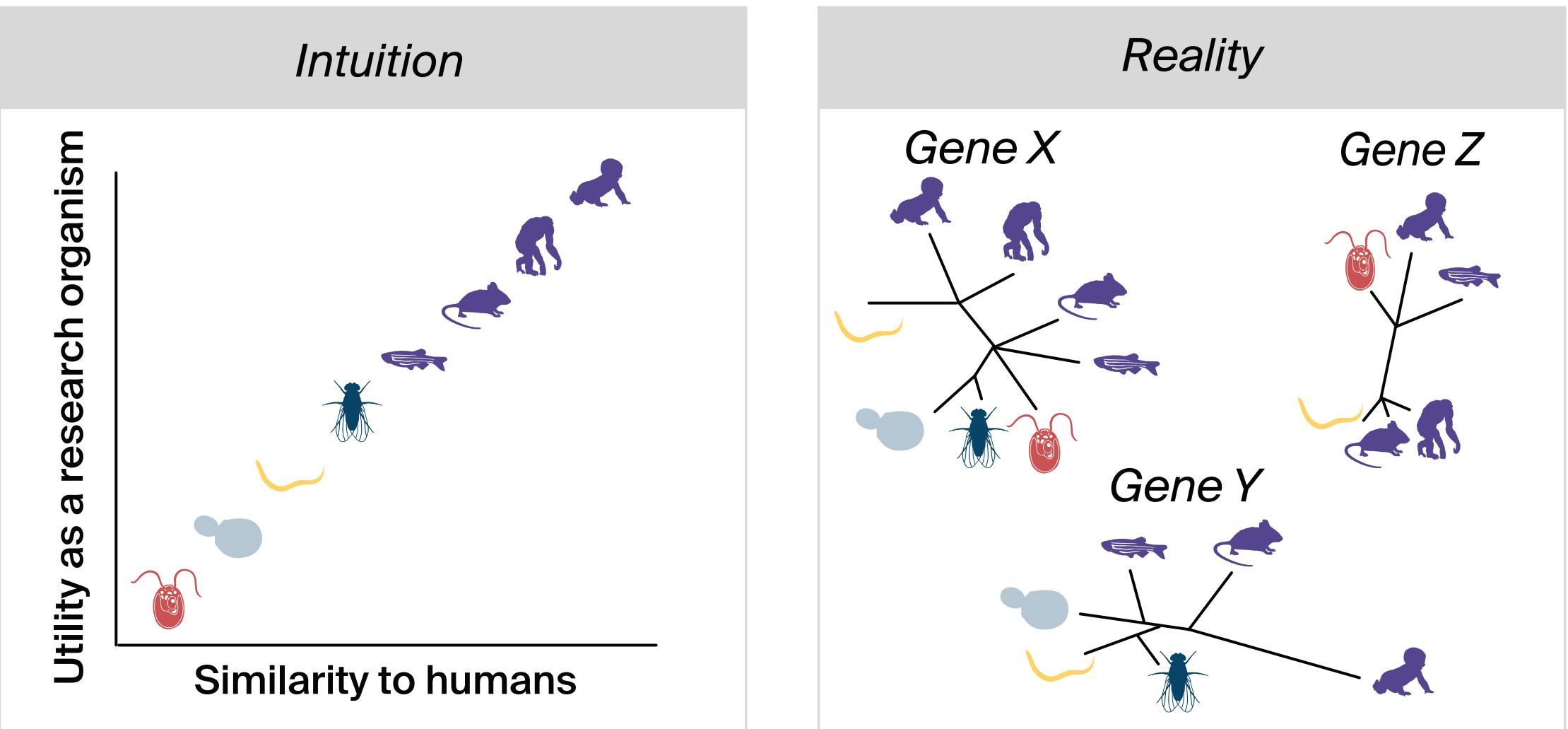


Leveraging evolution to identify organismal models of human biology

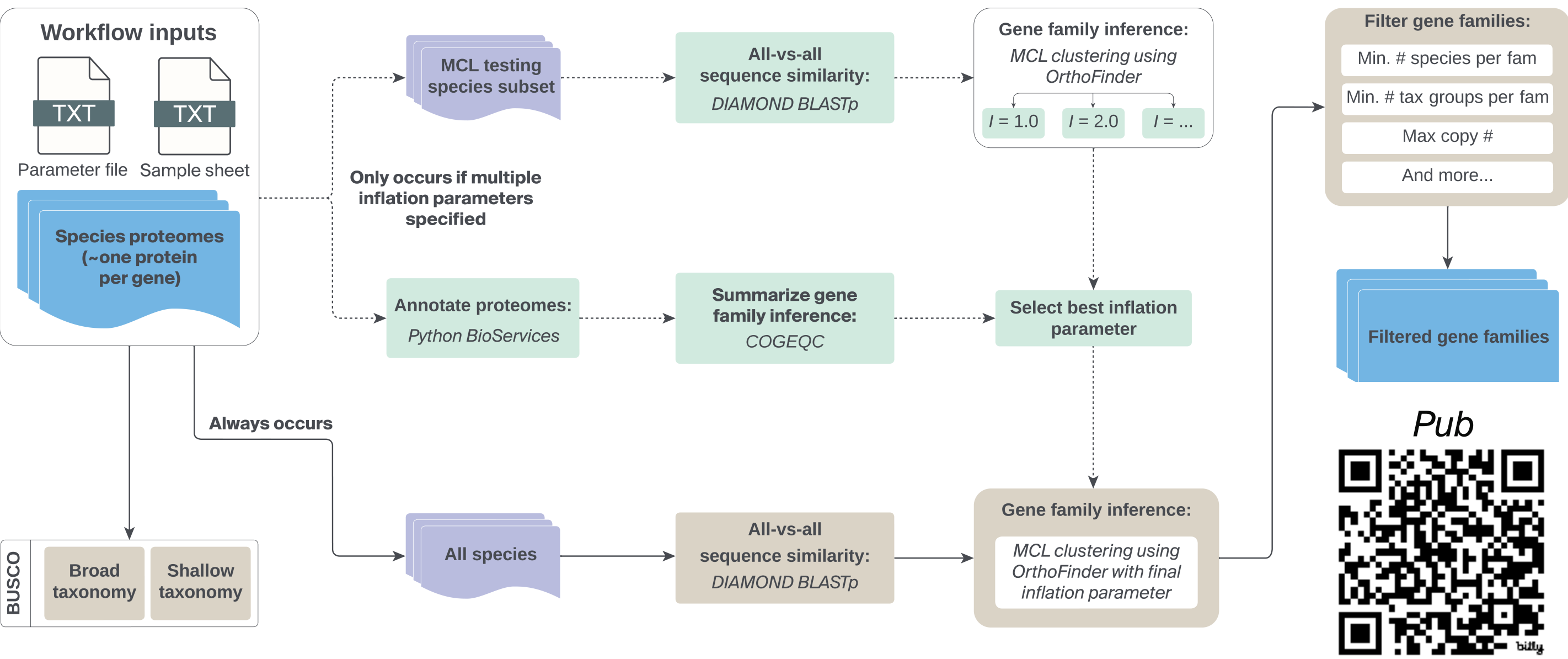
