



Donna Hudson

foundations of innovation

This is my final column as the IEEE Engineering in Medicine and Biology Society (EMBS) president. During the past years, I have had the opportunity to work with many EMBS members and to receive a variety of perspectives on what we do, what we should do, and what we could do differently. As you may guess, although some consensus exists, our members have many different views on EMBS. We can profit from these perspectives and continue the task of improving our Society for the benefit of our members and the profession.

Continuity

One of the challenges of an organization that is run by volunteers is continuity. Continuity can be both a blessing and a curse. We cannot afford to reinvent what we do with each new set of leaders, but we must also not let our historical way of doing things interfere with innovation. This is the same balance that most of us must maintain in our daily lives as professors, researchers, industry leaders, and students. The tricky part is to determine what to preserve and what to change.

Fortunately, the organizational structure of EMBS allows for a built-in continuity. The major basis for continuity is our Executive Office. Although the Executive Committee (ExCom) and the Administrative Committee (AdCom) change to some extent each year, the Executive Office maintains the memory of past successes (and failures) and attempts to keep us from reliving past errors (perhaps not always successfully!). Other sources of continuity are embedded in the structure of our leadership. One third of the AdCom is up for election each year for a maximum of two terms; therefore, at any given time,

we have AdCom members with experience. The ExCom terms are for two years, except for the president-elect and the past-president, which are one-year terms. However, the four-year sequence of the presidency allows for one year of learning from the previous president, two years as president, and one final year for guiding the new president.

In the last few years, we have added additional components that improve continuity. The first of these was the establishment of technical committees that provide a basis for coordinating our activities related to publications and conferences. The technical committees provide a vital resource that is particularly important because of the interdisciplinary nature of bioengineering. New committees continue to be added to accommodate new technologies.

This year, a conference editorial board composed of editors and associate editors was established for the purpose of reviewing papers for the annual conference. For the 2008 conference, 15 editors, 90 associate editors, and 1,257 reviewers participated. The editorial board will provide needed continuity for the technical program of the annual conference. This year, we have also begun the development of a conference organizers' manual that will assist volunteers in the difficult task of organizing the annual conference and also help to maintain institutional memory. It is hoped that this manual will reduce the load for completing mundane organizational tasks and allow the conference organizers to focus on innovative sessions and activities.

Innovation

Although we have provided for continuity in the initiatives described earlier, we have been careful to leave room for innovation. The 11 established themes

for the annual meeting can be augmented with additional themes to focus on emerging technologies that may in turn become standard themes in the future. The scope of the existing themes is also broad enough to accommodate innovative approaches within each theme.

Over the years, we have maintained our traditional publications and have also been eager to add new transactions for the emerging areas, either as EMBS publications or as joint publications in conjunction with the other IEEE societies. We are also working with many other IEEE societies on publications, conferences, and other activities through our Special Interest Group (SIG).

I have been fortunate to visit some of the EMBS local Chapters during my term as president, and I am sorry that because of time and geographical constraints, I could not visit more Chapters. The local EMBS Chapter leaders and members allowed me to view EMBS from a broader perspective that focused on activities apart from our conferences and publications. Although our member and student activities are the backbone of the EMBS, because of our worldwide membership, it is difficult to keep in close contact with all the vital activities in which our members participate. These visits have indeed made it clear to me that our most important tool for innovation is our membership, whose expertise spans the broad domain of bioengineering.

I would like to thank the ExCom, the AdCom, the EMBS Executive Office, the Chapter officers, and all EMBS members, who, as a whole, define EMBS and its future. It has been a pleasure and an honor to serve as the EMBS president. I thank each of you for your support, your suggestions, and your dedication to our profession.