

# BioResource Now!

Issue Number 6 October 2010



Introduction to  
Resource Center  
No. 36

## Tomohiro Ban, Professor (Kihara Institute for Biological Research, Yokohama City University) Inauguration of the Kihara Memorial Room exhibiting the footsteps of Prof. Hitoshi Kihara

P1 - 2

Hot News

- The Conference of International Society for Biocuration -  
Report on 4th International Biocuration Conference

P2

Ongoing  
Column No. 54

Take advantage of Windows 7! "Backup the OS as a whole"

P2

Introduction to Resource Center <No.36>

Kihara Institute for Biological Research,  
Yokohama City University  
Tomohiro Ban, Professor

## Inauguration of "Kihara Memorial Room" exhibiting the footsteps of Prof. Hitoshi Kihara

Kihara Institute for Biological Research (KIBR) was first established by Prof. Hitoshi Kihara, who was a professor at the Kyoto Imperial University (presently Kyoto University), as the Kihara Institute for Biological Research (Foundation) at Mozume, Muko-machi, Otokuni-gun, Kyoto, Japan, on May 5, 1942. KIBR has since undergone many changes, including relocation to Yokohama City University in 1984 and the current research facility at Maioka, Totsukaku, Yokohama, Kanagawa, Japan, in 1995 (Photo 1).



Photo 1 : Kihara Institute for Biological Research (KIBR)

KIBR is a sub-organization of the National BioResource Project (NBRP) Wheat (NBRP KOMUGI-Integrated Wheat Science Database), which is headed by the Graduate School of Agriculture, Kyoto University-- the core organization. KIBR plays a part in maintaining and distributing the following wheat research resources:

- Strains for genetic experiments (428 strains)
- Indigenous strains (710)
- Others [diploid wild-type (7) and hexaploid and other (260) strains] and traditional strains (832)

Strains used for genetic experiments include basic strains such as mutant strains, recombinant inbred strains, isogenic strains, and chromosomal replacement strains. Indigenous strains are the ones primarily collected from East Asia. Other hexaploid strains include major commercial wheat varieties of the world and the parental strains traditionally used for hybridizations. We receive both domestic and international requests for the distribution of these strains. We preserve ear samples of most strains, record the morphological and physiological traits of primary indigenous strains, and make the collected data available on KOMUGI, the website for the NBRP Wheat database.



Wheat database "KOMUGI"  
<http://www.shigen.nig.ac.jp/wheat/komugi/>

NBRP Wheat seed resources also include genetic resources of *Aegilops tauschii* and indigenous wheat strains. These are the ancestral strains of bread wheat collected during the 1955 Karakoram and Hindu-Kush Expedition of Kyoto University-- a 5,000-km expedition that aimed to discover the birthplace of bread wheat-- commanded by Dr. Kihara. These strains are maintained and distributed by NBRP as historically and worldwide important collections.

One of the strains collected by Prof. Kihara's group in Afghanistan has recently attracted much attention as a genetic resource. Afghanistan has been devastated by 20 years of civil war, which has led to the collapse of the foundations of research aimed at production, cultivar improvement, and preservation of genetic resources of wheat-- the staple food of Afghans. Although modern high-yielding wheat varieties have begun to be introduced in Afghanistan as part of the international reconstruction effort, there is still some hope of using indigenous strains that have adapted to the local land where rain-fed cultivation (non-irrigated agriculture mainly dependent on rainfall) has been traditionally practiced in the arid and harsh climate and soil conditions. Wheat genetic resources from Afghanistan were collected by Prof. Kihara half a century ago and have been utilized for research in Japan. These resources, which have been taken over to NBRP Wheat, are now under consideration of being utilized for revitalizing their home country. A project has been initiated to develop human resources to continue agri-cultural research and cultivar improvement for sustainable food production in Afghanistan.

※ JST/JICA Science and Technology Research Partnership for Sustainable Development (SATREPS)  
([http://www.jst.go.jp/global/kadai/h2212\\_afghanistan.html](http://www.jst.go.jp/global/kadai/h2212_afghanistan.html))



Photo : *Aegilops tauschii* growing in a wheat field in front of Darul Aman Palace (Afghanistan in June 2010)

Prof. Kihara, who was a pioneer of genome theory, had numerous research achievements in genetics and evolutionary biology of higher plants in the 20th century. In addition, Prof. Kihara trained many of his successors in cellular genetics and various other scientific areas and paved the way for the development of field science in Japan by conducting several overseas expeditions for plant exploration. Prof. Kihara enjoyed pursuing scientific questions and following his interests and curiosities, all of which resulted in the establishment of the Kihara collections at NBRP. To imbibe Prof. Kihara's spirit of perpetual scientific exploration, we inaugurated the Kihara Memorial Room in KIBR in March 2010 (Photos 2 and 3). The facility exhibits educational documents for undergraduate and graduate students and offers limited access to the general public to facilitate understanding of social education, lifelong education, and natural science. In 1976, Prof. Kihara said that life science will hopefully play the role of a doctor for the Earth. As the proverb goes, "Learn a lesson from the past"; we sincerely hope that young researchers who lead the next generations will imbibe his teachings when they visit the Kihara Memorial Room and play the role of doctors to rescue the Earth, which currently confronts food shortage and suffers from environmental deterioration and energy shortage. ■



Photo 2: Exhibitions in the Kihara Memorial Room



Photo 3: Replica of a part of Prof. Kihara's study room



### "Tourist Information"

Kihara Memorial Room is located inside the KIBR and entry is free of charge.

