Chiba University (University Functions to be Enhanced: <u>1. Boost academic excellence in specific areas of the university's strength</u>, <u>2. Generate innovation that</u> <u>can help solve global issues and advance societal reform</u>.)

Participators : The University of Tokyo; University of Tsukuba; Research Institute for Biomedical Sciences, Tokyo University of Science; RIKEN; National Institutes for Quantum Science and Technology (QST); Center for Mucosal Immunology, Allergy and Vaccine (cMAV) and Center for Microbiome Innovation (CMI), University of California, San Diego

Summary

University's Research Vision in 10 years

We aim to become the **preferred university for students and researchers**, **both domestically and internationally**, fostering an environment conducive to **learning**, **research**, **and innovation** across the following key areas:

[Research Areas with Global Competitiveness]

- (1) Immunology and Vaccinology (2) Preventive Medicine
- (3) Integrated Big Data Analysis of Earth Observation (4) Neutrino-driven Multi-messenger Astronomy

Overview of Research Capability Enhancement Strategy

- Pursuing global excellence, we <u>strategically prioritize the enhancement of research in Area (1)</u>. <u>Concurrently, we leverage the resources of the 'Chiba University Biohealth Open Innovation Hub' to</u> <u>accelerate innovation in the fields of Biology and Health Sciences across Area (1) and (2)</u>.
- We aim to broaden successful practices of Area (1) horizontally and strengthen Areas (3) and (4) beyond the 6th year. Furthermore, our objective involves enhancing our initiatives across the university to foster its medium- and long-term growth.

Challenges identified through Backcasting

- ① Needs of data scientists and a system that connect cutting-edge research with advanced technology and infrastructure
- ② Establishment of a comprehensive support system spanning from basic research to clinical trials, including access to advanced technologies and clinical specimens.
- ③ Development of alternative methods and the establishment of advanced infrastructure for animal testing.
- ④ Installation of external organizations possessing flexible management capacities to facilitate the societal implementation of research outcomes.
- (5) Optimization of the workplace to enable effective support between researchers and research administrators

Initiatives to improve University's research capabilities to achieve Its' Research Vision over in 10 years

			latives to address "Chai	lenges ()-5 ² in page 1.
The Presidential Initiative	The Presidential Initiative		Off-campus Initiatives	
Formation of the Data Science Core (DSC) Introduction of	Establishment of Center for Human Immunological Diseases and Therapy	Foundation of Next Generation In Vivo Research Exploratory Center (cNIVR)	Building a Chiba University-based Innovation Ecosystem	Enhancing and Expanding Collaboration with Domestic and International Institutions
system: Cross appointment, Salary	Development (cCHID)	 Benchmark: NIH NCATS Developing 	• Starting a Chiba-U	Deepening cooperative relationships with UCSD.
 structure equivalent to private sectors, Jobbased employment, degree acquisition support and others. Various opportunities with our researchers: Participation in existing projects, collaborative research with Graduate School of Informatics, Interdisciplinary open academic exchange, and more! 	Creation of Chiba University Model Benchmark: NIH CHI • Utilizing the advantages of Clinical Research Core Hospital, AI infrastructure, and others. • Providing advanced technical resources.	 Developing alternatives to animal testing, building advanced infrastructure, and in vitro research in parallel. Maximizing the strengths of partner institutions: Center for Artificial Intelligence Research in Therapeutics, RIKEN, and University of Science. 	 Starting a Chiba-U funded joint stock company. Making Limited Partnership (LP) investments in local venture capital funds. Leveraging JST- OPERA project's achievements to advance to the next step. 	 relationships with UCSD. Strengthening the training programs for young researchers, including double or joint degrees. Building interinstitutional collaboration with University of Toronto, Cornell University, and others. Utilizing the advantages of Partner Institutions (with no grants).
Challenge 1	Challenge 2	Challenge 3	Challenge ④	Support for All Initiatives

Training and building career paths for researchers and research administrators

[For Researchers]

Creating a supportive environment where researchers can fully dedicate themselves to their research by reducing the administrative and operational workload and others.

[For Research administrators]

Working conditions and benefits based on their abilities and performance, career-up system, and others.

