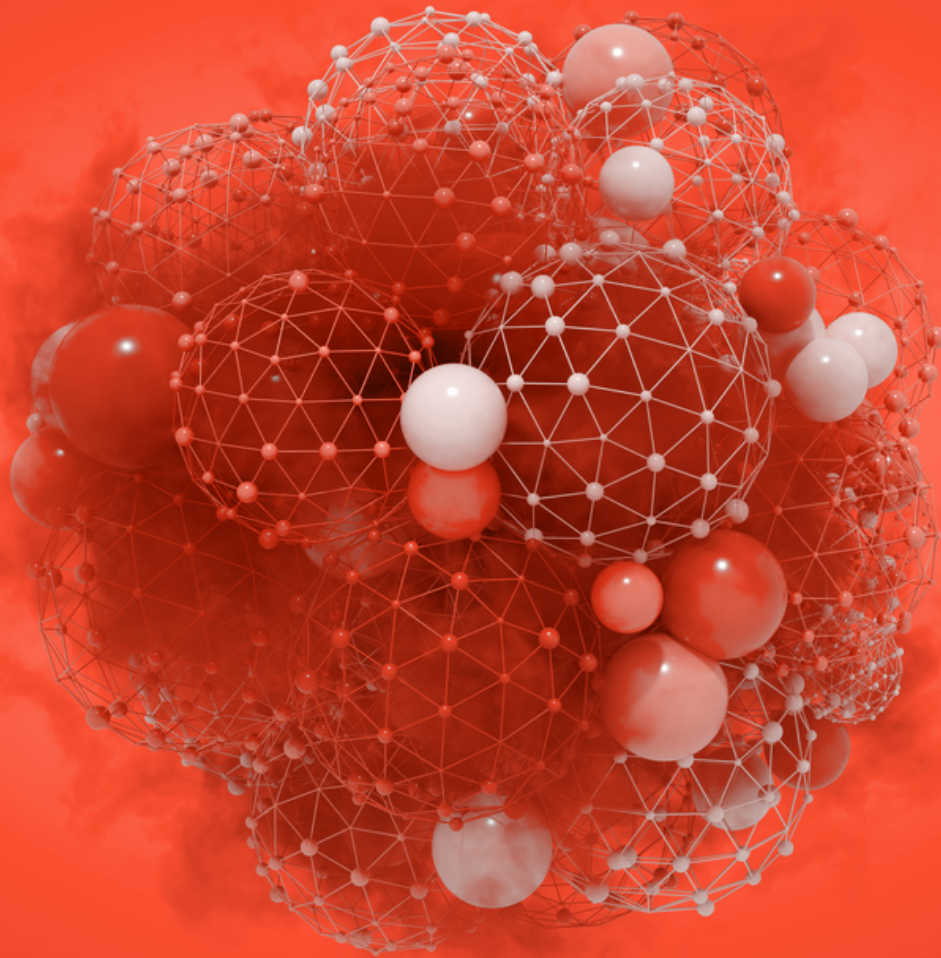

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Building a Collaborative Research Ecosystem: A Guide for Research Managers

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“Coming together is a beginning. Keeping together is progress. Working together is success.”

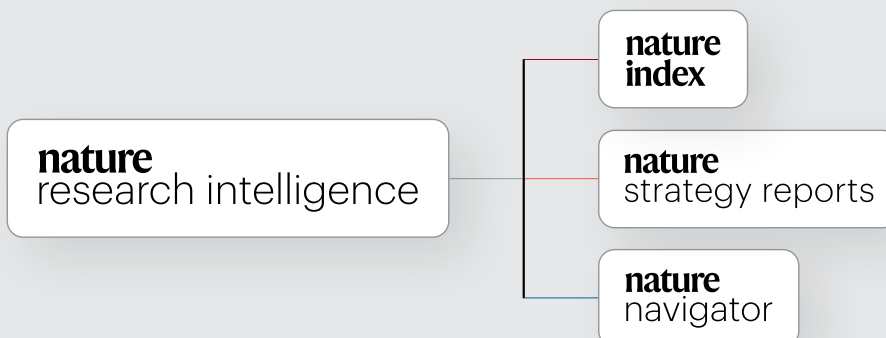
Henry Ford

As a research manager, navigating the vast landscape of research opportunities to discover ways to progress your institutional goals can be daunting. Keeping track of your peers’ research activities is an endless task. Doing so while simultaneously plotting your institution’s strategy to ensure your wider core objectives are met is even trickier.

In today’s data-led world, many industries look to data to provide guidance. When it comes to research data, there is certainly no shortage of information available. The secret to research lies in understanding which data is relevant and useful, and which data is irrelevant noise that can be ignored. Rather than facilitating clarity, the deluge of data inundating decision-making processes often breeds greater doubt and confusion.

