
Retrospective Reflections of the 11th IUB Toronto Congress



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I was named to the Executive Committee of the Congress in June, 1977 when I took office as Vice-President and President-elect of the Canadian Biochemical Society. By this time, the structure of the Congress had already taken shape. In particular, George Connell had organized the Executive and other Committees on a firm basis and had placed the financial and organizational details in the hands of the Conference Services division of the National Research Council (at that time directed by Ray Dolan and soon thereafter by Ken Charbonneau). John Colter's Programme Committee had designated the subject areas and subcommittees were picking speakers; Bob Painter's Planning Committee had the local arrangements well in hand. I viewed my role as being, together with Cyril Kay, my predecessor, the designated representative of the Society; we were to look out for those special interests of the Society that were in some measure distinct from those of the Congress.

Several of us on the Executive Committee were of the opinion that the post of President of the Congress, a largely symbolic office, should be filled by one of our distinguished elder statesmen of biochemistry. This solution proved to be impractical for several reasons and, at a meeting in London, Ontario in June 1978, I found myself elected to that position. My own view of my functions in this perhaps prestigious but not very busy post was that I should keep quiet and make myself as useful as possible to Connell, Colter and Painter and my other colleagues and do whatever they told me to do. And so I did. We were very pleased that Drs. Hanes and Quastel agreed to



serve as Honorary Co-presidents and participate so actively in the proceedings.

In September of 1978, George Connell met with the Executive of the International Union of Biochemistry in Caracas. It was put to him that there was advantage in increasing the number of plenary session speakers from the two originally scheduled. During a hastily convened telephone conference call involving 3 Edmontonians, 3 Ottawans, 2 Torontoians and 1 Londonian, it was agreed that I be empowered to plan such an expanded plenary programme. In view of the fact that the second Congress mailing containing the final programme was to go to the printer by the beginning of October, I had all of 10 days in which to complete the arrangements. Bob Painter and I ultimately decided to reject a variety of alternatives in favour of a second plenary session on Tuesday evening, July 10th. By this time, I had been turned down by Fred Sanger, despite considerable pressure applied by John Spencer and myself, I had tracked down Feodor Lynen to a meeting in Soviet Georgia and had been turned down by him as well and had made unsuccessful efforts to hunt down Francois Gros who was in

Senegal somewhere; I was getting somewhat uneasy. I rang up Bill Whelan, Secretary-General of I.U.B. to discuss my idea of getting an outstanding biochemist from the U.S.S.R. for the programme; Whelan was then in Athens with other I.U.B. officers, including Academician Bayev. At my request, Whelan established that an invitation to a scientist of our choice would be conveyed by Bayev and that chances of acceptance were excellent. My first idea was to invite the well known bioorganic and protein chemist Ovchinnikov. Ron Williams persuaded me to consider his younger colleague V. Skulatchev; I looked up some of the latter's papers on the varied uses of protomotive force- or proticity, to use the felicitous phrase of Peter Mitchell -and invited him on the spot via Bayev. He telephoned me one day at noon (Moscow time) to accept; I would have been happier had this not corresponded to 4:00 a.m. Ottawa time. (He gave me his title over the phone and I was too sleepy to take it down correctly; the incorrect title appeared in the second Bulletin but was corrected in the Congress programme. I forgave him my lost sleep during his talk when he showed us the moving pictures of the algal chloroplasts rotating madly under the control of H⁺).

I then conceived of a three person symposium going from the physical-organic 'lower' limit of biochemistry, through membrane physical chemistry up to the biological organization of electron transport and oxygen fixing components. David Shugar, then visiting Ottawa from Warsaw, suggested Ephraim Katchalski whom Cyril Kay agreed to contact; Katchalski promised to consider it. A few days later he rang me up at 4:00 a.m. (Israel time thank God!) and after some hesitation, he accepted. The choice of this speaker, whose function was to hold an impatient audience to the end of a long programme, was obvious - Gottfried Schatz. He accepted and delivered the goods: there were almost two thousand people in the Hilton auditorium when he finished at 10:30 p.m. and I do believe he could have gone on another 30 minutes without losing his audience so gripping was his talk. In sum, I was well pleased with this session.

