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Presidential Address
Surgical Oncology: A Specialty in Evolution

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Surgical oncology has established its role in the multidisciplinary care of the cancer patient. Surgical oncology fellowships are organized to teach multimodality treatment. The typical fellow has completed 6 years of general surgery residency and 1 year in the laboratory with the resultant eight publications. Data compiled from the review of two Society of Surgical Oncology–approved fellowship programs, the Surgical Residency Review Committee and the American Board of Surgery, indicate that the majority of fellows join academic faculties and enhance the training of general surgeons, who, in turn, have the major responsibility for oncologic care of the population at large.

Key Words: Cancer—Surgery—Residency—Fellowship.

The Society of Surgical Oncology (SSO) was established in 1975 when the membership of the James Ewing Society voted to assume the SSO name. I first attended a meeting of the James Ewing Society in 1959 as a guest of my uncle, Murray M. Copeland, MD, an alumnus of the training program of The Memorial Hospital for Cancer and Allied Diseases, New York. At that time, I was a first-year medical student at Cornell University Medical College. The James Ewing Society was made up of alumni who had trained at the Memorial Sloan-Kettering Cancer Center and gathered in New York for both scientific and social purposes, as well as to honor James Ewing, MD, Director of Memorial Hospital from 1931 to 1939 and Chief of Pathology since 1912.

It is not my purpose today to give you a history of the Memorial Sloan-Kettering Cancer Center or the Society of Surgical Oncology, but to describe briefly the evolution of surgical oncology as I have lived it during my 35-year medical career. In that regard, it is interesting to begin with the training and practice of the two men whom I have mentioned. Dr. Ewing (Fig. 1) was a trained pathologist who had a surgical internship and early on experimented with immunotherapy, chemotherapy, and radium. His book, entitled *Neoplastic Diseases*,[1] first published in 1919, established him as the father of the multidisciplinary approach to the treatment of cancer. Dr. Murray Copeland (Fig. 2) completed a medical internship and surgical pathology fellowship after having graduated from the Johns Hopkins Medical School and then came to the Memorial Hospital to further train in surgical pathology from 1929 to 1933. While there, he came under the influence of Dr. Ewing and became involved in the early experience with radium as an oncologic treatment modality. He then took a full surgical residency at the Union Memorial Hospital in Baltimore, Maryland. After World War II he became the Chief of the Division of Oncology in the Department of Surgery at Georgetown University Medical School. His unique training allowed him to be personally responsible for the surgical treatment and radiation therapy for all cancer patients in that institution. Chemotherapy was in its infancy, and he coordinated it, as well. I would visit him in Washington, D.C., and was greatly influenced by the energy he derived from his practice and the dedication he had to his patients. To complete his career, he joined the faculty of M. D. Anderson Hospital and Tumor Institute in 1960 (Houston, Texas), and I was privileged to share a position on the same faculty with him for 11 years.

For any talk on evolution, one usually starts with the description of the subject at the beginning and demon-

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FIG. 1. James Ewing, AM, MD, ScD, circa 1935. Professor of Pathology, Cornell University Medical College; Chief of Pathology, Memorial Hospital for Cancer and Allied Diseases, and Hospital Director, 1931–1939, New York, New York.

strates the great expansion, definition, and refinement of the subject over a time period. If we use the careers of the two men whom I have just described as an indication of the origin of surgical oncology, then our roots are in the total care of the patient, meaning surgery, pathology, radiation therapy, and chemotherapy. As each of these components of cancer treatment expanded and took on more specific definition, the components became a discipline within themselves, and we as surgeons relied on our colleagues in these disciplines to provide their respective expertise to our patients. The surgeon remained, however, the "primary care doctor" for the patients with a resectable solid malignant neoplasm and coordinated their care.