Presented by  Ryan York



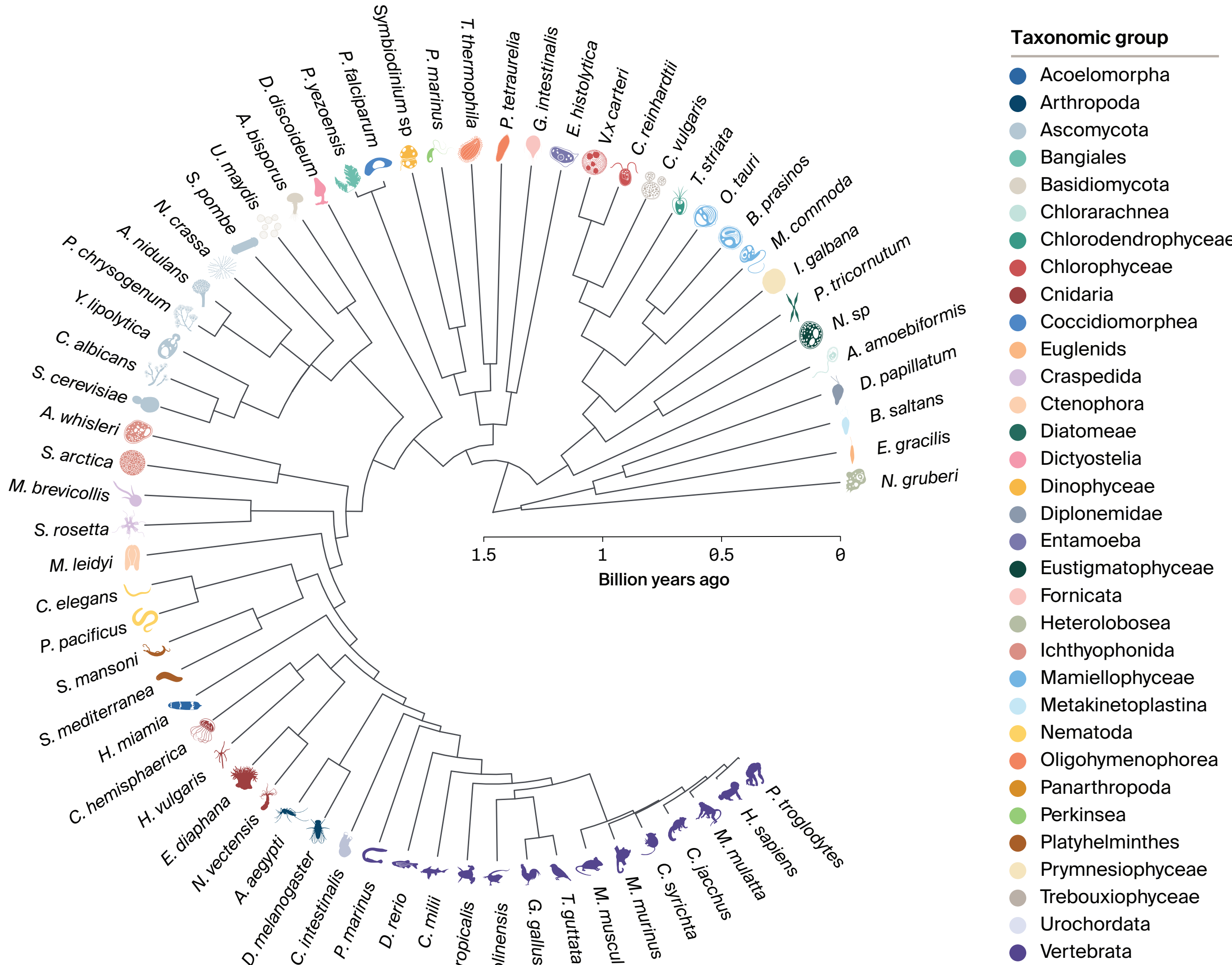
Evolution is heterogeneous;
it's impossible to predict organismal biology *a priori*



