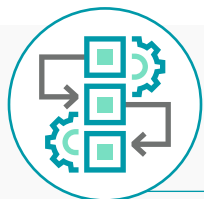


## The Power of Collaboration

The Pistoia Alliance is a global, not-for-profit members' organization collaborating to lower barriers to innovation in life science and healthcare R&D. Now more than ever, the world needs our industry to work together to solve common challenges and achieve scientific advances and breakthroughs. The fruits of our collaborative innovation can be seen across our portfolio of member-driven global projects, made possible through our legal framework for pre-competitive collaboration that enables companies to share resources, data, expertise and best practices.



### PROJECT OPPORTUNITY TO DELIVER VALUE THROUGH PRE-COMPETITIVE COLLABORATION

#### The Microbiome Project

This project will enable microbiome data to be incorporated into the drug research and development pipeline which could help speed the advancement of new medicines.

*"The microbiome is now a widely accepted modulator of health, disease, and therapeutic response, but it is not currently being utilized to its full potential. Gathering and standardizing the vast amounts of data on the microbiome-derived metabolism is the first step towards being able to predict the relationship between the body's metabolism and new drug candidates. It is vital that organizations come together at this early stage so that we embed good practices and universal standards that will benefit all future research topics in the field. Collaborating on data in this way will allow new trends to be uncovered, and potentially revolutionize how the industry approaches creating new treatments."*

– Dr. Manuela Pausan  
Microbiota Researcher  
Bayer



#### UPCOMING EVENTS

Don't miss these opportunities to connect with other advocates for life sciences innovation.

Explore more of our educational webinar series at [www.pistoiaalliance.org/events](http://www.pistoiaalliance.org/events)

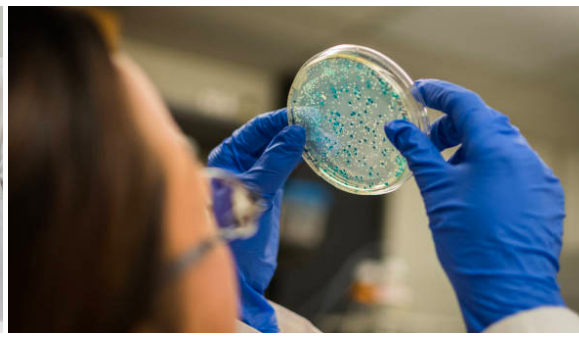


#### PROJECT RESOURCES

[Pistoia Alliance Predicts a Focus on the Fight Against Antimicrobial Resistance and a Surge in Quantum Computing Research for 2022](#)

[Pistoia Alliance 2030 Report: Life Sciences and Health in the Digital Age](#)

[Webinar On-Demand: The Microbiome and Healthcare](#)



### Why is this project important to the life science R&D industry?

The same drug or dietary supplement can behave differently in different people. This is in part due to the difference in genome between individuals and it is also increasingly evident that this is caused, in-part by the different microbiome within individuals.

If we are to achieve the health care objective of precision medicine then a greater understanding of this interaction is required.

1. The microbiome has a profound impact on drug behavior in an individual
2. This projects allows for data pooling from different organizations, an elegant and difficult pre-competitive activity
3. Better understanding of the microbiome will lower barriers to R&D innovation

### What will this project achieve?

The project will be conducted in three stages:

- > **Stage One:** Curate existing data on the microbiome-derived metabolism of pharmaceutical drugs and other chemical compounds (such as polyphenols, flavonoids, alkaloids) from existing publications, public data repositories and internal pharma company data. Then, standardize this data to build a machine readable 'atlas', that will allow researchers to quickly search and discover the links between the microbiome, the body and other chemicals.
- > **Stage Two:** Determine any specific chemical groups of interest, which will be decided together with the companies that are financially supporting the project and start building a prediction tool that can be incorporated into future therapeutic development.
- > **Stage Three:** Scale the predictive algorithm and aim to make this database the standard one for determining the effect of drugs and dietary supplements on the microbiome.



**Be a part of that future by joining one of these developing projects!**

Reach out to us at [ProjectInquiries@PistoiaAlliance.org](mailto:ProjectInquiries@PistoiaAlliance.org) to learn more or join the next member meeting.

