by his home, his laboratory, and his summer place in the Go Home Bay Area of Ontario. He was in no hurry to record his achievements in published papers, and after publication he did not seem to care about the credit received. He discovered many keys to scientific treasure. These keys were improved or entirely new techniques. But the techniques themselves were useless unless used, just like door keys, he used to say. His distinction between the islets and acini of the pancreas by their staining reactions with supravital dyes and in other ways was fundamental to the preparation of insulin by Banting and Best.

But it was his investigations on mitochondria which are perhaps most illustrative of the man. As a penetrating reader of old German books he saw much of interest in Altmann's publications about "Elementarorganismen." He separated fact from fiction in Altmann's work and recognized among these elementary microorganisms what are now called mitochondria. He considered these to be "as characteristic of the cytoplasm as chromatin is of the nucleus," a conclusion that was received at the time with much skepticism.

Bensley, again delving in forgotten literature, found a report by Michaelis that bodies like mitochondria could be revealed in still living cells by staining with Janus green. Being a chemist, he realized that only Janus green of exactly the composition specified by Michaelis was effective. By introducing the right kind of Janus green, he made available an easy way to color mitochondria in living cells now employed by cytological laboratories the world over.

It was at this time (1909) that I commenced my training under Bensley. He gave the mitochondria problem to me complete without reservations. He himself kept away from it so that I would have a clear field. I made but little progress, so he returned to the attack 25 years later and in a very original way. The main issue was to find a way to make direct chemical analyses of mitochondria. He and his student, N. L. Hoerr (1934), broke living cells up and separated out the mitochondria by centrifugation. The mitochondria collected in this way were washed and analyzed. Not only did these two investigators supply the first facts relative to the chemical composition of mitochondria, but in doing so they devised a technique by which many other cellular constituents have since been collected and analyzed. This has thrown more light on the chemical structure of cells than any other procedure and was deserving of a Nobel prize.

Another advance of the first magnitude, and there were many, was made in Bensley's laboratory by his student, I. Gersh. It utilized and improved Altmann's long-ignored freezing and drying method. By this technique, fresh tissues are quickly frozen, dehydrated while still frozen, imbedded and sectioned without the use of any fixative. The elimination of the complications inseparable from the use of fixatives and the retention of chemical substances in the position they occupied during life have proved of the greatest service in studies on cytochemistry.

On 6 April 1953 in Chicago, Bensley, then 85 years of age, made the opening address of a symposium on the "Structure and biochemistry of mitochondria." The grand old man was in fine shape, his eyes sparkled, his voice was excellent, and the whole audience rose to honor him. His pioneer researches in cytochemistry are his monument, and his students, who loved him, will remember him thankfully as long as they live. (I am especially grateful for details to Dr. Bensley's former students: N. L. Hoerr, A. Lazarow, M. H. Knisely, and E. J. Stieglitz.)

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News of Science

International Atomic Energy Agency

With the signing of the statute of the new International Atomic Energy Agency, the conference which began at United Nations Headquarters on 20 Sept. concluded its work on 26 Oct. Seventy of the 81 governments that had participated in the conference's preparation of the 23-article statute have signed the document. The statute will be open for signature for 90 days and will enter into force when ratified by 18 states. Those countries whose representatives attended the conference but have not yet signed the statute are the following: Afghanistan, Burma, Iraq, Italy, Jordan, Mexico, Morocco, Nicaragua, Saudi Arabia, Tunisia, and Yemen.

At the closing of the meeting, Lewis L. Strauss, chairman of the United States Atomic Energy Commission, delivered a message from President Eisenhower. The message promised the President's support for United States official ratification of the agency's statute, an initial U.S. contribution of 5000 kilograms of uranium-235, and continued contributions of nuclear materials to match in amount the sum of all quantities made available by all other members of the agency for the period between its establishment and 1 July 1960.

The statute sets out plans for an international agency which "shall seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world." It provides that the agency shall insure, so far as possible, "that assistance provided by it or at its request or under its supervision or control is not used in such a way as to further any military purpose."

Besides completing the statute, the conference endorsed Vienna as the site for headquarters of the new agency and chose six elective members of the Preparatory Commission for the agency. This commission is composed of the 12 governments which, before the conference met, had been negotiating toward creation of the agency (Australia, Belgium, Brazil, Canada, Czechoslovakia, France, India, Portugal, the Union of South Africa, the U.S.S.R., the United Kingdom, and the United States), plus the six members elected by the conference (Argentina, Egypt, Indonesia, Japan, Pakistan, and Peru).

The Preparatory Commission will, among other things, make arrangements for the first session of the agency's General Conference, to be composed of all members of the agency; make designations for membership of the first Board of Governors; consider the recommendation of Vienna as the agency's headquarters; and enter into negotiations with the United Nations regarding the relationship of the two organizations.

The U.N. conference that has just

ended was sponsored by the 12 negotiating governments, which issued invitations to 87 countries—all members of the United Nations or of the specialized agencies. Eighty-two countries accepted the invitations and 81 actually participated in the conference. The number of participating countries was the largest ever present at a meeting at United Nations Headquarters. Officers of the Conference were Joao Carlos Muniz (Brazil), president, and Pavel Winkler (Czechoslovakia), vice-president. At the request of the sponsoring governments, U.N. Secretary-General Dag Hammarskjold served as secretary-general of the conference.