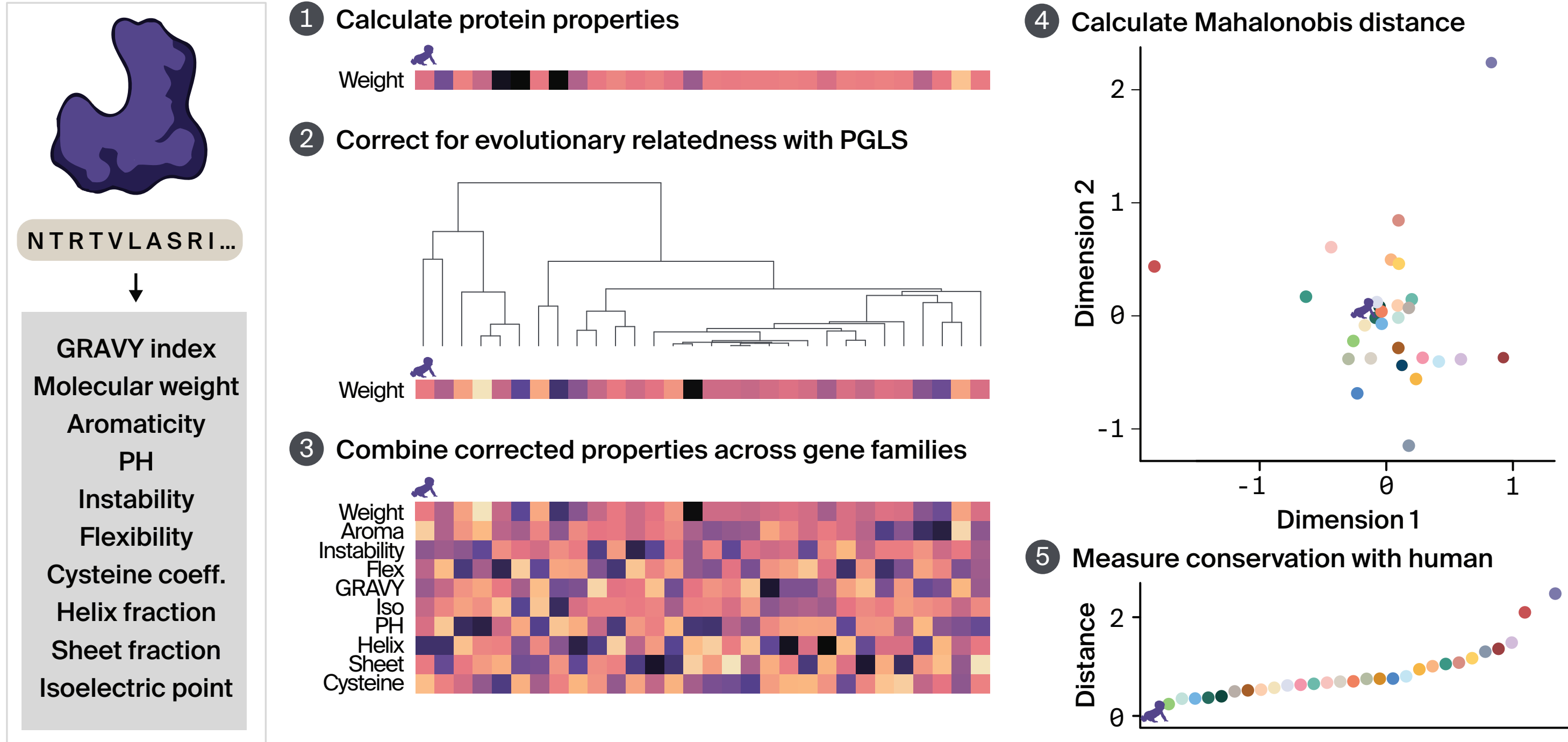
We developed NovelTree to chart the complexity of molecular diversification...



