

THE BULLETIN OF JSA

THE JAPAN SCIENTISTS' ASSOCIATION

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JSA DECLARATION ON THE OCCASION OF THE 40TH GENERAL ASSEMBLY MAY 31, 2009

The world requests each country to harmoniously cope with equations such as climate change, elimination of nuclear weapons, and widened social disparity. Japanese government, alone acceding to wishes of industrial society, can plan no effective policy for those issues. As to climate change, the government seeks low-level mid and long term planning. As to nuclear weapons, the government adheres to remain under the nuclear umbrella of the U.S., depressingly proposing to supply excessive fund for U.S. military transformation. Labor conditions have become exacerbated, in fact many unnormalized and dispatched workers were unemployed, and many of young persons are able to obtain their positions. And Japanese government pays little attention to welfare and education, giving priority to large corporations and military affair, bolstering mobilization of science and technology and academic research.

The Japan Scientists Association has asserted that in order to settle cope with these world and Japanese difficult issues it is significant to build national consensus standing on respect for human rights and pacifism the Constitution advocates and basing on scientific and accurate information. To that end we have asserted the necessity to ensure researchers' autonomy and environments under which people can enjoy scientific fruits. The 40th General Assembly reconfirmed the results of movements, agreed to tackle the following activities. The Japan Scientists Association as science NGO acting in the victim nation of nuclear bombing declares to take action to comply with the Constitution and discharge social responsibility of scientists.

1. Study for human existence and peaceful prosperity, and working with the society
 - 1) Organize the 18th Comprehensive Scientific Study Conference (in 2010, Tohoku district).
 - 2) Arranging branches' study activities to prod branch members to airily take part in, revitalizing 13 study committees organized in the headquarters, we make profound connection among them.
 - 3) Develop theoretical study of the Constitution of Japan, block embodiment of new Fundamental Law of Education and advance movement to improve educational circumstances.
 - 4) Take action to diffuse the results of science and reinforce publication.
 - 5) Organize Scientists' Forum of 2009 World Conference against A&H Bombs on August 2 at Kobe City together with friendly organizations. Collect signatures "Appeal for nuclear free world" toward the 2010 NPT Conference and 10,000 approvers for the appeal of the Article 9 Society.
 - 6) Make the findings public at international symposia and conduct movements in corporation with abroad scientific NGO such as INES.

2. Voicing and acting for the true development of higher education and science-technology

- 1) Draft a political proposal on higher education and science-technology in cooperation with friendly groups and develop movements to realize proposal.
- 2) Examine research and educational circumstances and reformation problem in public and private universities, and call on the authorities to manage to endorse research and education.
- 3) Put into practice “scientific workers’ ethical code” and “declaration of scientific workers’ rights and status” announced at the 38th General Assembly, and arrange to adopt them.
- 4) Investigate the problems of contraction and reformation in national and public universities, and call on improvement through proposals.
- 5) Have a true figure of study environments around young researchers, and present a political suggestion to settle the issues of postdoctoral and part-time lectures.
- 6) Figure out the real status of scientific workers of private companies, and call on the guaranteeing of rights and the raising of status together with other concerned organizations.
- 7) Take action for improvement of women's study conditions and positions.

3. Reinforcement and revitalization of the framework, enlarging members and development of scientific movements

- 1) The Executive Council and the Council shall direct nationwide activities, and promote and help activities of branches and districts.
- 2) The branch shall establish or maintain the office to keep contact with members, and distribution of *Journal of Japanese Scientists*, carry out fundamental affairs, make stronger the cooperation among members, and develop attractive activities hand-in-hand. The headquarters and districts shall counsel and help branches in trouble.
- 3) Enlarge young members and cultivate their abilities through participation in research and organizational activities. Increase graduate student members rate up to 10% in big city branches and big university chapters. Induce master, graduate school, and undergraduate students to a member.
- 4) Raise women's rate in members and board members enlarging women researchers' enrollment.
- 5) Further fit website to enhance the convenience and advance exchanges among members.