Challenge (5)

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

Framework



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

Timeline

Initiatives to improve University's research capabilities	FY2024	FY2025	FY2026	FY2027	FY2028	~FY2033
	Pursuing global ex and Vaccinology	cellence, we strategic and accelerating inno	cally prioritize enhanci ovation in Biology and	ng research in <mark>Immu</mark> 1 Health Sciences. 1	nology Enhancing across the expand Pri	our initiatives university to ority Areas of Study
Chiba University Biohealth Open Innovation Hub	Preparation of the H	Opening of the Hub	Acceleratin Org.	l ng innovation in the fie anizing DSC events at th I	i Ids of Biology and Hea e Hub I	Ith Sciences
1.(1) Formation of the Data Science Core (DSC)	Formation of the D	SC Joining reso	earch activities in the <u>Re</u> y, engaging in other Re	l search Area (1) Immu search Areas with Glob	l nology and Vaccinolog pal Competitiveness	Y
	P S	romoting open collabora cience competitions	tion events with partner	institutions, such as by l	holding Bootcamp Hacka	thons and Data
(2) Establishment of Center for Human Immunological Diseases and Therapy Development (cCHID)	Establishment of the Division of Advanced Research on Human Immunological Diseas	Development of Phase I clinical trail facilities, etc	Installation of a cell culture room, etc.	AI implementation clinical trial DX, etc	Establishment of a sample sharing system, etc.	Establishing a
	Establishment of the Division of Technolog Development on Human Immunologica Diseases	y Establishment of outsourcing syster for management a operations, etc.	Creating 'Chiba M University Model' and Scaling out the outsourcing system	Collaborating develop cross	with NIH CHI to s-sector initiatives	University Model'
(3) Foundation of Next Generation In Vivo Research Exploratory Center (cNIVR)	Upgrading animal experiment facilities.	Establishment of the Division of Advanced Experimental Animal Model Development	Establishment of the Division of Advanced in vitro Biomimetic Model Development	Offering a system to make new animal models available for university researchers	Achieving reduction in the number of experiment animals	Establishing a Cutting-edge infrastructure for animal experiments
(4) Building a Chiba University-based Innovation Ecosystem	Proceeding with the procedures to estab	lish an Executing 'R& their practical	D plan', 'R&D funding pla application	an', and 'IP strategy plar	n' and promoting	Running a self-sustain company
	Proceeding with the Investment approval Starting LP investment Starting consideration of the second fund Monitoring and Feedback					
	Proceeding with prepa for incorporation	aration In De	corporating the Researc veloping multigeneration	h Area (2) Preventive I al epidemiological resear	Medicine Research Con rch and 'Healthy Commu	sortium nity Planning'
(5) Enhancing and Expanding Collaboration with International Universities	Concluding a collaboration agreement with UCSD CMI	Starting a collaboration with Cornell University MIST	Concluding a collaboration agreeme with the University of Toronto	Setting up a joint research lab with the University of Toronto	Holding an international symposium	Leading the establishment of the Trans-Pacific Partnership

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

	FY2024	FY2025	FY2026	FY2027	FY2028	~FY2033	
2.(1) System Development Initiative	Establishment of Headquarters for Next Decennium Research Strategy						
to achieve the Research Vision	Implementing research facilities and enhancing data infrastructure	Enhancing data management an sharing features	d · Implemen • <u>Enhancin</u> internatio	ting and upgrading resea g Chiba University's vis anally	arch facilities and data inf sibility both domestical	rastructure ly and	
(2) Initiative to establish strategic partnerships and interdisciplinary collaboration	Initiating interdisciplin cross-appointment	ary collaborations and Preparing to host international symposit	Fostering Expanding collaborat	interdisciplinary collabora new initiatives by levera ions	ations and follow-up effor aging the achievements o	ts of past	
3. Initiative to nurture researchers and research administrators	Establishing a support system for researchers Developing a career support system for research administrators	Implementing systems	the Implement	ting the system, providin nee	g follow-up, and making eded	revisions as	
4. Initiative to conduct organizational reform for sustainable development	Reviewing existing organizations, consolidating operations and streamlining processes	Prioritizing research and Promoting the of research outcom Research Area (1) Immunology and Vaccinology	n activities application les in Advan sustai	dress social and regional ices and apply gained in icing and implementing a nable development	issues, <u>disseminating s</u> nsights throughout the dditional organizational r	uccessful research university eforms to ensure	
University's Research Vision in 10 years							
We aim to become the preferred university for students and researchers, both domestically and internationally , fostering an environment conducive to learning, research, and innovation across the							

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

Research Areas with Global Competitiveness.