To grossly overstate where we find ourselves today, let me share with you the definition of a surgical oncologist as described in the pamphlet, *Understanding Breast Cancer Treatment: A Guide for Patients*, published by the National Cancer Institute.[2] The surgical oncologist is described as "a doctor who performs biopsies and other surgical procedures such as removing a lump (lumpectomy) or a breast (mastectomy);" whereas a medical oncologist is described as a specialist who "can put together all of the information about your case and can discuss your treatment choices with you." Interestingly, a gynecologic oncologist is a specialist described as "a doctor who specializes in the care and treatment of women's reproductive systems" and "can serve as a manager and main source of information among your treatment team members and you." Our importance has, certainly, been downgraded in the overall care of the patient, at least as described by this publication. Most surgical oncologists still are the entry point to the multidisciplinary treatment algorithm for the cancer patient with a resectable solid neoplasm, but multiple influential entities are forcing us into a background role, as would be suggested by the NCI pamphlet (which, by the way, is for distribution to patients, not to doctors).

So I would pose the question: have we evolved or have we regressed? Let me use my own career to address this question. As I have said, my interest in surgical oncology was piqued in medical school, and I matriculated through the surgical residency-training program at the Hospital of the University of Pennsylvania between 1963 and 1969, primarily because of I. S. Ravdin, MD, and Jonathan E.

FIG. 2. Murray M. Copeland, MD, circa 1960. Professor of Surgery and Vice President for International Affairs, University of Texas M. D. Anderson Hospital and Tumor Institute; Professor of Surgery, University of Texas Medical School at Houston, Houston, Texas.

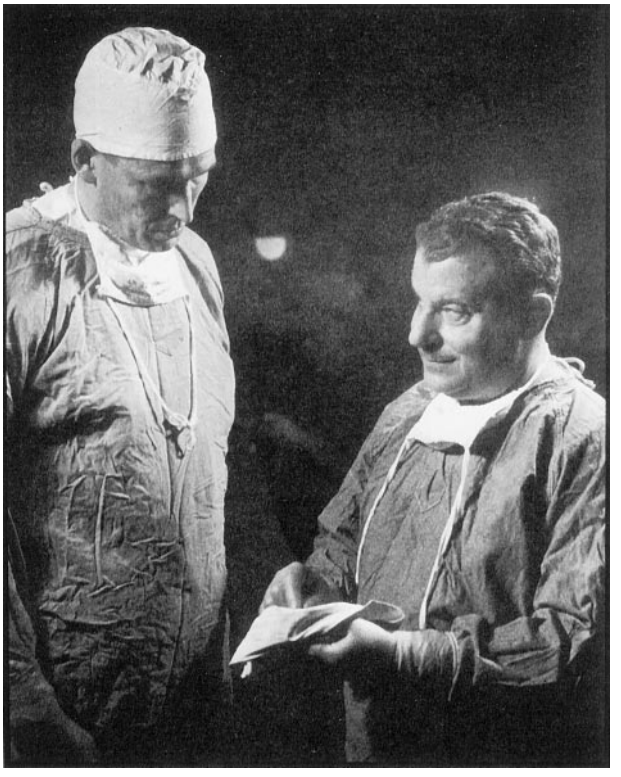


FIG. 3. Isidore S. Ravdin, MD (*right*) and Jonathan E. Rhoads, MD (*left*), circa 1950. Both men held the position of John Rhea Barton Professor of Surgery and Surgeon-in-Chief of the Hospital of the University of Pennsylvania, from 1945–1959 and 1959–1972, respectively.

