

A stylized illustration of a human brain in white, centered on a dark blue background. The brain is surrounded by various geometric elements: a large white circle, a smaller orange circle, and a dashed orange arc. The background is a deep blue with a fine grid of white dots. The title 'Psychiatry Consortium' is written in a large, white, sans-serif font across the middle of the image.

Psychiatry Consortium

Mapping the psychiatry medicines discovery landscape

Managed by

CATAPULT
Medicines Discovery

Supported by





Our mission is to accelerate the development of psychiatric therapeutics to bring new treatments to people with lived experience of mental health conditions, faster.

The Psychiatry Consortium launched in June 2019 as a strategic collaboration of leading medical research charities and pharmaceutical companies focusing on the challenge of identifying and validating novel drug targets to **address the unmet therapeutic needs of the people living with mental health conditions.**

Managed by the Medicines Discovery Catapult and supported by Wellcome, the Psychiatry Consortium brings together the following organizations with unique knowledge and expertise in psychiatric drug discovery research:



Alzheimer's
Research
UK



Biogen



Boehringer
Ingelheim

charles river



COMPASSION
Navigating Mental Health Pathways



evotec

Johnson & Johnson
INNOVATION



Transforming
mental health
through research



MSD



Takeda



wellcome

CATAPULT
Medicines Discovery

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Further to enabling a drug discovery pipeline through increased opportunity for collaborative research, the Psychiatry Consortium also aims to provide an educational and nurturing environment to increase the pool of academic partners for drug discovery in psychiatry. Part of this work involves understanding the barriers and challenges facing the research community, in order to turn them into opportunities.

Since the launch in 2019, the Psychiatry Consortium has been successful at engaging broadly with the psychiatric drug discovery community globally. Engagement has been with stakeholders from many sectors including academia, large pharma, SMEs, CROs and learned/membership societies.

As of April 2021, the Psychiatry Consortium has;



Launched 3 funding calls,
engaging with over

300

research institutions
worldwide



Presented

9

international
conferences



Delivered 4 webinars,
with over

350

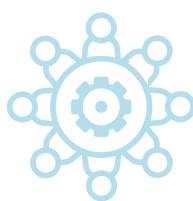
views



Funded 1 project,
currently in delivery,
with a further

2

in
development



**Delivered 2 interactive
workshops and
1 virtual symposium,**
with a total of

1,500

registrants

In addition, we have established effective and fruitful relationships with several global organizations aligned to our mission:

- British Pharmacological Society • British Neuroscience Association • British Association of Psychopharmacology
- Royal College of Psychiatrists • Psychiatric Times • Laboratory Animal Sciences Association

Background
and impetus
behind the
landscaping
initiative

Through its broad reach in the **psychiatry research community and via extensive engagement activities**, the Psychiatry Consortium has identified several areas worthy of further exploration;

1. Deeper engagement with discovery scientists in academia to better understand their needs and challenges when progressing their research programmes towards the development of novel therapeutics for psychiatry, and
2. Deeper engagement with researchers in industry (both SMEs and “big pharma”), to understand their perspectives on the challenges facing the psychiatry drug discovery community.

To this end, we conducted a two-part approach, comprising of an online survey and follow up in-depth 1:1 interview with respondents. We hope the feedback

from the research community will help us to understand the main challenges that academic groups encounter when transitioning from discovery science to more formal drug discovery and translation and how the Psychiatry Consortium could support academic groups in the development and delivery of strong drug discovery and translational projects.

The Psychiatry Consortium wishes to identify key challenges and opportunities in the field. These data and insights will inform the future shape of the Psychiatry Consortium and ensure delivery of our vision to accelerate the development of novel therapeutics, bringing treatments to patients faster.

- 1 Understanding the psychiatry research landscape
- 2 Challenges faced in the psychiatry research community
- 3 Important areas to develop for future success
- 4 Partnership and collaborations

Summary of survey outputs and interviews

1

Understanding the psychiatry research landscape

We received a total of

29

individual responses (N=29) for the survey to map the psychiatry medicines discovery landscape.

