A History of the International Society for Analytical Cytology

Phillip N. Dean^{*} Livermore, California

FORMATION OF THE SOCIETY

The invention of the Coulter cell counter led eventually to the development in the 1960s of flow cytometry, the rapid measurement of cells and cell organelles in liquid suspension. The addition of fluorescence measurements to the volume and absorption measurements available on medical devices led to a great expansion of applications in the biomedical sciences. In 1970 the Engineering Foundation organized the International Research Conference on Engineering in Medicine: Automated Multiphasic Health Testing, in Davos, Switzerland. The organizer of this conference was Sandford (Sandy) Cole, Director of Conferences for the Engineering Foundation. As a part of the conference, Sandy invited a small number of people to a workshop on automatic cytology to discuss this evolving field. Participants at this conference held lively discussions on the subject and reported that, although the new field showed great promise, much needed to be done. Accordingly, Sandy agreed to organize an Engineering Foundation-sponsored meeting in Henniker, New Hampshire in July 1970.

Thus began a long series of meetings held on the subject of analytical cytology (also called automated cytology). The Henniker meeting is popularly known as Analytical Cytology I; the actual title of subsequent conferences has varied considerably, usually containing the words analytical cytology or some variant thereof. For reference, the most recent meeting of the International Society for Analytical Cytology (ISAC), in San Diego, California in 2003, is known as ISAC XXI. Note that this was not the 21st meeting of the society. It was the 21st formal meeting on the subject of analytical cytology and the 16th meeting of the society. The Engineering Foundation continued to sponsor the series of meetings through the 1979 society conference in Asilomar, California. The first society congress completely organized and managed by the society was held in Wentworth, New Hampshire in 1981.

While the conferences on analytical cytology were being held in the United States, a parallel series of meetings on the same subject was being held in Europe, the presumed first of which was held in Heidelberg, West Germany, in 1973. This symposium on Impulscytophotometrie was organized by Klaus Goerttler and was attended by 43 scientists from seven countries in Europe and Scandinavia. In 1974, the First International Symposium on Pulse Cytophotometry (Flow Through Cytophotometry, its Application in Cancer Research and Hematology with Special Reference to Cell Kinetics) was organized by C. A. M. Haanen, T. K. A. Eskes, H. F. P. Hillen, and J. M. C. Wessels and held in Nijmegen, The Netherlands. This was a purely European event; only five persons from the United States were present. A series of conferences on the same subjects followed over the years, many of them in Germany, where some of the original flow cytometric developments took place.

At the fifth conference held in the United States, at Pensacola, Florida in 1976 (ISAC V), the attendees of the conference agreed that the formation of a society would provide professional continuity to the field and promote the continuation of the very successful series of conferences. Subsequently, the organizing committee of the sixth conference (held in Schloss Elmau, Bavaria, Germany, 1978) was empowered to create the society. At a meeting held in June 1977, that committee formed a Founding Executive Committee to focus the effort. This committee drafted the following statement of long-range purpose of the society:

1. To promote research, development, and applications in analytical cytology. Analytical cytology is broadly defined as the characterization and measurement of cells and cellular constituents for biological, diagnostic, and therapeutic purposes. It embraces components of cytochemistry, cytophysics, anatomy, biology, physiology, pathology, image analysis, instrumentation, clinical laboratory practice, and other subjects of relevance.

2. To facilitate integration of the many disciplines within analytical cytology.

3. To disseminate knowledge of analytical cytology.

4. To provide information and advice on those aspects of public policy that are concerned with analytical cytology.

The committee prepared a questionnaire asking for: (a) confirmation of continued interest in founding the society; (b) a response to a proposed constitution and bylaws

^{*}Correspondence to: Phillip N. Dean, 2163 Mercury Road, Livermore, CA 94550.

