
International News

Dr. F. J. Belinfante, of the University of Leiden, has been appointed associate professor in theoretical physics at the University of British Columbia, Vancouver. He will assume his duties in September 1946.

Dr. A. Velel Taning writes from Copenhagen how greatly he appreciates the re-establishment of communication with other countries "... because I much enjoy reading articles and books from abroad after these many dark years, during which all connection with the civilized world was totally cut off. . . . We succeeded here in keeping the Dana Collections intact during the war and we have published some papers of the Dana Reports, which will be forwarded to the several institutions in the near future. Very much material from the Dana Expeditions has been arranged for distribution to our collaborators abroad and papers from them are now coming in for printing. This is a pleasure after these years lost."

Gunnar von Bahr, assistant professor at Upsala University, Sweden, has received a Government grant to study eye surgery in the United States.

Prof. J. P. Wibaut, of the University of Amsterdam, Holland, has written to M. T. Bogert, president of the International Union of Chemistry, as follows: "We have had very hard and difficult years, but we are thankful now to the gallant Allied Forces for our liberation. As long as it was possible there has been done much work in my laboratory."

Prof. J. Orcel, curator of mineralogy of the Museum National d'Histoire Naturelle at Paris, has written to Prof. Charles H. Behre, Jr., that his laboratories did not suffer materially from the occupation or from the war, though research of all sorts was—and still is, to some degree—greatly curtailed.

Dr. Antoine Ball, curator of insects in the Musée Royal d'Histoire Naturelle de Belgique, Brussels, wrote to Dr. P. P. Calvert on 7 December 1945, acknowledging receipt of publications sent and adding: "We have had a miserable time over here, but personally I am thankful to be able to say that none of my near relatives lost their lives on account of the war. The Museum sustained no damage."

The Moscow News of 12 December 1945 reports the death of Prof. Vladimir Leontyevich Komarov, president of the Academy of Sciences of the USSR and dean of Russian botanists, in Moscow in December. He was best known for his work on the flora of

Kamchatka and as editor-in-chief of the *Flora* of the USSR, started in 1934, of which 10 volumes have been published to date.

Dr. Otto Rosenheim, London, in writing to Mr. Marvin H. Hack, University of Illinois, College of Medicine, says:

There seems to be an air of mystery about the fate and whereabouts of German scientists of the prewar period. I have not heard anything about Klenk, who came to see me about ten years ago, when I presented him with some of Thudichum's preparations. Dr. Girard, of Paris, whom I met recently, informed me that Butenandt (Berlin) is working at present in Tübingen, in the French Zone of Occupation, and that Warbourg is back in Berlin after having fled to his villa in the island of Rugen. Wieland is supposed to be in Starnberg, near Munich, where his laboratory has been completely destroyed.

Prof. P. E. Verkade, Technische Hoogeschool, Delft, has written to Dr. Austin M. Patterson, Antioch College, that he has survived the war and his present address is 's-Gravenhage, Waalsdorperweg 88. He is chairman of the International Committee on Organic Chemical Nomenclature of the International Union of Chemistry, of which Dr. Patterson is the American member.

Dr. E. Leloup, Musée Royal d'Histoire Naturelle de Belgique, Brussels, has written to Dr. E. S. Deevey, Jr., Woods Hole, Oceanographie Institute, that he has been able to continue his work on hydroids during the war and he also said that Prof. A. Billard, the French student of hydroids, died two or three years ago of pneumonia.

Dr. Ing. Boh. Ma Mařan, director of the Institute for Forest Research, Prague XIX, Na Cvičisti 2, Czechoslovakia, writes to Dr. H. A. Lunt, of the Connecticut Agricultural Experiment Station, that he has had no contact with scientists in this country for the past seven years and is very eager for bulletins, reprints, and reports of progress pertaining to forest research, including forest soils.

Dr. Quido Zaruba-Pfefferman has written to Prof. Charles H. Behre, Jr., from Prague that many colleagues in geology are no longer alive. Among the deceased are Prof. Francizec Ulrich, Dr. R. Novacek, and Prof. Rosicky, executed in the concentration camp at Mauthausen. However, Prof. Slavik, the oldest professor of the Karlova University, Prague, returned safely after three years in the Buchenwald concentra-

tion camp. Prof. Kettner, who was in the United States at the time of the 1934 International Geological Congress, survived the German occupation.