16

identified themselves as working in academic or not for profit research organizations.

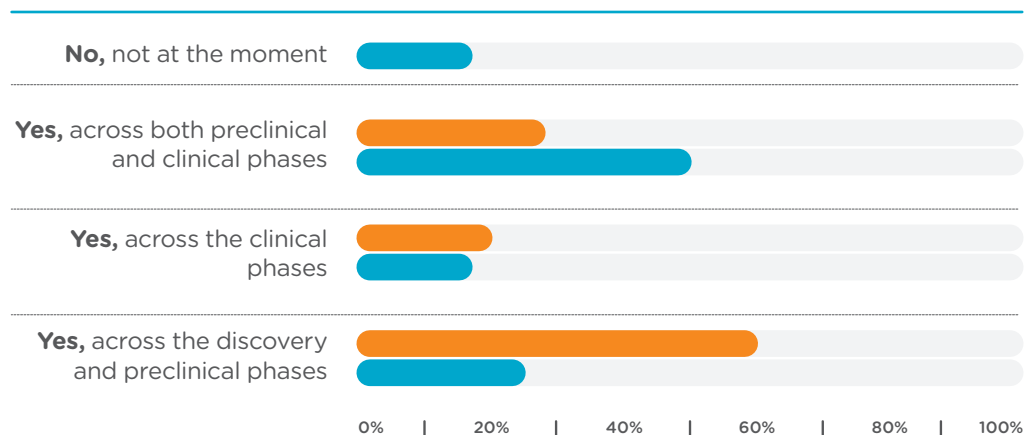
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identified themselves as working in industry (SMEs + pharmaceutical companies).

The majority of respondents currently have a pipeline of drugs for a psychiatric disorder that span across the Discovery/Preclinical and clinical phases.