E-mail: dean@lvrca.org

Published online in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/cyto.a.10099

4

DEAN

that was drafted by a constitution committee; and (c) suggestions for a slate of nominees to the council should founding the society be approved. The questionnaire was sent to attendees of the previous conferences on automated cytology. The results were very encouraging. Of the 187 people who responded to the questionnaire, all but 11 were in favor of founding and joining a Society for Analytical Cytology (SAC). A total of 126 persons approved the recommended constitution and bylaws and the proposed slate of nominees; however, 36 persons suggested changes to the constitution and bylaws and 38 submitted additional nominations. Many of the comments made about the constitution and bylaws were incorporated into the final document. No additional nominee received more than two votes; the proposed slate was elected and the new society was founded. The officers and councilors of the society were:

President: Mortimer L. Mendelsohn President-elect: Myron R. Melamed Honorary Past President: Thomas M. Jovin

Secretary/Treasurer: L. Scott Cram

Editor: Brian H. Mayall

Councilors: Peter H. Bartels, Paul Mullaney, Marvin A. Van Dilla, Mack J. Fulwyler, J. S. Ploem, Leon L. Wheeless, Klaus Goerttler, James H. Tucker, Ian T. Young

Because there was no past president in the founding year, Thomas Jovin accepted the title of Honorary Past President. The results of the questionnaire were sent to potential members of the society, with an invitation to become a charter member. The constitution and bylaws were to be voted on at an Engineering Foundation Conference to be held in 1978 at Schloss Elmau, at an enchanting hotel situated in the midst of a forest in the Bavarian Alps. At the first Business Meeting of the society (in Schloss Elmau), the members decided that a committee should be formed to review the constitution and bylaws and to submit suggested changes to the membership by mail. The revised constitution and bylaws would then be discussed at the next business meeting (in Asilomar, California in 1979) and the final version submitted to the membership for approval by mail ballot. The proposed constitution and bylaws were approved by a wide margin and became official in early 1979. For tax and other purposes, the society applied for and was granted, on 6 October 1980, incorporation under the Non-Profit Corporation Act of the District of Columbia. The society also received from the Internal Revenue Service an exemption from federal income tax as a 501(c)(3) organization.

The council decided to hold the first society-sponsored meeting (Automated Cytology VII) in 1979 in Asilomar, California under the aegis of the Engineering Foundation. This also would be the last conference supported by the Engineering Foundation; beginning with the Wentworth conference in 1981, the society would sponsor and organize its own conferences.

The series of European conferences continued to the 5th International Symposium on Flow Cytometry, sponsored by CNEN (now ENEA) and the Instituto Medico e di Ricerca Scientifica and held at Rome-Bracciano, Italy, in 1980. In 1982 the society joined with the European group to organize the Combined International Conference on Analytical Cytology and Cytometry IX and the 6th International Symposium on Flow Cytometry and to hold it at Schloss Elmau in Bavaria, West Germany. The European group then decided to halt the European meetings in favor of the society conferences; in the future, approximately every third meeting would be held in Europe. This arrangement has continued to the present.

MEMBERSHIP

By the end of the Schloss Elmau conference in 1978, the society had 160 charter members. In January 1979, the membership had increased to 254, and the society was in full operation. Growth in membership, however, was slow. This troubled the council, and action was taken to increase the visibility of the society. A membership committee was formed, the list of members was distributed, and the members were asked to recruit actively. The general membership was asked to propose projects that the society might participate in, such as workshops held in collaboration with other groups and societies, which would improve the visibility of the society. For example, the council voted to cosponsor with the Institute of Electrical and Electronics Engineers the meeting, Pattern Recognition of Biomedical Images, which was held in Munich in October 1982.

There are two classes of general membership, voting and nonvoting. To become a general member, a person must be nominated by a voting member of the society and approved by the council or its designee. Nonvoting members include such groups as emeritus, honorary, student, and corporate.

Figure 1 shows the growth in membership of the society. After a slow start, the society experienced a net growth rate of about 200 members per year until 1991, when the number of U.S. members peaked. Since then, the number of U.S. members has slowly decreased. However, the number of non-U.S. members continued to increase, keeping the total number of members about constant at 1,700 for several years. Although the society still admits about 350 new members per year, it loses about the same number due primarily to members leaving the field of analytical cytology. The turnover in membership is illustrated by the fact that 3,387 individuals have been members of the society at one time or another. A large proportion of the 3,387 joins for a year in which there is a congress and these individuals do not renew their membership. The year chosen depends on the popularity of the locations of the congress. More recently, for unknown causes, the number of members has been decreasing. In August 2003, the total number of members was 1,384, with 630 from the United States. This is the lowest number of ISAC members since 1988 and the lowest number of U.S. members since 1987. It is also the first time the number of U.S. members has dropped below 50% of the total. Because