NSF Program to Make Research Results of Other Nations Available

United States scientists will be given broader access to results of research in other countries through the award of three new grants by the National Science Foundation. These grants, which total $89,910, provide for an expanded program of translation of Soviet scientific publications, establishment of a center to collect scientific translations from all languages, and procurement of a large number of relatively rare chemical publications from many different countries. In announcing the awards, NSF director Alan T. Waterman pointed out that, because the foundation supports basic research in the physical sciences, life sciences, earth sciences, engineering, and certain areas of convergence between these broad fields, these grants forecast a time when foundation programs of disseminating results of foreign research would gradually expand into all these areas.

First of the three grants, $57,860, was awarded to the American Institute of Biological Sciences, Hiden T. Cox, executive director. The institute will administer a program for translating and publishing four Soviet biological research periodicals, with the first English-language issues expected late this year or early 1957. The Russian publications to be translated include *Mikrobiologiia* (Microbiology), *Fiziologii Rastenii* (Plant Physiology), and *Doklady Akademii Nauk SSSR* (Reports or Proceedings of the USSR Academy of Sciences).

The first two will be translated from cover to cover and will appear six times yearly. Subscriptions, at $20 and $15 respectively, can be obtained from the American Institute of Biological Sciences, 2000 P St., NW, Washington, D.C. From the *Doklady,* principal publication of the Soviet Academy of Sciences, articles on zoological subjects and articles on botanical subjects will be translated and published in separate bimonthly periodicals. Subscription to the biological sciences translations from *Doklady* will be at $20 per year, while the botanical sciences section will be $7.

Second of the three new grants, $20,350, was awarded to the Special Libraries Association to operate a Scientific Translations Center to collect, announce, and sell photocopies of scientific translations of articles from all languages. The new program of the SLA Center, to be located at the John Crerar Library, Chicago, represents an integration of two smaller centers which have been in operation for several years.

SLA has operated a center at the Crerar Library to gather translations from all languages except Russian. Translations have been given or loaned to the center by Government agencies, industry, universities, and so forth, and announced through a monthly bibliography, *Translation Monthly.* For some time the foundation has supported the Library of Congress in establishing and operating a Russian Scientific Translation Center to provide the same service for scientists but providing Russian translations only. Library of Congress activities will be transferred to SLA at the end of 1956. The new SLA Center will thus begin with a collection of over 10,000 translations in science, technology, and medicine representing research from many countries. *Translation Monthly* will be subject indexed and greatly expanded beginning with the January 1957 issue. Its subscription price will remain at $5 per year.

The third grant is for $11,700, awarded to the Midwest Inter-Library Center, Chicago. The center, a joint operation of 16 midwestern universities and research libraries, will use the funds to acquire between 700 and 800 hard-to-get serial publications of chemical interest. It is believed that many of these publications are not received anywhere in the United States. When these publications are added to the extensive collected holdings of the members of the center, the result is expected to be one of the most complete collections of current periodical chemical literature anywhere in the world. The goal of the center, towards which this grant is an important first step, is to provide scientists with the original of any article abstracted in *Chemical Abstracts,* world authority on the periodical literature of chemistry.

In announcing these grants through its International Science Information Program, the NSF noted its past support of Soviet translations through the American Institute of Physics, American Mathematical Society, and Biological Abstracts, as well as its support of other types of projects designed to increase the availability of Soviet research information to English-reading scientists. Added to its previous efforts in this field, the three new grants widen the dimensions of the foundation program, which is now envisioned to consist of four major phases.

The first phase will seek to assure that original source material is obtainable within the United States so that when a scientist searches the literature to determine what previous contributions have been made to his particular problem, he can be reasonably sure of finding the original version of any research paper in his field. The second phase is to assist in translating any periodical or book important enough to be needed in a complete version. The third phase is to assist where necessary in publishing English abstracts of those foreign papers not translated in full. The fourth phase is to collect translations and information on translations so that a scientist need not inadvertently undertake to obtain a translation of a paper already available in English.

NIH Russian-English Translation Program

The National Institutes of Health has established a new program to help American scientists keep abreast of Russian medical research findings. Plans call for the translation and distribution of Soviet scientific medical information in the biological and medical sciences. Objectives of the program are similar to those of the National Science Foundation in the field of the physical sciences.

The program will include support for the republication in English of several representative Soviet journals and other Russian scientific publications. These will be distributed by the National Institutes of Health to medical and scientific libraries and to government agencies. These translated journals will also be made available for purchase. The first two Soviet journals selected under the new program are *Biokhimiia* (Biochemistry) and *Biulleten' Eksperimental'noi Biologii i Meditsiny* (Bulletin of Experimental Biology and Medicine).

A second phase of the program calls for the translation of sections of *Sovetskoe Meditsinskoe Referativnoe Obozrenie* (Soviet Medical Reference Review), an extensive abstract journal wholly devoted to Soviet contributions. The four sections provisionally selected for translation and publication are as follows: microbiology and infectious diseases; normal and pathological physiology, biochemistry, pharmacology and toxicology, oncology, and internal diseases.

The third aspect of the program involves the selection of a limited number of monographs for translation and publication. Selection will be made by a