Prior to the Congress, I took part in several initiatives involving relations with biochemical colleagues in other countries. One of the most interesting and fruitful of these followed a call from Bill Whalen in October 1978, pointing out that mainland Chinese biochemists had pulled out of the I.U.B. twenty years before owing to recognition of the Taiwanese biochemists by the international body. He asked me whether I knew anyone at the Chinese embassy and urged me to issue a cordial invitation to our Chinese colleagues and to assure them that we would take any reasonable steps to make it possible for them to participate in the Toronto Congress. In fact, I did know the Counsellor of the Embassy, Mr. Wang Chu-Liang who also serves as scientific attache, and I wrote him about the matter. The question of Chinese attendance at the Congress was thereafter raised with Bill Slater, Treasurer of the I.U.B. during a visit to Peking. While Slater was in China I was contacted about several conditions for attendance that our Chinese colleagues regarded as essential, one of which involved how they and the Taiwanese were to be styled on the congress badges. A satisfactory solution to these problems was worked out with Ken Charbonneau and this assurance was conveyed to Slater before he left China. Soon thereafter we learned that a Chinese delegation would attend the meeting and that an application from Peking for membership in the I.U.B. Assembly had been received. A formula permitting the Chinese biochemists to adhere to the I.U.B. without eliminating the Taiwanese was quickly worked out and this should set a precedent for the other international scientific unions. It was my pleasure to welcome the official Chinese delegates to Canada and the Congress on behalf of the Society and to express the hope that with normalization of relations would come increasingly close contact and scientific exchange between Chinese and Canadian biochemists.

Another agreeable duty that I performed on behalf of the Society took place immediately before the Congress when I visited with Mrs. Charles Best in her home and presented her with copies of the special C.H. Best memorial issue of the Canadian Journal of Biochemistry. She was

most interested in the reminiscences of old times in Best's lab, contained in the paper by Tom Jukes, as well as in the biographical sketch by David MacLennan and the historical article by Rachmiel Levine. I was very moved by my few hours with this gallant and charming lady.

The special 540 page issue, consisting of 64 articles invited by an ad hoc committee chaired by Cyril Kay, was distributed to all of those who registered at the Congress. The costs of the extra press run were divided among the National Research Council of Canada, the J.R. Kroc Foundation of Santa Ynes, California and by the Society. Reaction from many quarters indicated that it was quite successful promotional venture, not only on behalf of the Journal, but also on behalf of Canadian biochemistry itself. Morris Kates and I also invited a number of distinguished Congress lecturers from other countries to prepare their papers for publication in the Canadian Journal of Biochemistry; these will appear during the months to come, starting with the November issue. Among the plenary lecturers, papers were received from Kornberg, Handler and Skulatchev and others were received from speakers at various of the symposia; the first three to appear will be those of Wittman, Racker and Koshland.

Another pleasant duty that I undertook on behalf of the Society was to preside at the unveiling of the historical plaque commemorating the life and work of Maud Menten on Wednesday, July 11th; the plaque is located at Queen's Park, just in front of the Medical Sciences Building of the University of Toronto. Despite a most violent thunder storm that threatened to drown more than voices of the speakers, this little ceremony, that included a review of Maud Menten's science by Jean Manery-Fisher as well as some moving and extemporaneous remarks by Stanford Moore, came off without a hitch. The storm indeed relented just in time for the party to venture forth to witness the unveiling presentation in the presence of a group of invited guests which included David Smith, Harold Stewart and Jean Manery-Fisher who were responsible for initiating and organizing this seminal event honouring a pioneering Canadian woman biochemist.

The Editors of the Bulletin have asked me fearlessly to point out the negative aspects of the Congress and I shall try to oblige. These are not numerous and, indeed, some were not apparent until it was too late to take corrective action. With the wisdom of hindsight, it is evident that there was severe under representation of women among the symposium and plenary session speakers and Chairmen. This has been drawn to our attention not only by several women biochemists but also by Dr. Edward W. Westhead, Chairman of the Committee on Equal Opportunities for Women of the American Society of Biological Chemistry. I raise this question not to throw stones at others or to flagellate myself for that matter. I do so to emphasize that in planning future scientific programmes, our Society must face squarely the phenomenon of the relative invisibility of excellent scientists of the feminine persuasion. The invisibility is, of course, self-perpetuating, those at the Congress who will be planning the next one will naturally think of inviting those whom they heard present outstanding papers at this one and so on ad infinitum. Unless we break with tradition and confront this problem, outstanding women scientists will continue to remain invisible and inaudible.

Only at one point during the Congress did I fear that disaster might overtake us. This was during the so-called Canada night; had a rainstorm - such as that of the day before - occurred as indeed seemed likely, it would have converted Black Creek Pioneer Village into a mud swamp and I hesitate to think of what the hungry and thirsty would then have said or done about their \$16.00 investment in what was billed as a subsidized affair. As it was, only the heroism of Ken Charbonneau saved the day; he borrowed as much cash as he could and went off into the gloaming to fetch the foaming and this prevented a riot. However, everyone survived and those addicted neither to drink nor to food may even have enjoyed it.

