# THE INTERNATIONAL BRAIN INITIATIVE (IBI) DATA STANDARDS AND SHARING ROUNDTABLE

12–13 JANUARY, 2020 Hotel Chinzanso Tokyo, Japan













Brain/MINDS eyond

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# **GREETINGS FROM THE HOSTS**

Welcome to Tokyo 2020! We are honored to host the IBI Data Standards and Sharing Roundtable, which brings together Working Group members, experts in relevant fields, stakeholders and funders.

The aims of the Roundtable are the following:

1) Understand the goals and the data management plans of different brain initiatives.

2) Define common interests, overlapping needs, and possible domains of cooperation.

3) Decide short- to long- term action plans and according WG management structure.

We hope that it will be an opportunity for fruitful discussions and a starting point for continuous collaborations. We appreciate generous supports from the Kavli Foundation and preparations by the Brain/MINDS Beyond Promotion and Support Office.

Kenji Doya Takashi Hanakawa Keiji Tanaka

## **USEFUL INFORMATION**

#### **Meeting Venue**

#### Hotel Chinzanso Tokyo

Address: 10-8, Sekiguchi 2-chome, Bunkyo-ku, 112-8680 Tokyo, Japan Phone: +81 3 3943-1111 Website: https://hotel-chinzanso-tokyo.com/

#### About the Hotel

In 1878, Meiji-era government official Yamagata Aritomo built a garden and mansion in th is area full of natural beauty that he christened Chinzanso. Moved by the ever-changing nature of the landscape as light and wind passed through the trees, he welcomed many visitors to his forested gardens to share the joy. This launched our tradition of warm hospitality. 140 years have passed and Hotel Chinzanso Tokyo continues to welcome guests from around the world to its forested gardens and facilities where world-class service, a Japanese spirit of hospitality and the natural blessings of the four seasons can be fully enjoyed. We hope all visitors have a chance to relax and unwind in our verdant historic gardens and facilities overflowing with hospitality.

#### Access

#### **Ground Transportation**

Airport Limousine Buses are available between both Haneda and Narita Airports and the hotel. Please purchase your bus ticket at the airport or the hotel.

Note: Seating is limited, so please reserve your return bus ticket to the airport at your earliest convenience. Chinzanso's concierge can take your reservation.

From/to Haneda Airport

Fare: Adult: ¥1,250 / Child: ¥630 Duration: Approx. 80-90 min.

From/to Narita Airport

Fare: Adult: ¥3,200 / Child: ¥1,600 Duration: Approx. 100-180 min.

For further information, please visit the Airport Limousine Bus website. (https://www.limousinebus.co.jp/en/)

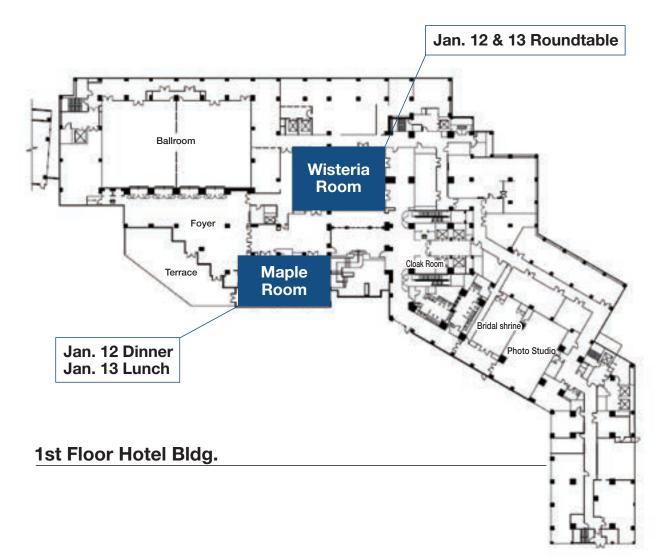
#### From/to Train Stations

Please visit the hotel website for information. (https://hotel-chinzanso-tokyo.com/access/)

#### **Breakfast**

Complimentary breakfast will be served to overnight guests at the following hotel restaurants and times.

"Miyuki" (Japanese style, 2nd floor, Hotel Bldg.) 7:00 – 10:00 am "Il Teatro" (Western style, 3rd floor, Hotel Bldg.) 6:30 – 10:30 am **Meeting Rooms** 



PROGRAM All meetings including the welcome lunch will take place in Wisteria Room, Hotel Bldg. 1F

