

MAR 1972

SCIENCE BULLETIN

*National Science Council
214 Roosevelt Road, Section III
Taipei, Republic of China*

Visiting Professorial Vacancies Still Available in 1972-73

The National Science Council (NSC) has been authorized to appoint 150 extra visiting professors for the school year 1971-72. Since the year was well advanced when NSC received the green light to go ahead, a large number of the appointments could not be made in time. However, NSC will continue making the appointments in the upcoming school year (August 1, 1972- July 31, 1973) until the quota is filled.

One important thing to remember in applying for the visiting professorship is that the applicant cannot make the application directly with NSC. According to the appointment procedure, the applicant must first contact the prospective employing institute, which will in turn submit its nomination to NSC for screening and appointment. In case the applicant is unfamiliar with the local universities and institutes, however, NSC is glad to act as his referrer agency.

Appointment Ruling

The National Science Council appoints a number of visiting professors and visiting associate professors for teaching and research assignments at local institutes. The number of appointments varies from year to year, depending on requirements and availability of funds.

The appointment is made on the nomination of the public colleges, universities or research institutes concerned. Nominations must be accompanied with the nominee's curriculum vitae, list of publications and representative work.

To qualify for the nomination, a visiting associate professor must be:

- a) a holder of a doctoral degree conferred by a foreign institute, or one with similar academic training who is credited

with publications of academic value; or

- b) a holder of a master's degree conferred by a foreign institute who has done research or engaged in the professions with distinction for a minimum of three years; or
- c) an assistant professor at a foreign university, or one holding a post of similar ranking who is credited with publications of academic value.

In the case of a visiting professor, the nominee must be:

- a) a professor of good standing at a foreign university or college; or
- b) an associate professor at a foreign university or college, or one holding a post of similar ranking for a minimum of two years who is credited with publications of academic value; or
- c) one who has the qualifications of a) for a visiting associate professor and who has engaged in the professions or done research work for a minimum of five years with academic contributions to his credit.

The tenure of a visiting professor or visiting associate professor is one year and may be renewed once with the consent of all the parties concerned. Those who prefer to remain in Taiwan after the expiration of their second tour of assignment will not be entitled to NSC research grant and air tickets for the return trip.

Visiting professors or visiting associate professors should in principle serve on full-time basis. However, they may take up teaching or research work in institutes other than the employing agency if they secure in advance the written consent of NSC and

the institutes to which they are assigned.

A visiting professor and visiting associate professor are entitled to the following privileges:

- a) Regular pay—Remuneration on the regular pay scale will be provided by the employing institute.
- b) Research grant—A monthly grant (NT\$5,000 for a visiting professor and NT\$4,000 for a visiting associate professor) will be provided by NSC with payment made through the employing institute once every three months. Payment of research grant for those who arrive after classes have begun will start from the date of arrival.
- c) Living quarters and laboratory facilities will be provided by the employing institutes. However, water and power bills for the living quarters will be borne by the occupants.
- d) Traveling expenses—NSC will underwrite the round-trip air passage (economy class) for the appointee and his (or her) spouse and one-way ticket (also economy class) for up to two of their children below 18.

Upon the completion of his assignment, a visiting professor or visiting associate professor is required to prepare a written report listing his observations and recommendations concerning the teaching operation and/or research & development of the employing institute with one copy for NSC and another copy for the employing institute. The latter is required to make an assessment of the performance of the visiting professor or visiting associate professor and submit a report thereof to NSC.

Influence of Nutrition on Susceptibility to Infectious Disease, Morbidity, Mortality and Performance

by Kenneth S. K. Chinn

Biochemistry Department, NAMRU-2

(The project is a continuation of the "Studies on the Optimum Use of Limited Supplies of Protein in Human Population" carried out at Suilin, a township in southern Taiwan, which has been in progress for a number of years. An earlier report on the project was printed in the Vol. 2 No. 5 issue of the Science Bulletin—Ed.)

During 1971 the maternal nutrition study continued as previously outlined. Of the 252 women subjects reported last December, 224 remain in the study and the other 28 have left the study. The reasons for drop-outs during 1971 are: 6 subjects have been practising birth

control, 5 subjects were not pregnant again although their first-study infants all were older than 30 months and, in addition, these subjects were not anxious to have any more children; 2 subjects whose second-study infant died; and 15 subjects moved to other cities.

