Russian and U.S. Science: Another View of the "Gap"

One of the elder statesmen of science last week deplored the productivity gap between American and Soviet science. But this time it was a Russian, Pytor Kapitsa, the 74-year-old director of the Institute of Physical Problems of the Soviet Academy, and it was his conclusion that the Soviets are running far behind. It was also his conclusion that Soviet basic laboratories should make room for bright young people by sending some of their deadwood to industry.

Writing on 20 January in *Komsomolskaya Pravda*, the Communist youth newspaper, Kapitsa said that if analyses recently performed in the U.S. are valid, "we must acknowledge the fact that we produce only one-half as much (in published research reports) as the U.S., while we have almost an equal number of people active in the field. We must also recognize," he continued, "that the productivity of our scientists is lower than that of the scientists in the U.S.A." Kapitsa did not cite the sources to which he referred, but they probably included the recent National Academy of Sciences report on chemistry, which compared national scientific output on the basis of quantities of published results (*Science*, 3 Dec. 1965).

To increase the productivity of Soviet science, he said, an increase in numbers alone is insufficient; the quality of scientific research must also be improved. "Obviously," he added, "it would be correct to send those who work inefficiently in science to industry where they could be of great use to the country. Of course, we cannot compromise industry. But such should be the tendency of improvement in our scientific endeavor. It would, for example," he went on, "be possible to transfer 15 to 20 percent of our staffs from science to industry every year and to take into research well-prepared and qualified youth. In this manner, we would improve the quality of the scientific staffs and also not close the door of science in the face of the young."

Kaptisa observed that the Americans "are seriously concerning themselves with the questions of the development of science in their country and the relationship between science and industry."

The United States, he said, has been stressing quality in the development of its scientific work force. "They consider that scientific work should receive even more money, but they do not have enough of that type of highly qualified people who are necessary to the direction and continued growth of science. Therefore, in the past few years, they have imported scientists from England and Western Germany. . . . Since the Americans have taken only the best people, it means that they have taken away the very best graduates from 50 European universities."

"One must not fear say," Kapitsa stated, "that in the past few years the scientific gap between our country and the U.S. has not been closed. It is therefore all the most important to seek a satisfactory remedy. To accomplish this, we must increase our scientific productivity, improve our instruction of industry in the use of scentific and technological advances. . . . I firmly believe that if we will not fear to speak the truth about our shortcomings, and if we will earnestly seek for correction of them, then our scientific productivity will soon regain its former record tempo and drive."

Announcements

Milligram quantities of about 300 **steroid compounds**, many of them unavailable commercially, are now available at no cost to U.S. scientists in biomedical research. The service is the result of an agreement between the National Institute of Arthritis and Metabolic Diseases and the Medical Research Council (MRC) of Great Britain, to give U.S. scientists access to the MRC steroid reference collection. The collection is intended to be a source of reference standards for biochemical work, and large amounts of steriods cannot be provided for macrochemical studies, nor will they be supplied for use as experimental drugs in human subjects.

Requests for samples or for further information should be sent to W. C. Alford, Room 225, Building 4, NIH, Bethesda, Maryland 20014. Requests should state the intended use of the compounds and should indicate, in milligrams, the minimum necessary for the proposed research. The samples will be mailed from England to the recipients.

The University of Kansas and the Universidad de Oriente (UDO), Venezuela, have begun a 2-year cooperative program to help the latter develop its school of **basic sciences.** The project will involve chemistry, physics, mathematics, and the biological sciences. It is expected to be of special interest to biologists because it will facilitate work at UDO's four campuses: Cumaná, in a dry coastal area; Puerto La Cruz, a moderately wet coastal area; Jusepín, which is inland and moderately dry; and Ciudad Bolívar, on the Orinoco River.

The University of Kansas has supplied faculty advisers to UDO and instructors to take the place of faculty members from the South American school who are now at Kansas completing their graduate training. Financial support is being given by the Ford Foundation and by the UDO. Additional information is available from the Project coordinator at Kansas, Daniel H. Janzen, College of Liberal Arts, Lawrence.

Pratt Institute, Brooklyn, recently announced plans for a **computer education center**. Initially the center will use existing facilities with additional equipment to be added as the need arises. Earlier this fall, the entire fac-