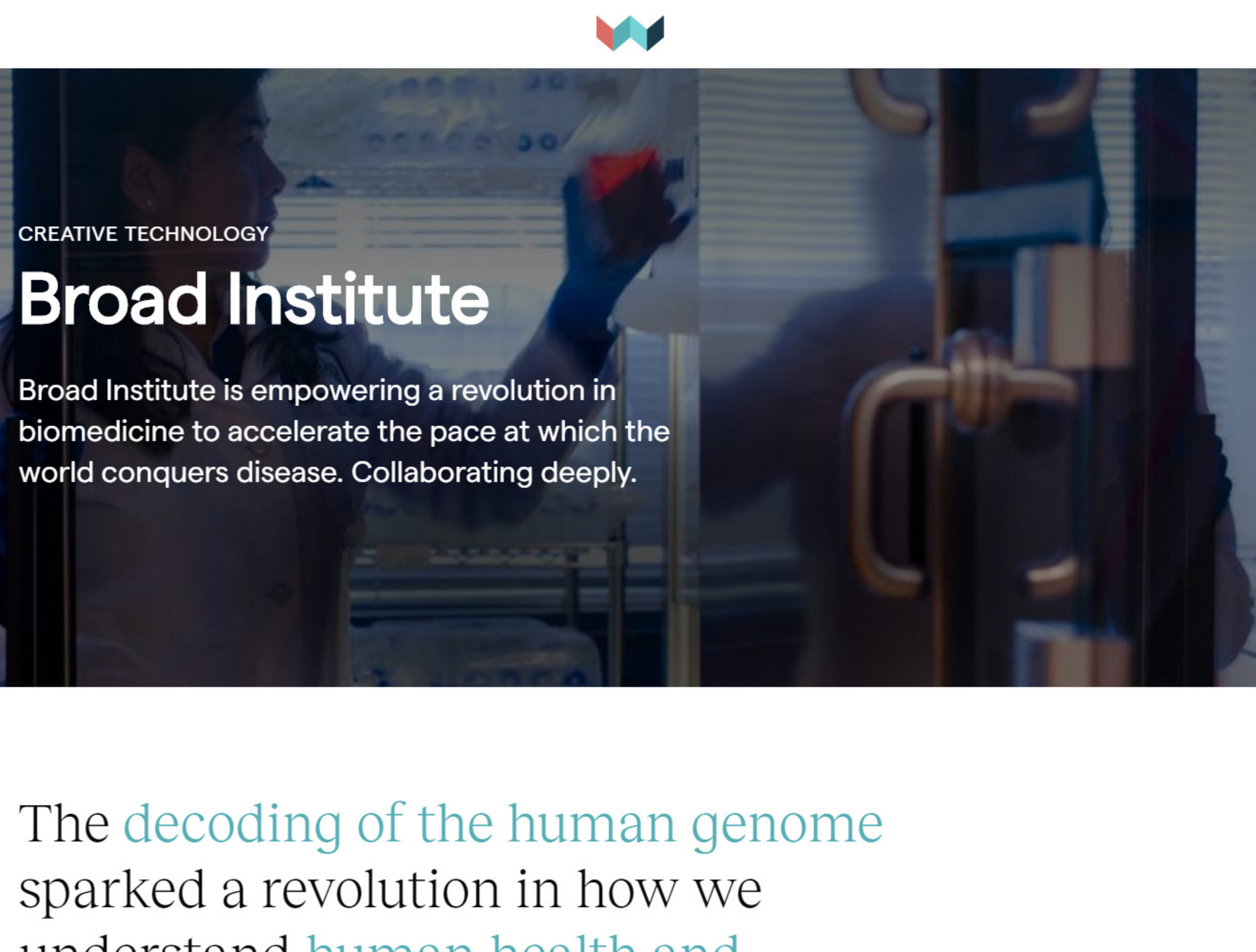




CREATIVE TECHNOLOGY

Broad Institute

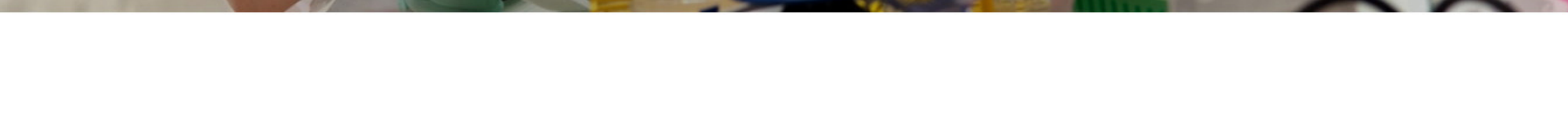
Broad Institute is empowering a revolution in biomedicine to accelerate the pace at which the world conquers disease. Collaborating deeply.