4. Fitting and spreading Nihon-no-kagakusha (*Journal of Japanese Scientists*, JJS)

- 1) Further better the editorial board to carry on secure periodical publication.
- 2) Try to improve pages, request and encourage submitting of manuscripts. Increase editorial projects on topics of academic studies.
- 3) Enrich and make better use of support system of JJS.
- 4) Enroll JJS to NII (National Institutes of Informatics) Scholarly and Academic Information Navigator (CiNii), and afford JJS as an electronic journal.

14TH HANSHIN AWAJI GREAT EARTHQUAKE COMMEMORATIVE CEREMONY

On January 17, 2009 the 14th Hanshin Awaji great earthquake commemorative ceremony was held at Shin-Nagata Kinroshimin (working citizen) Center by "Hanshin-Awaji Great Earthquake Hyogo Congress for Rescue and Restoration" and "The meeting for Restoration of Nagata-area". The executive committee organized a field trip at Nagata area, devastated by fire as the earthquake occurred, and then the following four reports and Prof. Shiozaki's (Kobe Univ.) lecture presentation:

- a) Mr. Ito (vice-director, Association for reconstruction of Taishosuji shopping district) called for the support measure according to actual conditions, in fact, storekeepers that could move in the building for reconstruction fall into difficulties because of lost customers and high fixed property tax,
- b) Mr. Hibino (CEO, FM "WaiWai") said that his radio station, M "WaiWai", had been established to

broadcast information of earthquake damage soon after the earthquake and it now offered a 10-language program to make a multicultural exchange as a movement to develop a new community in the area, where lots of foreigners reside.

c) Mr. Kaneharu (chief, Japan Chemical Shoes Industrial Association) talked about his efforts to resuscitate the association, 80 % members of which suffered from the earthquake.

d) Mr. Nomura (president, an organization for formation of streets around Shin-Nagata station), fire marshal when the earthquake attacked Kobe, talked his experience in reconstruction projects.

<Note: Hanshin-Awaji earthquake>

Date: 5:46 a.m. January 17, 1995

Epicenter: the northern part of Awaji Island

Depth: 16 kilometers below the earth's surface

Force: 7.3 on the Richter scale

Dead: 6,434 (December 22, 2005)

Missing: 3

Injured: 43,792

ACTIVITIES OF RESEARCH COMMITTEES AND GROUPS

The JSA headquarters organizes a number of research committees and groups undertaken on a nationwide scale, which are encouraging the members across the country

1) JAPANESE FOOD AND AGRICULTURE PROBLEMS

The research committee of foodstuff problems held a symposium concerning security of food and agriculture in Japan on January 31 at Bunkyo Civic Center in Tokyo. The organization committee aimed to exchange questions and views on Japanese food and agriculture, considering recent cases such as intoxication of jiao-zi produced by China, illegal diversion for food of contaminated rice, mainly "minimum access" imported rice, camouflage of origin, and the responsibility of cooperative society. Four reports were presented: a) "It is time to go ahead food self-support" by Dr. Miyamura (Emeritus Prof., Japan Women's Univ.), b) "Food safety problem and task of the cooperative society" by Mr. Nishimura (Consumer Cooperative Institute of Japan, research stuff), c) "A journalist view of food safety problem" by Mr. Iwadare (journalist), and d) "What do you ask food policy for?" by Ms. Kamiyama (lawyer). Participants affirmed that to ensure the food security it is significant to increase food self-sufficiency rate.

2) THE 2ND SYMPOSIUM OF FOOD CONTAMINATION

The 2nd symposium of food contamination was held on February 14, 2009 in Tokyo by the JSA research committee of pollution and environmental problems and Japan Association on the Environmental Studies (the 1st one was held on Feb. 2008 at the same place). Four reports were given:

a) In "The seafood contamination by toxic substances" Prof. Yamaguchi (Mimasaka Univ.) reported the present situation of seafood contamination and claimed regulation for intake of these seafood.

b) "Tuna and toxic substances" by Mr. Kimura (newspaper "Shizuoka-Shinbun").

c) In "The right to secure the safety of food" Ms. Koyama (lawyer) pointed out the problems of the laws for protection of consumer's right.

d) In "Relocation problems of Tsukiji Center Wholesale Market" Mr. Nozue (Society to think of Tsukiji Market, Toyosu, Tokyo) raised a question on Tsukiji Market's relocation to the place where the plant of Tokyo Gas Co., Ltd. used to be and was exposed soil pollution.