Dr. Erna Mohr, curator of fishes, Hamburg Museum, has written to C. L. Hubbs, of The Scripps Institution of Oceanography, as follows:

The sand eels for your museum have been burned, our Syngnathides, Centriscides and Echeneides too, but all the other fishes (in the Hamburg Museum) are safe. We must work hard to regain a library. In better times I must ask you to help us in this task. . . . I'm so sorry to hear that J. Norman is dead. Duncker, aged 75, is quite agile. Please give my best wishes to Herre and Myers!

Steps to explore the raw materials in India capable of producing atomic energy and to study methods of harnessing them were taken by the Board of Scientific and Industrial Research of the Government of India at their last meeting in New Delhi in January. The governing body of the Board set up a committee under the chairmanship of Dr. H. J. Bhabha, F.R.S., to explore the availability of raw materials in India capable of generating atomic energy, suggest ways and means of harnessing them, and keep in touch with similar organizations in other countries. The other members of the committee are Dr. Sir S. S. Bhatnagar, F.R.S., Dr. K. S. Krishnan, F.R.S., Dr. M. N. Saha, F.R.S., Dr. D. N. Wadia, Dr. Nazir Ahmed, and Dr. Jivraj Mehta. The governing body also set up a committee with Sir S. S. Bhatnagar as convener, to work out in this connection a program of research on beryllium and its master alloy.

Dr. F. P. Koumans, Leiden, has written Dr. Carl L. Hubbs giving further news regarding ichthyologists and fish collections. Dr. Koumans himself has just returned to Leiden from Copenhagen, where he spent a month recovering his health.

Of the Dutch ichthyologists Prof. Beaufort, Amsterdam, Prof. Delsman, Hilversum, and Dr. Havinga are well. Dr. Redeke died in the Spring of 1945 at the age of 71. Dr. Jan Verwey, formerly of Batavia and more recently director of the Zoological Station at Den Helder, is well. The building at Den Helder was damaged, and the whole institution was evacuated in 1940 to the Leiden Museum, to return late in December 1945, after the Station was partly repaired. Dr. Koumans knows of no ichthyologist in Belgium since the death of Giltay, of Brussels, in 1937.

Very little is known of German ichthyologists or institutions, as communications are not yet re-established. The museum and library at Hamburg were ruined, but the collections partly saved. The Berlin Museum is partly ruined, and the Senckenberg Museum in Frankfurt totally destroyed. It is not known

what became of the collections. Ahl, of Berlin, was said to have been wounded in the war. Kiel is so damaged that the university was brought to Flensburg.

The National Institute of Sciences of India, Bangalore, which has recently been recognized by the India Government as the primary scientific organization of the country, at their twelfth annual meeting passed a resolution favoring strict international control of atomic energy by a World Peace Organization. Following is the text of the resolution:

Fellows of the National Institute record it as their considered opinion that any attempt to keep future atomic knowledge a secret will not only fail in view of the fact that basic atomic secrets have already been disclosed, but will lead immediately to a dangerous armament race and ultimately to war. They are of the opinion that the only security for humanity against destructive use of atomic weapons is to be found in setting up an international organization which will promote free exchange of all basic knowledge between scientists of all nations to ensure its use only for peaceful ends. The National Institute will give support to any international organization of scientists which may be formed for the purpose of bringing to the attention of all peoples and governments the necessity of placing atomic energy developments exclusively in the hands of such a world organization.

The Boca del Río Health Center and Tropical Medicine Training Station was formerly inaugurated on 21 February by the President of the Republic of Mexico, General of the Division Manuel Avila Camacho. He was accompanied by the Minister of Health and Welfare, Dr. Gustavo Baz; the Minister of Public Education, Mr. Jaime Torres Bodet; the Minister of National Economy, Ing. Gustavo Serrano; the Minister of the Navy, General Heriberto Jara; the Governor of the State of Veracruz, Mr. Adolfo Ruiz Cortines; and many officials of the federal, state, and local services.