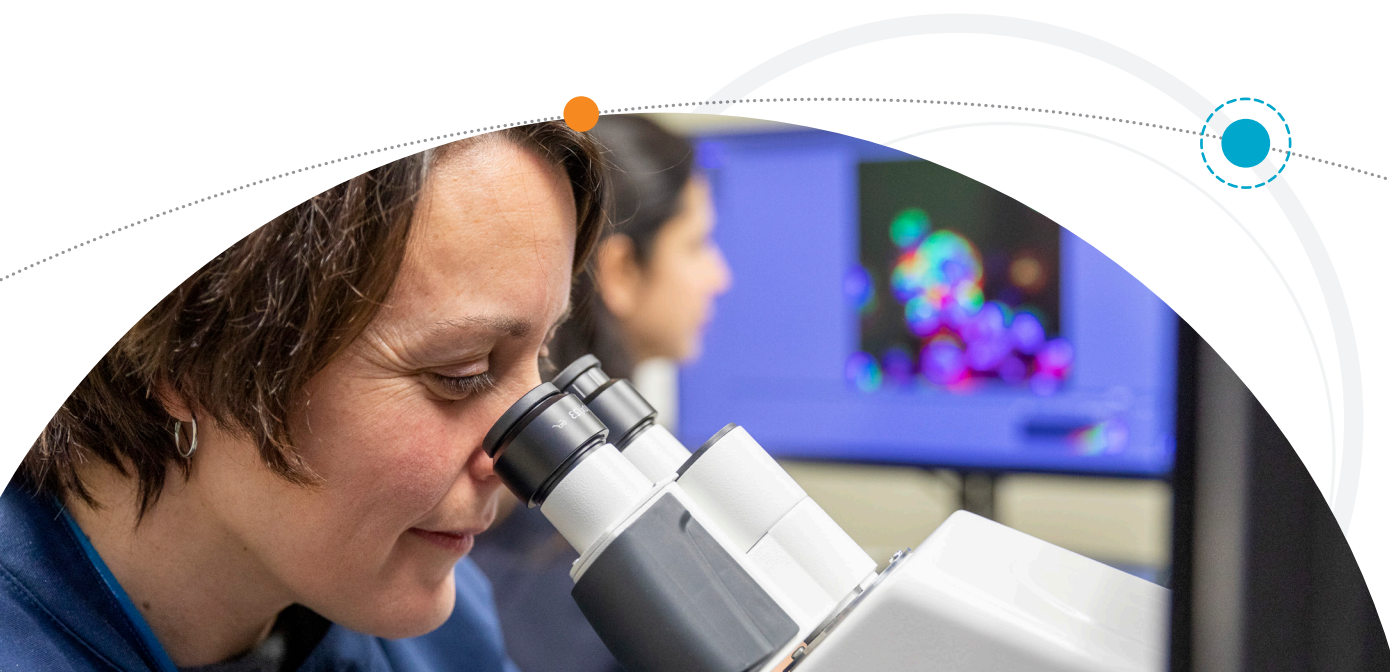


Figure 1: Projects across preclinical and clinical phases



Do you currently have ongoing psychiatry research projects?

● Academia
● Industry



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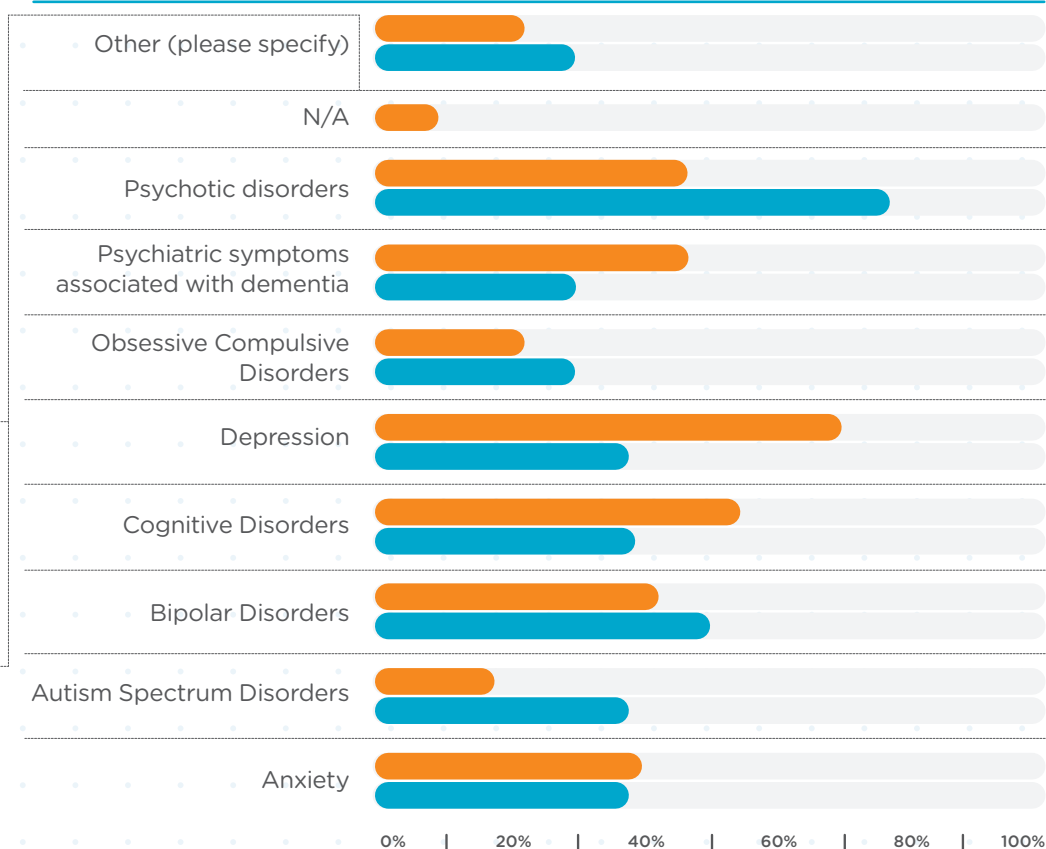
Disease indications within psychiatry research were very varied amongst responders. The majority of research efforts seem to be focused on psychotic disorders, depression, cognitive disorders and psychiatric symptoms associated with dementia (Figure 2).