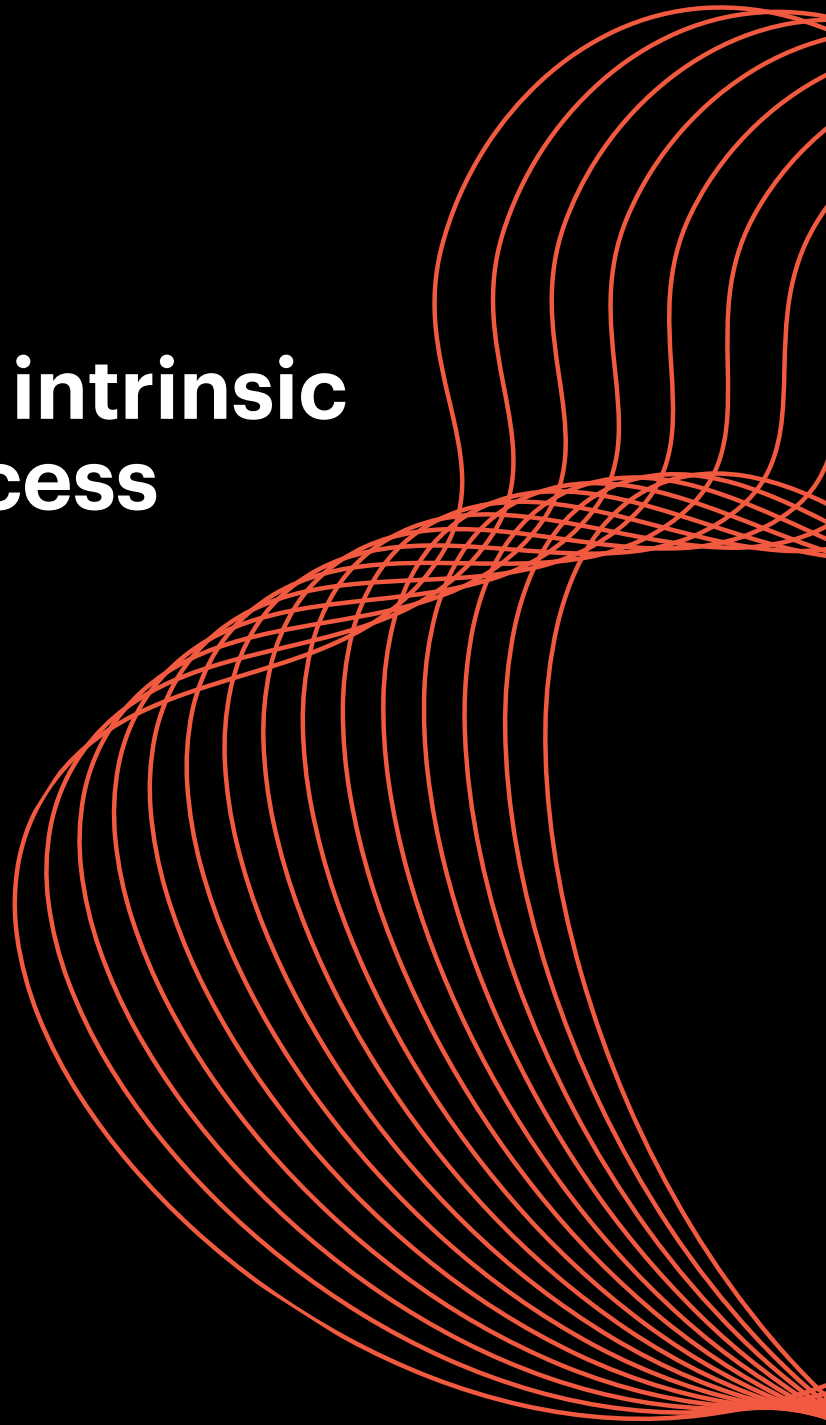
At Springer Nature, we understand your challenges, and we know how important data can be in building collaborative and productive partnerships. Most importantly, we’ve developed solutions to alleviate these pain points and put you on the path to positive research outcomes.

Let’s explore why collaboration is key to maximising research impact, and how [Nature Research Intelligence suite of tools](#), can guide you towards collaborative research success.



Section one

Collaboration is intrinsic to research success



History has shown us that collaboration is often a key building block for outstanding research accomplishments.

Consider the groundbreaking work of the Human Genome Project (HGP), which aimed to map and sequence the entire human genome, unlocking the genetic blueprint that governs human life. This was a monumental task requiring unprecedented collaboration between scientists representing diverse fields such as genetics, molecular biology, bioinformatics, and computational biology. Scientists from around the world united their efforts, transcending geographical, institutional, and disciplinary boundaries to achieve this common goal.

