Doug Murphy

In 1978, Doug Murphy's lab at the Johns Hopkins Department of Cell Biology and Anatomy invited a Russian postdoc from Alexander Spirin's group to join them. The 1979 invasion of Afghanistan and the 1980 boycott of the Olympics, however, heightened the Cold War and prevented the exchange.

Since Russians could not leave the Soviet Union, the only alternative for scientific exchange was for US scientists to go to the USSR. Armed with a deep interest in foreign languages—he speaks three, including Russian—Murphy felt this was a good time to extend his life beyond the bench and do something on a human scale, so he went to Russia himself. Under the auspices of the National Academy of Sciences, he spent one month in the USSR. Amid bugged rooms and tight security, Murphy discovered that the official animosity toward US scientists was not shared by Soviet scientists. The Russian scientists were starved for US scientific news. Generally six months behind in scientific developments, nothing was trivial to them. "They wanted to know everything," says Murphy, "how the cultures differed, what the everyday life of a scientist was like—everything." Although life in Russia is far different from life in the US, Murphy discovered that Americans can easily identify with Russians because both are "warm and generous." That first visit led to six more visits in the following years, including one in 1985 where Murphy gave a lecture series entitled "The Molecular Biology of the Cytoskeleton".

With the beginning of glasnost, more Russian scientists were allowed to leave the USSR. Many, however, were disappointed with the lack of interest demonstrated toward them by the world's scientific community. This indifference, Murphy feels, was due to the perception that the contributions of Russian biologists were not as creative as those from other parts of the world.

In reaction to these strained relations, Murphy started the ASCB Program for International Cooperation in Cell Biology. With funding from the ASCB, he brought Russian cell biologists to the 1989 ASCB annual meeting in Houston. The program has grown and this year was supported by the ASCB, UNESCO, and NIH. With the additional funding, "eleven of the very best and brightest Russian cell biologists" attended the Boston ASCB meeting. Thirty to forty ASCB–member volunteers hosted the eleven visitors.

Through his visits and relationships with Russian scientists, as well as through the participation of the Russians at the ASCB meetings, Murphy has discovered that "Russian biologists are very bright, voracious readers and very strong academically. What they have lacked," he explains, "are opportunities for active participation." Since material support for cell biology is much more costly than for mathematics or physics, and the country's focus has not been on developing cell biology, Russian cell biologists have not had the research facilities and opportunities found in other countries, or that mathematical and physical scientists have had in the USSR.
Since the breakup of the USSR, conditions have not improved. "There's now been a brain drain," explains Murphy, "leaving behind a core of demoralized researchers who have had no money for supplies and chemicals for more than two years." Although many scientists who have emigrated or are visiting the US are receiving long-term assignments here, they are finding it difficult to compete for funds, lacking the experience necessary in successfully applying for grants.

With the opening up of the USSR, are exchange programs still necessary? "The problem now is completely different," Murphy explains, "Who is going to teach and train the future generation of scientists? How can they become competitive in a society undergoing such tremendous change? How can the Russian scientist inculcate better work habits and work ethics?" Russian scientific productivity has been low because it has been modeled on an economic and societal system which does not provide incentives for productivity. "Now the need for exchange programs is greater than ever because Russian cell biologists need the benefit of experiences in our labs and conferences," Murphy summarizes.

Other organizations have also been active in developing programs with the former Soviet scientists: the National Academy of Sciences maintains a program of exchange with the Russian Academy of Sciences; the Human Genome Project provides workshop training; the American Society for Biochemistry and Microbiology, the Mathematical Society, and the Geological Society have exchange programs as well. Now, more than ever, these exchange programs and the ASCB program are invaluable. Russian scientists attend meetings, share ideas, become reenergized, and are able to bring enthusiasm back to their labs.

Murphy joined the ASCB as a postdoc because "cell biology was the most exciting of the biological disciplines," and credits the Society with motivating him to continue in his present field. He is currently working on funding to bring Russian cell biologists to the 1993 ASCB annual meeting in Denver. Such involvement takes "a fair amount of time" that needs to be balanced with his day-to-day research, but providing scientific exchange at the annual cell biology meeting has stimulated research and enriched scientific careers and is well worth the effort, he feels. Russian and American scientists who have arranged collaborative research as a result of these visits would fully agree.