DISTRICTS' AND BRANCHES' ACTIVITIES

The JSA consists of 47 branches which are grouped into 9 districts, and they are independently and/or cooperatively carrying out their activities in addition to the headquarters' ones

1) UNIVERSITY SALON IN SHIGA

The Shiga branch has held the university salon several times every year. Not only JSA members but also non-members in university attend the salon. Prof. Kikuchi (Univ. Shiga Prefecture) presented his research entitled "The production of nanometer size bubble (nano-bubble) with electrolysis and its application" in the salon of 2008 Dec. 5.

The nano-bubble was discovered for the first time in the process that verifies the physiological effect of the alkaline water. The bubbles produced with electrolysis disappear 5 minutes later and appear again 15 minutes later. He measured the size distribution of the hydrogen gas bubbles near the cathode in the electrolysis of the electrolyte-rich water that removes dissolved oxygen with a light scattering method. The measurement shows that the size distributes between 10nm and 600nm. The internal pressure of the bubble becomes higher corresponding to decrease of the diameter, for example at the diameter of 20nm the pressure becomes about 200 atmospheric pressures, therefore the life time of the nano-bubble is estimated as a few milli-seconds. However he discovered the actual hydrogen nano-bubble lasts 3 hours. When he presented the result at the academic society in 1997, he received sever criticism. After that he verified that the nano- bubble of oxygen exists more than 50 days stably and analyzed with experimental technique on the formation of the nano- bubble and the stabilization mechanism. As a result the academic society now recognizes and research of the application is advanced.

There have been many historical examples that when a researcher reported phenomena opposing common sense the researcher was exposed to criticism. The participants recognized that even in present such examples occur and were impressed by his scientific and sincere attitude to the criticism.

2) SYMPOSIUM "THINKING OF FUTURE ENVIRONMENT AND ENERGY"

On December 20 at Yamaguchi University the Chugoku district (Okayama, Hiroshima, Tottori, Shimane, Yamaguchi prefectures) held the above symposium. The following addresses were presented.

a) Prof. Uezono (Shimane Univ.) delivered a keynote address under the title "Recent moves in global warming problems", indicating what was disputed in international negotiation and the role that the Japanese government was expected to play. He participated in COP14 (14th Conference of the Parties to the UN Framework Convention on Climate Change, held in Poland on December 1-12) and had been impressed that they had been rewarded with little good results.

b) Prof. Yamamoto (Okayama Univ.) presented a report on global warming and energy problem as a complement of Uezono's address, where he pointed out the correlation between recent global annual mean temperature and securer variation of CO₂ concentration in air, and showed prediction of climate change, comparison of various energy sources, and CO₂ reduction action.

c) Mr. Fujita (Tottori middle-aged men club) reported his experiences in his speech "Middle-aged men's life style shining in exercising bioenergy". He is using a woodstove burning thinned woods and pruned branches of street trees, and said that it is possible to change into the life not to seek convenience or efficiency.

d) Prof. Sato (Hiroshima Univ.) explained his class project "Introduction of pellet implantation in our town". He pointed out that wooden pellets made from pruned branches, which had been burned 1000 ton each year in Higashi-Hiroshima City, could cover about 1000 household pellet stoves.

e) Prof. Yamamoto (Yamaguchi Univ.) presented a report "Green cools down the city". As to mitigation of urban heat island effect he illustrated as examples, Shinjuku Gyoen (national garden), the roof garden on Acros Fukuoka (Fukuoka City), and wall vegetation in Faculty of Agriculture, Yamaguchi University. He says that the effect of water sprinkling lasts about 10 minutes, while vegetation long-standing.

