



**BioResource now! No.8** is here

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Information Technology (Special Edition) :  
 "Although this has been frequently talked about, we would like to discuss the security aspect again"

Download the PDF version of this newsletter at  
<http://www.shigen.nig.ac.jp/shigen/news/news.jsp>

Bioresources information is available at the following URL:

- NBRP (<http://www.nbrp.jp/index.jsp>)
- SHIGEN (<http://www.shigen.nig.ac.jp/indexja.htm>)
- WGR (<http://shigen.lab.nig.ac.jp/wgr/>)
- JGR (<http://shigen.lab.nig.ac.jp/wgr/jgr/jgrUrlList.jsp>)

## Information on Resource-related Events

- **NBRP "Cell" Symposium**  
 Schedule: September 29  
 Venue: National Museum of Emerging Science and Innovation
- **"Japanese Monkey" Project in the Forth Year—Results and Future Studies**  
 Schedule: September 30  
 Venue: The International Conference Hall, Tokyo Chamber of Commerce and Industry building
- **"Technical Training for the Transformation and Preservation of Plant Cultured Cells"**  
 Schedule: November 7 - 9  
 Venue: BioResource Building, Tsukuba Institute of the Institute of Physical and Chemical Research (Tsukuba, Ibaraki)
- **"International Symposium on Standardization of Genetic Resources of Oryzias latipes"**  
 Schedule: November 14 - 15  
 Venue: The Noyori Memorial Conference Hall, Nagoya University
- **"Technical Training for the Analysis of Intestinal Flora by the Terminal RFLP Method"**  
 Schedule: December 13 - 15  
 Venue: Japan Collection of Microorganisms Building, Wako Institute of the Institute of Physical and Chemical Research (Wako, Saitama)



Introduction to Resource Database No. 1

## Resource Database of Deletion Mutants of Nematode

### 1. Contents of the Service

This month, we are going to introduce the database of deletion mutants of nematodes resources. The resources of this database are preserved and provided by Dr. Shohei Mitani of Tokyo Women's Medical University; this university is the center for the National BioResource Project (NBRP) for nematode. This database is constructed by Dr. Mitani in collaboration with us, the Information Center. As of August 2005, information on 1600 mutants is disclosed from the following site : <http://www.shigen.nig.ac.jp/c.elegans/>

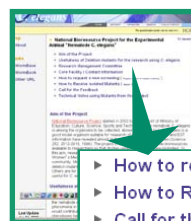


Fig. 1: A screenshot of the home page of National BioResource Project "C. elegans"

- ▶ How to request a new screening ( Progress status of mutant screening )
- ▶ How to Receive Isolated Mutants ( Mutant DB )
- ▶ Call for the Feedback
- ▶ Technical Notes using Mutants from this Project

Of all the other NBRP resources, Nematode C. elegans is handled in the following unique manner.

The norm would be to collect and prepare information on resources before releasing it. However, in the case of nematode deletion mutants, the order-received production system is adopted in which preparation starts after a request is received from a user. This is possible because culture pools of nematodes with random deletion mutations, which cover almost all the genes, have already been prepared. Since the nematode is cryopreserved and its genome sequencing is already completed, gene identification by PCR is possible. This screening system is due to the excellent effort of Dr. Mitani. The National BioResource Project website for "C. elegans" (Fig. 1) provides information regarding the as following aspects: (1) How to request a new screening; (2) Progress status of mutant screening; (3) How to receive isolated mutants; (4) Mutant DB; etc.

## 2. Progress Status of Mutant Screening

The "progress status of mutant screening" web page (Fig. 2), is necessary to manage the order-received production system. As shown in Fig. 2, progress is indicated in four stages, namely, "Received (yellow)"; "In progress (red)"; "Difficult, may take longer (blue)"; and "Completed (green)."

	Progress state (*1)				Con
	R	P	D	C	
5/10	Yellow				Samp
5/13		Red			Testda
5/14			Blue		Samp
5/23				Green	-

Fig. 2: Progress state

When a new screening is requested, you can check whether or not other researchers have already requested for the same gene on this site; this is to avoid duplication of requests.