# SUNDAY, JANUARY 12

| 12:30-      | Registration   |
|-------------|--|
| 13:00-14:00 | Welcome Lunch  |
| 14:00-14:10 | Greetings from the hosts   |
| 14:10-14:20 | Introduction of the IBI: Shigeo Okabe  |
| 14:20-14:30 | Summarizing of the pre-meeting survey: Agnes McMahon   |
| 14:30–15:50 | Introduction of each Initiative: Research focus and data-related activities<br>(10 minutes for each initiative; presentation 7 minutes + Q&A 3 minutes)<br>US BRAIN Initiative (remotely)<br>EU Human Brain Project<br>Canadian Brain Research Strategy<br>China Brain Initiative<br>Australian Brain Alliance<br>Korea Brain Initiative<br>Japan Brain/MINDS  |
| 15:50-16:10 | Break  |
| 16:10–17:10 | <ul> <li>Panel 1: Learning from data sharing in other fields</li> <li>We invite experts from genomics, systems biology and other fields to hear how to promote effective data sharing.</li> <li>(5 minutes for each panelist + discussion 35 minutes)</li> <li>Panelists: Peter Goodhand, Hiroaki Kitano, Jun Seita, Magali Haas Moderator: Kenji Doya</li> </ul>  |
| 17:10-17:30 | Break  |
| 17:30–18:30 | Panel 2: Challenges and opportunities in neurobiology data sharing         How can we best utilize floods of anatomical and physiological data by varieties of         methods from multiple model species?         (5 minutes for each panelist + discussion 35 minutes)         Panelists:       Kenneth Harris (remotely), Maryann Martone,<br>Alexander Woodward, Oliver Ruebel         Moderator:       Maryann Martone |
| 18:30-18:40 | Wrap up by the facilitators  |
| 19:30–      | Dinner ( <i>Maple Room, Hotel Bldg. 1F</i> )   |
|             | DAY 1  |

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# Monday, January 13

| 8:00-       | Registration   |
|-------------|--|
| 9:00- 9:10  | Greetings from the facilitators  |
| 9:10–10:30  | Panel 3: Challenges and opportunities in human brain data sharingWhat do we need in managing human brain data for promoting discoveries whileaddressing privacy and ethical concerns?(5 minutes for each panelist + discussion 50 minutes)Panelists:Russell Poldrack (remotely), Amy Bernard, Franco Pestilli,<br>Takuya Hayashi, Damian Eke, Ippei HagiwaraModerator:Saori Tanaka |
| 10:30-10:50 | Break  |
| 10:50–12:00 | Panel 4: Enabling web-scale neuroscience data interoperability         How can we promote interoperability of data from multiple sites and convergence of data standards?         (5 minutes for each panelist + discussion 45 minutes)         Panelists:       Sean Hill, Yi Zeng, Sharon Crook, Joost Wagenaar  |
|             | Moderator: Sean Hill   |
| 12:00-12:10 | Wrap up by the facilitators  |
| 12:10-13:30 | Group Photo and Lunch (Maple Room, Hotel Bldg. 1F)   |
| 13:30–16:30 | Discussion of short-/mid-/long-term goals and activities         Topics         Reviewing of the scoping document         WG meetings         Web portal within the IBI website         Publications based on the WG meeting         Summarize existing efforts and their gaps         Common framework for interoperability and promoting standards                               |
| 16:30–17:00 | Membership of the WG<br>Confirmation of the members of the WG<br>Selection of the chair/co-chairs of the WG  |
| 17:00–17:30 | Closing remarks<br>Next WG meeting<br>Immediate action plans   |
| 19:00-      | Dinner (Chef's Table, Hotel Bldg. 5F)  |

# ABOUT IBI

# **Vision & Aspirational Goals**

#### **Vision of the International Brain Initiative**

Catalysing and advancing ethical neuroscience research through international collaboration and knowledge sharing, by uniting diverse ambitions to expand scientific possibility, and disseminating discoveries for the benefit of humanity.

## Aspirational Goals of the International Brain Initiative

#### 1. Promote coordination and leadership

- Among scientists: Leverage resources and expertise available in different countries to provide the best value for investment, minimise duplication of effort, maximise reproducibility of results, and standardise data collection and sharing.
- In large-scale research programs: Identify areas of greatest potential global impact and coordinate large-scale and interdisciplinary research programs. As new capabilities arise, articulate and help resource large-scale equipment and facilities to be utilised by groups around the world.
- In innovative funding solutions: Promote strategic investment in global initiatives and leverage private foundation projects and their interaction with public sectors to maximise global efforts.

#### 2. Transcend borders

- Between countries: Support an interface between countries to promote involvement in the International Brain Initiative and enable synergistic interactions.
- Between research fields: Promote interdisciplinary approaches to neuroscience and training across different fields to drive neuroscience discovery and innovation.
- Between global research efforts: Provide a platform for collaboration between existing global research efforts and international neuroscience-relevant societies to establish means of interacting with brain researchers.