The HGP succeeded through a collaborative model that enabled data sharing, resource allocation, and scientific exchange on unparalleled levels. Scientists from different countries and institutions worked together to sequence, assemble, and analyse the vast amount of genetic data generated by the project. This collective effort accelerated scientific progress, leading to groundbreaking discoveries and advancements in genetics, medicine, and biotechnology.

Moreover, the HGP fostered a culture of openness and transparency, with data and findings made freely available to the global scientific community. This spirit of collaboration and information sharing not only propelled scientific research but also laid the foundation for future collaborative initiatives in genomics and beyond.

Let's look at some of the benefits of collaboration in more detail to identify exactly what is so important.

- **Diverse perspectives**

Collaboration fosters an environment where diverse perspectives converge, fueling creativity and innovation. In fields such as engineering, where multifaceted challenges demand interdisciplinary solutions, collaboration becomes indispensable.

For instance, merging the expertise of mechanical engineers, computer scientists, and materials scientists can propel advancements in sustainable energy systems or autonomous vehicles. Likewise, collaborations between marine biologists and climatologists illuminate the intricate relationship between ocean health and climate change. Looking at a problem from a different perspective with fresh eyes can uncover solutions and opportunities that had not been considered before.

- **Pooling resources**

The pooling of resources is another compelling rationale for collaboration in research. Access to specialised equipment, resources, funding, and expertise unlocks more opportunities, faster. It's also a smart way to stretch resources further; why spend precious funding on equipment when you have access to another institution's facilities?

By leveraging collective strengths, researchers can embark on ambitious projects that would otherwise remain beyond reach.

- **Accelerated progress**

As indicated above, collaboration can greatly speed up the research process in many ways. For example, the ability to utilise a collaborator's equipment can remove the delays often caused by scientists having to apply and wait for time and space to be freed up in their own laboratories.

Another proof point is to operate parallel workstreams, accelerating research progress by conquering and dividing before sharing results. Dividing tasks among collaborators not only expedites timelines but also enhances efficiency. For instance, while a chemist formulates a new compound, a geneticist can simultaneously analyse its potential effects. This synergy significantly accelerates research outcomes compared to solitary endeavours.

- **Interdisciplinary solutions**

The challenges we face today are too important and too complex to tackle alone. For example, the global impact of climate change and pandemics demand interdisciplinary approaches to ensure we find the best ways to mitigate against the potential risks.

Collaboration enables researchers from disparate fields to converge, offering comprehensive solutions that ensure no factors are neglected. For instance, addressing climate change requires collaboration among meteorologists, economists, and engineers. By moving beyond traditional disciplinary boundaries, collaboration can result in holistic solutions to multifaceted problems.

- **Validation and peer review**

By its very nature, collaborative research undergoes strenuous peer review, ensuring scientific rigour and credibility. As data is shared and analysis scrutinised, all stakeholders have the ability to interrogate findings and propose new hypotheses. This increases the chances of finding errors or mistakes, and strengthens the validity of the research project's conclusions. Furthermore, peer scrutiny by experts enhances the reliability of research findings, fostering trust within the scientific community and beyond.

- **Enhanced impact**

This is the end goal for all researchers and research managers – to maximise the real-world impact of their research. As the old saying goes, two heads are better than one, which is why collaboration can lead to productive, ground-breaking research that makes a real difference to people's lives.

