

Political advocacy by the American Society for Cell Biology and its partners

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ABSTRACT I trace how the American Society for Cell Biology became a strong political advocate for the scientific community. I celebrate how good leadership and an effective staff enabled its energetic volunteer organization to have an impact, but I also ask how the effort can be made more successful.

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Many scientists take for granted that their scientific societies advocate for the well being of their individual members and the health of science. However, advocacy is a relatively recent development that emerged over the past two decades. Advocacy is essential in a democracy because science competes for taxpayer dollars with every other activity supported by the federal government. Advocacy is also important to ensure that lawmakers adopt sensible policies. I review how the American Society for Cell Biology (ASCB) and its allies learned how to fulfill this obligation, and I ask the reader to join the effort. The objective of these advocacy efforts is to influence political decisions through education and information, but the efforts by scientific societies are completely nonpartisan. Support from both political parties is essential to meet our goals.

During the 1970s and 1980s biomedical scientists discussed federal funding and public policies that affected our science. Each year the public policy staff of the Federation of Societies of Experimental Biology (FASEB) helped member

societies reach a consensus recommendation on the level of federal funding for the biosciences. However, we tended to talk to ourselves because we lacked effective ways to communicate with politicians or the outside world. For the most part we relegated the responsibility for advocacy to medical school deans and presidents of research universities. Their professional associations—the American Association of Medical Colleges (AAMC) and the Association of American Universities (AAU)—generally did a reasonable job of representing the interests of the scientists who worked at their schools.



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HOW ASCB ENGAGED IN ADVOCACY

ASCB got involved with advocacy in April 1988 when I was President of the organization. The Society was small but ambitious, with a growing staff managed by Executive Director Dorothea Wilson. The Council discussed whether to hire someone to work on public policy. As with all Society councils, we were concerned about how to pay for an extra person and whether the investment would pay off.

I suggested an experiment to hire a staff member to work on public policy for one year. The motion passed, and since then the Society has rarely questioned the value of being in the public policy business. We have had the help of three fabulous staff members. Julie Taylor was first, followed by Tim Leshan for approximately seven years. Kevin Wilson has been our Director of Public Policy for more than a decade.

The original concept was to focus on public policies that affect science, but circumstances that descended upon us in 1989 escalated the task to one of political advocacy. We were confronted with a toxic mixture of two problems. First, after increasing steadily, the number of R01 research grants from the National Institutes of Health (NIH) plateaued in 1989 and appeared to be

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Abbreviations used: AAMC, American Association of Medical Colleges; AAU, Association of American Universities; ASBMB, American Society for Biochemistry and Molecular Biology; ASCB, American Society for Cell Biology; CLC, Congressional Liaison Committee; CLS, Coalition for Life Sciences; FASEB, Federation of Societies of Experimental Biology; JSC, Joint Steering Committee for Public Policy; NIH, National Institutes of Health; NSF, National Science Foundation.

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going into decline. The second blow was a proposal from AAMC and AAU to increase indirect cost rates on research grants. Given constant or declining total funds for research, their proposal would have allocated a larger fraction of the total grant money to overhead, leaving less for the labs. Of course, it is appreciated that institutions lose money on every grant that they accept, but investigators felt threatened by the likelihood of declining overall funding and our leaders' proposal that our institutions should take a larger fraction of the pie. This schism of interests made it clear that scientists needed to be their own advocates.

These threats drove ASCB and its partners into action at a meeting at FASEB at which I represented ASCB. A group of scientists, including my Johns Hopkins Medical School colleague Dan Lane representing the American Society for Biochemistry and Molecular Biology (ASBMB), considered how to respond to the proposal to increase the rate of indirect cost reimbursement. A subset of the societies, including ASBMB and ASCB, decided to go public with a press release critical of the AAU/AAMC proposal on indirect costs. I believe that this was the first public stance on a political issue taken by ASCB. This action catalyzed our collaboration with other societies and put bench scientists at odds with our institutional leaders.