The **decoding of the human genome** sparked a revolution in how we understand **human health and disease**.

OVERVIEW

The Challenge

When you're a global center for genomic research, complexity comes with the territory. For the Broad Institute, this means delivering complicated information to a long list of stakeholders. Researchers in medicine, biology, chemistry, computation, engineering, and mathematics from across MIT and Harvard, all have a stake in its work. Delivering a website experience that meets the needs of these users is a real challenge and creative opportunity.



PROJECT

The Solution

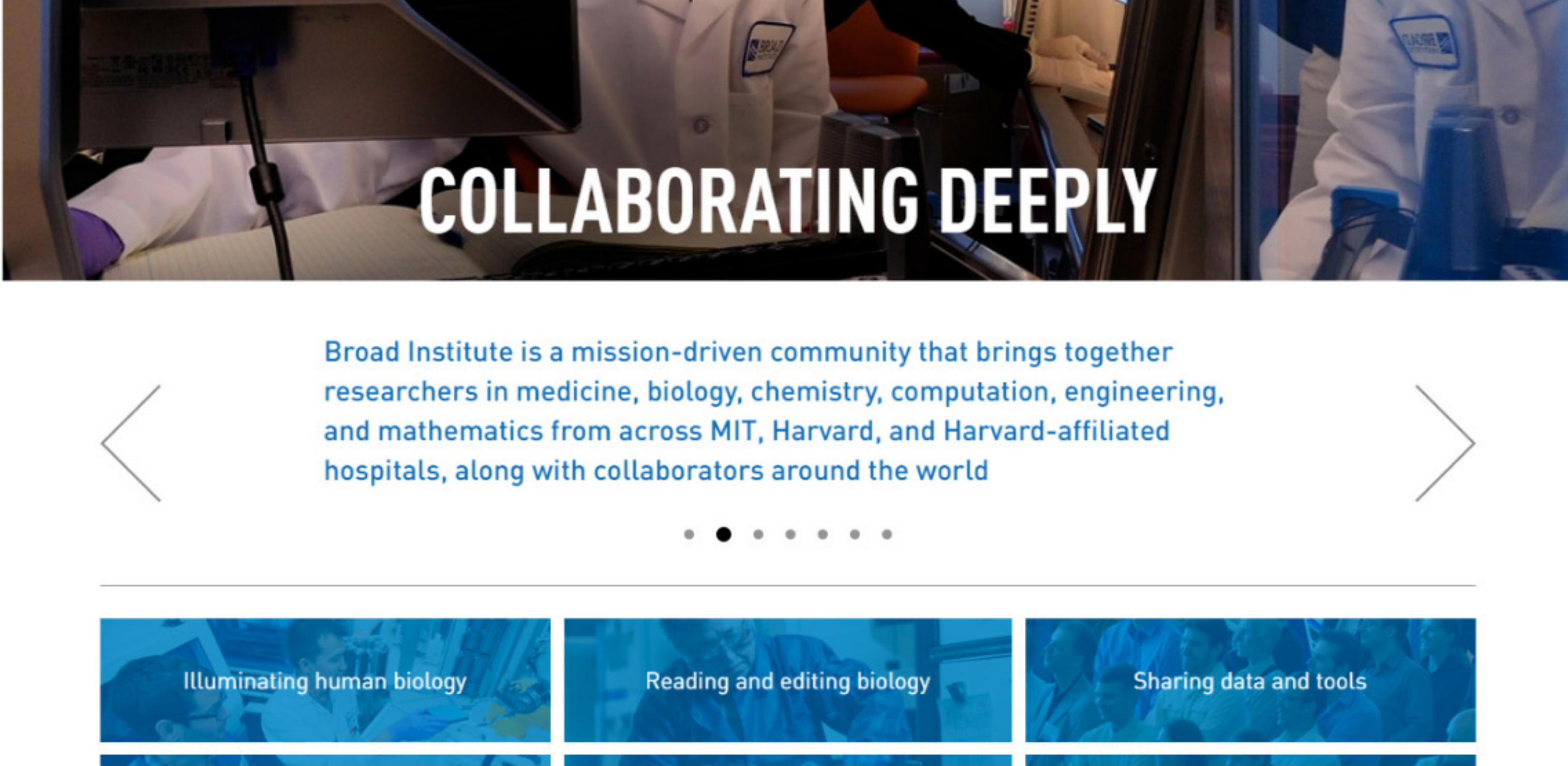
Responding to this opportunity, we examined each of the content components that make up the Broad Institute's ecosystem and then assembled them into a user experience that matches the browsing and exploration habits specific to audiences.