3) STUDY COMMITTEE OF PHILOSOPHY IN OSAKA

The study committee of philosophy of the Osaka branch monthly holds a regular meeting. On December 22, 2008 Dr. Niki (Osaka Univ.) presented a lecture entitled "What is iPS cell?" She is studying the influence of the environmental factor in the differentiation process of cell. The iPS cell (induced pluripotent stem cell) was first produced by Prof. Yamanaka's group of Kyoto Univ. by introducing several kinds of genes into the fibroblast of skin. The cell has universal differentiation characteristics. The ES cell (Embryonic stem cell) with the same differentiation characteristics as the iPS cell was produced several decades ago. Comparing with the ES cell the iPS cell has several merits in the sense that since the production of the iPS cell does not need the fertilized egg, there is no ethical problem. The risk of the rejection symptoms that occurs in the transplanting of the cell and the organization of others can be reduced, when the cell of oneself is used for the regeneration of lesion organization. However the gene that does not exist in the ES cell is needed to produce the iPS cell, so that the safety should be checked and the production rate also should be improved for the practical use.

4) Lecture "International financial crisis" in Miyagi

On February 7 in Sendai the branch held a branch lecture entitled "Explanation of the international financial crisis – The facts, structure, and background" inviting Prof. Yoshida (Graduate school of economics and management, Tohoku Univ.) as a lecturer. Following to the professor's explanation, "sub" of subprime loan means *pointless* (credit scores *below* 620), and subprime loan is a fraudulent installation produced by financial engineering postulating heading skyward house prices. And hedge funds (membership investment fund) took an active part in the subprime loan industry without authority's surveillance. After housing bubble burst, the subprime loan industry underwent unprecedented loss and bankruptcy. He explained the US's financial situation which caused this global financial crisis and the characteristics of Japanese financial crisis as follows: Japanese economics have long-term tasks such as aging, budget deficit, and weakness of service business. Though they say Japan has been supported by the manufacturing industry, indeed the service sector occupies over twice rate in GDP than the manufacturing. It is problematic, however, that the service sector has not grown well viewing 19th rank in the world (the manufacturing sector, 9th rank)

5) Gathering "Thinking of national foundation day" in Shimane

On February 11 the Shimane branch held the above gathering entitled "Thinking of Japanese peace, human rights, and the Constitution of Japan", where Prof. Watanabe (Shimane Conference for Preventing Constitutional Corruption) talked of his war experience.

He was born in ne Hirata City (now, Izumo City) of Shimane Prefecture. His father died in Japan-China war when he was the third grade, he then went and worshiped at Yasukuni Shrine as a posthumous child. Showing some personal mementos, *the Imperial Rescript to Soldiers and Sailors* which bullet penetrated, family photos, and Hinomaru (Japan's national flag) with writings, he explained the then wartime atmosphere in Hirata. After the war, knowing the existence of martyrs in Hirata of Maintenance of Public Order Law (Yokohama Case) and crackdown on human rights and red purge under the occupation of the US troops, he has acted for labor and peace movements. He pointed out last year's Tamogami's voice "Was Japan a aggressor country?", his glorification of war, has a common feature with militarism in war and indicates a dangerous move considering the abroad dispatch of Self-Defense troops to Somalia offing. He finally urged participants to have a prospect basing on the spirit of the Constitution.

JSA^{NOW}
Briefings from organizers

HOKKAIDO BRANCH

On May 21 at Hokkaido University the branch held a reception for fresh graduate students, where lecture "Hoping for young scientists to develop time of change – viewing the progress from the plate theory to disaster reduction science, geo- park" was delivered by Prof. Okada (Emeritus Prof., Hokkaido Univ.).

YAMAGATA BRANCH

1) On April 21 at Yamagata University the branch held a regular meeting, where Prof. Iwata (science, Yamagata Univ.) explained the theory of elementary particles from Kobayashi-Maskawa's quark theory to the forefront.

2) The branch held 1st regular meeting on May 25 at Kojirakawa Campus and 28 at Tsuruoka Campus, Yamagata University, where two movies "Natural shield" and "Animal factory" were put on the screen.

TOKYO BRANCH

1) On May 14 at Kitano Civic Center, Tokyo, Hachioji Science Forum held a regular meeting with lecture "Economic development project in town and shopping mall" by Prof. Yahata (Chuo Univ.).

2) On May 16 Machida Science Forum held the May regular meeting "Criticize the policy of Tokyo City Government", where they talked about relocation problem of Tsukiji Fish Market and their demand for the government.