HISTORY OF THE ISAC

Membership by Year

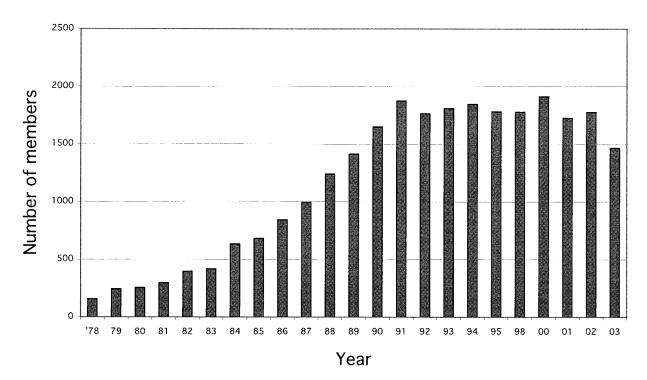


Fig. 1. Number of members from the founding of the Society for Analytical Cytology in 1978 to 2003. The black bars indicate the number of U.S. members for the years 1988 through 2002. The total number of members appears to be declining.

2004 is a congress year (Montpellier, France), membership enrollment is expected to increase significantly early next year.

Table 1 shows the geographic distribution of members in early 1979, 1988, 1995, and 2003. The number of countries with members in the society has increased dramatically from 14 in 1979 to 45 in 2003, although 65 countries have been represented by at least one member in the past 25 years. Table 1 also shows that the number of members from each country has fluctuated over the years, with many countries showing a recent decline. The most dramatic change has been the 220% increase in members from the Peoples Republic of China from 1998 to 2003. The decline in number of members from the United States that started in 1992 continues.

CHARTER MEMBERS

Of the 290 attendees of the Schloss Elmau conference, 108 elected to join the society. Others known to be involved in automated cytology were invited to join and 148 did so, for a total of 256 charter members. The distribution of the society's original members by country is shown in Table 2.

Many of the charter members became very active in the society. Twelve of the first 13 society presidents were charter members; the most recent three were not. Attendance at society congresses by the charter members has been highly variable. One hundred three have not attended a single congress, 26 have attended only one, and 32 have attended two congresses. Evidently many people joined the society in the enthusiasm of the moment and then discovered that it really did not serve their needs and did not renew their memberships. Those who attended one or two congresses did so before 1990, with about 50% of them attending before 1980. Surprisingly, seven members attended their first congress in 1998 in Breckenridge, Colorado. Only 12 members have attended all 16 society congresses from 1978 to 2002. Their names are listed in Table 3. An additional 15 members attended at least 12 of the congresses.

MANAGEMENT OF THE SOCIETY

1978 to 1991. The constitution and bylaws are the ultimate authority for operation of the society. The provisions of these documents are carried out by the council, which is the next higher authority, and by the officers. There are four society officers: president, president-elect, secretary, and treasurer. Only the president-elect automatically becomes president at the end of the president's term. The original council was composed of the officers, nine councilors, the immediate past president, and one nonvoting member (the editor of *Cytometry*). The officers