The 224 women currently remaining gave birth to 224 first-study infants (114 males and 110 females) and 195 second-study infants (100 males and 95 females). Twenty more of these women are expected to give birth to their second-study infants by the end of July 1972. Nine out of 224 women remain unpregnant for the second study pregnancy and they will be dropped from the study as of January 1, 1972. From our present results it appears that by the end of

the study we will have achieved our initial goal of 200 first and 200 second-study infants with complete information.

Collection of growth data and various anthropometric measurements continue on all infants in the interval from birth until the infant reaches 30 months of age. As of December 1971, 141 first-study infants and 17 second-study infants have completed their 30 months physical examination and measurements.

Since our last reporting date, in December 1970, 98 of our second-study infants have reached 15 months of age; thus, 93 fewer women are required to take the two cans of daily supplementation. Beginning 1 January 1972 there will be 105 women still requiring daily supplementation. This number will be decreasing at the rate of approximately 6 per month during 1972.

Complete 24-hour urine samples were collected from 160 of the study women since September 1971 for the evaluation of their urinary nitrogen and creatinine excretion. These two parameters will provide some indication of the women's nutritional status and nitrogen storage as affected by their daily supplementation. Urine collections among these women are scheduled to continue until their second-study infants reach 15 months of age.

Four periods of complete daily food survey on each mother were finished in 1971 for a grand total of 10 complete food surveys during the entire maternal nutrition study. Food composites were analysed for fat, protein, and water. Aliquots of all food samples are being preserved frozen for other analyses. Carbohydrate and caloric content determinations on the samples will begin next year.

Nitrogen and water balance studies have been carried out according to schedule. The following table shows the number of male infants who had gone through the metabolic study since the completion of our Sui-lin Metabolic Ward in July 1968. These data include some children whose mothers later dropped out of the study.

Premier Yen Stresses Research Efforts in Science Development

In his oral administrative report to the Legislative Yuan on February 18, Prime Minister Yen Chia-kan told the law-makers the research staff of the various research institutes would be greatly beefed up. Emphasis will be placed on research programs in order to raise academic standards.

As the Republic of China's first four-year science development program enters its final year, the results are being accumulated. In making plans for the second phase of science development, the actual situation will be considered from now on, Yen said. He listed the following points for emphasis in charting the future course of science development in Taiwan:

—To raise academic standards, emphasis will be placed on research programs. The number of research personnel will be increased to the maximum at scientific research centers and in research organs. Scholars and academicians from abroad will be invited to participate in research guidance according to need and fields of development. Groups also will be sent abroad for further research.

—Research in applied science will be given top priority and actively promoted in order to support economic

reconstruction. Research and development will be conducted in sophisticated industries closely related to economic growth and in industries related to national defense. Coordination between academic research units and industry will be strengthened.

—To promote research in new sciences, selected projects will be undertaken in physical science and electronics in coordination with industrial and space science requirements. At the same time, authorities are planning a new research program in biochemistry. Research personnel will be trained in meteorology, seismology, pollution control and other fields in which the public is subjected to hazards.

—To improve research in the humanities and social sciences, assistance to collective research will be increased. Emphasis will be placed on modern economics and management science.

In the recently announced ten-year development plan, the government promised to raise research spending to 1 per cent of the GNP by 1980 compared with the present 0.6 per cent. The scientific and technological manpower will also be doubled by then if the goal is met.

(To continued on Page 4)

Period	First Study Infants		Second Study Infants		Total
	15 months	21 months	15 months	21 months	
July-Dec. 1968	35	2	—	—	37
Jun.-Dec. 1969	36	53	—	—	90
Jun.-Dec. 1970	37	34	22	4	98
Jun.-Dec. 1971	17	30	30	32	109
Total	127	119	52	36	334

As of December 1971 all first-study male infants have completed both periods of metabolic studies. Data of nitrogen and water balance are up to date. The format for the computer program used in calculation and evaluation of nitrogen balance study data was established in July 1971, and all essential information in regards to the phase of the study are being transferred to punch cards. Early in 1972 the program for analysis of water balance data will be established. No comparison of supplemented and unsupplemented groups will be made until later.

Seventy-six first-study infants at the age of 8 months were tested for their motor and mental development since the behavioral study portion of the project was begun in July 1969. As of December 1971, 148 second-study infants also have undergone these evaluations. Home visits to families of all 148 second-study infants were made by the behavior study personnel for the purpose of evaluating the child's daily life profile and determining factors which may have any significant effects on the child's mental and motor development. Hereditary factors possibly influencing the child's development were also evaluated by giving IQ tests to the child's parents. General behavior and motor performance observations were incorporated into the metabolic ward studies to observe the children's interaction with each other.