#### 3. Share and disseminate knowledge

- **To global citizens**: Engage in a meaningful dialogue with citizens, patients, and all stakeholder communities around the world to understand their interests and communicate transparently about the opportunities and challenges arising from the latest research in neuroscience and brain-inspired artificial intelligence.
- **To accelerate discovery**: Implement mechanisms for the rapid dissemination of information and global data sharing to accelerate discovery.
- **To drive research translation and application**: Promote the acquisition of standardised data so that commercial risk is reduced for translation and provide a platform for engagement with industry to provide translation of discoveries.

# 4. Shaping the future

- **To empower future generations of neuroscientists**: Through innovative transdisciplinary training that embraces a global research perspective and the benefits of neuroscience for all.
- **Of international collaboration**: Develop innovative and dynamic models for international research collaboration including public and private stakeholders.
- **To promote brain health**: Practice a culture of sharing data related to brain diseases to enable integrated application and translation to improve brain health on a global scale.
- Of ethical neuroscience practice: Advance neuroscience with neuroethics as an integral part of the global neuroscientific enterprise.

# Mission, Core Activities, and IBI Working Group Charge

## **MISSION OF THE IBI**

The IBI will accelerate neuroscience by enabling research activity and collaboration at a global scale. The IBI will achieve these goals by:

- Identifying common priorities across the national brain initiatives and facilitating the exchange of ideas, opportunities and challenges among the initiatives
- Building networks and catalyzing collaborations involving the initiatives, scientists in academia and industry, philanthropy, government, civil society, and scientific stakeholders
- Augmenting the national brain initiatives with programs and resources that will broadly benefit global neuroscience

# CORE IBI ACTIVITIES FOR THE NEXT THREE TO FIVE YEARS

- Facilitate clear, efficient and regular communication among the member initiatives about their goals, programs, investments, participants and needs
- Disseminate tools and discoveries, as well as new models for neuroscience research, collaboration, and financial support
- Build trusting, collaborative relationships among representatives from the member initiatives, academia, government, philanthropy, scientific societies and other relevant groups
- Identify projects of shared interest that would augment member initiatives (including goals for discovery *and* translation), and secure exploratory support for those projects
- Facilitate matches between interested funders and the collaborative teams leading pilot projects
- Experiment, iterate and learn from experience, sharing lessons learned broadly as a means to change the sociology of science

# **CHARGE TO THE IBI WORKING GROUPS**

- Gather a clear understanding and record of the plans and goals of different brain initiatives in the given Working Group space.
- Define common interests, overlapping needs, and possible domains of cooperation.
- Brainstorm and recommend up to three potential projects to be achieved within a two- year span. These early-stage ideas will be shared with the Strategy Committee, Stakeholders Collective, and Funders Collective to explore whether there is a collective interest in developing the idea further.
- Develop a theme or framework for potential white paper which could include short- mid- and long- term goals for IBI efforts in the Working Group's space.

# **ABOUT IBI**

# **Organizational Structure Summary and Definitions**

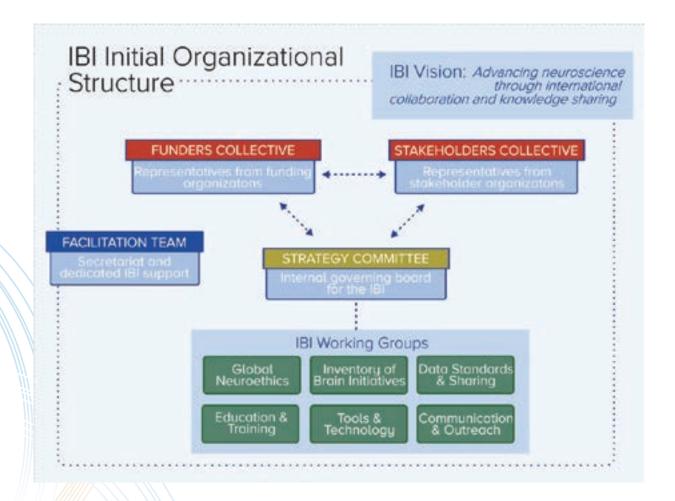
The organizational structure of the International Brain Initiative (IBI) provides a framework for coordination and collaboration between large scale brain projects and initiatives. This proposed structure seeks to maximize efficient communication to enable the realization of the vision of the IBI. The aim of this document is to describe the roles and mechanisms through which those involved with the IBI may engage and realize its vision.

# Vision of the International Brain Initiative

Catalysing and advancing ethical neuroscience research through international collaboration and knowledge sharing, by uniting diverse ambitions to expand scientific possibility, and disseminating discoveries for the benefit of humanity.

# **Organizational Structure**

The initial organizational structure is designed for the establishment phase of the IBI. In subsequent years, it is envisaged that standing committees will be established to carry out the work of the IBI and support its vision.



