



Strategic Implementation Plan
Executive Summary

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The Ontario Brain Institute (OBI) is driven by a vision to distinguish Ontario as a world leading centre for brain research, translation and innovation.

Capitalizing on the ongoing revolution in brain science, OBI aims to harness Ontario's impressive strengths in brain research and medicine to achieve health, social and economic impact. Ontario has an opportunity for collaborative translational research that few regions around the world enjoy, and OBI's mission is to help scientists, clinicians, industry, policymakers and patient communities fulfill the healthcare and commercial potential of an integrated system of research that harnesses talent, leverages existing investments and fosters new, productive scientific configurations. While rooted in Ontario and focused on advancing research, development and commercial opportunities within the province, OBI will be decidedly outward-looking, pursuing national and international partnerships that enhance Ontario's stature as one of the world's leading brain clusters.

Closing translational gaps through new models of research, collaboration and value creation

To enable Ontario's opportunity for global leadership, OBI must address three critical gaps in Ontario's system of brain research and innovation: (i) Ontario research must be better integrated, more collaborative and decidedly patient-centric; (ii) industry's contribution to commercialization must be more prominent and arrive earlier in the discovery process; and (iii) knowledge exchange among researchers, patient communities, policymakers and industry must be more frequent and substantive. These three challenges define OBI's value and underpin its strategy.

Priority 1: Build a patient-centred research system to drive discovery. OBI's scientific strategy is focused on closing the translational gap between basic and clinical science. By advancing research projects predicated on the detailed characterization of patients with brain disorders and the factors that influence patient outcomes, OBI will enable clinically-informed, bedside-to-bench—or *reverse translational*—research that generates a richer mechanistic understanding of brain disorders and drives discoveries in prevention, detection and treatment. This outcome-oriented research paradigm will generate lasting social and economic value by ensuring that innovation is guided by clinical relevance at the earliest stages of discovery, accelerating the technology development pathway and improving the likelihood of clinical validation and future commercial viability.

Priority 2: Engage effectively with industry to drive economic results. Through thoughtful approaches to cross-sector dialogue and industry participation in research, OBI will help Ontario researchers recognize the commercial potential of their work early in the discovery process and capitalize on opportunities for the creation of additional economic value. To achieve this degree of commercial integration, OBI will ensure that industry is at the table through meaningful mechanisms that add value to both Ontario science and Ontario firms, and OBI will strategically support research pathways aimed at mitigating development risk and exposing and maximizing the value of commercializable technologies before pursuing commercial exit.

Priority 3: Create mechanisms to drive borderless knowledge exchange. A research philosophy that aims to bridge gaps in translational, patient-centred research and harness the potential of multidisciplinary, cross-sector science must support mechanisms for productive dialogue. To this end, OBI will provide formal and regular opportunities for dialogue among scientists, clinicians, trainees and industry, streamline real-time sharing of information and ideas, and provide opportunities for patients and policymakers to help shape, contextualize and harness the science.

By pursuing new models of patient-centred translational research, industry engagement and broadly inclusive knowledge exchange, the Ontario Brain Institute will help Ontario fulfill the potential of its research excellence, create a global address for brain science, and fortify Ontario's brain cluster through new partnerships and funding opportunities.

Creating a structure to enable collaboration, drive scientific excellence and attract new resources

OBI will serve as the integrative force behind the constellation of projects OBI ultimately funds, provide a bridge between basic science and the clinical data and expertise needed to drive discovery, and help to broker tactical industry partnerships. Situated at the centre of individual project efforts, OBI will coordinate multi-institutional collaborative teams drawn from Ontario's wealth of leading brain researchers, industry players and clinicians. This position will afford OBI the province-wide perspective needed to identify the most promising opportunities for research and collaboration, facilitate effective sharing of assets, attract new partnerships and resources, and translate new knowledge both to the clinic and to the marketplace.

OBI does not plan to invest in infrastructure or new human resources within Ontario institutions during its first two years; rather, existing talent and infrastructure will be supported and leveraged to advance projects. Selection of collaborating institutions and players will be project-specific, and collaborative teams, which will include industry as a full partner, will be dedicated to the scientific objectives set out in funded projects.