Addresses were made by Dr. Pilar Hernández Lira, Director of the Health Center and Tropical Medicine Training Station; Dr. E. Harold Hinman, Director de Cooperación Interamericana de Salubridad Pública and Representative of the Institute of Inter-American Affairs; and Dr. Gustavo Baz, Minister of Health and Welfare.

This training station will provide excellent opportunities for training and research in tropical medicine as well as in public health, and it is hoped that it will provide field facilities in these specialties not only for students but also investigators from Mexico and other countries in the Americas.

The Dirección de Cooperación Interamericana de Salubridad Pública, a cooperative health service established by the Secretaría de Salubridad y Asistencia

of Mexico and the Institute of Inter-American Affairs, built and equipped the building.

A committee appointed by the Board of Scientific and Industrial Research, New Delhi, will undertake a systematic examination of the radioactive contents of minerals occurring in the different rock systems of

India. This study is expected to be of help in understanding the chronological order of the great undated rock systems of the Deccan and the general geological layout of the Indian subcontinent. The knowledge thus gained will help mineralogists and prospectors in locating minerals and oils of economic value.

In the Laboratory

Assay of *p*-aminobenzoic Acid

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At the time Dr. J. C. Lewis published his microbiological assay method for *p*-aminobenzoic acid (3), we had developed a similar assay using a different organism.¹ Since Lewis' method seemed admirable in all respects, and ours offered no unique advantage, our results were not published. In a recent private communication, however, Lewis stated that the organism used in his test, *Lactobacillus arabinosus* 17-5, could be trained to give relatively stable *p*-aminobenzoic acid nonrequiring lines by subculturing in the presence of suboptimal levels of *p*-aminobenzoic acid. He also reported that recently his stock culture gained the ability to dispense with *p*-aminobenzoic acid after maintaining a stable requirement for at least three years. The factors responsible for such changes have not been elucidated. In view of this and since other available methods (1, 2, 4) suffer either in convenience or sensitivity, it appears worth while to record that another organism, *Leuconostoc mesenteroides* Pd-60, is suitable for *p*-aminobenzoic acid assay.

In general, the basal medium and technique of Lewis' assay can be used with *Leuc. mesenteroides*, with the following differences noted. The assay tubes should be incubated at 37° C. for 15 hours. One-tenth millimicrogram of *p*-aminobenzoic acid per milliliter of medium gives maximum growth. The extent of growth must be determined turbidimetrically (5), since the organism does not produce large amounts of lactic acid. Samples of various natural products assayed with both organisms give comparable results. Representative values are given in Table 1.

¹ This work was done by the author while holding a postdoctorate fellowship from Swift and Company in the laboratory of Prof. Roger J. Williams, at the Biochemical Institute, University of Texas, in 1942. The author wishes to acknowledge the assistance of Miss Adele Neely in carrying out the assays.

The samples assayed were prepared by autoclaving 1-gram samples of the substance with 5 ml. of six normal sulfuric acids at 15 pounds pressure for 15 minutes. The samples were then neutralized with barium hydroxide, diluted to an appropriate volume, and filtered. Very little destruction of pure *p*-amino-

TABLE 1

Sample	<i>Leuconostoc mesenteroides</i>	<i>Lactobacillus arabinosus</i>
	micrograms per gram	micrograms per gram
Yeast	4.9	5.5
Wheat germ	1.7	1.7
Whole wheat	0.49	0.63
Egg	0.31	0.25
Banana	0.46	0.43
Peanuts, raw	1.6	1.7
Spinach	1.0	1.3
Beef liver	1.5	1.1
Beef muscle	0.04	0.05
Pork chop	0.34	0.26
Blood, human	0.03	0.04
Milk	0.05	0.03
Carrots	0.2	0.1
Potato, Irish	0.4	0.5
Sweet potato	0.09	0.06

benzoic acid was caused by this procedure, and maximum values were obtained in tissue extracts. Hot-water extraction or enzyme hydrolysis made available only a fraction of the total vitamin in the samples. Contrary to the findings of Lampen and Peterson (1), alkaline hydrolysis caused almost total destruction of the activity of tissue extracts, although the pure vitamin itself was not appreciably affected by that treatment. Tissue extracts were found to deteriorate rapidly on standing, even when kept frozen, and were therefore assayed on the day prepared.

References

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