Health surveillance and medical care for our subjects continue on approximately the same level as last year. There are roughly 500 case-visits to our out-patient department each month for treatment of upper respiratory infection, diarrheal diseases and other minor illnesses. Data are being compiled and consolidated for all of our study cases, both mothers and infants, for the occurrence of any irregular scatter of severe and minor illnesses, the variable intervals between them, their durations, the coexistence of diseases, and the succession of invasions by in-

fections agents.

Since March 1971, approximately 70 infants who were immunized with polio and diphtheria-pertussis-tetanus (DPT) antigens were studied for their antibody response in relation to their known nutritional background. Cord bloods are still being collected from new-born infants for the neonatal immunoglobulin profile study and other serum protein analysis.

In April 1971 plans were made to recruit, for a parallel control study, 100 more women who are in the 3rd trimester of their pregnancy. Anthropometric measurements, examination of cord blood for immunoglobulin profile, and behavioral tests at 8

months will be done on these infants who are not in our main nutrition study. As of December 1971, 45 subjects have been recruited.

In summary it appears that, at the end of its fifth year, the study is continuing on schedule.

No publications directly concerning results of the Sui-lin study have been made thus far. The initial paper describing the methods and rationale of the study is presently being written and will be submitted for review in Spring 1972 and is expected to appear in print near the end of the year. In November a workshop sponsored by the National Research Council on "Nutritional Supplementation and Outcome of Pregnancy" was held in White Cliffs, Massachusetts. At that workshop various groups from U.S., Canada, Guatemala, and our Taiwan study group presented information about their respective studies. It was clear to us from the work presented there that the progress and study design in our Taiwan study compared very favorably with other studies currently in progress.

Taiwan Manpower Resources Conference Scheduled for June

Thirty-six Chinese and American economists will meet in Taipei in the forthcoming June for a Taiwan Manpower Resources Conference to deliberate the manpower problem encountered in the Republic of China's rapid economic growth, the China Council on Sino-American Cooperation in Humanities and Social Sciences announced.

Twelve American delegates, including Professor Walter Galenson of the Cornell University, will participate in the conference. They will be accompanied by four Chinese economists in the United States, who are members of Academia Sinica. Twenty economists in Taiwan headed by Professor Shih Chien-sheng will form the Chinese delegation to the conference.

The spade work for the forthcoming conference was made by Professor Ta-chung Liu of Cornell University and Professor Galenson. The two succeeded in winning the support of the American Council of Learned Societies and the Social Science Research Council for the meeting.

The China Council on Sino-American Cooperation in Humanities and Social Sciences and the Council for

International Economic Cooperation and Development are co-sponsors of the conference. A preparatory committee has been formed to pave the way for the meeting.

Prof. Self Expected Here Next Month

Professor J. Teague Self of the University of Oklahoma will arrive here on April 10 as a short-term visiting scientist under the China-U.S. Cooperative Science Program.

During his four-day sojourn in Taipei, Prof. Y. N. Chu, head of the Biology Department, National Taiwan Normal University, will act as his host and will arrange for him to present lectures on "The Biological Importance of Symbiotic Organisms," "Indigenous Pentastomiasis on Taiwan" and "Human Pentastomiasis and Its Implications on Taiwan." He will also be invited by Dr. Jui-kuang Chiu, professor and chairman of the Department of Parasitology, College of Medicine, National Taiwan University, to conduct a seminar for graduate students.

Sino-U.S. Seminar on Forest Ecology & Genetics to Open Here March 31

A Sino-U.S. Seminar on Forest Ecology & Genetics is scheduled to open on March 31 in the conference room of the Taiwan Provincial Forestry Bureau. Twelve American scientists and about 40 Chinese forest experts are expected to take part in the nine-day seminar.

Dr. Charles F. Cooper, director of the Center for Regional Environmental Studies, San Diego State College, will head the American delegation to the seminar. The Chinese delegates will be headed by C.W. Yang, chief of the Forestry Division, Joint Commission on Rural Reconstruction. Professor C.W. Wang of the National Taiwan University and Professor Wang Chung-ku of the Christian Tungshai University will be convenors of the forest genetics and silvics group and the forest ecology group respectively.