FORMATION OF THE JOINT STEERING COMMITTEE FOR PUBLIC POLICY

The next pivotal event took place in 1990 when ASCB and ASBMB decided to hire a professional to help us educate Congress. That decision was a huge departure from anything our societies had done before. ASCB President-Elect Marc Kirschner and ASBMB President Dan Lane organized the search. One candidate, retired Congressman Peter Kyros, stood out from the established Washington, D.C., lobbying firms with a proposal that our societies should sponsor a Biomedical Research Caucus in Congress for scientists to explain their work and its value for society. The idea was that better information about biomedical research would help Congress justify healthy appropriations for NIH, the National Science Foundation (NSF), and other agencies that support fundamental scientific research.

The societies hired Kyros, and Kirschner organized a committee of the sponsoring societies to advise him. The founding members of this Joint Steering Committee for Public Policy (JSC) were the American Association of Anatomists, ASCB, ASBMB, and the Biophysical Society. The group changed its name to the more descriptive Coalition for Life Sciences (CLS) in 2007. ASCB has continuously sponsored JSC/CLS as other member societies have come and gone over the years. Current members are ASBMB, ASCB, the American Society for Clinical Investigation, the Genetics Society of America, the Howard Hughes Medical Institute, and the Society for Neuroscience, collectively representing more than 60,000 scientists. Staff members from each society have worked with the CLS leadership to coordinate activities.

JSC/CLS has used three approaches to advocate for the biomedical research community. First, Kyros helped Members of Congress organize the Congressional Biomedical Research Caucus (www.coalitionforlifesciences.org/cbrc) with the goal to increase interest in biomedical research among lawmakers. At the time pundits in Washington predicted that the Caucus would last less than six months, but it is going strong 22 years later and has been called one of the most successful nonpartisan caucuses in the House of Representatives. To date the Caucus has sponsored talks by almost 300 biologists attended largely by congressional staff but also by interested lawmakers and members of the scientific establishment in Washington.

The success of the Caucus can be attributed to outstanding leadership. Kyros's friend Republican Congressman George Gekas from Pennsylvania took the lead in the House and built the group to a steady state of approximately 100 members. The current Cochairs of the Caucus are Brian Bilbray (Republican, California), Rush Holt (Democrat, New Jersey), Jackie Speier (Democrat, California), and Charlie Dent (Republican, Pennsylvania). Over the years the leaders of the Caucus have advocated for biomedical research inside Congress with "Dear Colleague" letters on key issues to their fellow lawmakers. Harold Varmus handpicked scientists to visit Washington until he became NIH Director in 1993. Then Mike Bishop took over as scientific advisor to the Caucus for almost 15 years. Our community has been blessed that these two prominent scientists volunteered their time to make the Caucus a success. Virtually everyone they asked agreed to participate in the Caucus.

In a second approach to advocacy, JSC started a grassroots network of individual biological scientists to advocate for the community by engaging with politicians on scientific issues. We called the network the Congressional Liaison Committee (CLC). We gathered about two thousand participants from the JSC societies. Initially communications were challenging because we had to rely on faxes sent in the middle of the night to keep costs down. All over the country our volunteers would find faxes in their offices the next morning asking them to help with our issues. Communications now flow freely thanks to email and social media.

I learned from my wife's nonpartisan political groups in Maryland that success in advocacy depends on energetic staff to ensure that volunteer members take action, so JSC hired its first staff member, Alec Stone, in the early 1990s. In addition to managing the network, he ramped up CLC activities in a few key states, including North Carolina, Pennsylvania, and New York. Mike Bishop and I raised money from institutions in California to hire Michelle Grifka to staff the CLC in the western states for four years in the late 1990s. For the past seven years Lynn Marquis has been doing a superb job as CLS Director. She maintains the CLC membership, organizes the Congressional Caucus events, coordinates the activities of the member societies, organizes visits by groups of biologists to Capital Hill, and represents the coalition as a member of influential policy groups in Washington. About 3600 biologists currently participate in CLC and last year sent more than 6000 letters to Congress. To date, the CLS has sponsored visits to Washington by more than 200 biologists.

