## INTRODUCTION

he Great East Japan Earthquake hit Northern Japan on March 11, 2011 and the subsequent collapse of nuclear power plants made us reexamine how to integrate science and technology with our culture. Though we did not suffer any direct damage to our personnel or facilities in Okazaki, many laboratories of basic biology lost their bioresources and facilities in the northern regions of Japan. We appreciated of the outpouring of help and support provided from colleagues of other countries proposing to share facilities and space to allow interrupted research to continue. Our institute also offered help and similar support to the researchers and students who suffered damage (as described on p. 5). In addition, we began preparation of a novel program of storing important bioresources as a defense against their loss or damage by future natural disasters. We are planning to prepare a special facility named IBBP Center (p. 5) with liquid-nitrogen tanks and freezers for protecting the bioresources and responding to the demands of researchers of nationwide universities and institutes. The program will start in 2012.

Our institute, the National Institute for Basic Biology (NIBB), has developed as a center of excellence in research, education, and inter-university collaboration in the various fields of basic biology since its foundation in 1977. In order to carry out our mission we have focused our efforts on five major activities, namely Promotion of Collaborative Research Projects, Promotion of Academic Research, Development of New Academic Fields, Cultivation of Future Researchers, and International Cooperation and Outreach. Our works and results for 2011 are shown in this report.

We welcomed 11 new members to the Advisory Committee for Programming and Management of our institute in April 2011 as shown in the list on page 3. Prof. Iguchi and Prof. Kondo were elected to be the chairperson and the vicechairperson, respectively. Their term is 2 years.

In 2011 we welcomed several new colleagues, including 1 professor, 2 assistant professors and 10 NIBB research fellows, while 4 colleagues left the institute as shown on page 7. With the help of these new members, we produced a variety of high-ranked research as reported from page 8 to 73. The intensive activities of our supporting divisions are shown on the following pages 74–80.

In addition to our current research, education of the next generation of researchers is another important aim of NIBB. As a department of the Graduate University for Advanced Studies, we are engaged in education of graduate students. Our students joined the 2<sup>nd</sup> NIBB-EMBL PhD minisymposium in November (page 81). We also continued the NIBB Internship Program and opened our laboratories to students and interns from abroad (page 85).



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Owing to the large earthquake and the following confusion, many plans for our international collaborative activities were forced to be postponed or cancelled. Nevertheless, we were able to host the first NIBB-Princeton Symposium in Okazaki in November (page 83), and co-sponsor the third NIBB-TLL-MPIPZ joint symposium at Temasek Life Sciences Laboratory, Singapore in November (page 82). We deeply appreciate the efforts and support of the people involved in these activities.

Based on our endeavors, as shown in this booklet, we hope to develop joint activities in tight collaboration with external researchers and supporters. We hope you enjoy reading about the science being done at NIBB in the following pages. As always we appreciate your suggestions and comments on our activities.

> Kiyotaka OKADA, D. Sci. Director-General, NIBB June 4, 2012