

# Developing an innovative community-based science and technology program focusing on local regional issues Incorporating entrepreneurship training

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## ABSTRACT

The Japan Science and Technology Agency (JST) provides support to universities to develop advanced educational programs in Japan. Ehime University was granted funding by JST in 2023 for a second high school student project. We built systematic training programs during our first JST project. In this second project, the program is being enhanced and expanded throughout the island of Shikoku. We recognized the urgent needs for fostering well-trained, innovative leaders of for the next generation who will be active in the region while understanding their connection to the world. The major concept of this project is to start with junior and senior high school students in providing scientific and entrepreneurship training. Universities and local communities are working together through university-level classes and individual research projects and instruction in entrepreneurship, and to provide cross-cultural adaptability through exchange with foreign researchers. In the field of biology, as our students conduct research various regions, they also learn how to communicate what they learn to the local community. From the perspective of integrated learning, it is necessary to develop highly motivated students through topical research in local biology education. We will introduce our three areas of focus: independent research, involving the local community, and entrepreneurship activities.

**Keywords:** Science and Technology, Next Generation, Biological Education, Educational Systems, Entrepreneurship, High School Student

## Dr. Aki Kato, Ph.D.

Dr Aki Kato is an Associate Professor at Ehime University. She is also the coordinator of the Next Generation Global Human Resources Project. She was born in Ehime and spent part of her youth in California, USA, and Hiroshima, Japan. She traveled to more than 20 countries while studying and doing her postdoctoral researcher. She majored in biology and specialized in plant physiology at the undergraduate and graduate levels. In 2008, she received her Ph.D. from the Faculty of Science, at Ehime University. Dr Aki Kato has worked in several research and academic institutions as a postdoctoral researcher (Malaria Research Unit of Proteo-Science Center of Ehime University), held a professional position in an educational program (Graduate School of Frontier Sciences, The University of Tokyo), and gained experience as a lecturer covering a wide range of areas at (Biotechnology, Faculty of Engineering, Hokkai-Gakuen University). Over the past 20 years, she has been able to gain experience in various fields, including biology, plant physiology, environmental studies, immunology, parasitology, and biochemistry. Now, she is using her skills and abilities to help cultivate the next generation of scientific talents in younger generations. She is also committed to working with academia, industry, and government to promote human resources in training among local members of the younger generation.

