

## Evaluations and Comments

### 3<sup>rd</sup> Meeting of the RIKEN BioResource Center Review Committee

#### (Bioresource Engineering Division)

April 3, 2014

#### 1. Achievements

(1) Has the Division, Team or Unit achieved sufficient results? Please evaluate and give us advice and suggestions from the following view point:

- Has contribution been made to reinforcing BRC's raison d'être?
  - Have advanced, innovative results been achieved?
  - Have scientific results been produced?
  - Has there been social impact?
  - Has contribution been made to advancing BRC's resource infrastructure?
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- The development and improvement of basic techniques that support the foundation of the bioresource infrastructure, including cryopreservation, microinsemination, somatic nuclear transfer cloning, and new stem cell line generation, are regarded as outstanding achievements. The division's basic research such as studies on X-chromosome inactivation in somatic nuclear transfer cloning, genomic plasticity (chromatin modification) and DNA demethylation at the pronuclear stage has produced results with high academic value. The project's goals, results and division management are all at high levels. In summary, the division has made remarkable contributions to bioresource infrastructure.
  - The key to the division's long-lasting high productivity may be synergy that the division head seems to have developed with the team. Running the projects, he makes the most of the members' abilities by combining the right individuals who can work well together and complement each other's abilities in a team. He has a good track record of competitive research funding. He and other members have won numerous awards, and many former members have furthered their careers in new posts. He deserves credit for his human development and management skills.
  - The goals of projects are attractive: generating a clone mouse from a drop of blood and *in*

*vitro* fertilization in as little as one  $\mu$ l of media. Although the public can easily understand such projects, they can also understand that the projects are also challenging for scientists. One reason why projects are accomplished in succession within their respective time frames may be the division's highly effective project scheduling.

- The team has issued two press releases, both of which have made sufficiently high social impacts. The members' contributions to a total of twelve review journals and textbooks indicate that the division's achievements are highly recognized.

## **(2) Other matters**

- **Collaborations within BRC and within RIKEN**
  - **Collaborations inside and outside Japan**
  - **Public relations activities**
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- With over 50 collaborative researchers, sufficient efforts are being made, not only with partners in the BioResource Center and RIKEN, but also with other partners in Japan and overseas. The division's efforts for public relations such as press releases are respectable.
  - The division's wide range of collaborations is highly regarded. A total of 39 papers have been published since 2011, many of which have been published in highly influential journals. Both the number and quality of the papers published can be highly acclaimed.
  - The public relations are of high quality. The activities for high school students are respectable. The division's website provides high-grade information. Improved media relations will lead to more media exposure.

## **(3) Response to previous year's evaluation and advice**

- In response to the comments in the last evaluation, more advanced technical training courses were held. Only RIKEN BioResource Center can offer such high standard courses. The courses effectively enhance the reason for the center's existence
- Following the comments from the review committee, the rabbit iPS cell study was terminated. This is considered to be the right decision.
- It should be noted that the division head has consistently delivered remarkable results for many years. As a RIKEN Core PI, he is one of the leading scientists in Japan.

## **2. Plans as RIKEN's proposed change of status to a new system for Independent Administrative Institutions**

**(1) Are their plans appropriate to the proposed change in RIKEN's status? Please evaluate and give us advice and suggestions from the following view point:**

- **Can dramatic advances be expected from their strategies and plans for the next 5 to 7 years?**
  - **Should proposed plans be undertaken in BRC?**
  - **What topics are effective and essential to implementing BRC's resource infrastructure?**
  - **Can advanced and innovative results be expected?**
  - **Can achievements that will lead to innovation be expected?**
  - **Can a major impact on society be expected?**
  - **Are the proposed plans novel, do they have high priority, and are they sufficiently specific?**
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- The division is responsible for developing fundamental technology to support the bioresource infrastructure. The proposal is highly appropriate for reinforcing development operations. Projects are classified into two categories in the proposal: essential projects for operations, and challenging projects. These classifications are useful as they can clearly define the respective project goals. The challenging projects will obviously make large contributions to the full range of life sciences and their standard is appropriately high for RIKEN as a non-profit national R&D organization
  - PDCA has worked more effectively this time. Projects which are commensurate with the BRC's mission should be promoted.
  - Although significant impacts are expected, we suggest that more efforts should be made for public relations.

**(2) Are suggestions made previously reflected in their current plans and strategies?**

**Have they endeavored to re-inspect their activities to date and made appropriate decision about what should be continued or discontinued?**

- Appropriate actions have been taken in response to the last evaluation. Although the rabbit iPS cell project was terminated, it deserves some credit for the results that were presented.