

Summary of the meeting with Professor Ellen Silbergeld

1. Personal profile

(1) Name

Dr. Ellen Silbergeld

(2) Affiliation

Professor, Bloomberg School of Public Health, Johns Hopkins University

(3) Major professional experience

Ph.D. in geography and environmental engineering (Johns Hopkins, 1972)

Postdoctoral fellow in Environmental Health Sciences (Johns Hopkins, 1972-75)

Staff fellow (NIH)

Senior scientist and professor (University of Maryland Medical School)

Scientific advisor to a number of organizations and states

The editor-in-chief of the journal “Environmental Research: A Multidisciplinary Journal of Environmental Sciences, Ecology, and Public Health”

(4) Areas of expertise

Toxicology and its application to environmental and occupational health policy

2. Meeting Specifications

(1) Date

May 28 (Monday), 2012

(2) Venue

Special Conference Room, NIES

(3) Participants

Professor Ellen Silbergeld

Dr. Shinichiro Ohgaki, President

Dr. Hiroshi Sato, Vice President

Mr. Yoshiro Kaburagi, Vice President

Dr. Yasunobu Aoki, Deputy Director, Center for Environmental Risk Research

Dr. Hideyuki Shimizu, Manager, International Coordination Office

(4) Discussion Procedure

To begin, President Ohgaki presented an overview of NIES, and indicated to the advisor the following three general topics as guiding points for discussion:

- (A) Distinctive features of NIES in the areas of advisor's specialization
- (B) Distinguishing features of NIES as a research institution involved with the environment, and points of expectation
- (C) Points which NIES should address and strengthen.

Professor Silbergeld was then shown around the three facilities with the highest correspondence to her fields of specialty (Center for Environmental Risk Research, Center for Environmental Health Sciences, Center for Material Cycles and Waste Management Research), by affiliated researchers, while conducting a frank exchange of opinions with these researchers. Subsequently, Dr. Silbergeld offered her comments (see below) to President Ohgaki, based on the information provided, followed by wide-ranging discussions between the attendees.

3. Comments by Professor Silbergeld

- (1) A positive feature of NIES in the field of health is the implementation of toxicology research at multiple levels and geographical scales

In the areas of my specialization - toxicology and its relation to human health - what I observed as a positive feature of NIES is the ability to conduct research at multiple levels of toxicology, from molecular biology to ecology. Also impressive are the varied scales of studies ranging from local to national and global. Having them all in one place is among the greatest strengths and advantages of NIES.

- (2) NIES has an essential role in providing reference materials and methodologies as the leading domestic institution for environmental research

As the leading domestic institution for environmental research, NIES has an important role in providing reference materials and methods, and this capacity is adding to NIES's many merits.

- (3) The Japanese Environment and Children's Study conducted by NIES researchers is appropriately designed

In this respect, I was particularly impressed by the Japanese Environment and Children's Study. It appears to be well designed, particularly in the methods of recruiting participants and keeping track of them in the long term. It also appears appropriate that the sampling method is based on both exposure and population. I look forward to following the progress of this study.

(4) A distinguishing feature of NIES is its interdisciplinary nature, and it should continue to work towards being a truly interdisciplinary research institution which brings together researchers in diverse fields

An obviously distinctive feature of NIES is the organization into different centers which cover the broad fields of environmental research and the consequent interdisciplinary nature of the institute. I hope NIES is able to take advantage of this diversity in one place and to work together.

The best precedent for successful interdisciplinary collaboration we have so far seen is research on endocrine disruptors - whereby the partnership worked well between those studying ecology and those studying human health. It is hard to come up with good examples even on a worldwide scale, which points to the importance of pursuing such an approach.

I hope you have good methods of facilitating communication between researchers with different approaches, because NIES has tremendous opportunities to combine these diverse areas of research. If there are simply many disciplines without integration, it is just a multi-disciplinary institute. I hope NIES can prove to be a truly interdisciplinary research institute.

(5) There is scope for new research approaches, such as discovery toxicology, to be explored

I did not see much of what is called discovery toxicology at NIES. This is research which attempts to find new pathways for toxicity issues, from exposure to outcomes such as diseases. Perhaps this is being done more at universities, but I think it is becoming an increasingly important approach. If it is difficult to do research with people, use of wild animals or livestock animals as subjects is an alternative.

(6) The interaction between medicine, public health and epidemiology is important

Another question is the interaction between medicine, public health and disciplines such as epidemiology. For example, it would be desirable that the status of the Japanese Environment and Children's study would inform the agenda in toxicology and human health.

(7) Integration of social and natural sciences is vital and NIES should also work to strengthen these ties

I also wonder how social science is contributing to natural sciences at NIES. For example, geographical information can stimulate a lot of questions and guide research methods such as bio-sampling. Integration of social and natural sciences is important and approaches such as geo-statistics are being applied at some research institutions.

(8) Urban environmental health research might be one of the topics to be included in NIES's research agenda

Last but not least, I have a great interest in urban environmental health research. Many diseases, associated with stress, commuting and crime, occur in cities, which are in and of themselves a system - yet we don't have sufficient insight into these diseases. This might become an important topic in the research agenda of NIES.



Professor Ellen Silbergeld

シルバーゲルト博士

Discussions between the
International Advisor and
the NIES President's Office

理事室との意見交換



Explanation of research activities at the
Center for Environmental Risk Research

環境リスク研究センターでの研究説明

Group photograph after the
conclusion of discussions

会議終了後の集合写真