As a start-up organization, OBI's operations will be lean and flat. Reporting to OBI's Board of Directors, the President and Scientific Director will be supported by a small team of Directors and Advisors specialized in areas of greatest relevance to OBI's strategy: industry relations, knowledge exchange, program management, governance and resource development. This team will be responsible for working with the community to design initial projects, facilitating the interactions among scientists, clinicians and industry, and overseeing the deployment of resources/funds.

Crucial to OBI's success will be the expert input of the Scientific Advisory Council and the Industry Advisory Council, to ensure that OBI's efforts remain rooted in scientific excellence, to exploit opportunities for translation of findings to patient care, to review opportunities for commercialization, to shape the development and implementation of OBI's commercialization strategy and to facilitate outreach to industry players that may become project participants and potential receptors.

Implementing a focused plan to achieve impact and sustainable long-term funding

To ensure successful start-up and position the organization for scientific, economic and health impact in both the short- and long-term, the Ontario Brain Institute will implement an ambitious, focused and carefully coordinated roadmap of foundational activities across OBI's three strategic priorities. In addition, OBI will dedicate its first year to introducing solid governance, operational practices and leadership/decision-making structures, including the appointment of the Scientific Advisory Council, Industry Advisory Council and permanent Board of Directors.

Priority 1. A crucial priority for OBI during its first year will be the development, selection and rollout of initial research projects and complementary programs. These activities will leverage communication resources, including an ecosystem map of Ontario's neuroscience expertise and assets, as well as inputs from multidisciplinary disease-focused workshops. OBI is planning for the launch of collaborative projects by the fall of 2011.

Priority 2. Central to OBI's potential for economic impact within Ontario and beyond will be the integration of industry stakeholders into project teams and the establishment of value-adding alliances with partners capable of helping to develop intellectual property and reach relevant markets. To this end, OBI has already facilitated industry partnerships through an application to the FedDev stimulus program, and will be hosting a matchmaking roundtable to facilitate company-company partnerships in the context of the memorandum of understanding Ontario recently signed with Israel.

Priority 3. Building on the success of OBI's *Talk and Listen* tour, which has set expectations within the brain research community and built support for OBI's novel approach to collaborative, translational research, OBI's knowledge exchange activities will focus on defining projects and building teams, enhancing OBI's online interface, using a visually rich map of Ontario's brain research assets, and developing a strategy for effective engagement of diverse stakeholders, including patient communities and policymakers, in guiding project development and progress.

Delivering results

OBI has set out to develop an integrated, patient-centred, translational brain research system for Ontario. By coalescing research teams at the interface of basic and clinical science, engaging meaningfully with industry, and fostering a knowledge exchange paradigm that integrates scientific, clinical, policy and commercial imperatives, OBI's strategy will deliver results that matter to Ontario and Ontarians:

- **Ontario will solidify and reinforce global scientific and academic leadership in brain research.** OBI will harness excellence across the province, leverage substantial investments in technology and assemble the critical mass Ontario needs to compete effectively on the global stage. Success and global recognition will ultimately serve to retain and attract talent and enlist new resources to amplify OBI's investments and strengthen brain research in Ontario.
- **Ontario will address the commercialization gap.** Through research driven by clinical relevance and the early and meaningful engagement of industry in projects, OBI will maximize the opportunity to extract commercial and economic value from Ontario's excellence in brain research. Over the short-term, the number and quality of patents will increase, accelerating their successful translation into innovative health tools and solutions. Over the longer-term, Ontario will see tangible economic returns: timely transition of technologies to commercial enterprises, development of local industry, knowledge-based job creation and the attraction of new investment in Ontario's brain cluster.
- **Ontario will generate health solutions that benefit patients.** Effective knowledge exchange across traditional scientific, clinical and policy silos within the Ontario brain community will have considerable impact on healthcare practice and policy. Ultimately, OBI's investments have the potential to deliver new medical interventions/technologies, preventive strategies and approaches to early detection that will improve patient outcomes and mitigate the growing burden of brain disorders on our health, social and economic systems.

The Ontario Brain Institute represents a visionary investment in Ontario's future as a leader in brain science, a hub of commercialization and economic activity in brain-related technology development, and the global benchmark in managing the impact of brain disorders on society. OBI, in turn, is building a system to achieve results. By originating a new model of collaborative research oriented around patients and focused on harnessing translational and commercial opportunities, OBI will accelerate and amplify the impact of Ontario's excellence in brain science.