DEAN
Table 1 Membership Totals by Country in 1979, 1988, 1995 and 2003

Country	1979	1988	1995	2003	Country	1979	1988	1995	2003
Argentina			4	3	The Netherlands	8	30	44	22
Australia		30	66	39	New Zealand		2	7	4
Austria		2	10	12	Norway	2	10	17	10
Belgium		13	22	24	Pakistan				1
Brazil			8	2	Philippines			1	2
Bulgaria		1			Poland			4	9
Canada	4	43	73	47	Portugal		1	14	8
Chile			4	4	Puerto Rico		3	5	
China (P.R.C.)		5	6	45	Romania			1	
Costa Rica			1		Russia			4	3
Croatia				1	Saudi Arabia			2	1
Cuba			1		Scotland		1		
Czech Republic				10	Singapore		1	4	1
Denmark	2	5	12	12	Slovakia			2	2
Egypt		1	2		Slovenia				2
Finland		5	3	3	South Africa		1	9	6
France	1	51	62	39	South Korea				3
Germany	18	44	68	51	Spain		7	38	16
Greece		2	7	12	Sultanate of Oman			1	
Hong Kong		2	11	3	Sweden	4	6	17	25
Hungary	1	2	6	5	Switzerland		4	15	14
India				2	Syria				1
Iran			1		Taiwan		2	9	6
Ireland			2		Thailand			1	1
Israel	1	4	8	9	Turkey			3	4
Italy	5	22	65	56	United Arab Emirates				2
Japan	2	20	66	41	United Kingdom	6	46	75	61
Kenya			1		United States	197	876	1,124	757
Korea		5	7	1	Ukraine			1	
Lithuania		-	1		Uruguay	1		1	2
Malawi			1		Venezuela			1	
Malaysia			3		Virgin Islands (U.S.)		1		
Mexico			4				-		

served for one term each. A term is defined as the period of time between general meetings of the society, originally about 1.5 years. The councilors served for three terms (\sim 4.5 years), staggered such that three councilors would be elected just before each general meeting. When the society was formed, the secretary/treasurer position was viewed as a long-time role, with the incumbent acting as the long-term memory of the society. Scott Cram was the first person elected to this position and served as the secretary/treasurer until his election as president-elect in 1985; James Jett was appointed to complete Cram's term of office. Jett was later elected to the position of secretary/

Table 2Number of Charter Members by Country

Country	Number	Country	Number
U.S.A.	199	Denmark	2
Germany	18	Japan	2
The Netherlands	8	Norway	2
United Kingdom	6	France	1
Italy	5	Hungary	1
Canada	4	Israel	1
Sweden	4	Uruguay	1
Belgium	2	<i>.</i>	

treasurer and held it until March 1991, when he resigned and was replaced by Phillip Dean.

1991 to 1996. Modifications of the constitution and bylaws were approved in 1991. One change separated the roles of secretary and treasurer, with Phillip Dean and Alan Landay being elected to these positions, respectively. The secretary and treasurer were elected to three-term periods of service (~ 4 years 6 months) to be staggered such that both offices would not become vacant in the same year. It was felt that this was a sufficient period to establish the continuity of society memory. Terms of service for the president and councilors were not changed. Under a policy established in 1994, i.e., holding the society's congress every 2 years, the periods of office for secretary, treasurer, and councilor became 6 years each. However, the president still served for only one term of 2 years.

Table 3 Charter Members Who Have Attended All 16 Congresses				
Robert Auer	Joe Gray	David Parks		
L. Scott Cram	James Leary	Daniel Pinkel		
Zbigniew Darzynkiewicz	Robert Leif	Frank Traganos		
Phillip Dean	Brian Mayall	Leon Wheeless		

HISTORY OF THE ISAC

1996 to Present. The constitution and bylaws were revised again in 1996. The service period for the secretary and treasurer became two terms, or approximately 4 years. The number of councilors was increased to 10, and their terms were also set at 4 years, with five councilors to be elected each term. Neither officers nor councilors are eligible for immediate reelection. By action of the council, councilors are to be elected to represent specific areas of research, namely biological cytometry, clinical cytometry, and cytometric technology, and to represent different geographic areas. This revision of the bylaws also established voting and nonvoting categories of membership, made the president and president-elect nonvoting members of all society committees, and formalized the responsibility of the president-elect for organizing the international congress. The latter had become the rule since the Rimini Congress in 1996. In 1997 the council voted to appoint Phillip Dean, past secretary of the society, to the new positions of historian and archivist.

Committees. Under provisions of the bylaws, the council usually forms an executive committee composed of the officers and the immediate past president to manage the society between council meetings, which usually occur once per year. In addition, there are five standing committees with specific duties as established under the bylaws. The committees are Membership Services, Finance, Nominating, Scientific Communications, and Scientific Advisory. The council forms additional special committees to help it carry out its tasks. Current special committees are the Robert Hooke Distinguished Lecture and Awards Committee, Cytometry Editorial Board, Clinical Cytometry Editorial Board, Web Site Editorial Board, Biosafety Issues Surveillance Committee, Data Standard Committee, Task Force on Reagent Evaluations, Council of Associated Societies, and Task Force on Data Presentation Standards.