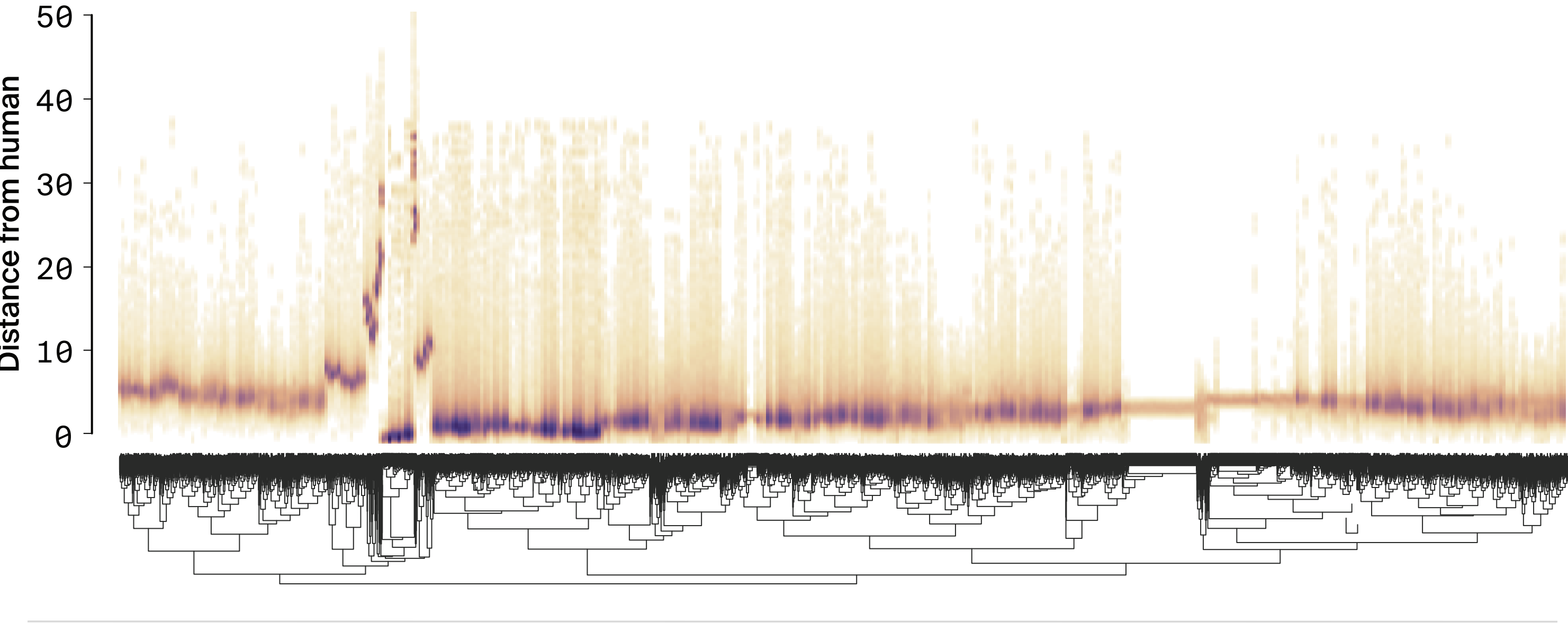
...and characterized 1.5 billion years of Eukaryotic evolution...



