Niigata University
Collaborators: Chubu University
Participators: Tohoku University, Osaka University, QST, Aarhus University, IISc, University of Bordeaux **Summary** Vision We will focus on the key research areas of "Brain and Life" and "Food and Health", producing research outcomes that the local community relies on and that contribute globally, while also ensuring their practical application in society. for the By collaborating with domestic and overseas research institutions, we will establish three centers and seven laboratories, creating an environment where next outstanding researchers gather and thrive. To achieve these goals, we will establish an attractive workplace where highly specialized personnel or UAs (University Administrators) can work in tandem 10 with administrative staff and where each faculty and staff member can maximize their abilities through a collaborative separation of academic affairs and years management. Integrating "global competitiveness" with "distinctive research Reinvest for new domains domains" to define our key research focus Collaborator Tohoku Univ. and expansions Participator "Brain and Life" "Food and Health" Niigata Univ. Research on neurological disorders, **Enhance integrated** Research on stress-resistant regenerative medicine, etc. institutional research Koshihikari rice, research on food **R&I Strategy** taste and functional foods, etc. OST Set priority areas through Drug Discovery **Human Bioresource** Chubu Univ. outcome evaluation Tohoku U Biobank Innovation Complex Center Clarify processes and strategies through benchmark comparison Osaka Univ. AI Math. & Info. Chubu U AI / Math **IISc** Information Science Japan ELSI Center for Human Brain Science **Collaboration Center** & Health Innovation (Tentative name) Aarhus Univ. **ELSI Collaboration Center** Osaka U ELSI Neuroscience Univ. of Bordeaux U of Bordeaux Wine Science **QST** Drug Discovery Innovation Wine Science Overseas : Jointly operated Aarhus U Neuroscience Indian Institute of Science (IISc) Information Science Advancing and strengthening R&I as two core pillars 2022 project (revised) **Research Strengthening** R&I Build strategic leap programs **Promotion Headquarters** Strategy 4 During Phase 2, select four projects and assign PDs **Outcome** (Presidentially-Directed) Leverage R&I Strategies 1-3 and make focused investments Strengthen organizational Strengthen collaboration R&I R&I Strengthen growth and with domestic and overseas management for structuring future academic fields Strategy 1 Strategy 2 Strategy 3 and outcome generation universities Organizational management Human Bioresource Complex Center Japan: Chubu U\*, Tohoku U, Osaka U,QST Overseas : Aarhus U, U of Bordeaux, R&I collaboration via special zone AI Math &Info Collaboration Center Strategic IP and PR management ELSI Collaboration Center Enhance the environment for junior researchers and graduate students to thrive. **High-level** Strengthen the capacity of UAs for external development. **Talent** Promote the active participation of administrative staff in collaboration.

Early-career researchers: Career support program

Doctoral Researchers: Interdisciplinary degree program

Highly specialized personnel: Restructuring UA and

University process DX: Securing researcher's time

enhancing admin specialist roles

Utilization

**Strategy** 

### President

# Progress evaluation

#### Advisory council consisting of external experts

Organizational

Tie-up with

companies

#### Top-down determination of priority areas based on IR data (Established)

development of university-wide Headquarters for collaboration **Management Strategy** 

UA Office • IR



Work in tandem to promote separation and collaboration between

Decision-making

academic affairs

and management

support and

Administrative organization

- Sophisticated administration
- DX of university processes

Institute for Research Improvement of Administration research Support for junior researchers environment

Acquisition,

talent

development and

success of high-level

Promotion of equipment sharing **Institute of Graduate School Education Support** 

Training of doctoral students

#### Institute for Global Promotion

Support for international researchers and students

**High-level Talent Utilization Strategy** Enhance the environment for junior researchers and graduate students to

- thrive. Strengthen the capacity of UAs for external development.
- Promote the active participation of administrative staff in collaboration.



MEXT Joint Usage / Collaborative Research Center



**Domestic and international** collaborative research institutions

R&I Strategy 1: Strengthen organizational management for structuring and outcome generation

> **Research Strengthening Promotion Headquarters**

> > General Manager (GM)

**Overall supervision** 

"Presidentially-directed"

Program Director (PD)



Support for each project

R&I Strategy 4: Build strategic leap programs

# Strategic leap programs

Select projects to be specifically promoted in priority areas



Promote fusion research with growth and future academic fields

R&I Strategy 2: Strengthen growth and future academic fields

Human Bioresource AI Math. & Info. **Complex Center** 

Integrate and utilize human

brain samples and related data

**Collaboration Center** 

Develop integration with applied mathematical information science

**ELSI Collaboration** Center

Develop integration with ELSI for social implementation

R&I Strategy 3: Strengthen collaboration with domestic and overseas univers<u>ities</u>

