

Photo: Reidar Hahn, Fermilab



An open letter to the US HEP community

I have spent the past year at the Department of Energy in Washington, DC, as Scientific Advisor to Robin Staffin, the Associate Director for High Energy Physics. I will not be staying as long in this role as I had planned; this fall I'll be taking up a new responsibility at the Rutherford Appleton Laboratory in the United Kingdom. However, everything I have seen at DOE has convinced me that it is absolutely imperative for high-energy physicists to get involved at DOE and the National Science Foundation. The agencies need our help; they know this, and they want it.

We physicists dream of dramatically expanding our knowledge of the fundamental nature of the universe, a dream requiring substantial investment in big facilities. By and large, the public finds the dream inspiring, and the investments worth supporting. In America, that support is manifest in congressional appropriations for the DOE and NSF. These two agencies support most of the science that we do, and to Congress they form a big part of our visible face. Yet to most physicists they are an unknown, foreign country, seldom visited; definitely a "them," not an "us".

Of course, there are real differences between the physics community and the parts of the agencies that manage the

program. But different viewpoints do not necessarily mean fundamentally different goals. Any argument between the two constituencies is just another kind of "shooting inwards." Just like allies fighting the same war, good communication is the key. We can spend—we have spent—a lot of time talking past each other. The community needs to invite the agencies inside their thought processes, and vice versa. An obvious way to accomplish both is for scientists to get involved in the agencies: to understand how things work there, and to explain how things look different in the universities and labs.

In the field, we expect planning to be done from the bottom up—driven by the physics we want to address. We'd like it to be open, even if this comes at the cost of appearing chaotic, and we tend to think the scientists' priorities are the driving force. We believe that when a good idea appears, it should be funded. In contrast, in Washington it seems that planning is often done from the top down, more driven by available resources than by science. The process is not widely discussed, even at the cost of appearing secretive; and there is a tendency to think more about facilities than about scientists. It is also very easy for any government agency to see its appropriate role as being one of oversight rather than of advocacy. Indeed, good oversight is necessary when large amounts of public money are involved. But left unchecked, tight oversight can drift into a worldview where it seems that the more you can hold back the "crazy, expensive" dreams of the scientists, the more likely you are to get promoted. Good oversight must be balanced with a desire to actually do the science we want to do. One way to do this is to involve

more of the people who have a passion to do the science—and that's you.

What I am asking you to do is to consider spending some time in the program offices at DOE or at NSF. Both agencies are always looking for physicists, at all levels, interested in temporary assignments (and indeed in more permanent arrangements). I know from my own experience that they are receptive to our input: Yes, you can change things! I also know that it's sure to be a bit of a culture shock (on both sides), and that many of your stereotypes of Washington will be confirmed—which underscores the need to be there and to be involved.

The bottom line in my decision to spend some time at DOE: We all understand, I think, that many of the biggest issues confronting us as a field reside not in our universities or our labs but in Washington. Will we sit by, perhaps hoping for the best, but usually complaining when things happen that we don't like? Or will we do something proactive? The proactive path is to get involved in the process. At worst, you will learn a lot about the funding and oversight of our field in the United States. At best, you can have a real, positive impact on its future.

John Womersley

John Womersley has spent the past year on assignment from Fermilab to the DOE Office of High Energy Physics. He will shortly take up an appointment as Director of Particle Physics at CCLRC Rutherford Appleton Laboratory, United Kingdom.