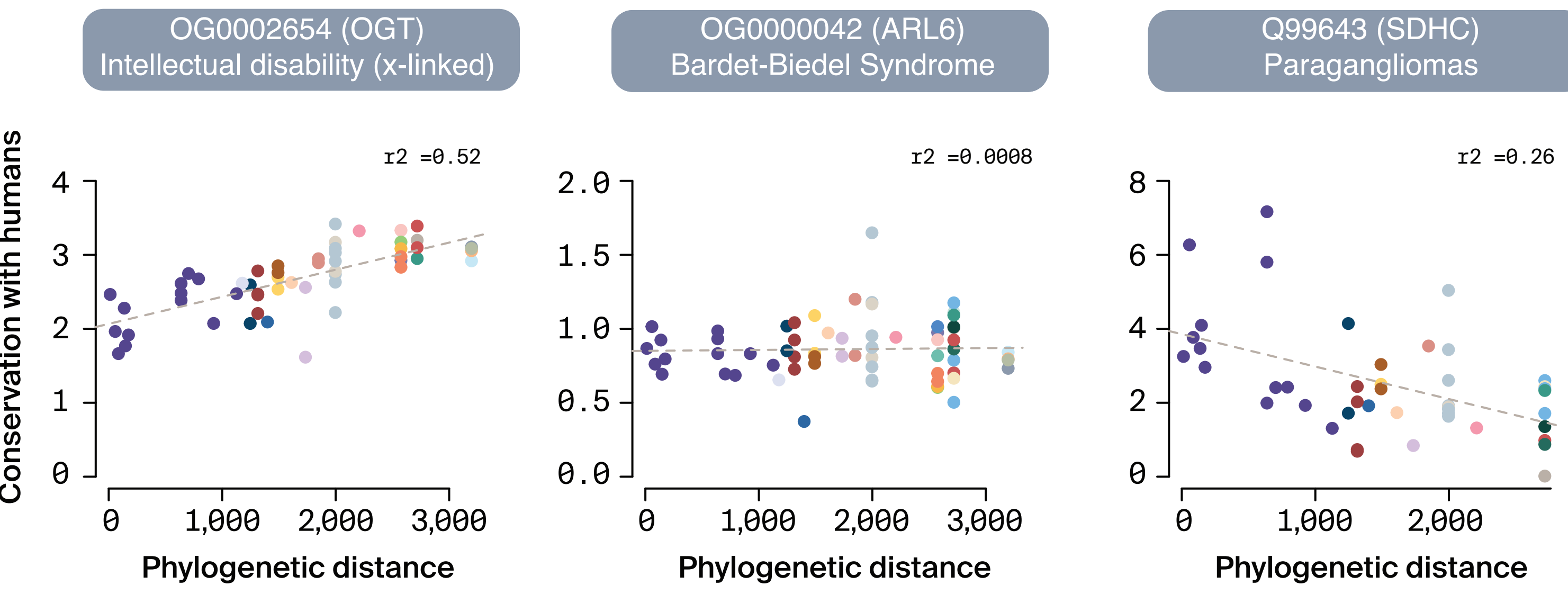
...however, sequence isn't sufficient, so we created a novel measure of molecular conservation...



