Research data repository for journals "J-STAGE Data" launching

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The J-STAGE is an electronic journal platform operated by the Japan Science and Technology Agency (JST). With the aim of disseminating and promptly distributing research results from science and technology (including humanities and social sciences) published in Japan, J-STAGE supports the publishing of scientific and technological publications by academic societies, research institutes, and other publishing organizations to strengthen international information dissemination and promote open access.

In regard to J-STAGE, JST is responsible for the planning and policy-making of the service, development, and operation of the system and various support with respect to the publishing organizations. The system has the function to register and publish articles, and the service is made possible by the publishing organizations using this system to publish their articles.

Currently, more than 3,000 journals, conference proceedings, and other publications have been published on J-STAGE by more than 1,700 domestic organizations and the number of articles exceeds 5 million. Of these, more than 85% are journals freely accessible to anyone, contributing greatly to the openness of research results from Japan.

On the other hand, when we look at the world, we can see that the nature of academic publishing and the various information provision services surrounding it are changing rapidly with the recent changes in academic communication and research workflows. These changes include, for example, the diversification of publication forms and contracts relating to open access, the increase of preprints, the emergence of new publication forms such as post-publication peer review and open peer review, and the movement to publish research data associated with papers. At the root of all these movements is the trend toward open science.

Many universities, research institutes, and research funding agencies have formulated policies for data management and disclosure in order to meet the expectations for creating new value through data sharing and utilization that accompany the development of open science, and the demands for preventing research misconduct and improving transparency. In addition, policies on open data and sharing are being developed in the field of academic publishing as well, and researchers are increasingly required to provide the data on which their research results are based when they submit their papers. Major international commercial publishers have opened their policies on research data related to their journals on their websites. They indicate the recommended and mandatory levels of data availability, repositories, data citation and linking from articles, peer review of data, licensing for reuse, etc. The journals from these publishers have guides for authors that comply with these policies.

In response to this situation, JST started the pilot operation of the publication platform "J-STAGE Data" in

March 2020. DOI (Digital Object Identifier)s are registered for the data, and it is possible to link the data from the papers such as those on J-STAGE, and it also facilitates to distribute the research data its own. All the data on J-STAGE Data is open access, and the user organizations which publish the data grant a license that defines the scope of secondary use.

As of the end of January 2021, 37 data have been published by 3 journals, and the number of participating journals is expected to increase in the future. During this pilot period, JST is developing the operation system with the cooperation of the participating journals and aims to start the full-scale operation at the end of this fiscal year.

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