ABSTRACT

Supercomputational life science in Japan

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The Japanese Next-Generation Supercomputer–named “K” after the character京, which stands for 10 to the 16th power–is an essential tool for advancing science and technology. The potential K offers for expanding basic research in materials science and the life sciences is clear. The HPCI Strategic Program, K computer project, is a five-year program of the Ministry of Education, Culture, Sports, Science and Technology (MEXT) aimed at fostering significant social and academic breakthroughs in five strategic fields: 1 Computational Life Science and Applications in Drug Discovery and Medical Development, 2. New Materials and Energy Generation, 3. Global change and the mitigation of natural disasters, 4. Industrial innovation, and 5. The origin of matter and the universe. In the field of Computational Life Science, we, RIKEN, have been developing applied computational sciences, collaborating with other universities and research institutes. In addition, we offer a number of technical workshops and seminars to the social and academic communities, and are working to develop human networks in computational life sciences.