Which of the following psychiatric disorder does your research examine?

- Industry
- Academia

- Trauma
- (Drug) Addiction
- Pan disorders
- Motor Co-ordination PD
- ADHD
- Tic Disorder
- PTSD

Figure 2. Areas of psychiatric research conducted across all responders. Total of N=29. Responders were allowed to select all that apply

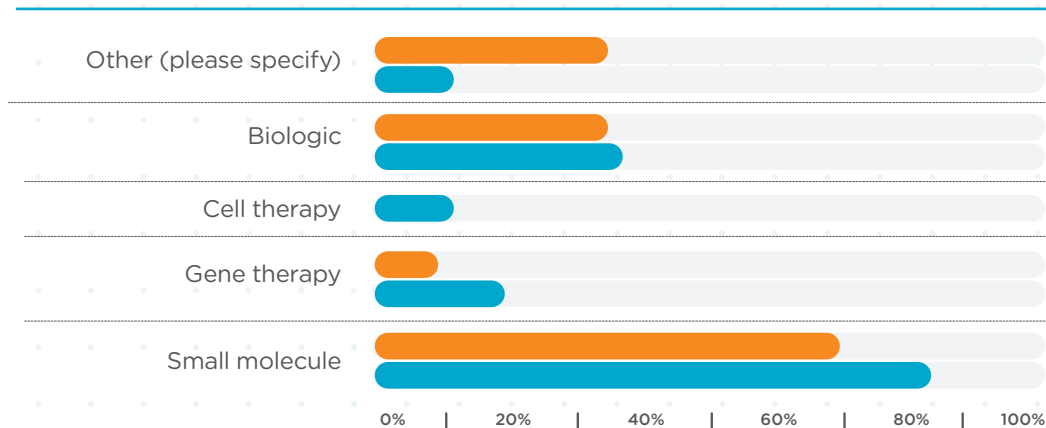


Of the respondents who are actively engaged in psychiatry research, the majority work on small molecule therapeutics - 85% of industry responses and 69% of academic responses. 38% of industry and academic researchers respectively also work within biologics. A further 38% of academic researchers indicated that they did not directly work in psychiatric drug discovery - their research spanned across non-disease specific target validation, understanding of disease mechanisms and the development of psychological therapies.

Which therapeutic modalities are employed across your portfolio?

- Academia
- Industry
- % Responders

Figure 3. Therapeutic modalities in psychiatry research



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2

Understanding the psychiatry research landscape

Highlight

The primary barrier in academia is lack of funding with

69%

of academics reporting that this was a significant barrier.



The survey responders were asked to **identify barriers within their research** that hindered progress within their research.

Barriers identified were starkly different between the industry and academic sectors. The primary barrier in academia is lack of funding with 69% of academics reporting that this was a significant barrier.

However, common to both sectors were that lack of valid targets was seen to be a major barrier in progressing research in this field. 85% of industry responses said this was either a significant or moderate barrier while 75% of academic responders answered as significant or moderate.

(Figure 4,5) One industry researcher commented that “Target validation is critical.”

