EDITORIAL

The Protein Society: Celebrating 20 years in 2006— The founding and early years

A person is clearly identified as “old” when he begins to get requests to write a history of an organization with which he has been associated for many years. So it was not exactly a surprise when The Protein Society requested that I write a history of the Society and its journal upon the occasions of the 20th yearly American Symposium of The Protein Society and my announced retirement as Editor of *Protein Science*, since I have been active in both throughout their entire histories and am certifiably at an age that most of the attendees of the 20th Symposium will consider advanced.

The Protein Society grew out of a meeting in the fall of 1985 of an *ad hoc* group led by Ralph Bradshaw (UC Irvine) and Garry Merry (then with Applied Biosystems). Ralph enlisted half a dozen scientists to serve as a program committee and charged us with inviting enough speakers to fill a three-day program. No support was provided to any of the attendees, whether speakers or not. The group was calling itself “American Protein Chemists,” and there were some prior discussions about the possibility of forming a satellite Society associated with the American Society for Biochemistry and Molecular Biology.

The meeting was scheduled at the Omni Hotel (now the Marriott) in San Diego, and Applied Biosystems provided the guarantee for the hotel. The organizers hoped to get 250 participants, and about 450 showed up, making the meeting a financial success. The environment around the hotel was not at all similar to the site today. The S-shaped hotel stood very much alone in an old, decaying industrial district, with no gaslight district, just the beginnings of Seaport Village, and no associated convention center. It was really isolated.

The meeting was a very stimulating event. The program committee made a deliberate effort to secure good speakers covering the widest possible spectrum of protein science, not just “protein chemists.” The scientific sessions were interspersed with discussions of forming a Society or a satellite to another Society, having annual or biannual meetings, launching a new journal, and many other topics. Enthusiasm seemed to build daily, and by the end of the meeting there was a strong consensus to form an independent Society. Emil Smith vigorously advocated yearly meetings, which was accepted by the group subject

to financial considerations. A *pro tem* Council and officers were appointed to serve until the Society was incorporated and a proper election held. Ralph Bradshaw was designated the President and Garry Merry the Secretary/Treasurer *pro tem*. A long debate took place over whether or not a new journal should be considered. I clearly remember taking the stance that the world already had enough biochemistry journals and that we should be engaged in improving the quality of the existing ones rather than adding to the list, an ironic position for me given succeeding events!

Ralph Bradshaw continued to lead the incipient Society with great vigor in the interim between the 1985 meeting and the formal formation of the Society. His leadership and vision on the Council after the Society came into existence was also essential to the eventual success of the venture. Ralph has an inexhaustible supply of energy, and he focused it on The Protein Society in the several years when it was more “idea” than fact. His influence with other Societies and colleagues rescued the infant from an early death by bankruptcy. His contributions definitely warrant the descriptor “Father of The Protein Society.”

The articles of incorporation were signed in February 1987, and the First Symposium of The Protein Society was scheduled for that summer at the Sheraton Harbor Island Hotel, San Diego. The meeting was budgeted on an expected attendance of ~450, similar to the 1985 meeting. About 650 scientists registered, making the first official symposium a great financial success. Officers were elected prior to the meeting by mail ballot of the attendees of the planning meeting. David Eisenberg was elected President; Finn Wold, President-elect; Ken Walsh, Secretary/Treasurer; and Councilors, Ralph Bradshaw, Gerald Fasman, Robert Hill, Garry Merry, Hans Neurath, and Emil Smith. Ken took on what was certainly the most strenuous task. The Society engaged the services of professional meeting organizers who handled contractual arrangements with the hotel and other vendors, but the bulk of Society business (membership, dues, publicity, etc.) for the first several years was run out of Ken Walsh’s office with the assistance of one person from the University of Washington conferences office—surely one of the most efficient Society operations in the history of such organizations. Thanks, Ken!

At this point, I must digress a bit. I am still convinced that my most important contribution to The Protein Society was convincing David Eisenberg to drive down the coast to be a speaker at the 1985 meeting. I had never met David in person, but I thought his writings on the characteristics and structures of membrane proteins were at the forefront of the field at the time. He told me, "I'm not a protein chemist." I explained that we intended the meeting to be broadly representative of the science of proteins, and he agreed to come. He became more and more excited about the prospects for the incipient Society as the meeting went on, and his wisdom and vision were key elements in the success of the Society in its formative years.

The banquet speaker for the First Symposium was Daniel Koshland, certainly a person who did not need to establish his credentials as a protein scientist with anyone in that audience. This was at a time in the history of biochemistry when "molecular biology" (meaning cloning and manipulating DNA) was reigning supreme, and a lot of incoming graduate students were not much interested in the old-fashioned study of proteins. Dan, with his superb wit and mastery of the English language, fed a most appreciative audience a diet of raw meat, poking fun at the supposed ignorance of cloners of the characteristics of proteins and pointing to the time (which came very shortly) when they would have to enlist the arcane talents of protein scientists in order to make sense of their experiments. It was great fun.