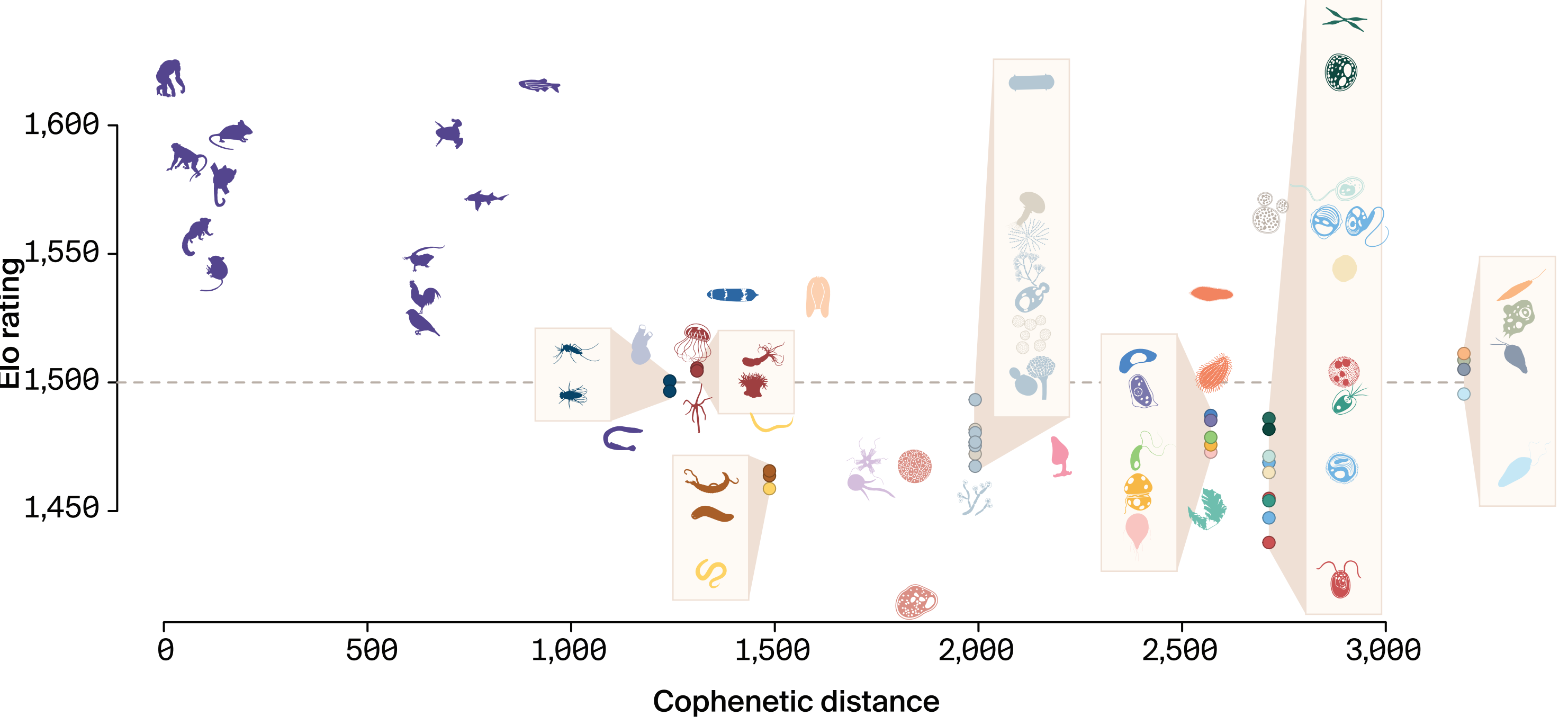
...and mapped the landscape of human genetic conservation