Access to the room is limited; please call the following number before visiting.

Tel : 045-820-1900 / Fax: 045-820-1901

↳ To the next page

# Report on the 4th International Biocuration Conference



The 4th International Biocuration Conference, which was the first conference of the International Society for Biocuration, was organized between October 11 and October 14, 2010, at the Tokyo International Exchange Center in Odaiba area, Tokyo, Japan. The conference included rewarding activities such as 2 satellite meetings before and after the main conference, 3 plenary talks, 6 sessions, 4 workshops, and a poster session.

According to the participant list on the brochure, there were 147 participants including 58 Japanese and 10 non-Japanese Asian participants. Japanese participants had accounted for only about 5% of all the participants in the past 3 conferences, and therefore, this conference organized in Tokyo was a good opportunity to familiarize Japanese participants with our activities.

Interestingly, the conference was organized in Asia for the first time, and the session entitled "Asian Models of Biocuration-Related Activities" stands out in our memories.

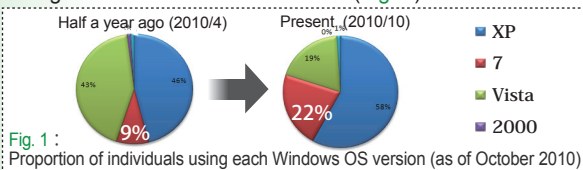
- Contents of the oral and poster presentations have been released on the Nature. Precedings website.  
<http://precedings.nature.com/collections/biocuration-10>
- The conference program is available from the following website.  
[http://hinj.jp/biocuration2010/Program\\_and\\_AbstractBookData.pdf](http://hinj.jp/biocuration2010/Program_and_AbstractBookData.pdf)



## Take advantage of Windows 7!

### Backup the OS as a Whole

One year has passed since the release of Windows 7. Some people may be making full use of Windows 7 while others adopt a wait-and-see attitude and continue using Windows XP. A comparative study was conducted to determine the proportion of employees at SHARED INFORMATION of GENetic Resources (SHIGEN) using each version of Windows OS half a year ago and at present. The results showed that Windows XP users still account for more than 50% of the total number of Windows users, but Windows 7 users had increased to 22% of the total, overtaking Windows Vista users, and are currently second only to Windows XP users. This finding indicates a trend toward gradual transition to Windows 7 (Fig. 1).



In this issue, we will be introducing the utilization of the backup function, one of the many new functions added to Windows 7.

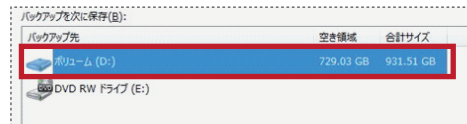
In the case of Windows XP, backup software had to be separately prepared for backing up the OS; however, Windows 7 contains a backup and restore function *ab initio*. "Backup" sounds troublesome and difficult to setup, but in Windows 7, the entire OS can be backed up in 3 steps. Although a USB hard disk is easy-to-use and thus recommended as the destination for the backup file, split backup to DVD-Rs and backup via network (in Professional or higher editions) can also be performed. Following are the steps involved in the backup procedure.

First, select "Systems and Security" and then "Backup and Restore" in the Control Panel. Then, click on the link for "Set up backup."



## 1 Specification of backup destination

Next, the destination of the backup file, such as a USB hard disk or a DVD-RW drive, should be specified.



## 2 Selection of backup targets

When selecting the backup targets, the "Let Windows choose (recommended)" option is recommended, but arbitrary files can also be selected. (If this option is used, the OS system domain and all the data files will be selected as the backup targets)

## 3 Initiation of backup

Once the settings are saved, backup will be automatically initiated. The backup operation runs in the background, and hence, other tasks can be performed during backup.

If backup is performed on an accessible USB hard disk or network storage, automatic backup can also be scheduled at the specified time every day.

It is recommended for those who use Windows 7, but have not performed a backup, to backup the data by following the procedure introduced here. Creating a backup will make you feel comfortable and secure while using Windows 7.

(Takehiro Yamakawa)



## Announcements

### The 18th International Workshop on Genetic Systems in the Rat

Date: November 30 (Tue.) - December 3 (Fri.), 2010  
Venue: Clock Tower Centennial Hall, Kyoto University  
For details, please visit  
<http://www.anim.med.kyoto-u.ac.jp/workshop2010/>.

(Details are available at <http://www.nbrp.jp/>)

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## BioResource Information

(NBRP) [www.nbrp.jp/](http://www.nbrp.jp/)  
(SHIGEN) [www.shigen.nig.ac.jp/](http://www.shigen.nig.ac.jp/)  
(WGR) [www.shigen.nig.ac.jp/wgr/](http://www.shigen.nig.ac.jp/wgr/)  
(JGR) [www.shigen.nig.ac.jp/wgr/jgr/jgrUrList.jsp](http://www.shigen.nig.ac.jp/wgr/jgr/jgrUrList.jsp)

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### Editor's Note

Prof. Kihara was the 2nd Director of the National Institute of Genetics, and hence, at least his name is very familiar to us even now. His line, "The history of the earth is recorded in the layers of its crust; the history of all organisms is inscribed in the chromosomes," is extremely famous. I may not be the only person who thinks that the scientific and spiritual teachings of Prof. Kihara have been inherited over the generations to the present wheat researchers. I would like to visit the Kihara Memorial Room in KIBR. (Y.Y.)

"translated by ASL translation service"