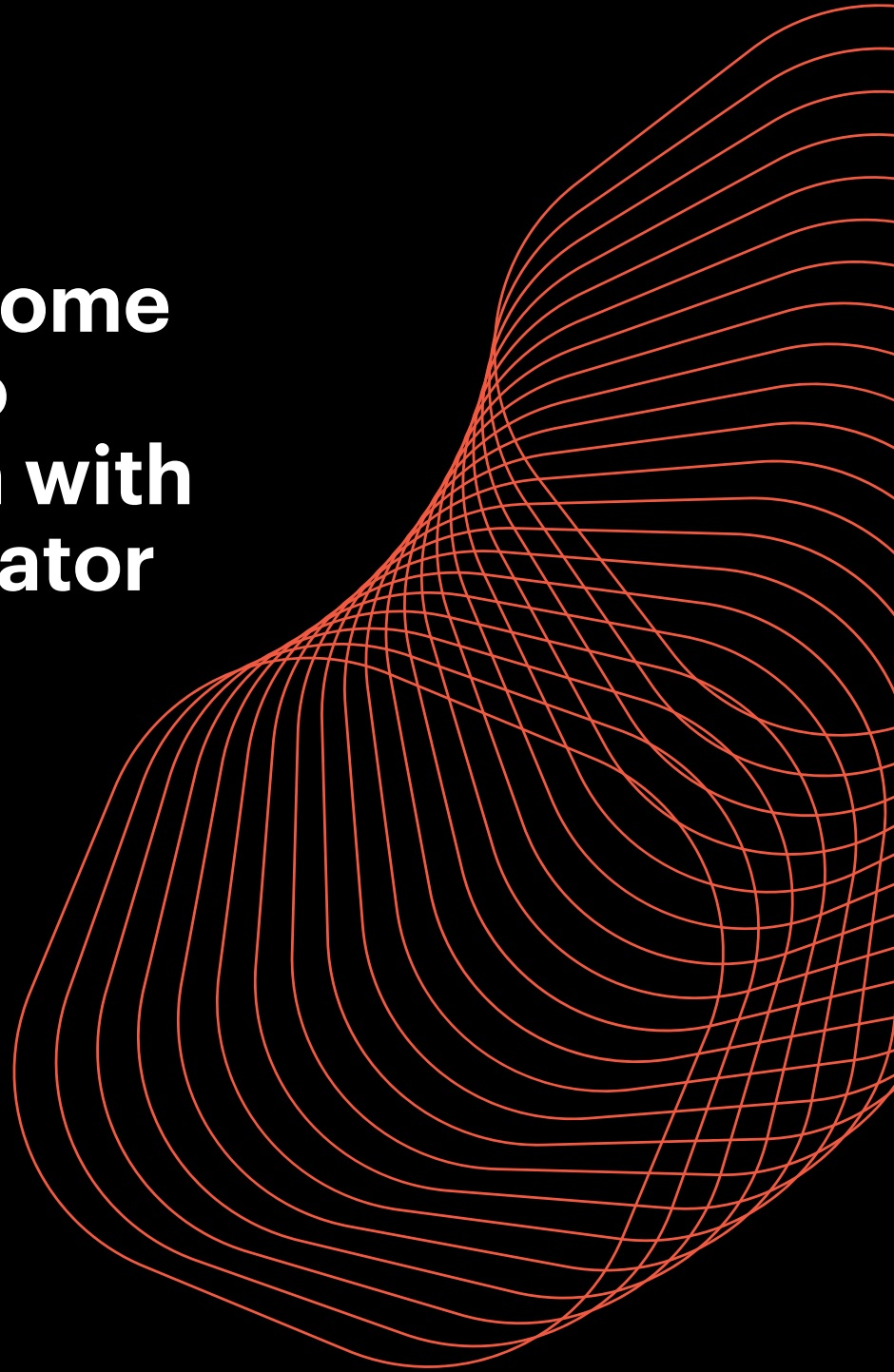
Collaborative research also amplifies impact by disseminating findings widely and influencing policy, practice, and societal change. Through collective efforts, researchers extend beyond their usual reach, effecting meaningful change not just in their respective fields but across different regions and disciplines.

“It is the long history of humankind (and animal kind, too), that those who learned to collaborate and improvise most effectively have prevailed.”