Professional management. For many years the president and the secretary/treasurer conducted all the affairs of the society, including financial. For example, in 1979 expenses totaled \$8.07 and the treasury contained \$2,642.51 carried over from the 1978 meeting. This reflects the low-key operation of the society and the subsidy provided by the president's and secretary/treasurer's institutions. By the time of the 1985 Cambridge (U.K.) Congress, the officers and council of the society realized that professional help was required with the organization and management of the congress, and the firm of Parker and Parker (Breckenridge, Colorado) was retained for that purpose. In 1998 the firm was hired to continue to work with the congresses and to assume some of the duties of the secretary/treasurer. In 1998 Parker and Parker left the society and was replaced by the Sherwood Group (Northbrook, Illinois) that was still managing the society in the fall of 2003. The financial picture also has changed. The yearly budget depends heavily on whether the year contains a congress. For example, in 1997, a non-congress year, total revenue was \$436,801 and expenses were \$406,929, for a net increase in assets of \$29,872. For 1998, with a congress held in Colorado Springs, revenue was \$1,131,933 and expenses were \$1,201,657, for a loss of

 Table 4

 ISAC (SAC) Congress Years, Locations, and Attendance

Year	Location	Attendees
1978	Schloss Elmau, Germany	290
1979	Asilomar, California	275
1981	Wentworth, New Hampshire	250
1982	Schloss Elmau, Germany	322
1984	Asilomar, California	400
1985	Hilton Head, South Carolina	480
1987	Cambridge, England	670
1988	Breckenridge, Colorado	800
1990	Asheville, North Carolina	911
1991	Bergen, Norway	750
1993	Colorado Springs, Colorado	900
1994	Lake Placid, New York	860
1996	Rimini, Italy	753
1998	Colorado Springs, Colorado	987
2000	Montpellier, France	1,041
2002	San Diego, California	1,167
2004	Montpellier, France	_,,

\$69,724; this is not the largest deficit experienced by the society. To cover such losses and to provide for the possibility of having to cancel a congress at a late date, the society depends on a cash reserve built up from congresses that produced large surpluses. At the end of 1999, the reserve was over \$800,000.

CONGRESSES

Table 4 lists the society congresses held since 1978. From 1978 to 1994, the meetings were held on a cycle of approximately 1 year 6 months, with every third congress usually held in Europe. Beginning in 1994, the cycle time was increased to 2 years. The basic structure of the congresses has not changed much over the years. The congresses include tutorials, symposia, plenary sessions, workshops, frontier sessions, and poster sessions. The poster sessions became very popular as a way to present a lot of detail, which is not possible in the limited time of an oral presentation.

Attendance at the congresses has varied a great deal based on the location of the meeting. This is especially true for attendance by U.S. members versus those of other countries. For example, at the 2000 congress in Montpellier, France, there were 408 U.S. participants, 39% of the total of 1041. At the 2002 conference in San Diego, California, there were 839 U.S. participants, 72% of the total of 1167.

Originally the society emphasized the technology that drove its formation. As time went on, more emphasis was directed toward applications of the technology as the technology matured and more laboratories came to use it. A brief discussion of the themes of past congresses is available in the longer version of the history published in *Cytometry* (1). Recent congresses have been organized around the society's three themes: biological sciences, clinical sciences, and cytometric technology.

PUBLICATIONS

In February 1979 the society members voted nearly 2 to 1 to have the society publish its own journal. Williams &

Wilkins (Baltimore, Maryland) was selected as the publisher of the new journal, to be named Cytometry and subtitled The Journal of the Society for Analytical Cytology, and the first issue was published in July 1980. To make the journal viable, it had to have a secure subscription base, so subscription to the journal was made mandatory for all society members. Brian Mayall was appointed Editor of the new journal. His editorial offices were first at the Lawrence Livermore National Laboratory and then at the University of California at San Francisco. After Mayall's retirement in 1997, Jan Visser was appointed Editor-in-Chief and moved the editorial office to the New York Blood Center in New York City. Early in 2002, Charles Goolsby was named Editor-in-Chief and moved the office to its present location at Northwestern University Medical School in Chicago.