Jointly operated laboratories

Aarhus U

Neuroscience

Comprising of principal investigators (PIs) from collaborators and participators through the cross-appointment system, etc. and newly assigned junior researchers

Collaborator
 Participator

Drug Discovery Innovation

Tohoku U Biobank /

Startup

**Overseas** 

**QST** 

Chubu U

Osaka U **ELSI** 

AI / Math

U of Bordeaux

IISc Information Science

Wine Science

Expand the structure in priority areas and growth/future academic fields through organizational and substantive collaboration with clearly defined functions

Program for Forming Japan's Peak Research Universities (J-PEAKS)

**Advanced Medicine Innovation System** 

Affiliated hospital

Clinical and Translational Research Center

#### Collaboration Life Innovation Hub

- Open Innovation Center
- Innovation Design Atelier



Institute for Social Innovation and Cooperation

Center for Human Brain Science & Health Innovation (2023 project)



New open innovation center focusing on priority areas, including the Human Bioresource Complex Center. For use by the university, collaborators, participants, companies, etc.

> Industry-academia / regional collaboration

## Industrial consortiums

QST brain disease drug discovery alliance, industry reskilling, safety diagnostics, etc.

## Regional collaboration platform

The Bio Community Future Creation City Nagaoka

## **Timeline**

Phase 1: Organize individual research projects and establish infrastructure to enhance research capacity

2025



Phase 2: Create a virtuous cycle of performance creation, monetization, and organizational

Phase 3: build a flagship university

2030 - 2035



# Strategy 1 Strengthen organizational management for structuring and outcome generation

Strategy 2 Strengthen growth and future academic fields

Establish the Clinical Information Integration Group, Bioresource Utilization Consultation Desk, and Specimen Management Group:

Establish the AI Math. & Info. Collaboration Center

Work with Chubu University to create a field of AI mathematical

• Establish the **Human Bioresource Complex Center** 

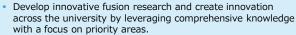
- Establish the Research Strengthening Promotion Headquarters
- Organize research groups in two priority areas
- · Assign GMs and UAs, increase staff; allocate other campus resources on a priority basis.
- · Strategically promote IP and PR activities; develop industry-governmentacademia-finance-region collaboration seeds into organizational collaborative projects.

Centralize management of human brain specimens and related resources,

and link them to clinical data of the diseased; promote data utilization by

Move the existing two centers to the headquarters and integrate them

- Review and improve organizations and priority areas with reference to their performance and evaluation by an external evaluation committee.
- Collaborate with other university organizations that support the creation of innovations to promote the monetization of research outcomes.
- The UA Office plays a central role in grasping the seeds within the university, conducting domestic and international research, surveying social conditions, and analyzing enhanced IR data. Based on the findings, new priority areas will be considered under the President's leadership.



Generate substantive outcomes in regional development through collaboration with local companies and startup development by utilizing the Oishisa DX Project, a regional university grant project, etc.

#### In key research areas that are unique to the local community and in which the university has an international competitive edge, we will generate research outcomes that the community can rely on and be proud to show to the world.

- By collaborating with domestic and overseas research institutions, we will create an environment where highly skilled researchers gather and thrive.
- Through a collaborative separation of academic affairs and management, we will establish an attractive workplace where UAs can work in tandem with administrative staff and where each faculty and staff member can maximize their abilities.

Establish a research base for creating innovations in "Brain and Life" and "Food and Health" for the future society.



# Strategy 4 Build strategic leap programs

- Build approx. four strategic leap programs.
- Assign a PD for each project
- Reinvest and deploy obtained funds, etc. across the university

#### Establish the **ELSI Collaboration Center** Reorganize the existing center; establish a collaborative center with Osaka University.

- Strategy 3 Strengthen organizational collaboration with domestic and international universities
  - Establish seven joint operation labs

collaborate with Tohoku University.

domestic and foreign institutions.

information science.

- One collaborator / six participators (three in Japan and three overseas)
- Expand personnel exchanges through joint research, education, etc., centered on priority areas.
- Horizontally apply best practices in base building to new priority areas.

### **High-level Talent Utilization Strategy**

- Establish a career path support system for tenured junior faculty.
- Establish the **UA office** personnel system and **double-track personnel** system for administrative staff.
- Promote digital promotion of university business processes with a focus on priority areas.
- Establish an interdisciplinary graduate degree program.



Expand the organization of the UA Office.

Implement digital transformation of university processes across the university.



