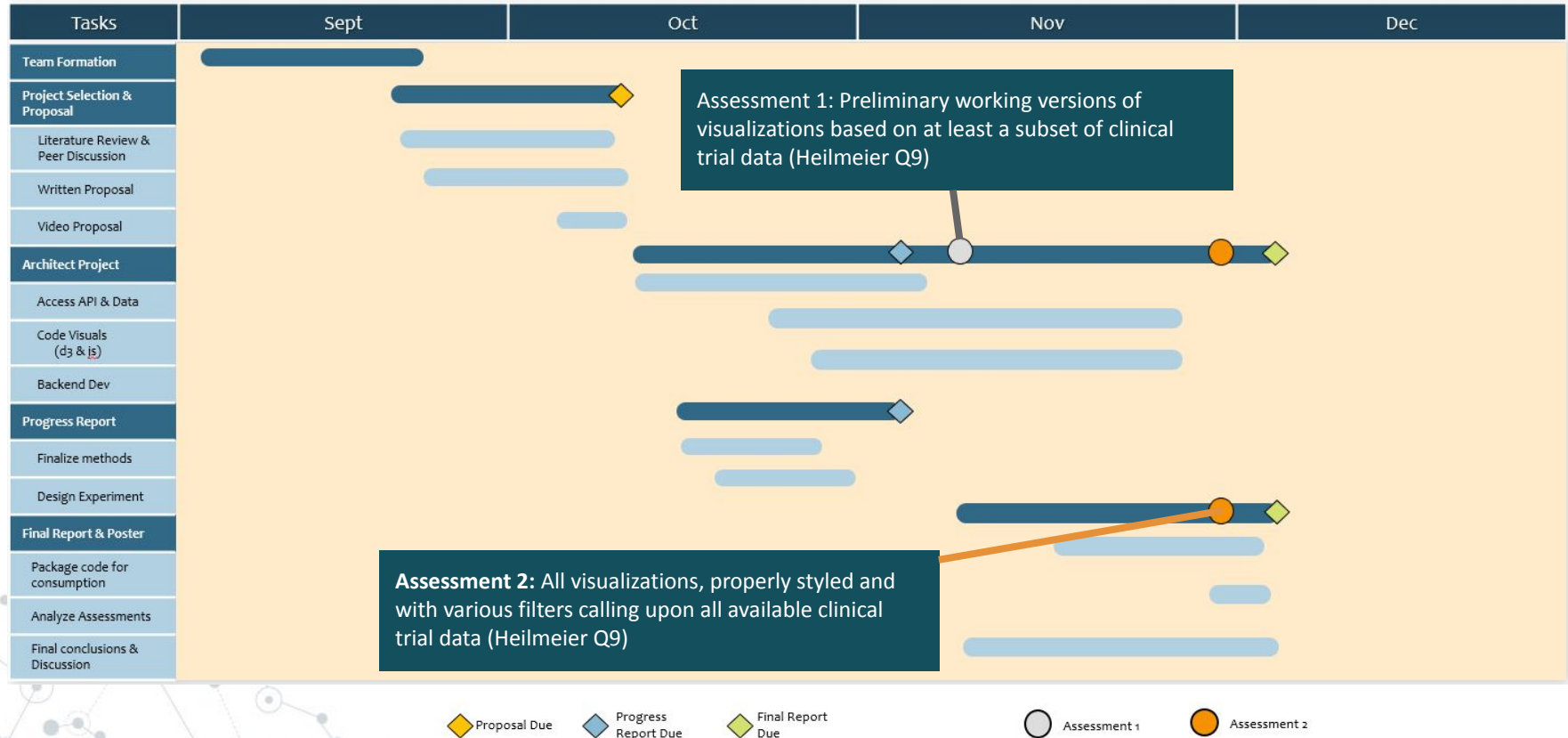
# 2.

## **Plan of Activities**

All team members contributed a similar amount.

## Project Schedule and Cost (Q7 & Q8 & Q9)

Cost: Hosting fee = Max \$100





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# 3. **Brief Literature Survey**



## Visuals highlighting changes in trials over time. (2&3)

2. Denworth, L. (2019, October 1). *The significant problem of P values*. Scientific American. Retrieved October 4, 2022, from <https://www.scientificamerican.com/article/the-significant-problem-of-p-values/>


3. Golchi, S., Willard, J. J., Pullenayegum, E., Bassani, D. G., Pell, L. G., Thorlund, K., & Roth, D. E. (2022). A bayesian adaptive design for clinical trials of rare efficacy outcomes with multiple definitions. *Clinical Trials*, 174077452211183. <https://doi.org/10.1177/17407745221118366>

## Inclusion of aggregate functions, filtering capabilities, exporting the results in a PDF format (6)

Graves, A., & Hendler, J. (2013). Visualization tools for open government data. *Proceedings of the 14th Annual International Conference on Digital Government Research*. <https://doi.org/10.1145/2479724.2479746>

## Delivering and relating visuals of past clinical trial results to currently employed program (15)

15. Llewellyn-Thomas, H. A., Thiel, E. C., Sem, F. W. C., & Harrison Woermke, D. E. (1995). Presenting clinical trial information: A comparison of methods. *Patient Education and Counseling*, 25(2), 97–107. [https://doi.org/10.1016/0738-3991\(94\)00705-q](https://doi.org/10.1016/0738-3991(94)00705-q)





## Improve the network representation by combining multiple methods.(19)

19. McGee, F., Choniem, M., Melancon, G., Otjacques, B., Pinaud, B. (2019). The State of the Art in Multilayer Network Visualization. *Computer Graphics Forum*, <https://doi.org/10.1111/cgf.13610>



## Tool to navigate through the historic as well as the ongoing trials (5)

5.Tong, M., Hsu, W., & Taira, R. (2017, February 10). Evaluating a novel summary visualization for clinical trial reports: A usability study. Retrieved October 10, 2022, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5333215/>



# Thanks!

## Team 38 -The Real Yellow Jackets