Charles Darwin

Section two

How to overcome challenges to collaboration with Nature Navigator



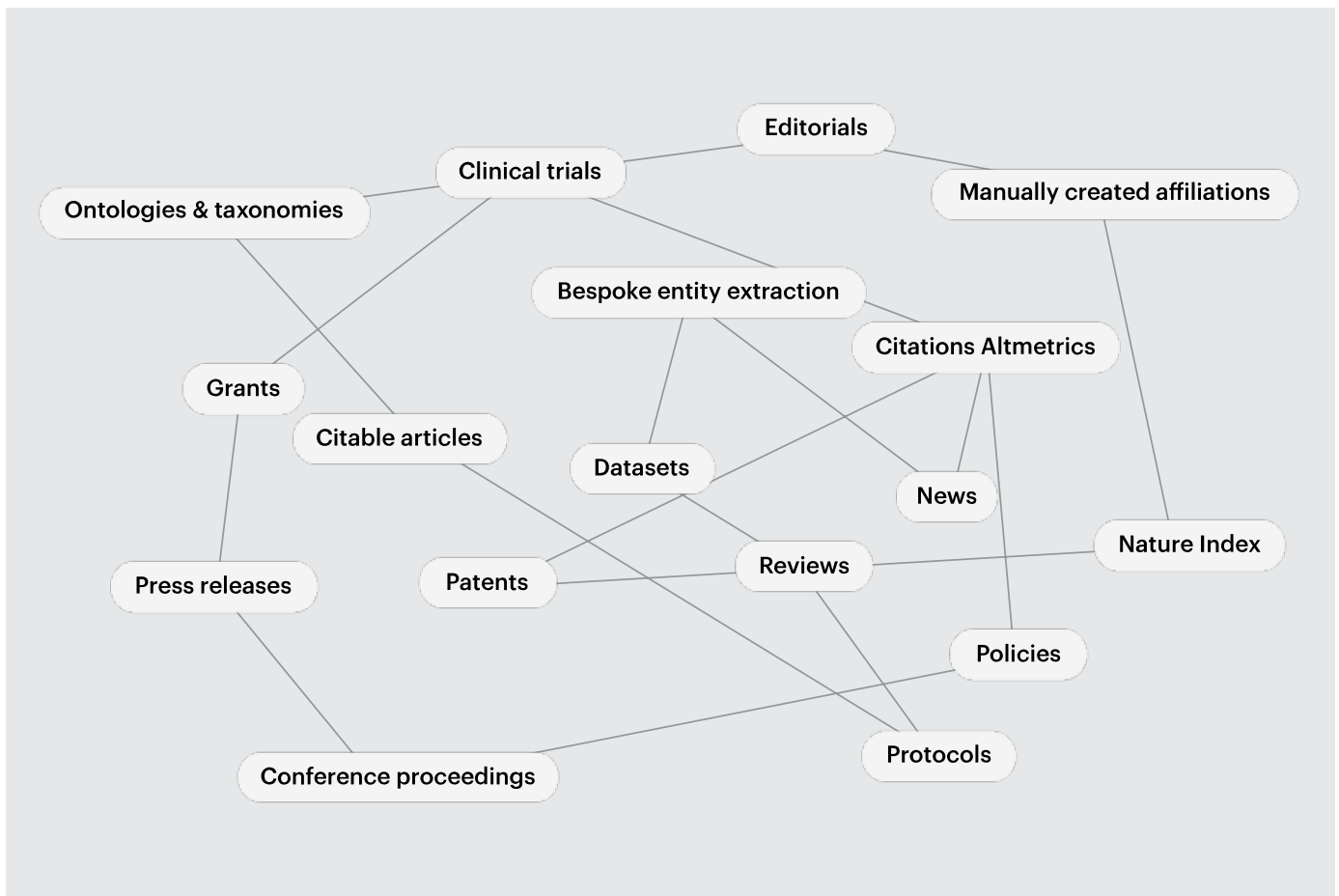
The benefits of collaboration are compelling. But until relatively recently, finding suitable research partners has relied on personal networks, coincidence, or huge levels of outreach.

Nature Navigator, part of the Nature Research Intelligence suite of tools, empowers you to build a research ecosystem that meets your precise needs. Here's how Nature Navigator helps you overcome common blockers to collaboration.

Overcoming information overload

The challenge for research managers is no longer a lack of data. It's a surplus of data that leads to information overload and data paralysis – having too much data to make a decision. Collaborative research projects often involve large volumes of data from diverse sources, requiring sophisticated tools and techniques for data integration, analysis, and sharing. How can you identify relevant and pertinent data amongst all the noise? How can you channel out what's irrelevant and hone in on what's truly useful? How can you identify potential collaboration partners amidst a litany of researchers across the globe?

Nature Navigator overcomes information overload by analysing large volumes of data and providing AI-generated summaries and real-time insights. Nature Navigator aggregates all the data relating to a specific topic, so you can understand its structure, the subtopics you need to be aware of, and the researchers working in this field. By distilling complex data into actionable insights, Nature Navigator empowers you to make informed decisions with clarity and confidence.



Charting a path towards strategic direction

As a research manager, you're tasked with aligning research goals with wider institutional objectives. We don't need to tell you that this isn't always easy. Finding collaborators who align with your institution's vision is a challenge, especially if you don't have access to metrics and insights to understand existing partnerships and calculate which collaboration opportunities are more likely to bring success. Pre-COVID this knowledge gap may have been filled with 'water cooler' conversations. But with hybrid working seemingly here to stay, how can you unlock serendipitous discoveries?

