In 2011, the NIH Blueprint for Neuroscience Research, a consortium of 15 NIH Institutes and Centers that support neuroscience research, launched the Blueprint Neurotherapeutics Network (BPN).

The BPN serves as a pipeline between the typical endpoint of NIH-funded research and the beginning of industry drug development. The BPN provides neuroscience researchers with funding and access to a full range of industry-style drug development services and expertise. The program is intended for projects requiring medicinal chemistry optimization and CRO support through phase I clinical testing. Each project is directed by a Lead Development Team composed of the principal investigator, industry consultants hired by NIH, and NIH staff.

**BPN PROJECTS IN THE NEWS**

- **EicOsis**
  - Davis–Based Company Targeting Chronic Pain Gets $5M Investment
  - The investment from Open Philanthropy is to pursue original research into a UC Davis Laboratory animal behavioral trials.

- **Decibel Therapeutics and Oricalca Therapeutics Announce Exclusive License for ORC–13661 in Phase 1 Development for Hearing and Balance Protection**
  - Belitte Bio Announces FDA Approval of Investigational New Drug (IND) for Phase 1 Clinical Trial of LSB–008 to Treat Macular Degeneration and Stargardt Disease

**WHAT WE OFFER**

- **BPN** provides non-dilutive funding to investigators from academia and industry.
- Investigators retain rights to intellectual property.
- Access to CRO’s under contract to NIH.
- Access to consultants and staff with extensive industry experience covering the major needs:
  - Assay development expertise, pharmacology, medicinal chemistry, pharmaceutics, toxicology, process research, chemical/formulation development, and Phase I clinical testing.
- Fast track SBIR U44 grants for small businesses.

**ENTRY CRITERIA**

- **Discovery**
  - Novel target for the disease
  - Strong biological validation
  - Feasible path to the clinic
  - Robust in-vitro assay for optimization
  - Strong confirmatory assays
  - Project must require medicinal chemistry
  - Amenable to chemistry
  - IP free of obvious roadblocks

- **Development**
  - Strong data linking target to disease
  - Biological & ADMET activity appropriate for intended clinical use
  - Efficacy/PD when delivered by clinically intended route
  - Fully profiled, defensible ADMET results
  - Feasible path to the clinic
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**MILESTONE PROGRESSION BY STAGE**

- **U43/U44 phase I** (6-12 months typical)
- **U43/U44 Phase II** 3 years (U44) or 1-4 yrs (U43)
- **Exploratory**
  - 6-12 months
- **Hit to Lead**
  - 12 months
- **Lead Optimization**
  - 12 months
- **Preclinical Phase**
  - 6 months
- **IND-enabling**
  - 12 months
- **Ph I SAD study**
  - 8 months

**WHO WE ARE**

“Grand Challenge to Provide Grant Funding and Resources to Facilitate Small Molecule Drug Discovery and Development to Treat CNS Disorders”

**ENTRY STAGES AND MECHANISMS**

- All Projects Begin with Preparatory Phase
- Complete entry criteria for SAR or IND-enabling studies
- Conduct due diligence

Not all ICs accept Development Projects

**INFRASTRUCTURE, EXPERTISE, & FUNDING**

- **Lead/Product Development Team**
  - Principal Investigator
  - Industry-seasoned consultants
  - NIH staff

- **Participating ICs**: NINDS, NIA, NIAAA, NIDA, NIMH, NICHD, NIDCR, NCCH, NEI

- **Program Goals**
  - To de-risk potential therapeutics to the point that industry will invest in them allowing potential new drugs to reach patients efficiently.
  - To provide grant funding and necessary resources (contracts, consultants, etc.) that are typically lacking in our research community.

- **Entry**
  - Strong science
  - BPN mission

- **Exit**
  - External funding/partnership
  - Other grants
  - Attrition

- **Discovery**
  - Assays
    - Disease Biology
    - Compounds

- **Development**
  - Fully Optimized Compound

**PROGRAM GOALS**

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**CONTACT INFORMATION**

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[Link](https://neuroscienceblueprint.nih.gov/neurotherapeutics/blueprint-neurotherapeutics-bpn-network)