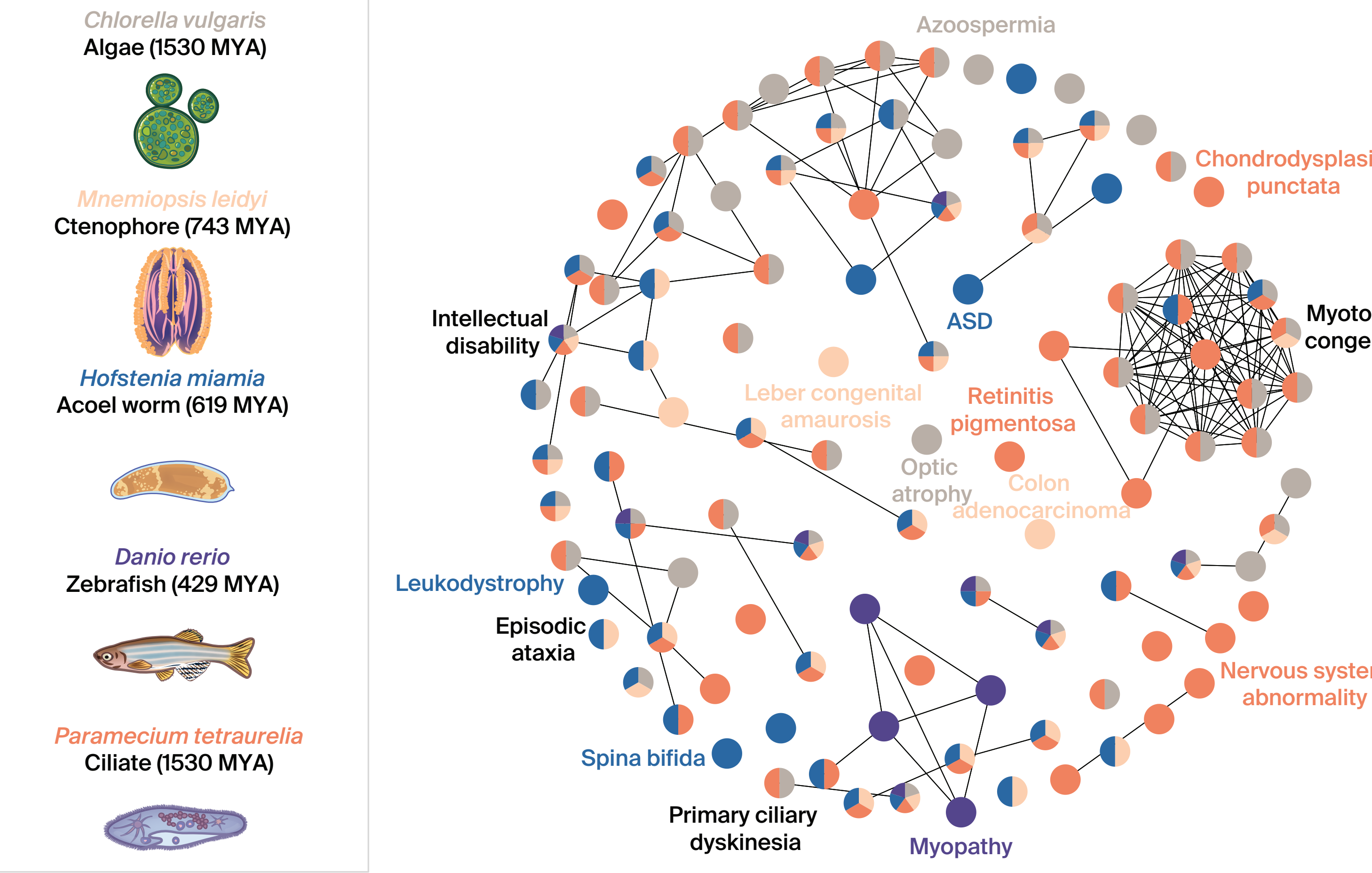
Conservation profiles are extremely diverse