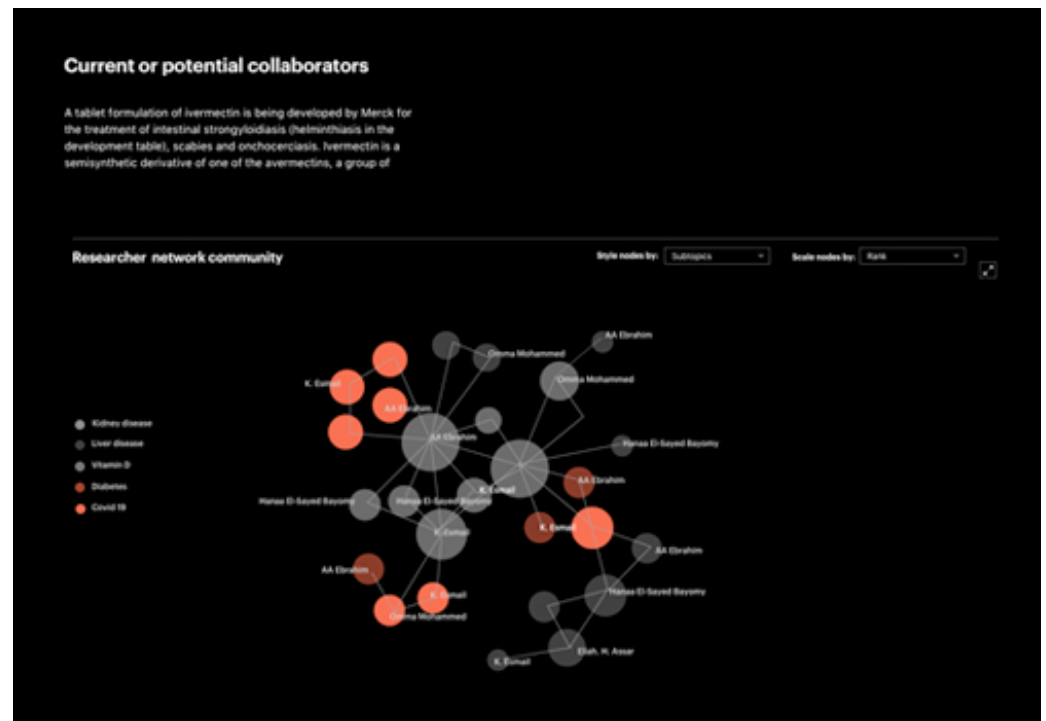
With the water cooler conversations limited if not completely removed, technology can help uncover strategic directions for your research. Nature Navigator serves as your compass, guiding you towards strategic direction. With its comprehensive data and analytics, you gain valuable insights into emerging research areas and trends, as well as up-to-date research opportunities. By leveraging Nature Navigator's benchmarking tools, you can find relevant collaborations, align your extended team's performance with institutional goals, and optimise resource allocation for maximum impact.

Bridging gaps in the research community

Identifying potential collaborators and fostering interdisciplinary projects can be daunting tasks. It can be difficult to understand what research is being undertaken, by whom, and how it could impact your team.

Instead of looking at your peers as competitors, Nature Navigator shows how you can position them as collaborators. Our network analysis tools and Find an Expert finder feature help you find prominent researchers who have published or worked in specific fields. You can customise your search by years of experience, their location, their publications, and even see their network and collaboration partners. By narrowing your search criteria you can harness collective expertise, forge meaningful partnerships, and drive innovation forward.

Nature Navigator current or potential collaborators dashboard.

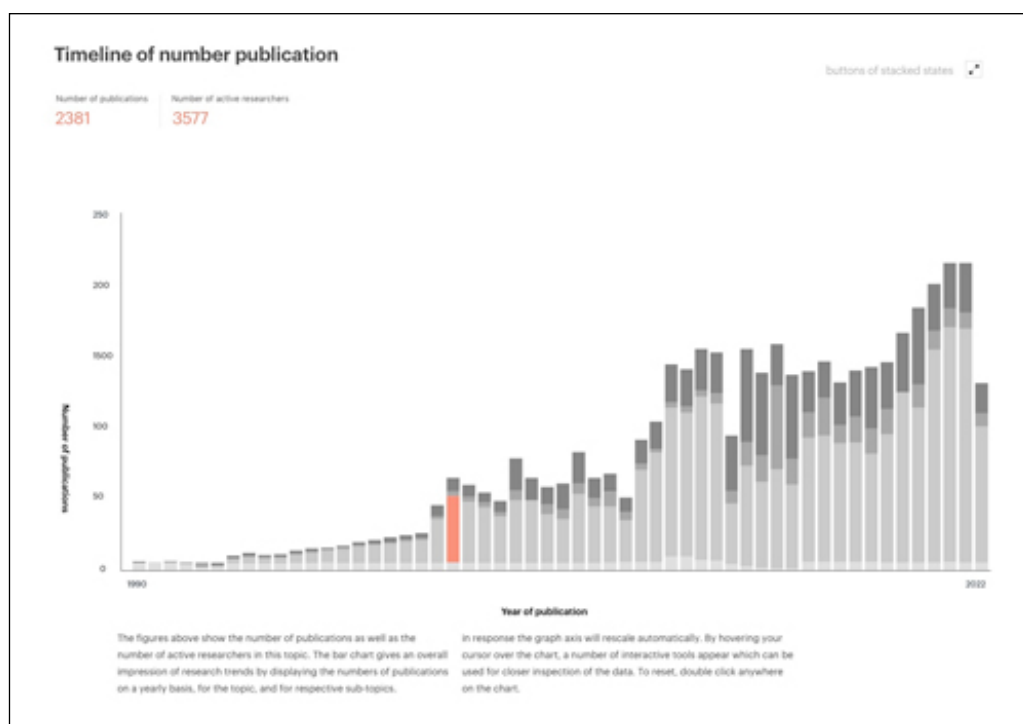


Securing funding in a competitive landscape

In a highly competitive landscape, securing funding is an ongoing challenge that demands compelling grant proposals and demonstrating research impact. A core component of securing funding is to highlight the collaborative network of researchers that will deliver success, along with how they will do it.

