NIMS eSciDoc公開Workshop講演資料「抜粋版

# Data archiving and its future visions at NIRS

Atsuro Ishida, Director Department of Information Technology National Institute of Radiological Sciences

Oct 13 2011

National Institute of Radiological Sciences

1

### **Outline**

- Introduction
  - What's NIRS?
  - Library in NIRS
  - NIRS Repository System
- Issue
- Future Vision
  - Enhancemen of NIRS Repository System
  - Radiobiology Archive

Oct. 13, 2011

National Institute of Radiological Sciences

2

### NIRS: Profile

- Established:
  - 1957
- Purpose:
  - Advancing radiological science and technology
- Activities:
  - Radiation Therapy
  - Radiation Diagnosis
  - Radiation Influence and Protection
  - Medical Treatment
  - R&D, Training, etc.
- Budget (2011 Fiscal Year):
  - 14 Billion Yen (130 Million Euro)
- Workforce:
  - 800 (As of April,2011)
    - 460(Researcher, Medic, Engineer)
    - 340(Administrator, Assistant)

Library in NIRS

Board

Dept. of General Affairs

Dept. of General Affairs

Dept. of General Affairs

Dept. of Hanning and Support Center

Dept. of Hanning and Support Center

Dept. of General Affairs

Development

National Institute of Radiological Sciences

4

## Library: Profile

- Area:
  - 765m²
- Staff:
  - Full Time: 1
  - Part Time: 3
- Collection:
  - Books:
  - 17,000
  - Iournals:
    - 57,000 bindings
       (1,300 total titles, 300 current titles)
  - Reports
    - 2,600

Oct. 13, 2011

National Institute of Radiological Sciences

Radiation<sup>5.4%</sup>

Medicine

2.0%Physic€hemistry

4.9%

5

■ Physics

■ Biology ■ Medicine

■ Chemistry

■ Radiation

□ General

■ Environ ment ■ Computer

### NIRS Repository System



Oct. 13, 2011

National Institute of Radiological Sciences

### **NIRS Repository System**

- Contents: 15,000 items (As of Oct.,2011)
  - Original papers
  - Proceedings
  - Literature/Research/Technical/Investigative reports
  - Books
  - Review
  - Commentary/Introductory article
  - Oral presentation
  - Poster presentation
  - http://www.nirs.go.jp/db/seikadb/ENG/Welcome.php



- Who is the user?
- For whom the Repository System is?



> Information source (Researchers) first.



Oct. 13, 2011

National Institute of Radiological Sciences

Oct. 13, 2011

National Institute of Radiological Sciences

### What's Motivation?

- Individual performance evaluation
- Paper publication license application
  - Duty/Mandatory
  - ➤ What' incentive?
    - > Acceleration of communication
    - > e-Science/e-Research





Oct. 13, 2011

National Institute of Radiological Sciences

9

### **Enhancement of Repository System**

- Storing of original data
- Conformity to de facto standard
  - ➤ OAI-PMH<sub>2</sub>
- Link with external database
- Multi-faceted information display
  - > Researcher's HP
  - > Collection of a specific theme
- Profiling of users

Oct. 13, 2011

National Institute of Radiological Sciences

10

# Research Cycle IT Platform for e-Research Publication Archiving Aggregation Analysis Oct. 13, 2011 National Institute of Radiological Sciences 11

### Radiobiology Archive

- Large-scale animal experiments are unlikely to be carried out because of financial and ethical problems.
- For researchers, they take huge time and labors, and sometimes in vain.
- Local archives have been lost or discarded as the researcher retires and the space for storage is shorted.
- Re-use of the data and re-analysis of tissue samples will generate new evidence and hypothesis.
- Source: Yoshiya Shimada; et al., Construction and Utilization of Radiological Archives of NIRS, The 53rd Annual Meeting of JRRS, October 21, 2010

8, 2011 National Institute of Radiological Sciences

12





