SARS-CoV-2 Vaccines Research

## Learning Objectives: To explore public data resources in biology and the scientific literature to learn about the current status of SARS-CoV-2 vaccines

## Introduction

Information included in the exercises in this curriculum represent our knowledge about the SARS-CoV-2 virus and vaccine development through Summer 2020. This research project engages students in learning about the current status of SARS-CoV-2 vaccines using public data resources in biology and the scientific literature to learn about the topic of interest.

## Exercise

Organize students to do this research in groups or assign to individual students as appropriate. Students should research any one of the current SARS-CoV-2 vaccines in clinical trials and

answer the following questions:

1. What company is developing it? Where?
2. What strategy is used for developing this vaccine?
3. Explain the molecular mechanism involved in the Vaccine action?
4. How is it administered? Are there any limitations or concerns in administering it?
5. What phase(s) of clinical trials has/have been completed?

Information gathered by each group or individual should be presented to the entire class as a poster or a presentation.

## Resources

1. Overview: <https://www.sciencenews.org/article/coronavirus-covid-19-vaccine-clinical-trials-speed-safety?utm_source=Editors_Picks&utm_medium=email&utm_campaign=editorspicks071210>

https://www.nature.com/articles/d41586-020-01221-y

1. Vaccine tracker: <https://www.covid-19vaccinetracker.org/>
2. Updated information on Vaccines: <https://milkeninstitute.org/Mobilizing-for-Action-in-the-Time-of-COVID-19>
3. Clinical Trials on COVID-19 vaccines <https://clinicaltrials.gov/ct2/results?cond=covid19&term=vaccine&cntry=&state=&city=&dist=>