Genomic Medicine and PRS

## Overview

This activity will walk through how to use a polygenic risk score (PRS) calculator, as well as how to interpret the outcome. Students will also compare calculations using different superpopulations, demonstrating the importance of diverse ancestry in PRS interpretation.

**Duration:** Approximately 2-3 hours

## Learning Objectives

1. Calculate and interpret polygenic risk scores.
2. Compare risk percentiles using different ancestral superpopulations.
3. Identify and critique scientific issues relating to society or ethics (see [GSA](https://genetics-gsa.org/education/genetics-learning-framework/) core competencies).

## Materials and Setup

* Students will need:
  + An internet connection for this activity. Students will use this website: https://prs.byu.edu/calculate\_score.html.
* Data hosting: LINK
* Download the R student activity as:
  + [Web page](https://genomicseducation.org/module/genomic_med_prs_student_guide.html)
  + [Quarto (qmd)](https://github.com/fhdsl/GEMs/blob/main/module/genomic_med_prs_student_guide.qmd)
  + [Word (docx)](https://github.com/fhdsl/GEMs/raw/main/docs/docx/module/genomic_med_prs_student_guide.docx)
  + Google Doc - coming soon!
* Google Slides presentation available for borrowing images here.
* Answer key available here.

## Scientific Topics

Coming soon!

## Outline

Coming soon!