Our goal was to transform the website into a dynamic, evergreen media experience - an effort that required precise alignment between product strategy, content strategy, modular visual and user experience design, and a powerful CMS capable of supporting it all. Through a modular design system, we provided Broad Institute with the tools to create scientific narrative on scale.

Admins can feature and relate content through taxonomy - arranging these it into a narrative outline of each page. Individual components can also be pulled out and used as enticing entry points in feature areas across the site. Integration with Google search API provides targeted indexing and content visibility based on relevant real time results.



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Broad Institute is a mission-driven community that brings together researchers in medicine, biology, chemistry, computation, engineering, and mathematics from across MIT, Harvard, and Harvard-affiliated hospitals, along with collaborators around the world

- [Illuminating human biology](#)
- [Reading and editing biology](#)
- [Sharing data and tools](#)
- [Building communities](#)
- [Developing diagnostics and treatments](#)
- [Collaborating, innovating, and empowering](#)

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Broad@15

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IBD researchers talk about what the field needs to do to better understand the disease and ultimately benefit more patients. [READ MORE](#)

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Diabetes genetics researcher Josep Mercader talks about the benefits and challenges of a career analyzing large and diverse datasets. [READ MORE](#)

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What it means to be a staff scientist: new skills, perks, and challenges

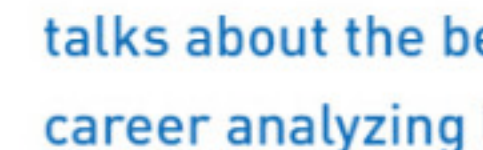
In a #WhyIScience Q&A, Julian Ailla-Pacheco talks about his post-PhD career path and how he has tackled imposter syndrome as a minority scientist. [READ MORE](#)

