Working together to develop promising CNS therapies

NRC’s Therapeutics Beyond Brain Barriers program serves as an integrated R&D extension to your team. We can de-risk product development, enable delivery of biologics across the blood brain barrier to address CNS indications, and accelerate the progress of candidates through every step of the value chain, up to and including early clinical trials.

Delivering large molecules past the blood-brain barrier to address unmet medical needs

The Therapeutics Beyond Brain Barriers (TBBB) program works with Canadian and international partners to deliver their biologic therapeutics to the brain, in order to address diseases whose targets lie inside the central nervous system (CNS). Partners’ molecules are coupled with NRC’s blood-brain barrier (BBB) carriers, which act as shuttles to deliver all types of biologics (peptides, antibodies and enzymes) to brain targets. In addition to three generations of customizable BBB carriers, NRC offers expertise in carrier-therapeutic conjugation and fusion, molecular modeling and optimization, biomanufacturing, and in vitro and in vivo preclinical evaluation of BBB-enabled biotherapeutics.

Partnership opportunity

Biologics are one of the most promising areas of medicine, and there is great potential to expand their reach to treat CNS indications. NRC’s TBBB program aims to open large CNS markets for our partners’ biologics by coupling them to NRC BBB carriers and de-risking development up to early clinical trials.

We are seeking partners to collaborate with us on the following priorities:

- Developing novel CNS-targeting biologics
- Re-engineering existing biotherapeutic pipelines for brain penetration, thereby expanding their reach into CNS indications
- Evaluating blood brain barrier permeability of partner molecules
Interested?
If you’re interested in developing biologics that target the CNS, coupling your molecule to NRC carriers, or accessing expertise and models to evaluate blood brain barrier delivery of your molecules, contact us today!

Contact

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Evaluating BBB-enabled therapeutics
Translational science is an essential element to demonstrating brain penetration and efficacy of CNS biologics. Through our functional characterization and biophysical characterization expertise, our advanced analytical platform, and our preclinical in vivo facility, NRC’s proprietary BBB and CNS assays and test models are generating critical data for partners at the preclinical stage as they prepare their Investigational New Drug applications.

“NRC has shown itself to be a master of a wide range of techniques, innovative, practical, patient and dedicated, and it is thanks to this that we are in a position to consider selection of a drug candidate to take forward with confidence. I would not hesitate to work with NRC again in the future”.
- John Connelly, VP, Regulatory Affairs and Non-clinical Research, ApoPharma

Partner benefits
NRC serves as an integrated R&D extension to our partners. We can de-risk product development, add significant value to biologic CNS candidates, and accelerate their progress through every step of the value chain, up to and including early clinical trials.

Through our TBBB program, partners can access NRC expertise in three types of projects:

- Product co-development: coupling our partners’ therapeutics with NRC blood brain barrier carriers
- Incremental services: evaluating our partners’ candidates in BBB and CNS models
- Industrial solutions to overcome technological roadblocks and bridge gaps

For projects in each of these categories, NRC has established best practices to guide the management and commercialization of intellectual property for co-developed products and enabling technologies. We observe the rigorous standards set forth by Health Canada’s Biologics and Genetic Therapies Directorate (BGTD), ensuring that all our co-developed products meet their regulatory approval requirements to be sold in Canada and other jurisdictions.

Your partner of choice
A globally recognized leader in the field of large molecule delivery across the blood brain barrier, we offer our partners access to a highly qualified research team that can deliver first rate results while maintaining confidentiality.