### 3: System for Cooperation with Overseas Databases

A list of isolated mutants is shown in Fig. 3. When the "Allele" of the target gene is clicked, detailed information on the mutant (Fig. 4) is displayed including the following details: (1) Allele; (2) Gene name, cosmid; (3) link to WormBase; (4) Phenotype; (5) Mutation site; (6) Chromosome; (7) Putative gene structure; (8) Map position; (9) Balancer; (10) Map position of balancer; (11) Sequence of primers; (12) Distributed lab; etc. Searching by item is also possible.



Fig. 3: A list of isolated mutants      Fig. 4: Detailed information on the mutant

"Link to WormBase" is divided into three parts and linked to the Variation report (Fig. 5-1), Gene Summary (Fig. 5-2), and Sequence Summary (Fig. 5-3). In the item Description in Variation report, there is a link to the home page of NBRP-C.elegans showing that cooperation with international comprehensive databases (WormBase) functions well.

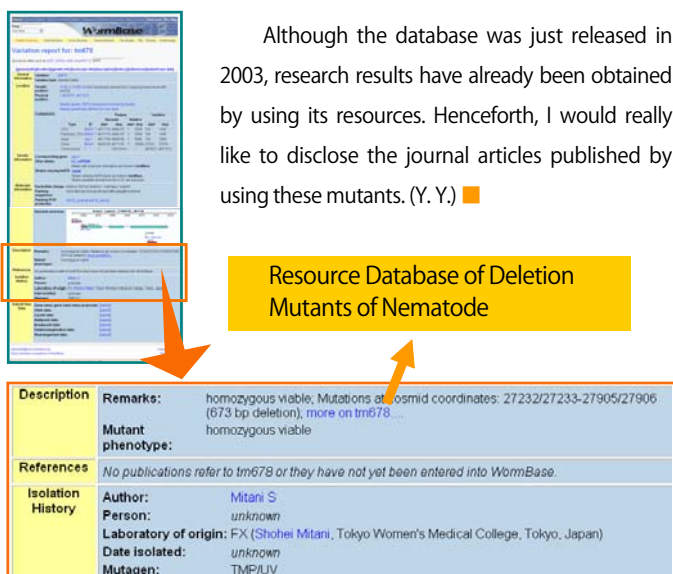


Fig. 5-1: Variation report in WormBase



Fig. 5-2: Gene Summary



Fig. 5-3: Sequence Summary

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### Information Technology (Special Edition) Vol. 8

“Although this has been frequently talked about, I would like to discuss security again.”

When you access the Internet from a personal computer in a university or research institution, the computer is most likely to be connected to the Internet using the name of the organization.

If someone hacked into your personal computer and used it to attack other computers (i.e., disclose personal information of other people), the attacked computer will point its finger to your organization as its attacker. That can cause very serious problems. In order to avoid such problems, at the very least the following countermeasures should be implemented.

1. Automatically update the security patch (correction program) of Windows



The newest virus tries to attack the defects of the most recent security patch. Continuous usage of the latest patch is important.

2. Use antivirus software and automatically update it. The latest version of the antivirus software should be used.



Never use the old versions of antivirus software. Also, the virus definition files should be automatically updated to the most recent version.

If the above countermeasures are applied, minimum security can be achieved. Finally, people familiar with such countermeasures should access the following URL. (N. K.)

( <http://itpro.nikkeibp.co.jp/free/ITPro/NEWS/20050819/166505/> )

Ongoing column "About Search Engines" will appear in the next issue.

**Editor's notes:** The National BioResource Project celebrated its third anniversary on July 1st and has entered its fourth year. Although the target of 100% information disclosure has barely been achieved and there are still many incomplete databases, the nematode database has been stably managed since an early stage because of the order-received production system. Dr. Mitani tries his best to achieve "one paper for one mutant." I am extremely grateful to introduce him and the database. (Y. Y.)

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