

A DBER / MCDB Science Education Seminar

## Genomics Literacy Matters:

Supporting the Development of Genomics Literacy Through Genetics Education Could Reduce Cognitive Forms of Racial Prejudice

**Brian Donovan**

BSCS Science Learning, Colorado Springs, CO.

**TUESDAY, 10 September 2019**

→ **Note room change:** GOLD BioScience A120

**3:30 PM**

Historically, arguments based on genetics have been used to support ideological claims about the naturalness of racial inequality. Dr. Donovan will present data from randomized control trials (RCTs) that highlight how conventional genetics courses can result in students unintentionally adopting genetic explanations for racial inequality. He will argue that teaching of human genetics out of context, that is, independent of an accurate understanding of the genetic variations within human populations, can lead to harmful and inhumane effects.

He will present evidence that harmful effects can be addressed through curricular designs that focus on the social and quantitative complexities of human genetic variation, which can help students develop a better understanding of human difference that may in turn reduce the risk that students develop naïve and harmful beliefs about the genetic basis of racial inequality.

**Brian M. Donovan, Ph.D.** holds a B.A. in biology from Colorado College, a M.A. in teaching from the University of San Francisco, a M.S. in biology and Ph.D. in science education from Stanford University. His research explores how genetics education interacts with social-cognitive biases to influence how students make sense of complex biological and social phenomena. By translating this research into frameworks that inform science instruction, curriculum development, and teacher education, he hopes to create a generation of researchers, teachers, and curriculum designers who know how to teach about human difference in a more socially responsible manner. His work has been published in a range of peer-reviewed journals and he is principal investigator of a NSF funded project (EHR Core Award #[1660985](#)) that uses experimental, quasi-experimental, and qualitative research methods, to identify the cognitive, social, and educational factors that link the learning of human genetics to reductions in racial bias.