Third, JSC/CLS has taken public positions on important issues. The first position was to oppose raising the indirect cost rate on grants. This divisive proposal disappeared for almost two decades but has recently reappeared in even more troubling times for bench scientists. (See recommendation 5 in National Research Council Committee on Research Universities, 2012.) The most important public position from JSC was a pivotal opinion piece by Bishop, Kirschner, and Varmus in *Science* proposing that the NIH budget be doubled in five years (Bishop *et al.*, 1993). Through hard work by many individuals, including Peter Kyros and many organizations, this dream came true between 1998 and 2003, accounting for the current size of the NIH budget.

JSC/CLS has benefited from strong leadership. Kirschner was the energetic, inspirational founding Chair. He established a board including representatives from the participating societies and an equal number of at-large members, who have volunteered their time. Eric Lander, Harold Varmus, and Keith Yamamoto followed Marc as chair of the JSC/CLS Board. In 2009 President Obama named Eric and Harold as Cochairs of the President's Council of Advisors on Science and Technology, so our modest

volunteer coalition placed two of our leaders as advisors to the White House.

Our mentors in advocacy were Peter Kyros and his colleague Bell Cummins, now both deceased (Washington Post, 2012). Ex-marine and former Congressman, Peter was a delightful, crusty guy, and Bell was a brilliant lawyer. Although some scientists worried about working with a lobbyist like Peter or found Bell to be a bit too gaudy, these two people poured their hearts and energy into our cause and had an uncanny sense about how to navigate the political system.

ASCB has provided office space and support for JSC/CLS. ASCB Executive Director Elizabeth Marincola provided leadership as JSC Executive Director from 1991 until her departure from ASCB in 2005. Joan Goldberg succeeded Elizabeth as ASCB Executive Director and was a wise voice in CLS affairs. ASCB has been blessed with exceptional executive directors—Dorothea Wilson, Elizabeth Marincola, and Joan Goldberg, all masters at making our volunteer organization work by “leading from behind.” Rather than take personal credit for the success of the Society, they worked tirelessly to help volunteer members do their best and receive credit for work well done. They helped busy scientists by organizing activities, drafting materials, prompting members to meet deadlines, facilitating interactions, managing the society’s staff, and helping to build coalitions.

ASCB PUBLIC POLICY

In addition to working with other societies on advocacy through JSC/CLS, ASCB has had its own public policy effort focusing on issues of particular concern to our members. One example is stem cell research, with regard to which ASCB has advocated politically and legally for the value of stem cell research and sensible federal management of the work. The strength of this effort has been to ground arguments about policy on scientific knowledge about the challenges and potential benefits of stem cell technology. Kevin Wilson amplified our effect on the stem cell issue as a leader of an influential Washington coalition of like-minded groups called the Coalition for the Advancement of Medical Research. The ASCB Public Policy Committee has had strong leadership and many outstanding members. The Society recruited nonmember Paul Berg to lead the Committee for nearly a decade. Larry Goldstein, Doug Koshland, and I carried on in Paul’s footsteps.

CURRENT THREATS TO BIOMEDICAL RESEARCH

Most biologists are discouraged about the negative, partisan mood in the country. With the exception of stimulus funding from the American Recovery and Reinvestment Act of 2009, NIH budgets have declined in purchasing power over the last decade, just when technical and conceptual breakthroughs have opened vast opportunities for biologists to contribute to society through discoveries and innovation. We face several problems: the worldwide economic recession; a shortage of champions for biomedical research in Congress; and an unsustainable model for funding biomedical research.

The poor economy is damaging the research community because declines in tax revenues fortify arguments from conservative politicians to cut appropriations for research, just when the government should be investing in research to stimulate the economy. The cost of research to understand mechanisms of disease is far less for society than that of treating chronic conditions such as diabetes and neurodegenerative diseases. As federal dollars for research stagnate, labs shrink in size, job prospects for postdocs diminish, and young people, particularly underrepresented minorities,

decide against careers in biology. For decades opinion polls by Research!America revealed that a majority of Americans would pay higher taxes if they were to go for biomedical research (Research!America, 2012), but some politicians are not listening. We must hope that the economy recovers.