## Strategy Committee

The Strategy Committee is comprised of leaders from the seven current neuroscience Initiatives, each having at least one Representative. The representatives on this committee serve as liaisons between IBI and their organisations and agencies, to update on developments and gather feedback. This committee represents those with the largest vested interest in establishing the IBI. The Strategy Committee is therefore expected to provide the leadership to establish the IBI and to develop the internal governance policies and procedures for the IBI, communicate about collective strategy and sustainability with the Funders Collective, and engage in reciprocal dialogue with the Stakeholder Collective and the Science and Supporter Community. Through its leadership and engagement, the Strategy Committee will identify the critical areas of work required to establish the IBI to achieve its vision, establish and manage the work flow of the working groups tasks, as well as identify and enable resourcing of the work. The Committee will also be responsible for nominating chairs for the IBI Working Groups. The Strategy Committee will be led by the Chair and Co-chair, selected from the Strategy Committee Representatives by a democratic vote among the Strategy Committee representatives.

## **IBI Working Groups**

The IBI Working Groups lead and facilitate group-specific, concrete efforts in defined critical bodies of work. In the first year, the working groups will be devoted to tasks critical to the establishment of the IBI. Members of these groups will provide specific expertise in the area of work to be achieved. They will be led by a Working Group Chair(s), as selected by the Strategy Committee for this initial phase, and democratically selected by Working Group Members in subsequent years. Working Groups will be established by the Strategy Committee through democratic approval of a scoping document submission. The Working Groups, as relatively fast-acting bodies, will default to a two-year timeline.

Current Working Groups are as follows:

- Global Neuroethics
- Tools & Technology
- Inventory of Brain Initiatives
- Data Standards & Sharing
- Education & Training
- Communication & Outreach

The IBI Working Groups will be responsible for identifying the goals, aims, and challenges within their respective targeted area. Groups begin this process by explicitly stating their purpose and initial steps.

# **Funders Collective**

The Funders Collective is comprised of individuals from funding organizations with a shared interest in the goals of the IBI and desire to work collaboratively. The goal of the Funders Collective is to promote interaction, coordination, and collaboration among funding organizations, while working toward capacity building and sustainability of the IBI. This funder-specific group design allows for public and private funders to discuss their unique roles, challenges, and opportunities in neuroscience

# **ABOUT IBI**

support. It is recognized that potential Funders Collective members may not have designated funds to support specific activities related to the IBI Vision & Aspirational Goals. Many funders may also be supporting, or have supported, work that was not initiated as an IBI project but may contribute best practices or other resources to the IBI. The Funders Collective will learn of the activities of the IBI, offer their unique perspectives, and work with the Strategy and Stakeholder Representatives to harmonize goals and identify challenges.

#### **Stakeholders Collective**

The Stakeholders Collective is comprised of representatives who partner with the IBI, specifically within these five categories: (1) leaders from major national and international brain projects (2) neuroscience societies and organizations, (3) neuroscience initiatives, (4) industry partners, and (5) affiliates. Thus, the Stakeholder Representative group will be comprised of scientists, engineers, policy makers, ethicists, and organization and industry leaders, offering diverse and relevant expertise to the IBI. The Stakeholder-specific group allows for neuroscience organizations to discuss their unique roles, challenges, and opportunities for engagement with their communities. Representatives participating in the Stakeholders Collective will use their expertise to consult during the creation of new Working Groups and to communicate broader emerging themes to the Strategy Committee, Funders Collective, and Working Groups. This mechanism for feedback provides the IBI entities with a crucial viewpoint of the larger global neuroscience landscape and connects to the network of the Science and Supporter Community. The Stakeholders Collective will learn of the activities of the IBI, have the opportunity to contribute perspectives and advise on best practices, and may offer to leverage existing platforms or resources to tackle areas of common interest with the IBI.

#### **Facilitation Team**

The Facilitation Team provides the internal support for all entities within the IBI to communicate and function in-step with one another. It includes collaboration and coordination, with flexible financial and in-kind contributions. Members of the Facilitation Team will support collaboration and coordination to ensure consistency and communication within the IBI, engage with stakeholders, and maintain the IBI's effort that transcends any single institution. While some aspects of the Facilitation Team responsibilities include outreach, engagement, and on-boarding with potential stakeholders, the main goal will be to maintain internal support. Coordination of resources will help build and maintain a sustainable, responsive, and independent entity. The goal of the Facilitation Team is to build a strong community to meet the goals of the initiative.

## Science and Supporter Community

The Science and Supporter Community is the broader ecosystem within which the efforts of the IBI are conducted. Science and Supporter Community participants are neuroscientists and other community members who have a vested interest in the proceedings of the IBI, are interested in learning more about the IBI, and have potential to serve on the IBI Working Groups. Participation in this community is available to any individual who meet those criteria. Members of the Science and Supporter Community are invited and encouraged to engage with the IBI, especially through the Communication & Outreach Working Group, and via IBI newsletters, the website, and events.

# **Historical Timeline**

