January 25, 2024
Japan Science and Technology Agency (JST)
5-3, Yonbancho, Chiyoda-ku, Tokyo 102-8666

JST and NRC (Canada) jointly fund three research projects in the AI-based solutions for well-being, better living environments, and social connection for aging populations fields under the SICORP framework

The Japan Science and Technology Agency (HASHIMOTO Kazuhito, President) has approved funding for three new joint research projects in the research field of "AI-based solutions for well-being, better living environments, and social connection for aging populations" under the Strategic International Collaborative Research Program (SICORP)[1] program (Attachment 1).

JST and NRC[2] jointly called for proposals from October 2022 to April 2023 and received a total of eight proposals. Three projects were selected after evaluation by a panel of experts in both countries and a joint review (Attachment 3). The projects started from November 2023, and follow the Japan-Canada 2x3 international academia-industry framework with a predicted research period of three years (36 months).

[1] Strategic International Collaborative Research Program (SICORP):
    https://www.jst.go.jp/inter/english/index.html
[2] NRC: National Research Council Canada
    https://nrc.canada.ca/en

Attachments
1. Abstracts of selected projects
2. Abstract of the joint call for proposals
3. Experts for the evaluation (Japan side)

Enquiries
Department of International Affairs, JST
K's Gobancho, 7 Gobancho, Chiyoda-ku, Tokyo 102-0076
SUGAWARA Masae
Tel: +81-3-5214-7375 Fax: +81-3-5214-7379
E-mail: jointca[at]jst.go.jp

Abstracts of selected projects

	Title (Abbreviated Title)	Principal Investigator (Japan side) / Principal Investigator (Canada side)	Position and Institution	Research Abstract
1	FureAI: An Implementation of an Elders' Living Support System based on Social Conversational Agents and Smart Activity Monitoring (FureAI)	ITO Takayuki (Academia)	Professor, Graduate School of Informatics, Kyoto University	The purpose of this project is to develop a prototype monitoring and management platform that will enhance physical and mental behaviors of elderly individuals in their homes using electrical devices and information communication devices by a collaborative effort. The Japanese team will concentrate on monitoring mental behavior, using AI-assisted information communications, while the Canadian team will focus on developing method which support physical behavior monitoring using AI-assisted electric appliances. This project aims to create a comprehensive monitoring and management platform that will help elderly individuals live independently and comfortably in their own homes. Specifically, by establishing their social connections, providing personal AI agents, and providing personalized feedback and interaction, which improve their physical and mental well-being through personalized feedback and interaction.
		KUWAHARA Hideto (Industry)	President, AGREEBIT, Inc.	
		Shichao LIU (Academia)	Associate Professor, Department of Electronics, Carleton University	
		Alan RUTH (Industry)	President, GRTHealth Inc.	
		Chungheng YANG (NRC)	Principal Research Scientist, Digital Technologies Research Center	

		EBIHARA Satoru (Academia)	Professor, Department of Internal Medicine and Rehabilitation Science, Graduate School of Medicine, Tohoku University	The purpose of this project is to develop a Digital Comprehensive Geriatric Assessment at Home (D-CGA@home) that performs remote digital transformation and AI analysis of Comprehensive Geriatric Assessment (CGA), which has been conducted by outpatient interviews.
2	Development of Digital Comprehensive Geriatric Assessment at Home (D-CGA@home) to Support Advanced Telemedicine	SAKAI Fuminori (Industry)	President, Sakura Tech Corp.	The Canadian team has a number of remote monitoring devices to be integrated into D-CGA@home to collect data on functional information for the elderly at home. At the same time as providing the device, the Japanese team will use AI to automate the data analysis of D-CGA@home and build a robust AI that enables a comprehensive analysis platform.
		Shannon FREEMAN (Academia)	Associate Professor, School of Nursing, University of North British Columbia	Joint development of D-CGA@home by teams from both countries will enable real-time remote comprehensive evaluation of the elderly and appropriate AI-based care plan drafting.
		Jordan SCHLEY (Industry)	CEO, Care2Talk	
		Helene FOURNIER (NRC)	Research Officer, Digital Technologies Research Center	

3	Intelligent Assistive Robots for Caregiving (ARC)	YOSHIDA Eiichi (Academia)	Professor, Faculty of Advanced Engineering, Tokyo University of Science	The purpose of this project is to develop intelligent assistive robots that can naturally co-exist and co-live with humans mainly in caregiving settings, through a semi-autonomous robotic solution that can be deployed in the near future, where the robot can perform basic tasks autonomously, and complex tasks with human intervention (via teleoperation).
		KAWASUMI Yuichiro (Industry)	Manager, Core Platform Laboratory, Kawada Technologies, Inc.	The Japanese team takes charge of collaborative teleoperation framework and estimation of human physical state based kinematic and dynamic models.
		Yue HU (Academia)	Assistant Professor, Department of Engineering, University of Waterloo	The Canadian team tackles the development of sensors and safe robot systems, data collection and analysis by physical interaction experiments within caregiving scenarios, as well as the development of AI technologies to understand human intention and the environment.
		Mojtaba AHMADI (Industry)	CEO, MAE Robotics Inc.	This collaborative research allows one caregiver or worker to efficiently perform various services: aiding several older adults without commuting or participating in different customer services or collaborative assembly operations remotely and physically.
		Pengcheng XI (NRC)	Senior Research Scientist, Digital Technologies Research Center	We expect to contribute to workload reduction and increased labor participation with the results from this project.

Abstract of the joint call for proposals

Funding agencies:
  Japan side: JST
  Canada side: National Research Council Canada (NRC)
          https://nrc.canada.ca/en

Field
  Projects must be joint research between the two countries in the field of AI-based solutions for well-being, better living environments, and social connection for aging populations, following the Japan-Canada 2x3 international academia-industry framework.

Eligibility
  Japan side: any researcher actively conducting research that is affiliated with a domestic Japanese research institution or company, regardless of nationality, is eligible to apply.

Research period
  3 years (36 months)

Amount of funding
  Japan side: up to 58.5 million yen from JST to the researchers (Japan side) per project over 3 years, including overhead costs (30 percent of direct costs).

Evaluation method
  Based on evaluation by experts from the two countries and discussion between JST and NRC.

Evaluation criteria
I. Meet the application requirements.

II. The proposal must be in accordance with the purpose and target of this public offering.

III. Scientific and technological perspective
  a. Quality and originality of the project
  b. Scientific and technical expertise of the team including the applicant
  c. Expected scientific results and prospects for their development

IV. International cooperation perspective
  a. Applicant's international cooperation experience
  b. New cooperation or expansion of existing cooperation

c. Quality of cooperation and synergies of participating institutions
   - Synergistic effects through international industry-academia collaborative research
   - Expected economic/social spillover effects

Experts for the evaluation (Japan side)

Name	Position and Institution	Role
NISHIDA Toyoaki	Vice President and Professor, Faculty of Informatics, The University of Fukuchiyama	Program Officer
IFUKUBE Tohru	Adviser, Research Center for Advanced Science and Technology, the University of Tokyo, The University of Tokyo	Advisor
ETO Minoru	Professor, Institute for Open and Transdisciplinary Research Initiatives, Osaka University	Advisor
SATO Tomomasa	Professor Emeritus, The University of Tokyo	Advisor
NAKAMA Shinichi	Executive Fellow, Human Renaissance Institute Co.,Ltd.	Advisor