The seminar will be conducted in two stages. During the first stage visitors from the United States will tour

Tahsuehshan, Lienhuachi, Chitu, Kengting and Shuangliu forest areas in the company of their Chinese counterparts to gather firsthand information about the forestry situation on Taiwan. During the later stage of the meeting, the Chinese and American participants will submit reports and papers on various topics and compare notes regarding the preservation and development of forestry resources, forest ecology in North America and Taiwan, the establishment of forest preserves, etc.

Utilization of slopeland is receiving increased attention in the Republic of China's economic development. This in turn will depend to a large extent on forestry development. Therefore, the holding of the forest seminar will be most timely. The forest scientists' finding will be the most valuable reference material for the economic planners of the Chinese government in this respect.

This is the third binational seminar

held under the China-US Cooperative Science Program. The first seminar on oceanography was held in Taipei in April-May, 1971, and the second seminar on hurricane was held in Mimai later in the same year. Both seminars ended in success.

Nobel Economist to Make Third Visit Here

Professor Simon Kuznets of Harvard University, winner of the 1971 Nobel Prize for Economics, will arrive in Taiwan in early summer for his third visit on the joint invitation of Academia Sinica and the China Council on Sino-American Cooperation in Humanities and Social Sciences.

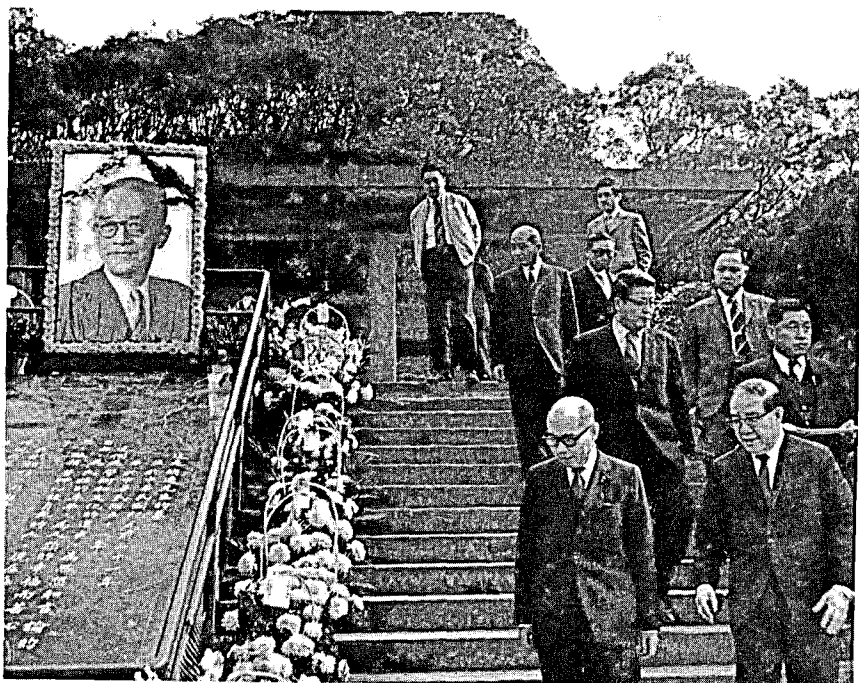
The professor was originally invited to participate in the Taiwan Manpower Resources Conference to be held in June. Because of earlier engagement for a trip to Japan, he had to postpone his arrival here until after the conference. During his stay here, he will deliver one or two lectures.

Professor Kuznets first visited Taiwan as head of the American delegation to the Sino-American Conference on the Economic Development of Taiwan held several years ago. Later on he was invited to Taipei to help launch the Institute of Economics at the National Taiwan University. His forthcoming visit is eagerly awaited by his friends and admirers here.

(Continued from Page 2)

Yen further reported that the first group of junior middle school students to graduate under the nation's nine-year free education program numbered 230,459 last summer. Of these, 74.75% obtained their schooling, 17.5% obtained employment, and 7.72% are receiving supplementary education.

To assist in the normal development of middle school education in the future, a ratio of 4 to 6 has been set for high school enrollment versus enrollment in higher vocational schools, the premier added.



A marble slab inscribed with a brief eulogy of the late Dr. Hu Shih was unveiled at his tomb on the premises of Academia Sinica on the occasion of the tenth anniversary of his death last February 24. Dr. Chien Shih-liang, president of Academia Sinica, presided over the unveiling ceremony. Dr. Hu was the founder and first chairman of the National Science Council, a post he held until his death in 1962.