Concerns about funding are not new. Every year Peter Kyros warned us “this is going to be a really tough year” until late in the annual appropriations process, when a powerful member of Congress would rescue the NIH budget. For years Representative John Porter (Republican, Illinois) was our champion. Subsequently Senator Arlen Specter (Republican, Pennsylvania) single-handedly looked out for NIH (including the \$10 billion bump for NIH in the American Recovery and Reinvestment Act). We sorely miss both of these friends in Congress. Senator Tom Harkin (Democrat, Iowa) is our current champion, but he needs help, particularly in the House of Representatives. The scientific community owes a great debt to these advocates in leadership positions, as well as to many rank and file members of Congress, who have traditionally made investments in research a high priority for the country. We must hope that more champions emerge in Congress to counteract an emerging cultural war. Some politicians run on anti-intellectual platforms that turn academics and scholars into enemies. We can be thankful that most citizens are on our side, given that opinion polls of U.S. citizens still rank scientists near the top in respect (Masci, 2009), whereas politicians rank near the bottom (Cooper and Thee-Brenan, 2011).

The U.S. model for supporting biomedical research has some fundamental weaknesses that contribute to cycles of boom and bust. Many medical schools and independent research institutes depend on NIH to pay a substantial part of faculty salaries, and all institutions finance research buildings with indirect costs recovered on research grants. Federal policies promote both behaviors. An accounting practice (the “contributed effort penalty”) penalizes institutions for paying faculty salaries for effort expended on federally funded research. In the 1970s the federal government stopped making grants for construction of research buildings in favor of reimbursing debt payments and depreciation on research facilities as indirect costs on grants. During good economic times these policies incentivize institutions to use federal funds to expand facilities and staff, only to leave them overbuilt and overstaffed when the economy sours. Bruce Alberts highlighted these issues in an editorial in *Science* (Alberts, 2010). To make the system more sustainable, several studies (National Institutes of Health, 2008; American Academy of Arts and Sciences, 2008; Biomedical Research Workforce Working Group, 2012; National Research Council Committee on Research Universities, 2012) propose that the system be adjusted over the next decade or two with institutions taking more responsibility for construction and faculty salaries. The ASCB Public Policy Committee supports these efforts.

WHAT CAN YOU DO?

Individual scientists must consider how they can help their cause (also see Pollard, 2012). First, each ASCB member should participate in the society’s advocacy efforts for strong federal support of biomedical research. Join the Congressional Liaison Committee (www.coalitionforlifesciences.org) and respond to requests to inform your elected officials about the value of biomedical research. The CLC has 3600 members, but that is only 6% of the 60,000 people in the sponsoring societies. A second option is to join Project 50, the ASCB Public Policy Advocacy Team

(www.ascb.org/project50). Given our dire circumstances, more members of our community must participate, and every scientist should encourage their U.S. Representative and Senators to champion our cause.

Second, as proposed by Larry Goldstein (Goldstein, 2010), every applicant for federal funds should write his or her members of Congress when a decision is made about funding a grant application. Larry calls this concept Congress 111. If the grant is funded, one should thank Congress for appropriating the funds. If the application is not funded, one should explain the effort put into the application and the effect of the lack of funds on research and employment in the laboratory. I hope we can make Larry's feedback loop a routine part of the federal funding process.

I am by nature an optimistic person and proud that ASCB and its partners have made a difference through advocacy. However, we have not come close to my original goal that biologists would be recognized publicly as strong advocates for federal funding and rational policies. Although I oppose the positions of the National Rifle Association (NRA) on firearms in our society, one must be impressed with their influence in American politics. Given the superior value of our cause, if our advocacy were 1% as effective as that of the NRA, biomedical research would undoubtedly thrive. The unanswered question is "Why are members of the NRA more concerned about regulations of firearms than biological scientists are about their financial and professional well being?"

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