3) The 68th New Peace Colloquium was held on May 29, where Prof. Kaneko (Rissho Univ.) delivered a lecture entitled "On dispatch of Self-Defense Force troops to Somalia offing (3) – 'Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia'".

4) Article 9 Society (of which the JSA upholds movement) on June 2 at Hibiya Hall, Tokyo held a lecture meeting to hear speeches of Mr. Inoue (writer), Mr. Ohe (writer, Nobel laureate), Dr. Okudaira (constitutionalist), Ms. Sawachi (writer) to the memory of late Mr. Kato (critic).

5) The 11th civic conference to think of intellectual property was organized on June 6, at Bunkyo Ward Center, Tokyo. Delivered lectures were: (a) World economy recession and companies' R&D by Mr. Munekura, (b) Actual status of application by the JSA Patent Office chapter, and (c) Lecture from Mighty Degression (1929) and rise of anti-patent.

KANAGAWA BRANCH

On May 16 at the branch office the branch held a general assembly, where a special lecture was given by Mr. Kajita (NPO Kanagawa Research Institute) with the title "Socio-economical change in Kanagawa Prefecture and Matsuzawa prefectural administration".

FUKUI BRANCH

On May 16 at Fukui University, the branch held a lecture meeting "I found in Cuba exercise of Articles 9 and 25 of the Japanese Constitution" by Mr. Kitagawa (director, Fukui AALA).

MIE BRANCH

The branch held a regular meeting on May 17 at Tsu City College, where Prof. Matsunaga (engineering, Mine Univ.) lectured on the results of Kobayashi and Maskawa and remained problems.

SHIGA BRANCH

On May 24 the branch held a lecture meeting, where Dr. Ueno (study group of national land problems) talked about the problem of dam construction plan in Yodogawa river system.

OSAKA BRANCH

1) The Kansai-area's colloquium for scientific workers in private enterprises on May 10 at the branch office held a regular meeting, where Mr. Kitaguchi explained how to use mathematical software *Mathematica*.

- 2) On the occasion of branch general assembly May 23 the branch organized a memorial symposium "The role of science in contemporary civil society" which was proposed by Dr. Sugano (branch rep. secretary)
- 3) The study group Energy problems held a regular meeting on May 25 at branch office, where Mr. Ashimura explained the context of book "Sustainable city" by Fukukawa.
- 4) The study committee of philosophy held a regular meeting on May 27 at branch office, where Mr. Sugihara lectured on the significance of Collagen in biological evolution.
- 5) The study group Contemporary capitalism held a regular meeting on May 28 at branch office, where Mr. Ejiri delivered a lecture on WTO agricultural negotiation and Japanese agriculture.
- 6) The Kansai-area's colloquium for scientific workers in private enterprises held a regular meeting on June 7 at branch office, where Mr. Nakamura explained issues around water.

HYOGO BRANCH

- 1) The branch organized an event for a lecture and movie "Thinking of peace now" on April 28 at Kobe University. Mr. Hida (director, Kobe center for students and the youth) gave a lecture "Nanjing Massacre and Japan", after which movie "Nanjing, lacerated memories" was put on the screen.
- 2) On May 17 as a memorial address for branch general assembly the branch held Prof. Nakatani's (Univ. of Marketing and Distribution Sciences) lecture on today's economical recession and failure of neo-liberalism.

FUKUOKA BRANCH

On the occasion of branch general assembly May 10 the branch organized a special symposium, where Prof. Okamoto (Kyushu Institute of Technology) addressed a lesson from Prof. Maskawa's (Nobel laureate) work and its background –symmetry violation and social responsibility of scientists.

OKINAWA BRANCH

On May 15 at _Ryukyu University, the branch held a lecture meeting for new graduate students, where were given a lecture "How to teach the Okinawa war – Thinking of junior high school textbook of history" by Prof. Yamaguchi (dep. of education, Ryukyu Univ.), and "The origin of accretionary lapilli (little stones produced by a volcanic eruption)" by Prof. Kato (dep. of science, Ryukyu Univ., ret.).

ARTICLES OF "JOURNAL OF JAPANESE SCIENTISTS"

The Journal of Japanese Scientists or NIHON NO KAGAKUSHA (in Japanese) covering all the scientific fields is monthly published and distributed to all the members and other readers

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