Williams & Wilkins terminated its agreement with the society with the May 1983 issue (Volume 3, Number 6). A contract was then signed with Alan R. Liss, Inc. The new publisher was very helpful in promoting the journal, and by 1984 there were 528 society subscribers and 372 institutional subscribers. Alan R. Liss, Inc. published the journal through volume 10, number 6. At that time (1990), Alan R. Liss, Inc. merged with John Wiley & Sons. Since then, Wiley-Liss, Inc. has published the journal. The journal's appearance has also changed over time. The change to Alan R. Liss, Inc. as the publisher resulted in a new cover and design for the journal. The cover changed again with the switch to Wiley-Liss, and in January 1994 the cover changed once again. The journal has increased in size from the original 6 issues of 60 pages each to 12 issues of 90 pages each in 1996. In 1994, there were 1,812 member subscribers and about 800 institutional subscribers.

In recognition of the increased interest in clinical applications of analytical cytology methodology, a Clinical Sciences Section was added to the journal in 1993 (Volume 14, Number 2), with Alan Landay as clinical editor. As interest in clinical cytometry grew and with the advent of the Clinical Cytometry Society in 1992, ISAC decided to publish a new section of the journal, *Cytometry: Communications in Clinical Cytometry* (Mariano La Via and John Parker, editors), which was also the official journal of the Clinical Cytometry Society. In 1999 ISAC merged the journal *Bioimaging* with *Cytometry*, further expanding the breadth of the journal. The first combined issue was published in July 1999.

At the beginning of 2003, the indexing of the two journals was changed such that they have the same volume and issue numbers. The two subjects are identified by using letters with the volume number, i.e., volume 51A is for *Cytometry* and volume 51B is for *Clinical Cytometry*.

To establish good communications with its members, the society has published a newsletter from its beginning, at approximately 3-month intervals. In 1995, the newsletter was assigned its own editor. To keep pace with the communication revolution, the newsletter is now published electronically on ISAC's Web site: http://www.isac-net.org.

AWARDS

The first award made by the society was to Sanford Cole, Director of Conferences of the Engineering Foundation of New York. As noted earlier, "Sandy" was a firm believer in the future of analytical cytology and in its ultimate benefit to society. At a general business meeting held in 1979, Sanford Cole was awarded an honorary membership in the society, with the following statement: "His organizational skills, commitment, and support have nurtured the formation of the Society and the establishment of analytical cytology as a recognized scientific discipline."

In 1992, the ISAC council established two awards to be made to society members: An Honorary Fellow of the Society award was established to recognize significant contributions to the society, and a Distinguished Service Award was established to honor those individuals who served the society in a major role, provided major support to the society and its members, or made a significant contribution to the success of the society.

The society established two additional awards in 1994: the Presidential Award for Excellence and the Outstanding Student Award. The council felt that, to ensure the longterm growth and prosperity of the society, there must be a steady infusion of new scientists into the field of analytical cytology. To provide encouragement for younger scientists to enter the field and to recognize excellence in their activities, beginning in 1994 at the Lake Placid Congress and at each successive congress, the society has presented these awards. These are competitive awards that include a substantial monetary prize.

The Presidential Award for Excellence will be presented to one or more of the outstanding younger members of the society. To be eligible for this award, a candidate must be a member of the society, out of postdoctoral training for no more than 5 years, have made presentations at national and international meetings, have published in refereed journals, and attended the society's congress. In addition, the candidate must submit a brief paper on the subject of a poster presented at the congress.

The Outstanding Student Award recognizes continuing outstanding performance by a student with service to the field and to the society. To be eligible for this award, a candidate must be a society member, be a predoctoral student, and follow a field of study in any physical or natural science with a goal of working in analytical cytology. In addition, the candidate must submit a brief paper on the subject of a poster presented at the congress.