While another commented that “The biggest need is for validated targets and improved ability to carry out Experimental Medicine/ Phase 1b studies”. Academic researchers however noted that in academia

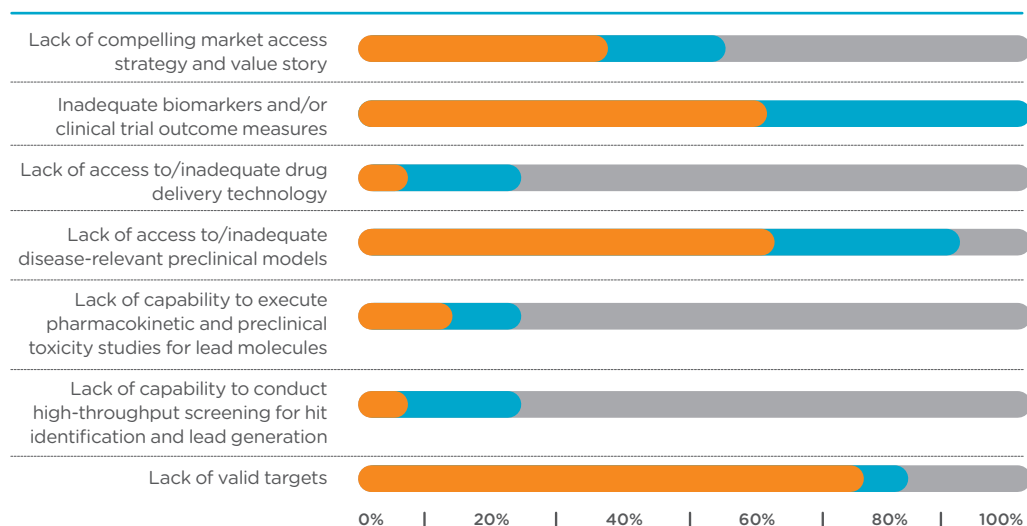
“Drug discovery efforts can suffer from lack of confidence around translational risk”.

“This is a particular problem around novel targets who by definition have no proven track record of clinical efficacy”, while another noted that academic researchers sometimes “lack the translational expertise required to determine if targets are valid”.

Another major barrier identified by both sectors was inadequate biomarkers and/or clinical trial outcome measures with 100% of industry responders saying this was a significant or moderate barrier. 75% of academic researchers also agreed that this was either a significant or moderate issue.

This suggests these areas are well covered by in house, or external (e.g, Contract Research Organisation or biotech) expertise, and therefore not a cause for concern for the two groups surveyed.

Figure 4. Barriers identified as significant, moderate or insignificant by psychiatry research community



How big a barrier are the following to the progression of novel agents for psychiatry?

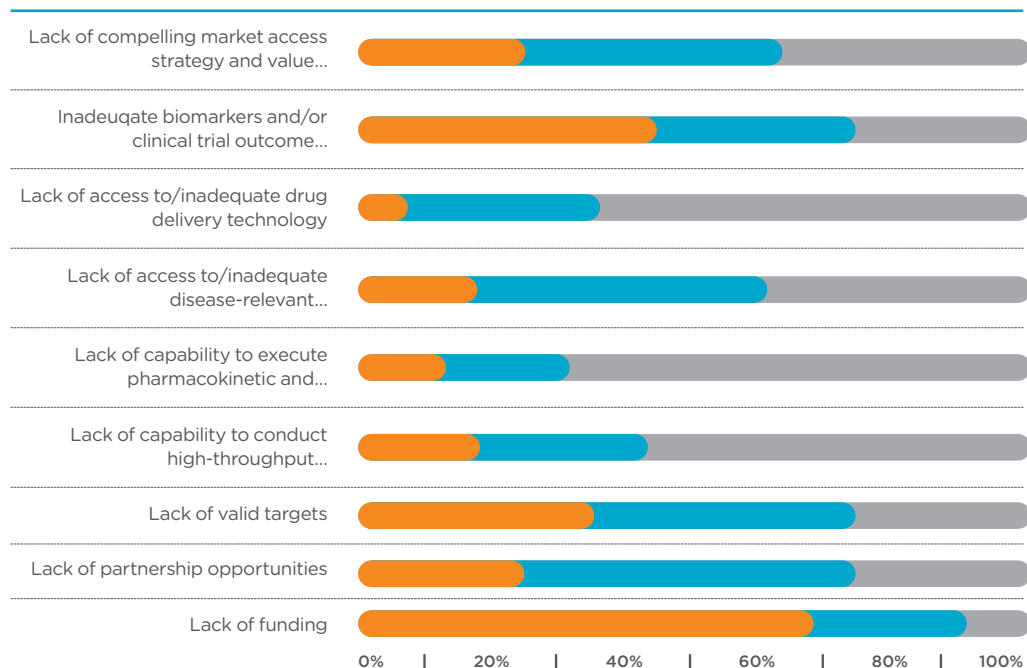
- Significant
- Moderate
- Insignificant

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In your experience, how big a barrier are the following to progressing your research programme(s) (Academic Responses)?

