

DNA Discovery Day and Museum DNA Discovery Center

Grant recipient: Emmett Smith
Science outreach case study

Supported by the Science Outreach & Communication Grant
Hosted by ASBMB's Science Outreach & Communication Committee



Project overview

Undergraduate students in Earlham College's "Human Genetics and Genomics" class created a permanent hands-on DNA exhibit for their campus Joseph Moore Museum that opened on DNA Day (April 25).

They created four informational posters about the structure and function of DNA, focusing specifically on MC1R to relate gene variants (light versus dark pigment) to human and mastodon hair color. These posters also introduced the concept of genetic evolution to the general public.

A 3D DNA model and a DNA Building Activity for guests to interact with were purchased from 3D Molecular Models. We also provided 3D DNA Origami for guests.

Aims

- Provide biology undergraduate students the opportunity to develop their science communication skills with communities of diverse educational backgrounds.
- Increase public appreciation for and understanding of DNA and the genetic basis of phenotypic traits, including disease susceptibility.

Takeaways

- Interactive activities were a hit! Have more.
- Research indicated that young girls gravitate to exhibits with faces, so we added this element to our posters.
- Having student presenters assist at the stations helped spread the message that DNA is super cool!

At a glance

Challenges

- Collaborating with museum staff
- Improving poster cohesiveness
- De-jargoning poster content
- Advertising the exhibit ahead of time

Achievements

- A permanent DNA exhibit was created for our campus museum
- Upperclass undergraduates presented their work to the public on DNA Day

Budget:

Example costs:

- Poster supplies (\$325)
- Activity kit supplies (\$265)
- Dynamic DNA Kit (\$240)
- Advertisement (\$95)



"I've wanted to see a DNA exhibit in our museum since I began working at Earlham. Giving my students the chance to practice speaking to the public about genetics is always a learning goal in my classes. Combining DNA Day, the museum and my students into one project was a great opportunity. Thank you, ASBMB!"

Emmett Smith, associate professor at Earlham College