The other negative comment heard during and after the Congress was that one was simply overwhelmed by the simultaneous symposia and poster sessions scattered among the five down-

town hotels. I had already dealt with this argument in an article in *Trends in Biochemical Research* (TIBS, January, 1979) pointing out the frustration of excess choice on the menu was a necessary consequence of the determination of the Programme Committee to cover all the major frontier areas of biochemistry in a five-day meeting. Agonizing choices among competing attractions are a necessary, if disagreeable, feature of large and comprehensive triennial congresses of this sort. I did not hear the complaint that important subject areas had been omitted entirely; that would have been a more serious matter.

The key question to be asked and answered is this: what did we want from the Toronto Congress and did we get it? I was never in any doubt as to the reason for which the Society wished to persuade the International Union of Biochemistry to hold the eleventh Congress in Canada. Our main motive was to improve the image of Canadian biochemistry, and of Canada itself, in the world scientific community; in other words, the vast amount of effort that went into the organization of the Congress was an exercise in public relations, a way of telling the world that Canadian biochemistry had come of age. Was this effort a success, was the goal realized? The answer is plainly yes; not only did our foreign colleagues see that Canadian science was world-class, but more important, Canadian scientists themselves were able to see this for themselves. This is surely one of the major and long-lasting benefits of the exercise; by itself it justifies the massive effort that went into the Congress.

Let me conclude this retrospective article by a few reflections about the image that Canada presents to the world and to itself. Everyone knows that we are basically a nice, clean, respectable and well-meaning people with a high standard of living and with some of the technological expertise of the Yanks without being pushy or too aggressive. Alas, the image includes quite a few entries on the negative side of the ledger as well: the Canadian, it is said, is grim in his pursuit of mediocrity, he lacks humour, warmth, culture, generosity of spirit, *savoir faire* and *savoir vivre*, and so on. There is probably a measure of truth in this

unflattering image; indeed, the hysterical adulation of our new Prime Minister in 1968 seemed to suggest that he (He) was supposed single-handedly to relieve us of it. Whatever the truth of the matter, I believe that there was a clear, if subliminal, determination on the part of many Executive and General Planning Committee members that these unhappy criticisms would not occur to anyone, foreign or Canadian, who attended the 11th Congress. In this I believe we were successful; I do no more than repeat what many biochemists from all over the world have told me and written me: delegates and their spouses were charmed and delighted by the way in which the Congress was organized and by the Congress people with whom they came in contact.

To come now to the (quite literal) bottom line of the Congress, it is now evident that there will be a substantial surplus of revenues over expenditures. At our annual meeting in Toronto the argument was put that any substantial surplus should be parcelled out to those who paid the full registration fee, in the form of a rebate. I expressed my strong opposition to this view at our meeting and I repeat it now; had we not received gratis the services of Ken Charbonneau and his team, we would have required at least \$100,000 in order to buy the equivalent, a point which I have made in a previous issue of this *Bulletin* (15, No.2, November, 1978, 1-4). In other words, no NRC Conference Services, no surplus. Hence, the excess revenue should remain in Canada; the altruistic might justify returning it to the N.R.C. but I wish it to go to support the educational and scientific programmes of the Society where it will produce maximum benefit for Canada. The Council of the Society has already declared at its meeting of June 8th, 1979 that it recognizes its obligation to the international community of biochemists, and in particular to replenish the travel funds of the I.U.B.; the Society also recognizes its responsibilities vis-à-vis our Latin American colleagues and will look favourably on educational exchange schemes to increase the number of Latin American scientists trained in Canadian biochemical laboratories. The Council also agreed with my view that mon-

eyes which we inherit from the Congress should be regarded as a precious patrimony, a fund to be carefully husbanded and to be used for the benefit of future generations of Canadian biochemists. Judicious use of our patrimony will give the Canadian Biochemical Society the opportunity and the challenge of becoming a dynamic force in world biochemistry and a centre of excellence and excitement in Canadian science. Let us rise to this opportunity! Here is the challenge to future leaders of our Society!

I wish to express my pleasure at working with people like Connell, Colter, Painter, Charbonneau and the other members of the Executive and General Planning Committees and my gratitude to the members of the Canadian Biochemical Society who, by confiding in me the leadership of the Society during the year of the Congress, gave me the opportunity to participate in its organization and to make a small contribution to its success. It was one of the most moving and satisfying experiences of my professional life.

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The reactions of participants to the XI International Congress of Biochemistry in Toronto, 1979 will inevitably be conditioned by their personal scientific histories and by their expectations of scientific meetings. Because it was my ninth successive IUB Congress the invitation to comment on the Toronto Congress evoked a retrospective view. The first Congresses I attended came in a more impressionable period of my career. They were characterized by the great excitement of presenting my work to an international audience, the privilege of meeting famous elders, and the pleasure of making friends of my own scientific generation. As I attended subsequent Congresses some of the novelty wore off, but I have always found them interesting and the triennial change of scenery enjoyable.

