## Nucleotide Sequence Database Policies

**THE INTERNATIONAL NUCLEOTIDE SEQUENCE** Databases (INSD) has been an international collaboration between DDBJ, EMBL, and GenBank for over 14 years. Its advisory board, the International Advisory Committee, is made up of members of each of the databases' advisory bodies. At their last meeting, members of this committee unanimously endorsed and reaffirmed the existing data-sharing policy of the three databases that make up the INSD, which is stated below.

CTGATTACCATGCCATC
CTGATTACCATGCCATC
CTGATTACCATGCCATC
CTGATTACCATGCCATC
CTGATTACCATGCCATC
CTGATTACCATGCCATC
CTGATTACCATGCCATC

Individuals submitting data to the international sequence databases managed collaboratively by DDBJ, EMBL, and GenBank should be aware of the following:

1) The INSD has a uniform policy of free and unrestricted access to all of the data records their databases contain. Scientists worldwide can access these records to plan experiments or publish any analysis or critique. Appropriate credit is given by citing the original submission, following the practices of scientists utilizing published scientific literature.

2) The INSD will not attach statements to records that restrict access to the data, limit the use of the information in these records, or prohibit certain types of publications based on these records. Specifically, no use restrictions or licensing requirements will be included in any sequence data records, and no restrictions or licensing fees will be placed on the redistribution or use of the database by any party.

3) All database records submitted to the INSD will remain permanently accessible as part of the scientific record. Corrections of errors and update of the records by authors are welcome and erroneous records may be removed from the next database release, but all will remain permanently accessible by accession number.

4) Submitters are advised that the information displayed on the Web sites maintained by the INSD is fully disclosed to the public. It is the responsibility of the submitters to ascertain that they have the right to submit the data.

5) Beyond limited editorial control and some internal integrity checks (for example, proper use of INSD formats and translation of coding regions specified in CDS entries are verified), the quality and accuracy of the record are the responsibility of the submitting author, not of the database. The databases will work with submitters and users of the database to achieve the best quality resource possible.

The INSD is an outstanding example of success in building an immensely valuable, widely used public resource through voluntary cooperation across the international scientific community. This success has been achieved by following the guidelines and principles outlined above.

SOREN BRUNAK,[1]* ANTOINE DANCHIN,[2]*
MASAHIRA HATTORI,[3]† HARUKI NAKAMURA,[4]†
KAZUO SHINOZAKI,[5]† TARA MATISE,[6]‡
DAPHNE PREUSS[7]‡

[1]Center for Biological Sequence Analysis, Technical University of Denmark, DK-2800 Lyngby, Denmark. [2]Genetics of Bacterial Genomes, Institut Pasteur, 28 rue du Docteur Roux, 75724 Paris Cedex 15, France. [3]Laboratory of Genome Information, Kitasato Institute for Life Science, Kitasato University, 1-15-1, Kitasato, Sagamihara, Kanagawa, 228-8555 Japan. [4]Institute for Protein Research, Osaka University, 3-2 Yamadaoka, Suita 565-0871, Osaka, Japan. [5]Laboratory of Plant Molecular Biology, RIKEN, 3-1-1 Koyadai, Tsukuba, Ibaraki, 305-0074 Japan. [6]Department of Genetics, Rutgers University, 604 Allison Road, Piscataway, NJ 08854–8082, USA. [7]Howard Hughes Medical Institute, University of Chicago, 1103 E. 57th Street, Chicago, IL 60637, USA.
*EMBL advisors.
†DDBJ advisors.
‡GenBank advisors.

## Looking at the Future of Radioecology

**IN RICHARD STONE'S ARTICLE ON THE FUTURE** of radioecology ("Radioecology's coming of age—or its last gasp?", News Focus, 13 Sept., p. 1800), some scientists portray recent attempts to develop a systematic approach to assessing effects of radiation on the biotic environment (*1*, *2*) as merely a device to breathe new life into an aging branch of environmental science. The truth is very different, and the underlying scepticism both shortsighted and potentially damaging.

The development of the International Commission on Radiological Protection (ICRP) system (*3*) for human protection has arisen largely from the need to control radiation exposures within the context of the workplace and in medical practice. With the advent of nuclear power, and hence radioactive waste, it has since been extended to protection of the general public in an environmental context. This historic development has also led to an emphasis being placed on the need to interpret our knowledge of the complex biological effects of radiation primarily in terms of its consequences for humans. The unintended side-effect is that we are now left with no general understanding of the effects of radiation across the whole spectrum of living things, nor any framework for evaluating the actual or potential consequences of radioactive waste disposal into the environment in the absence of human beings.

In some countries, this deficiency already has legal implications, because protection of the environment has to be demonstrated explicitly (*4*), irrespective of the presence or absence of humans. With a greater emphasis now being placed on concepts such as the need to maintain biological diversity and to protect all natural habitats on a large scale, in relation to any

### Letters to the Editor

Letters (~300 words) discuss material published in *Science* in the previous 6 months or issues of general interest. They can be submitted by e-mail (science_letters@aaas.org), the Web (www.letter2science.org), or regular mail (1200 New York Ave., NW, Washington, DC 20005, USA). Letters are not acknowledged upon receipt, nor are authors generally consulted before publication. Whether published in full or in part, letters are subject to editing for clarity and space.