- Significant
- Moderate
- Insignificant

Figure 4. Barriers identified as significant, moderate or insignificant by psychiatry research community



3

Important areas to develop for future success

The overwhelming response in **areas for future development** of psychiatric therapeutics amongst both academics and industry were in;

Understanding the underlying biology of psychiatric diseases

Identifying and validating **novel targets**

Novel biomarkers and clinical outcome measures

These responses reflect the barriers currently faced in the field in previous questions.

4

Partnership and collaborations

100% of respondents (academics + industry members) stated that they are currently partnering with, or are actively looking to partner with other organizations in some capacity. **100% of industry researchers** believed that greater engagement with academics was valuable while **94% of academics** believed that partnering with industry (pharma + SMEs) would be of benefit to psychiatry research.

Academic researchers were forthcoming in areas where they would like to partner with industry, noting;

- Participation in clinical trials and biomarker studies
- Access to industry insights and funding
- Access to new technology
- To co-develop and commercialise biopharmaceutical assets
- And to access capabilities/capacity not available in house

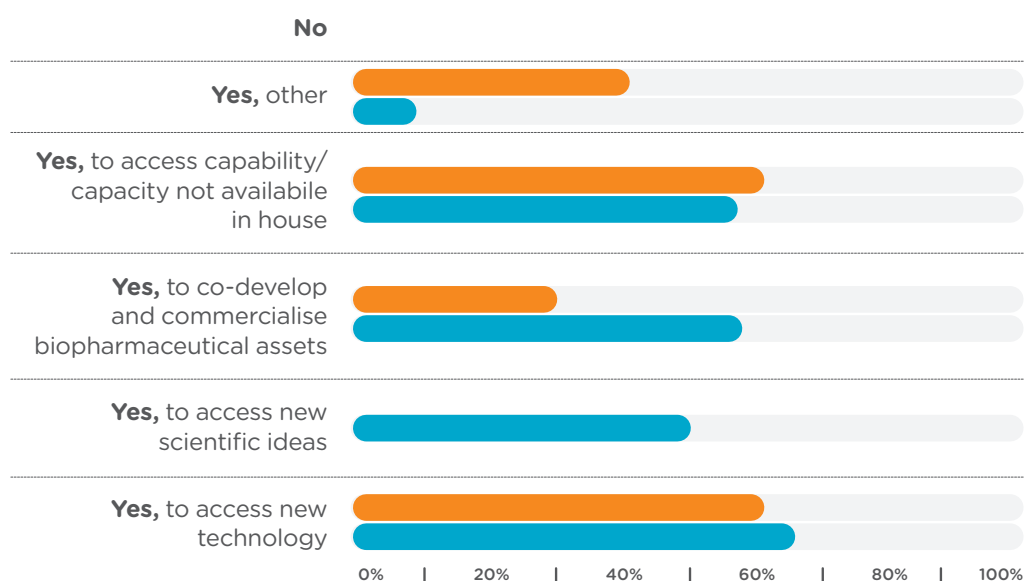
as key areas in need of collaborative efforts (Figure 5).

Many academic respondents acknowledged that they “would like to access collaborations with industry partners, but don’t always know how to initiate them”.

Figure 5. collaborations in the psychiatry research community

Do you partner with, or are you actively looking to partner with other organisations to advance your research?

