ment, for example, went from unranked to 28th among biochemistry departments in major American universities in quality of graduate faculty, and to 21st in effectiveness of graduate programs.

Back in the days when MSU enrolled mostly agriculture students and teacher trainees, science departments primarily taught "service" courses to undergraduates. Research was done in the agricultural experiment station, if at all. Engineering had firm roots, but even in this area MSU was known as an "applied school." Then in the later 1950's came the effort to build a research and graduate education capability. Science departments were strengthened, but they still did the teaching for everyone at the university—and this practice persists. Departmental baronies did not develop in the way they have at other universities, and it has therefore been easier to initiate interdisciplinary research and to accommodate the schools of medicine. Needless to say, the all-university department approach was used as a selling point with the legislature when the time came to discuss medical education. The argument could be made that MSU had the people it needed in the basic sciences and would not have to hire many more.

Medical education was being seriously contemplated at MSU in the early 1960's, but it was not until 1962, for example, that there was a biochemistry department. Most biochemists had worked in the chemistry department. The new department included the nucleus from chemistry, biochemists who had been associated with the College of Agriculture, and some new recruits to the university. MSU, of course, is not exempt from the collision of egos or the clash of priorities. One biochemistry professor recalls that when the department set up on its own, "the chemistry people felt association with the agriculture school would turn students off. And we did lose contact with other Big Ten chemistry departments." There also seems to have been an assimilation problem with some elements of the new department. But, says the professor, "After a few years of coexistence it evolved into an integrated biochemistry department." The ACE survey seems to support this view. The administrative arrangements under which the biochemistry department now operates indicate how the MSU system works. The department is jointly administered by the College of Human Medicine, the College of Osteopathic Medicine, the College of Natural Science, and the College of Agriculture and Natural Resources. Under the original agreement, Natural Science is mainly responsible for the undergraduate program and Agriculture for the graduate study. But it is generally agreed that the system works not so much because of formal arrangements as because of personalities and the habit of cooperation.

The department now teaches biochemistry courses to students of the College of Human Medicine and the College of Osteopathic Medicine separately. Biochemistry Professor James L. Fairley explains that "the osteopathic school had a going curriculum which they had worked hard to set up and we were willing to go along with it." The first biochemistry course for osteopathic students, says Fairley, is heavy on systems biology. They get 30 lectures in basic biochemistry at the outset. Over the next five terms, biochemistry is taught mainly in "minicourses" on special subjects.

For M.D. students, there was a two-term course in biochemistry. The College of Human Medicine curriculum has been changed substantially this year, and biochemistry will be taught in an initial 30-lecture cycle, with another 15 lectures at the end of the year. But the new curriculum stresses small-group learning, in a format called the "focal problem." Eight or ten students meet with preceptors representing the basic and clinical sciences and often the behavioral sciences; as the name implies, the group concentrates on a specific medical problem. Biochemists will be called on frequently to share the preceptors' role.

It would be simpler in many ways, of course, if the two schools of medicine had their students study biochemistry in the same way. Everyone involved agrees that there is no early prospect

Briefing

First Nonmedical Chinese Scientists to Visit U.S.

The Committee on Scholarly Communication with the People's Republic of China of the National Academy of Sciences in cooperation with the Federation of American Scientists (FAS) will be hosts for seven prominent Chinese scientists when they arrive on 20 November for a tour of the United States. The group will tour American research institutions and universities, probably including stops in Washington, D.C., Princeton, New Haven, New York, Boston, and San Francisco. The actual itinerary and length of stay of the Chinese, however, is yet undecided.

As with the group of Chinese doctors now touring the United States, the Chinese will be dealing with the NAS throughout the visit—a turnaround from their earlier refusal to deal with the academy because of its other activities involving Nationalist Chinese. For several months, the FAS has been serving as a communications link between the American scientific community and the Chinese authorities. Hence, the forthcoming visit is largely the result of diligent FAS groundwork with the Chinese. The scientists, their affiliations, and fields are:

Pei Shih-chang, delegation head, member, standing committee of National People's Congress, member of Presidium of the Scientific and Technical Association of the People's Republic of China (PRC), and president of the Institute of Biophysics of the Chinese Academy of Sciences; biophysics.

Pai Chieh-fu, deputy head of the delegation, member of Presidium of the Scientific and Technical Association of the PRC, leading member, Peking municipal bureau of science and technology; science administration.

Chang Wen-yu, vice president, Institute of Atomic Energy of the Chinese Academy of Sciences; high polymer physics.

Chien Wei-chang, professor at Tsinghua University; mechanics.

Chien Jen-yuan, council member, Society of Chemistry, research fellow of the Institute of Chemistry of the Chinese Academy of Sciences; high polymer physical chemistry.

Hu Shih-chuan, scientist at the Shanghai Institute of Biochemistry of the Chinese Academy of Sciences; biochemistry.

Li Fu-sheng, deputy director, research office, Shenyang Institute of Computing Technology, Chinese Academy of Sciences; computing technology.

Also in the party will be two Chinese interpreters and a secretary.—D.S.