Some years ago I began to feel skeptical, as did many others, about the future viability of traditional international congresses. The increased opportunities for younger biochemists to attend meetings and to communicate their work, the greatly increasing number of specialized international symposia and conferences, the increasing depth of biochemical knowledge, and the ever-widening scope of biochemical inquiry into biology, medicine, agriculture, and technology, all seemed to militate against the traditional broad-spectrum international congress. But the Congresses of Biochemistry have weathered a period of skepticism and, if anything, seem to have gained a healthy "second wind".

Now, what about the Toronto Congress? In short, I found it to be excellent, the best I have ever attended, given my personal set of Congress experiences, perceptions, and prejudices. And in saying this I mean no slight to our former hosts in Germany, Sweden, Japan and other countries; each Congress was to me memorable.

In the first place the Toronto Congress was certainly one of the easiest to enjoy, in the sense that everything ran smoothly, meeting rooms were appropriate in size and facilities, travel between hotels and meeting places was rapid and well-organized, restaurants were excellent and the hotels were comfortable. Remarkably, those among the Canadian organizing group whom I know seemed relaxed and worry-free, the sign of a well-organized effort.

Scientifically, and here I can speak only of the fields that interested me in particular, I found the Symposium programs well chosen, the papers extremely well prepared and presented, and the audiences interested and enthusiastic. The number of poster papers that I found of interest was very large and of high quality, with much informal discussion. I believe them to be infinitely superior to the drone of ten minute platform papers in darkened halls. It was my perception that there was more intense scientific participation and involvement than in most Congresses I have attended.

Third I had an impression that, on the average, the Symposium speakers selected by our hosts seemed to represent a very fair distribution of

prime movers in their respective fields, regardless of age and country of origin. I believe the Congress speakers presented some of the best work of the times, although I know that many others not invited deserved star billing as well.

Fourth the choice of Schatz, Skulachev, and Katchalsky as evening plenary speakers, was absolutely brilliant and provided an interesting mix of science, personalities, and history, something for everyone.

The few shortcomings in the XI Congress I noted were technical in nature, and general to all large meetings of this sort. The most important, scientifically speaking, was really caused by an embarrassment of riches. Quite simply, there were so many excellent poster papers in the sessions of interest to me that there simply was not enough scheduled time for me to visit more than a small fraction. From my abstract book I have reconstructed the situation. The Tuesday morning poster sessions on electron transport contained altogether 60 papers. As it happened, two papers from my own laboratory were also scheduled then. It was all I could do to handle the discussion of one of our papers, leaving little opportunity to examine and discuss the great many interesting posters from other laboratories scheduled that morning. Possibly this problem was not typical of all the poster sessions, but in this special case it was remarked upon by many individuals in my hearing. Poster sessions have proven their great value, not only in our Congresses, but also in FASEB and FEBS meetings. Perhaps there is no easy solution to this scheduling problem, which also probably has space constraints.

A second problem concerns the many "satellite" meetings before and after the Congress, which seemed to me to have reached an apogee in 1979, which I realize are beyond the control of the Congress hosts. Such extracurricular meetings represent a magnificent (and economical) opportunity for much more detailed discussion and communication in special fields of biochemistry than can ever be accommodated by the Congress program itself. Moreover, such satellite meetings have often aided significantly in the birth of important new fields or sub fields of biochem-

istry. This year I was invited to a grand total of five such meetings, which together with the Congress, were held within a period of 27 days. All I attended were excellent, taken singly. But there was overlap and duplication; more than one jaded biochemist may have wished to be back in the lab. Satellite meetings have become a standard and important add-on to our Congresses. While it is unlikely that they will often be quite as numerous, one might wish for some improved coordination of these events in the future.

It is cavalier for me to say I heard mixed comments on the Canada Night outing. I personally enjoyed the occasion very much, but it is clear that such a large social party presents almost insuperable problems for Congress organizers anywhere. Our Canadian hosts were very generously endowed with a very large and attractive outdoor setting for the occasion, which for all was a welcome change from the hotel and city ambiance. But I suppose there is almost no way in which hordes of very thirsty and hungry biochemists can be accommodated without long lines. Nor can one expect Cordon Bleu fare. Canada Night had its very bright moments and lively music, but let us all hope that the advance party of Australian observers was making copious notes on the beer supply. Who knows, we may look forward to an "Out-back Outing" in 1982!

To my Canadian hosts I say again that it was the finest Congress I have attended and offer my thanks and congratulations on such a superb effort.