● Academia
● Industry



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Researchers across the community identified that there are R&D tools and expertise that they would like to access which were not available to them. Some of these included:

- Funding, including the development of funded collaborations,
- Access to compound libraries, small molecule discovery strategies and high throughput screening,
- Support with toxicity and efficacy studies,
- Good pre-clinical models, animal models (complex behavioural models or genetically modified animals),
- Methods to detect clinical efficacy (perhaps via pre-competitive public-private consortia),
- Statistical expertise

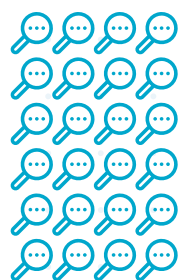
How can the Psychiatry Consortium supporting the research community?

Highlight

Psychiatry Consortium has made available up to

£4m

in research



Survey respondents and interviewees were asked how the Psychiatry Consortium could support the community.

The top two challenge areas were identified as understanding the underlying biology of psychiatric diseases and identifying and validating novel targets.

Whilst acknowledging that there is a great deal of work to do, we were pleased to discover that the key objectives of the Psychiatry Consortium align with the key areas of need, identified in the survey.

The Psychiatry Consortium exists to support researchers who are working on the key challenges identified here, namely providing a greater understanding of the underlying biology and pathways involved in psychiatric disorders, and identifying and validating novel targets to industry standards, to ensure translatability of research.

Limited, or a lack of funding opportunities, is often cited as a critical roadblock to the progression of research projects, which is particularly prevalent in psychiatry, and even more so for novel, high-risk drug discovery projects. Through our funding scheme, the Psychiatry Consortium has made available up to £4 million in research funding to;

- Enable collaborative efforts to identify and validate novel therapeutic targets and strategies to treat psychiatric diseases
- Increase the number of new targets and screening assays, validated to industry standards, to support the discovery and development of new drugs
- Enable a drug discovery pipeline by connecting academic innovations with industry expertise
- Provide an educational and nurturing environment to increase the pool of academic partners for drug discovery in psychiatry



Our funding is open to universities, research institutes and small companies (micro and medium) worldwide. Projects are expected to last up to 3 years, with total project costs between £200,000 - £1,000,000. Calls for proposals run up to 3 times per year – for further details, and to find out when the next call opens, visit

www.psychiatryconsortium.org

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...and how can we do more?

We believe psychiatric drug discovery must be a truly collaborative process if it is to be successful, and the results of this survey has confirmed the importance of **bringing the research community together.**

Highlight



To learn more about the series, and future events, [sign up for our newsletter.](#)

We believe the challenges facing psychiatric research require the insights and involvement of individuals across all aspects of the research landscape. People with lived experience of mental health, academic researchers, clinicians, regulators and industry scientists to name a few, must all be involved in the development of solutions if we are to overcome the hurdles to psychiatric drug development.

Through our workshops and events, we strive to bring all aspects of the global research community together to tackle challenges within drug discovery. From elucidating the validity of pre-clinical models in psychiatry drug discovery, to better understanding the hurdles along the research pipeline, we are striving to create an inclusive and informative series of events to bring researchers together to connect, network and troubleshoot.

In partnership with the British Neuroscience Association (BNA), the Psychiatry Consortium has taken the insights from the surveys and interviews conducted to develop a five-part series of webinars, to highlight the challenges and opportunities at key stages in the translational pipeline. The BNA is the largest UK organisation representing and promoting neuroscience which, through an exciting programme of activities and events, collaborations, campaigns and lobbying, helps to define and deliver the future of neuroscience ([find out about joining the BNA here](#)). This co-hosted series will aim to humanise the drug discovery process, build bridges between silos and encourage more open discussion around the challenges that need to be addressed in order for research to progress along the pipeline, to the patient. The series will tackle a broad range of topics, from identifying the unmet patient need, to undertaking the basic research required to understand disease biology, to developing novel treatments. At each stage, we will hear from experts who will give their perspectives on what we can do to support each other along this process.

Special thanks to all who participated in the surveys and interviews.