Securing and Fostering of Younger Experts Responsible for Radiation Protection

Views from the Young Academic Researchers in Japan

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Introduction of YRBAJ

1. Questionnaire survey by YRBAJ and YRA-JHPS
   Purpose and subjects

2. Results 1
   Fostering young researchers IN GENERAL

3. Results 2
   Fostering young researchers IN RADIATION PROTECTION

4. Summary and opinions
Young Radiation Biologists’ Association of Japan (YRBAJ)

- A group of interested young researchers and students (<40 yrs) in radiation biology in Japan

Regular members: 47
Supporting members: 23
(as of Aug. 25, 2009)

Position
- Faculty
- Postdoc
- G. student
- Unknown

Gender
- Male
- Female

Age
- 20-24
- 25-29
- 30-34
- 35-39

0 10 20 30 40 50
Frequency (%)
Questionnaire survey on securing and fostering of young researchers in radiation protection

- **Purpose**
  - Conducted for the 5th Asian Conference by YRBAJ and YRA-JHPS
  - Objective understanding on **the current status and attitudes** of both leading and young researchers about the fostering issues

- **Survey period**
  - Jul. 23 – Aug. 13, 2009

- **Survey subjects**
  - Heads of main radiation-related **research organizations** in Japan
    - \( n = 12 \) institutions, institutional departments, society, etc.
  - **Young researchers** of YRBAJ or YRA-JHPS \( (n = 33) \)
Survey results (Part 1)

Securing and fostering of young researchers *in general*
Securing/fostering of young researchers in general:

**Sufficiency of young researchers**

- **Evaluation by:**
  - Organizations:
    - Adequate
    - Insufficient
    - Very insufficient
  - Young researchers:
    - Excessive
    - Adequate
    - Insufficient
    - Very insufficient

- **Non-tenured position**
  - Very insufficient
  - Insufficient
  - Adequate

- **Tenured position**
  - Very insufficient
  - Insufficient
  - Adequate

- **INSUFFICIENCY in the number of young researchers is generally recognized.**
Securing/fostering of young researchers in general: Recruitment of tenured(-like) researchers

- Current recruitment process generally meets young people’s needs.
- Young researchers want more tenure tracks.

Views from Young Academic Researchers
Various measures are taken to foster young researchers.

Young researchers well recognize these systems.
Survey results (Part 2)

Securing and fostering of young radiation protection (RP) researchers

- An RP researcher
  - Contributes to the drafting process of publications of OECD/NEA, ICRP, IAEA, UNSCEAR, etc.
  - Plays roles in technical meetings of national and international regulation authorities and relevant societies.
Securing/fostering of young RP researchers: Responsible / contributing organizations

- Organizations mostly recognize their responsibility.
- Young researchers do not think that the responsibility is fulfilled.
- Current contribution is not necessarily regarded as insufficient.

Views from Young Academic Researchers
Securing/fostering of young RP researchers: Most important effort that should be made

Organization heads tend to consider that fostering of SPECIFIC EXPERTISE leads to fostering of RP researchers.

Less young researchers do not recognize so.

Answered by:

- Participate in RP when young (30%)
- Foster specific expertise (12%)
- Launch new university
- Fund on RP research
- Other

Views from Young Academic Researchers
Securing/fostering of young RP researchers: Measures currently taken

Answered by heads of 12 organizations

<table>
<thead>
<tr>
<th>Activity</th>
<th>Ongoing</th>
<th>Good result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fostering researchers with specific expertise</td>
<td>7 / 12</td>
<td>2 / 12</td>
</tr>
<tr>
<td>Providing professional education/training</td>
<td>5 / 12</td>
<td>1 / 12</td>
</tr>
<tr>
<td>Sending researchers to RP organizations</td>
<td>1 / 12</td>
<td>1 / 12</td>
</tr>
</tbody>
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Some of other comments:

- “BASIC RESEARCHERS must be fostered first. Then, some of them will point to radiation protection, though others may leave for different fields.”
- “As compared to cutting-edge sciences, radiation protection research may seem UNATTRACTIVE to young researchers.”
- “It may need a decision to GIVE UP scientific research and enter radiation protection and regulation. This is a hurdle that needs to be lowered.”
Securing/fostering of young RP researchers: Young researchers’ will

Most young researchers are willing to engage in RP because
- Their research outcome will contribute to RP.
- They have a sense of mission in contributing to the socially important issue.
Conclusion (1) – Current status

Hopes
- Various measures are already taken to foster young researchers.
- Current recruitment and fostering systems meet young people’s needs.
- Research organizations recognize their responsibility to secure/foster RP researchers and are making sufficient efforts.
- Young researchers are already willing to contribute to RP via their research outcome because they realize its importance.

Problems
- The number of young researchers are INSUFFICIENT.
- RP may seem UNATTRACTIVE compared to cutting-edge sciences.
- Fostering SPECIFIC EXPERTISE may be a key to foster RP researchers, though young people do not recognize so.
- Choice of RP sometimes indicate RESIGNATION from active scientific research.
Conclusion (2) – Opinions

- Insufficient young researchers
  - MORE POSTS should be available.
  - RP should be more ATTRACTIVE.

- Science and RP: a dilemma?
  Make RP ATTRACTIVE as a science, and …
Conclusion (2) – Opinion

- Insufficient young researchers
  - MORE POSTS should be available.
  - RP should be more ATTRACTIVE.

- Science and RP: a dilemma?
  Make RP ATTRACTIVE as a science, and …
  - Choice of RP is *no longer* RESIGNATION from active scientific research.
  - Young people become more aware that their EXPERTISE is the key to RP.

To this goal,
- Give MORE OPPORTUNITY to young people to seek for how to merge attractive science and RP.
Thanks for attention!
Young Radiation Biologists’ Association of Japan (YRBAJ)

- Association of young scientists (<40 yrs) of radiation biology

- Main activities
  - Annual summer seminar
  - Workshop at the Annual Meeting of the Japan Radiation Research Society (JRRS)
  - Administration of JRRS and other institutions as representatives of young radiation biology researchers
  - Communication of young scientists on group e-mails and website

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**Frequency (%)**
- 0
- 10
- 20
- 30
- 40
- 50
Recent activity: Organization of the First Meeting of Young Radiation Scientists in Asia (YRSA)

Background
- Fostering of young radiation researchers is important because it often takes a long time to obtain reliable outcome in radiation effect research.
- With more radiation use, Asia will have to build a big base of radiation research.

Purpose
- To mutually understand the current national statuses of research
- To build a human network for collaborative research and mutual development

Meeting
- An attachment meeting at the 1st Asian Congress of Radiation Research in 2005.
- Supported by Grant-in-Aid for Scientific Research from JSPS.
- Research presentations
- Discussions on future collaborations