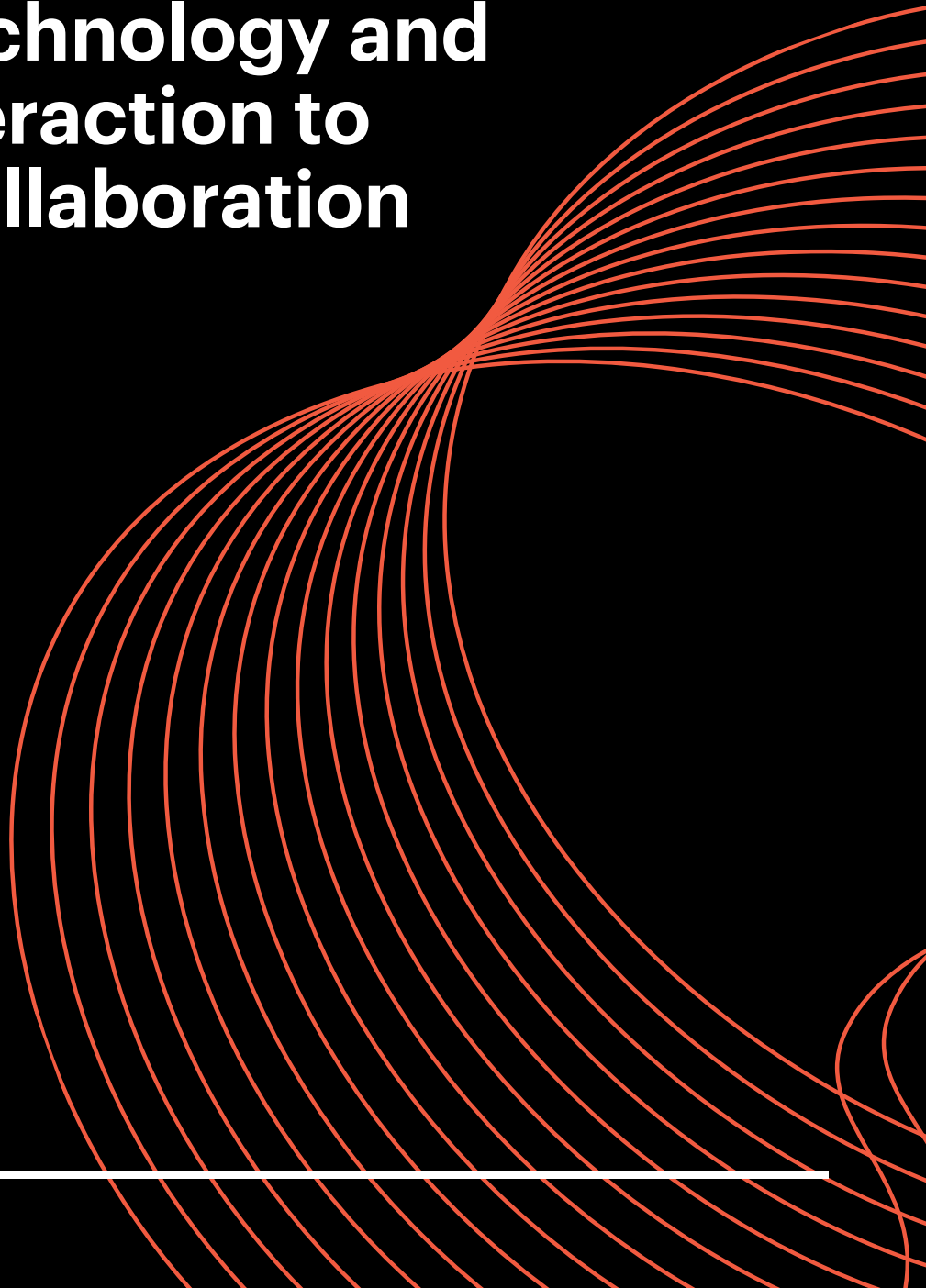
With Nature Navigator you can see the fields in which your peers are operating, and review all the grants that have been awarded to them. Using Nature Navigator's data-driven insights you can find strategic collaborators who are likely to strengthen your grant proposals and ensure you stand out in a crowded field.