de novo identification of organismal models

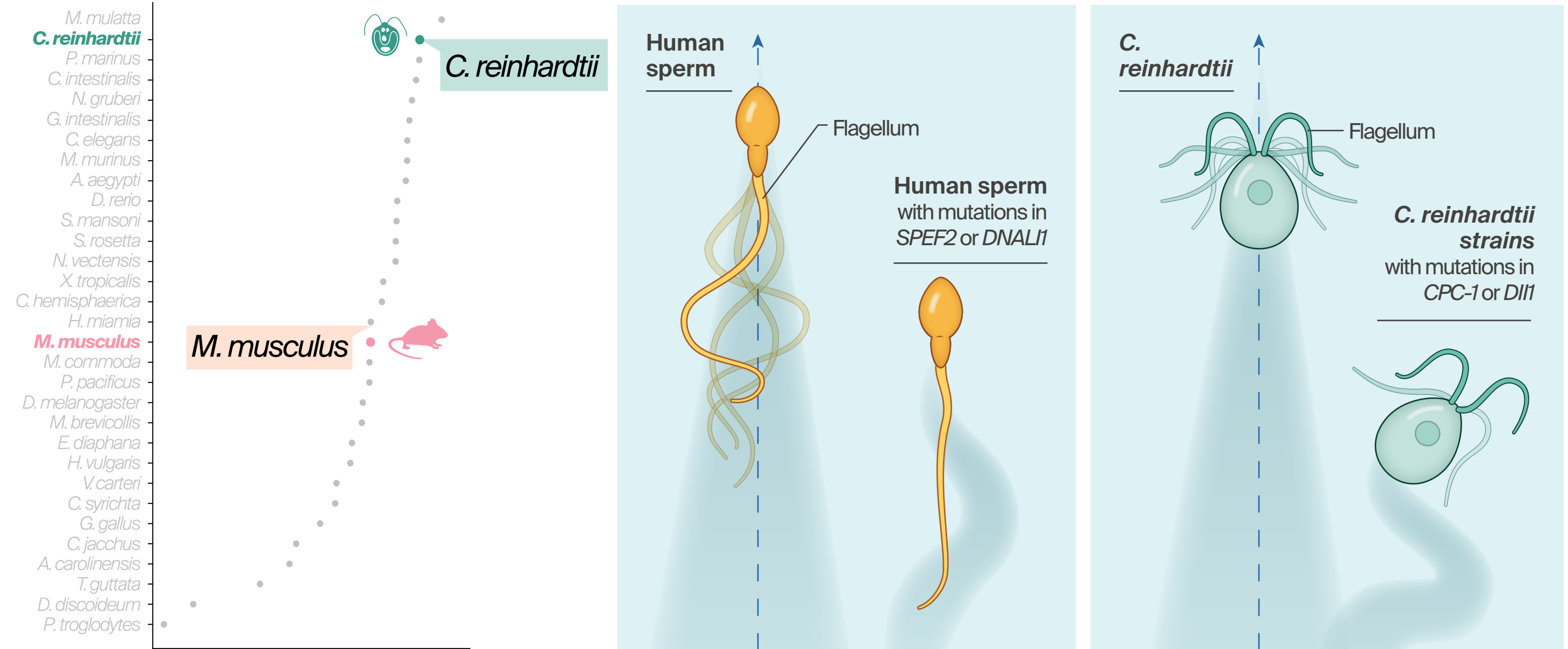


Creating a functionally diverse "organismal portfolio"



Validating our predictions

(For more info see S361: Tuesday @ 5:15PM, Ballroom 20A)



Comment on the pub:

Leveraging evolution to identify novel organismal models of human biology

All other published work: research.arcadiascience.com

A NOTE ON SHARING WITH US!

Part of our mission is to share as much useful research as we can.

If you choose to share a protocol or other useful information with us after viewing this poster, please understand that we may act upon this knowledge and share it when we publish our work. We publish quickly on an independent platform, so this may happen soon after you share, and we cannot wait for you to publish elsewhere.

If you decide to share anyway, yay! That's what science is all about. If your input is useful, we will include you as a contributor to the publication and explain that your role was in providing "Critical Feedback," likely with an additional description of what you shared.

tl;dr – If you're not ready for everyone to know about something, please refrain from sharing it with us.

Contributors

Prachee Avasthi - Supervision
Austin Patton - Conceptualization, Formal Analysis, Investigation, Methodology, Software
Ryan York - Conceptualization, Formal Analysis, Methodology, Investigation, Software, Supervision