1993

Honorary Fellow of the Society: J. Sebastian (Bas) Ploem Distinguished Service Award: Wallace Coulter and Bernard Shoor

1994

Honorary Fellow of the Society: Klaus Goerttler and Marvin A. Van Dilla

HISTORY OF THE ISAC

Distinguished Service Award: Mack J. Fulwyler and Johannes Schumann

Presidential Award for Excellence: Stephen Lockett Outstanding Student Award: Alan Jones

1996

Honorary Fellow of the Society: Myron Melamed and Mortimer L. Mendelsohn

Distinguished Service Award: Leon L. Wheeless

Presidential Award for Excellence: John P. Nolan

Outstanding Student Award: Cordelia Langford and Elizabeth Weir O'Brien

1998

Honorary Fellow of the Society: Louis A. Kamentsky, Wolfgang Gohde, and Leonard A. Herzenberg

Distinguished Service Award: Phillip N. Dean and Barton L. Gledhill

President's Award for Excellence: Thomas W. McCloskey

Exceptional Student Award: Karen K. Cornell

2000

Honorary Fellow of the Society: Harry A. Crissman and Harald B. Steen

Distinguished Service Award: L. Scott Cram and Carleton W. Stewart

Presidential Award for Excellence: Graeme Hodgson Exceptional Student Award: Stephanie Sincock

2002

Distinguished Service Award: Zbigniew Darzynkiewicz Membership Award: Howard Shapiro

President's Award for Excellence: Nada Boustany Exceptional Student Award: Arancha Rodriguez-Caballero

DIRECTION OF THE SOCIETY

This is a subject under continuous review by the council. To help with these reviews, several surveys have been conducted, workshops have been held, and committees have been formed and have met to provide input to the council.

Long-range planning meeting. This meeting was held in Breckenridge, Colorado in 1993 to address methods by which the society could provide more substantial support for its clinical members. To accomplish this goal, a decision was made to propose to the council that a clinical section be added to *Cytometry*, that the section have its own editor, and that two additional clinically oriented members be appointed to the editorial board. The council eventually approved all of these proposals.

Future focus committee. President James Watson formed this committee in 1999. The key themes and recommendations of this committee were:

1. The society should return to its technologic roots. Committee members felt that the society was trying to compete with the best there is in the cell biology and clinical arenas and cannot be successful doing it. The society should expand its technologic base to include such things as array technologies, image cytometry, bioinformatics, very large-scale data handling and analysis, robotics, and laser capture microdissection.

2. Cytometry and Communications in Clinical Cytometry (CCC). The committee offered several options for the council to consider: (a) fold CCC into Cytometry; (b) transfer CCC to the Clinical Cytometry Society; (c) switch to electronic publication of Cytometry; (d) increase the number and quality of review articles; (e) require keynote and plenary congress speakers to submit a paper to Cytometry; and (f) decrease manuscript processing time to a maximum of 6 months. As mentioned under Publications, item (a) has been accomplished. Items (c) to (e) are still under consideration.

3. Society meetings. Several suggestions were made to deal with frequency of the meetings, hold joint meetings with other societies, and restrict the size of the meetings and sponsorship of the associated societies. The council decided to keep the congresses on a biannual schedule.

4. Internet and Web page. The society should join the information age and build and maintain a "world-class" Web site. This has been done.

5. Name of the society. Several members have expressed a desire to change the society's name by substituting *cytometry* for *cytology*. This is under consideration by the council but requires a change in the constitution.

6. Expenditure reduction. This is an ongoing concern and one that the council continuously reviews.

Membership survey. The Plexus Consulting Group conducted a survey of 2,074 members and past members in 2001. They obtained 567 responses. The full report is available on the ISAC Web site (http://www.isac-net.org). Briefly, respondents joined the ISAC to take advantage of the avenues of communication provided by the society, including the journal Cytometry, newsletters, and networking with colleagues in the same field, particularly at the biennial international congress. Fifty percent of the respondents would like to see more small topical meetings and Web-based training courses sponsored by the society. Sixty-six percent of the respondents liked the 6-day duration of the congress; 33% would like to see it shortened. Dues do not appear to be a problem; the level was deemed appropriate. Many members would like more communication with the council and could form a core of volunteers for the society.

LITERATURE CITED

 Dean PN. A history of the International Society for Analytical Cytology. Cytometry 1996;24:300-311.