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BROADMINDED BLOG

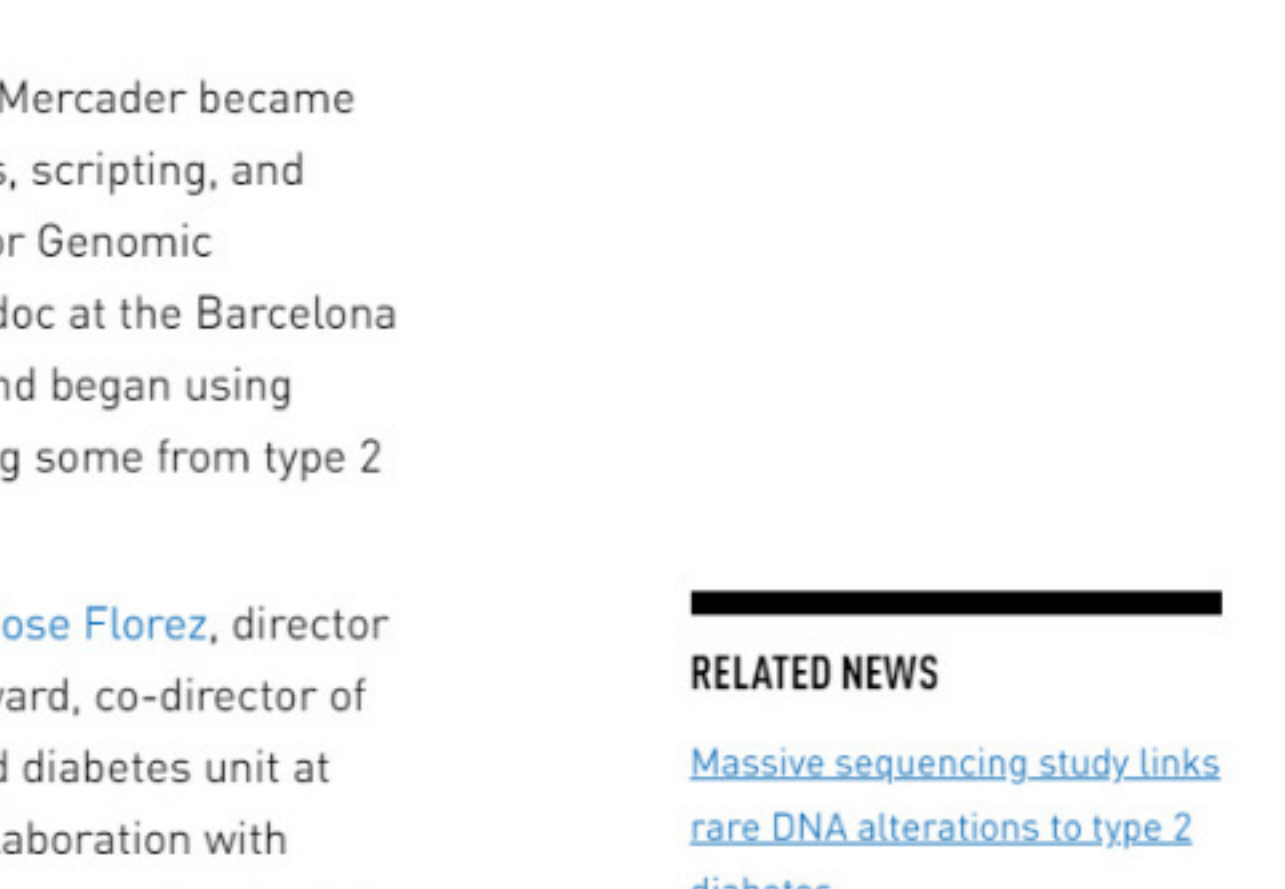
BLOG / 10.28.19



#WhyIScienceQ&A: Why I switched from experimental to computational biology

By Abbey Bigler

Diabetes genetics researcher Josep Mercader talks about the benefits and challenges of a career analyzing large and diverse datasets.



Credit : Allison Dougherty
Josep Mercader

While studying the genetics of anorexia nervosa for his Ph.D., Josep Mercader became intrigued by computational biology. He taught himself basic statistics, scripting, and programming as he continued his graduate research at the Center for Genomic Regulation in Barcelona. After completing his degree, he was a postdoc at the Barcelona Supercomputing Center, earned a master's degree in biostatistics, and began using computational methods and tools to analyze biological data, including some from type 2 diabetes patients.

When he encountered a challenge in this project, he reached out to Jose Florez, director of the diabetes research group at the Broad Institute of MIT and Harvard, co-director of Broad's Metabolism Program, and chief of the endocrine division and diabetes unit at Massachusetts General Hospital (MGH). That connection led to a collaboration with Florez's lab and, ultimately, Mercader joining the Broad full time as a research scientist in September 2016.

Today, Mercader is analyzing datasets with new computational techniques to search for novel genetic variation associated with type 2 diabetes. He is also following up on previously identified genetic variants to determine how they increase a person's risk of the disease. And in collaboration with Aaron Leong, an instructor in medicine and an endocrinologist at MGH, Mercader is investigating the physiologic and pharmacologic responses of people who carry genetic variants associated with type 2 diabetes. The findings from these studies could potentially be applied to the development of new and more precise ways of treating and predicting the disease.

Mercader spoke with us about the benefits and challenges of computational biology, as well as the importance of diversity in genomics research in a #WhyIScience Q&A:

Q: What motivated you to move from experimental biology to computational biology?

A: I think the main motivation was that there are currently more data out there than we can understand and digest. It's important to generate more data and larger datasets, but it's also important to make better use of the data we already have. Most research projects just publish the low-hanging fruit, but there's a lot of fruit they're missing, and data-sharing allows computational biologists to do more comprehensive analyses and to try to find other fruits that are just as juicy as the low-hanging fruit.

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RESULTS

Project Success

Session duration up 628%

Organic traffic up 103.4%

Bounce rate decreased to 23%