not reproduce on their own and also that of the females that could and their offspring.

They focused on six genes that they found to be polymorphic, meaning that they exist in several different versions. The researchers found that the two copies of each gene were much more likely to be different in females able to reproduce parthenogenetically than in other *N. cinerea* females. The single moms "were a very specific subset of the population," says Corley, who is now at the University of Wisconsin, Madison. "It suggests that it's good to be genetically variable; it allows those individuals to be more flexible."

The researchers don't know why that is, although they speculate that, as in so many other species, individuals with a varied genetic makeup are less likely to suffer from genetic defects that reduce their vigor. After all, as Corley found, parthenogenesis is a struggle even for roaches that can pull it off. The females reared alone produced no live young from their first two batches of eggs, and when they finally did give birth, had just six or so progeny over their lifetimes. In contrast, females reproducing sexually have well over 100 lifetime offspring. "The difference in fitness is dramatic," Corley notes.

Sex is best. This cockroach can make clones, but with a partner it produces many more young.

Rudolf Raff, a developmental biologist at Indiana University, Bloomington, attributes the poor asexual reproduction to the reproductive machinery being "very creaky." It's set up to produce gametes with half the genome, he notes, and thus only rarely can individuals generate eggs with the full number of chromosomes. Thus, once sex evolves in an organism, going back to asexual reproduction becomes very difficult.

Neither Moore nor Corley know just why, but having both sexual and asexual behavior within a species should make the problem easier to study, Corley notes. Raff agrees: "[The cockroaches] could be quite useful for further studying this phenomenon."

—ELIZABETH PENNISI

U.S.–CHINA TIES

Biomedical Group Lobbies NIH

A delegation of Chinese scientists, some working in the United States, is urging NIH to boost its funding of research in China

LEXINGTON, MASSACHUSETTS—Adopting U.S.-style lobbying techniques, Chinese biomedical researchers are pressing the U.S. National Institutes of Health (NIH) to support a skein of collaborative projects aimed at advancing science and mending frayed relations between the two countries.

Last week a delegation of scientists from the United States and China met with top NIH officials in Bethesda, Maryland, to discuss such ideas as high-tech methods of analyzing traditional Chinese herbal medicines, research on human genetic variation, a scheme to create a genetic knockout mouse production center in China, and AIDS vaccine trials. The ideas were developed at an extraordinary gathering here the previous weekend, where more than a score of Chinese researchers met U.S. counterparts, along with NIH head Harold Varmus, to discuss research plans, renew contacts with expatriates, and make new connections. "Biomedical science can break the ice" produced by "an early winter between our two countries" brought on by recent allegations that Chinese scientists helped steal U.S. nuclear secrets, says Yiming Shao, an AIDS researcher from the Chinese Academy of Preventive Medicine, who attended both meetings.

Planting a seed. China's Peng Yu hopes Gerald Keusch and NIH colleagues will support research on traditional Chinese medicines such as the saw palmetto.

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The delegation, headed by deputy minister of public health Peng Yu, departed from NIH with no specific commitments from the Americans. But Varmus offered some encouragement when he said that science can bridge political differences. And Gerald Keusch, director of NIH's Fogarty International Center and organizer of the group's visit to Bethesda, described the 14 July talks as a "first step" that may lead to "concrete" agreements. "The way we left things," he says, "is that they would do some thinking about their highest priorities and we would think about ours."

Prospects for collaboration on genetic studies are already good, aided by new guidelines governing the export of genetic material, which the Chinese government adopted last fall (*Science*, 18 September 1998, p. 1779). Ming Tsuang, a psychiatric geneticist at Harvard University, announced at the Lexington meeting that he has been approved to receive samples and that "the system is working well." Since then at least one other transfer has been approved, according to Xiping Xu, a Harvard School of Public Health epidemiologist who, as president of the Boston, Massachusetts–based Association of Chinese Professionals in Biomedicine, helped organize the meeting.

To get a closer look at what China can bring to collaborative ventures, Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases, is heading to Beijing in September, and Keusch will be joining a group of National Science Foundation officials going to China in October. Last week Varmus announced plans to go to Beijing in November to join other Nobel laureates in celebrating the 50th anniversary of the Chinese Academy of Sciences.

But Chinese scientists are eager to get projects moving sooner. They tried to persuade Varmus during his visit here that NIH should invest more research dollars in China. Varmus listened politely but made no commitments. Keusch notes that NIH already backs several major collaborative projects in China, including a tropical diseases research center in Shanghai, a national study of cardiovascular disease, and AIDS prevention.

Although the mood in Lexington was optimistic, attendees acknowledged the tension between China and the United States. Cardiology researcher Jie Wang of Columbia University said he had been questioned by an FBI agent in February about his involvement with a group of Chinese scientists interested in drug development. He said he had ignored the incident on the advice of his university, but he asked Varmus what a person should do if "harassed" by an FBI agent over participation in "meetings like this."

Varmus responded forcefully: "Just let me know … I am ready to speak out." The words pleased the Chinese scientists, who hope that scientific collaboration will also warm the climate between the two countries.

—ELIOT MARSHALL