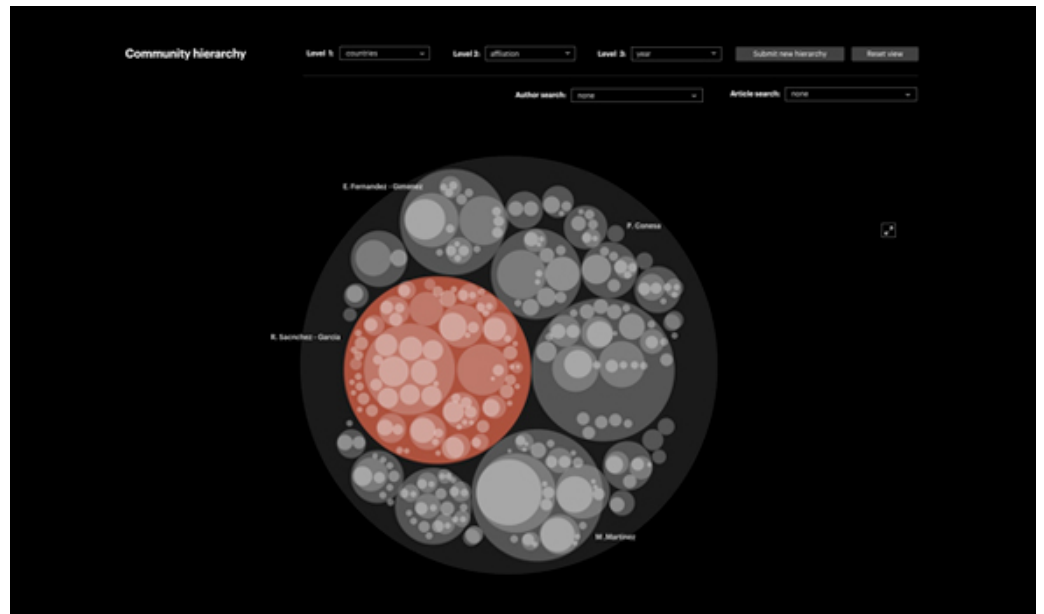
Nature Navigator publication timeline dashboard.



Section three

Merging technology and human interaction to promote collaboration



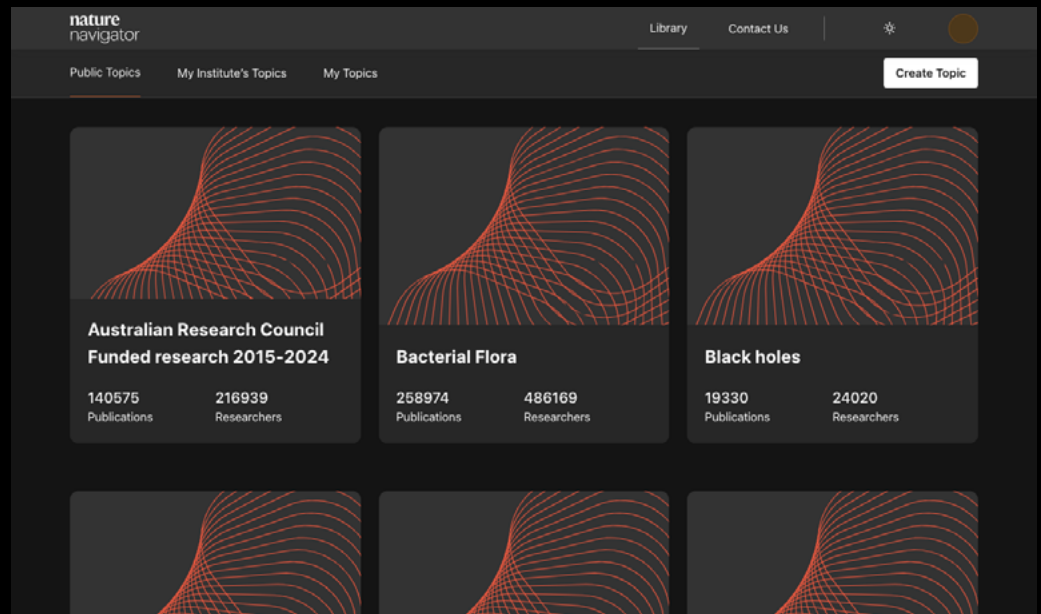


In today's digital age, technology plays a pivotal role in facilitating collaboration among researchers. Digital platforms and tools streamline communication, data sharing, and project management, crossing geographical barriers and fostering global collaboration.

Nature Navigator uses cutting-edge AI to provide research managers with access to a wealth of information, enabling them to identify potential collaborators, unlock funding, and coordinate research efforts effectively.

At its heart, collaboration remains very much a human endeavour. It's about people sharing ideas, knowledge, and learnings. Collaboration revolves around openness, transparency, and shared goals. Nature Navigator facilitates this by providing research managers with access to a global network of peers, experts, and resources, fostering a culture of collaboration and innovation within the research community.

As a research manager, Nature Navigator serves as an indispensable resource, providing you with the tools, insights, and support you need to navigate the complex research landscape, identify potential collaborators, and foster collaborative research projects that drive innovation and impact.



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Navigator's topic library to
quickly understand each
research topic's structure**

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