ASCB members know Robert Bloodgood, Chair of the ASCB Education Committee, for his outstanding work in the area of precollege science education. Bloodgood joined ASCB in 1974 and has been an active member ever since, attending each annual meeting because, as he explains, "nowhere else can you find the breadth and depth of cell biology."

His involvement in precollege science education, however, began for a more personal reason. As is true of many who become involved in this area, Bloodgood was concerned about the science education of his own children, now 12 and 7. "You become involved because of self interest," he explains, "and I was alarmed at the quality of science teaching, the lack of good labs, and the poorly trained teachers in the schools." He also saw lax accreditation guidelines and "recycled teachers" who were trained to teach other subjects, but put into the science classroom. "Local school systems have problems that mirror the whole K-12 nationwide problem," explains Bloodgood.

Bloodgood has seen a turnaround in the scientific community's involvement in precollege science education in the last five years. He attributes the increased interest to two main reasons. The first is that scientists have realized that a scientifically literate general public will more likely care about science and will support continued federal funding for scientific research. The second is the pipeline effect. "Scientists are concerned that as fewer and fewer people are going into science," Bloodgood explains, "and more scientists are reaching retirement age, there will be a shortage of good graduate students, postdocs, and even faculty members." According to Bloodgood, the same self-interest that has fueled the Congressional education effort is fueling interest in precollege science.

Bloodgood's activities at the local level evolved into his interest in the ASCB's Education Committee. Building upon the work of then-Chair Ken Miller, the Committee under Bloodgood has increased the number and scope of its activities. The ASCB Summer Research Teacher Fellowship Program, for example, started under Miller, has now expanded to provide 26 fellowships this year and has attracted $144,000 in outside funding. These fellowships allow high school science teachers to work in the labs of research scientists for 10 weeks during the summer. With their hands-on experiences fresh in their minds, the teachers then go back to their classrooms with renewed vigor and, in turn, provide in-services for other teachers. Although Bloodgood sees tremendous merit in the program, he wonders if this is the best use of time. "We know it is valuable to the teacher," he notes, "but is it valuable to the student?" The NSF, which provides funding for 20 of the fellowships (one is funded by the Society for Developmental Biology and five by the RGK Foundation) shares that concern and is now requiring more professional tools to assess the programs' effect on student learning. There are already individual scientists who are working on some of these assessment questions, including Sam Silverstein who is planning to bring together summer research directors in an effort to standardize criteria by which programs can be evaluated. Also at the urging of NSF, ASCB's Fellowship Program now asks for school administrations to commit to the
teachers' efforts by agreeing ahead of time to allow release time or funds that will permit the teachers to disseminate to students and other teachers what they've learned.

The program, according to Bloodgood, is as large as it can become and still remain manageable. He feels that the best way to expand this program is to clone it, something that several other scientific organizations, such as the American Association of Immunologists and the American Society for Clinical Investigation are already doing. The one shortcoming of ASCB's program is its success in attracting minority applicants. Bloodgood is currently working with other societies and with the ASCB Minorities Affairs Committee to find ways of better reaching interested minority science teachers.

Searching for funding of these programs takes an enormous amount of time and effort, according to Bloodgood. "Applying for this NSF grant," Bloodgood explains, "really opened my eyes to how many people out there are spending time working on this." He sees an urgent need for a networking system, one that links together societies and sets up networks at the local level, much like the Legislative Alert Committee, where one can go to find information so as not to "reinvent the wheel each time."

In addition to the ASCB's highly successful Fellowship Program, the Education Committee this year became involved in outreach efforts and sent representatives to the National Association of Biology Teachers (NABT) conference to conduct a symposium. The effort was very well received and will continue in 1992. The Committee has also become involved in a databank program with the NABT. In response to a questionnaire sent to ASCB members, 400 responded that they would serve as mentors to interested teachers. These names will now be kept on file at the ASCB and NABT where they can be matched up in various ways with teachers from all over the country.

Bloodgood derives a great deal of satisfaction from his involvement in science education. His advice to those interested in working in this area is to start at the local level. "The great thing about volunteering for something," he explains, "is that you can put into it as much or as little time as you wish."