At the 1985 *ad hoc* meeting, Emil Smith gave a moving tribute at the banquet to the pioneering work of William Stein and Stanford Moore, so it was most fitting that the Society in its first year initiated the Stein and Moore Award to recognize outstanding achievements in the field of protein science. And it was further very appropriate that the first recipient of the Award at the First Symposium in 1987 was Emil Smith. Professor Smith invited Russell Doolittle, Robert Hill, and Alex Glaser to join him as speakers in the first Stein and Moore Symposium launching a feature which has been part of every American Symposium of the Society since then.

The Second Symposium was also held at the Sheraton Harbor Island Hotel in the summer of 1988. The organizers demonstrated the generosity and universal viewpoint of The Protein Society by inviting Walter Gilbert to speak at the banquet on the topic "The future of the human genome." I'm sure that most in the audience felt that Dr. Gilbert's vision and predictions of the near future were well beyond mere optimism, verging on "pie in the sky." In retrospect, they were really conservative; the triumph of the human genome project came much faster and with far more major surprises than anyone could have imagined in 1988. The program book from the Second Symposium states, "Smoking is discouraged, but is

permitted in the last five rows of the sessions. Smoking is not permitted in the poster areas." Times have mercifully changed! About 900 scientists attended the meeting, another record.

The Third Symposium was held on the University of Washington campus in the summer of 1989, our only trip to a campus. While the site was lovely and the lecture rooms ideal amphitheatres, the exhibit and poster space was inadequate and not conveniently located to the lectures. It was also clear by then, with ~1200 scientists plus exhibitors in attendance, that we would have to find bigger sites. A real highlight of the Third Symposium was the banquet speech by Linus Pauling, then age 88. Pauling began by telling his scientific life story, focusing first on some work he did in his student days on vitamin A, followed by some interests in the vitamin B complex. By this point the audience was holding its collective breath, assuming that we were about to be given a lecture on the unparalleled attributes of vitamin C, a controversy in which Pauling was engaged in the latter years of his life. He was toying with us; he moved smoothly from the vitamins B to immunoglobulins and on to some of his famous contributions to protein science like the α -helix. Long lines of scientists formed after the banquet to have Dr. Pauling autograph the program (I have his signature on mine).

I believe, but may not be correct in this, that it was also at that banquet where outgoing President Eisenberg showed a slide of his analyses of the geometrically-increasing databases of protein and DNA sequences and protein structures. He extrapolated the curves to 2010, way beyond anything anyone in that audience was willing to believe, and announced that all of the genomic sequences of all the organisms in which anyone was at all interested would be available at that date (along with the translated protein sequences, of course), but that the protein folding problem would still be unsolved. David may yet be proven right, even on a subject on which he was not intending to be serious!

The final decision to launch a journal was made at the Fourth Symposium in San Diego in 1990. Hans Neurath was announced as Founding Editor, a position in which he had clearly been successful over the previous 30 years as Founding Editor of *Biochemistry*. Editorial offices were established for Louise Johnson in London, Ralph Bradshaw in Irvine, Tony Hugli in La Jolla, Christopher Walsh in Boston, and Rachel Klevit and Hans Neurath in Seattle. Papers were received for review in 1991 with the first issue appearing in January 1992. A notable innovation accompanying the journal was the inclusion of 3.5 inch floppy disks with each issue containing electronic supplementary information, particularly Kinemages, created from molecular graphics software written by Jane and David Richardson. In these days of the internet and

superfast computing, it is hard to remember how impressive those images were on the computers of the day and how significant an advance it was to have sophisticated graphics work on a desktop computer. The 1990 Symposium was a real success in one sense in that a record number of attendees (about 1250 scientists) and exhibitors were present. It became quickly apparent that the Sheraton Harbor Island Hotel was not up to the crush. The exhibit area was in the parking garage below the hotel. It was exceedingly crowded, and the week before a different sort of convention had been there which involved some cattle. The after-effects of their visit were readily apparent in the exhibit area to anyone with even half a sense of smell, not exactly the ambience we had hoped! The posters were so crowded that it was almost impossible to walk through them.

Clearly, the Society had outgrown the hotels of the day, especially with respect to exhibit space. So, the 1991 meeting was scheduled in the new harbor convention center in Baltimore, and we met in convention centers in San Diego and Boston throughout the remainder of the 1990s, with one exception: we got evicted from the San Diego Convention Center on 11 months notice in 1996 when the Republican Party bought the whole facility for their nominating convention. Fortunately, we were able to secure space in San Jose that year in spite of the short notice.

During the 1990s, convention centers grew huge (and expensive!), while Protein Society meeting attendance remained in the 1000–1200 scientist range. In the meantime, many hotels added convention space within the hotel, and in 2001 the Society went back to holding its meetings in hotels.

I assumed the office of President of the Society at the Baltimore meeting in 1991. A very notable change in Society administration took place at the end of that meeting when I drove down to Bethesda and signed a contract for meeting and Society administration with FASEB. Prior to that, the Society had kept its own books, a major commitment on the part of Ken Walsh as Treasurer, and we had hired meeting organizers in several ways. Bringing in the experienced help of FASEB for those functions was a real step forward in managing the Society activities on a more organized basis. We hired Robert Newburgh shortly thereafter (1995) to be the Executive Director of The Protein Society, an office he held until 2003, when Cynthia Yablonski assumed the duties.

I refer those of you who wish to peruse the events of the middle 1990s to ~2004 to a nice article entitled “Reminiscences” by Executive Director of The Protein Society, Robert Newburgh, on the occasion of his retirement (*Protein Science* 2004, **13**: 1953–1956). In his article, Bob recounts the highlights of the various Symposia both in America and in Europe during those years.

I have attended every American Symposium of The Protein Society and have only missed two European Symposia, so I assume that I am in a position to comment on the nature of the Society and its activities over the years. Clearly, there was a perceived need to form the Society in the middle 1980s, in spite of the view of some biochemists that the new means of employing cloning to produce and change proteins at will would supersede the intensive study of proteins. While there is no denying that the new technologies made many aspects of the study of proteins much more accessible (who spends weeks in the cold room any more?), the 20 years of the existence of The Protein Society have been in many ways the golden years of protein science, and our Society has been the leader in showcasing those advances to the world. Our Symposia have always featured the very best scientists in the field at the forefront of their research areas, and an invitation to speak at the meetings has always been viewed by all as a very high honor. We have also recognized truly distinguished scientists with our Awards (see the Society Web site for the lists); the choices made for the Merck Young Investigator Award, for example, have definitely demonstrated that the Society is adept at spotting rising young talent early in their scientific careers.

The composition of the meeting attendees has changed quite dramatically over the years. Several of the founders of the Society were in their 60s and 70s, and the average age of the registrants in the early years was certainly quite a bit older than is true today. One characteristic of the early meetings that is sadly (in my opinion) missing now is the attendance of spouses, with the obvious exception of couples who are both protein scientists.

The decision to found the journal, in spite of the reservations of its present Editor, was clearly good. The contract with the first publisher was not favorable to the Society, and The Protein Society with assistance from the ASBMB and the Biophysical Society poured a lot of money into the start-up costs. The respect for *Protein Science* has steadily risen over the years, as measured by institutional subscriptions and impact factors, and the present contract with Cold Spring Harbor Laboratory Press is returning some resources each year now to support the educational activities of the Society. Having been through the very first years of the journal in the role of President of the Society wondering when bankruptcy would occur (there were moments when it appeared to be six months in the future), I am most pleased and proud that the journal is now secure and making a contribution to the operations of the Society and not the other way around.

Many people made huge contributions to those successes over the years. I have already expressed my appreciation for Ralph Bradshaw’s drive to launch the

Society, David Eisenberg's wisdom and vision, and Ken Walsh's diligence in keeping the infant Society afloat. The founders, including, but not limited to, Ralph Bradshaw, Hans Neurath, Emil Smith, Ken Walsh, and Finn Wold, had the experience and wisdom to set a very ambitious agenda and exceedingly high standards for the new Society even when they weren't sure that the available resources would cover the initiatives. Hans, of course, used his many decades of editing experience to launch a top quality journal and promoted it vigorously at each meeting of the Society.

Over the years the Society has had a succession of excellent officers with vision and daring. Shortly after the journal was launched with great threat to the Society treasury, serious international initiatives were undertaken about which I have said little to this point (see the Robert Newburgh article referenced above for much more on that topic). The biennial European meetings have been especially noteworthy in that regard, both in terms of their success in attracting large registrations and in the top quality science on their programs. The name of the Society was carefully chosen to be "international," and

David Eisenberg, as first President, emphasized that characteristic repeatedly in the early years of the Society. That message certainly was taken to heart, as the programs of the Symposia and the authorship of the articles in the journal demonstrate.

As one reaches retirement age, it is really satisfying to look back on some aspect of one's career that has made a mark, and for me The Protein Society and *Protein Science* are certainly high points. I am most grateful to the Society and its officers for giving me the opportunities to assist with these exciting ventures and to contribute in some small ways. Most of all, the dozens and dozens of friends made among a cadre of world-class scientists are a reward beyond measure. I thank all of you!

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Acknowledgments

I thank David Eisenberg, Ken Walsh, and Brian Matthews for comments and suggestions, especially for checking on my aging memory.