Rhoads, MD, both of whom were leaders in surgical oncology in their day (Fig. 3). Both were Presidents of the American Cancer Society, in 1962–1963 and 1970–1971, respectively. I made the decision as a senior surgical resident to take a fellowship in surgical oncology but was undecided between the M. D. Anderson Hospital and the Memorial Sloan-Kettering Cancer Center. My uncle was at M. D. Anderson, but I was familiar with Memorial from my days in medical school. The other question I asked myself was if a surgical oncology fellowship was necessary if surgical training took place in a program that emphasized cancer surgery. At the time, opinions on the answer to this question were split. Nevertheless, following a tour of duty in Southeast Asia, I embarked on a surgical oncology fellowship at the M. D. Anderson Hospital in 1971. At that time, there were four surgeons at that institution doing 95% of the general surgery (Drs. Richard G. Martin, Marvin M. Rhomsdahl, Charles M. McBride, and Marion J. McMurtrey). None of them had any formal surgical oncology training. Each had come to the M. D. Anderson Hospital for his own unique reason, including to obtain a PhD in immunology, to run an experimental surgery laboratory, and to establish a program in electron microscopy. Nevertheless, their technical and judgmental expertise was exceptional and greatly augmented and refined the basic training in surgical oncology that I had obtained as a resident. I joined the general surgery faculty of the M. D. Anderson Hospital as the only formally trained surgical oncologist and had the pleasure of having as partners at that institution over the next 11 years four individuals, each of whom had fellowship training at the M. D. Anderson Hospital (John M. Daly, MD, now the Lewis Atterbury Stimson Professor and Chairman of the Department of Surgery at Cornell University Medical College; David M. Ota, MD, now Professor of Surgery and Chief of the Division of Surgical Oncology at the University of Missouri College of Medicine; J. Milburn Jessup, MD, Director of GI Oncology Program at the University of Pittsburgh Cancer Institute; and Frederick C. Ames, MD, now the senior surgeon at M. D. Anderson Hospital).

Today, there are 15 general surgeons on the M. D. Anderson faculty. All these surgeons have formal training in surgical oncology from an approved SSO program. Another evolutionary trend at this institution since my time has been the advent of randomized surgical trials from few to many.

I am sure a similar story could be told about The Memorial Sloan-Kettering Cancer Center; I am just not familiar with it. I do know that with the arrival of Murray F. Brennan, MD, a former SSO president, we soon began to see impressive data from Memorial from various prospective databases he established upon his arrival.

The answer to the question as to whether or not I should have taken a surgical oncology fellowship is an obvious and resounding yes, since my career and presidency of this organization stem directly from my having done so. As a surgical oncology fellow, I learned the integration of multimodality treatment into patient care—so much so, that a prevailing reason for my joining the University of Florida faculty was the treatment philosophy of the members of the Radiation Therapy Department, all of whom were M. D. Anderson disciples. I would not have to educate my new colleagues or, worse yet, alter my treatment philosophies.

Surgical oncology has evolved into a mature surgical discipline with multimodality treatment at its core. Our roots are still intact. Hardly have we regressed from them; instead we have expanded the discipline to our 1730 members and the 34 to 39 surgical oncology fellows we train annually. We must, however, educate all medical professionals about our discipline. Such an example would be the author of the NCI pamphlet on understanding breast cancer and treatment. We must

TABLE 1. *Profile of surgical oncology fellows, 1996–1998 (n = 84)*

	Age (y)	Residency (y)	Laboratory experience (y)	No. Publications
Mean	35.2	6.0	1.0	8.2
Standard deviation	±2.4	±1.0	±0.9	±8.4
Range	32–44	5–9	0–4	0–53
Median	35.0	6.0	1.0	6.0

guard our position as the most knowledgeable and logical member of the treatment team to serve as manager and main source of information for patients with resectable malignancies. For the time being, the best chance of cure of most solid tumors remains resection. We should, therefore, be the physicians who initially evaluate the patient unless we abdicate this role to physicians of other oncology disciplines. To maintain ourselves as the initial entry point for the patient, we must remain at least as knowledgeable about multimodality treatment as our colleagues in radiation oncology and medical oncology. Our surgical oncology fellowships are designed to accomplish this goal and to add additional surgical expertise taught by surgeons who have often dedicated their careers to the study of a limited category of malignant diseases and even to neoplasms of a single anatomical site. The anticipated outcome is the training of a broad-based surgical oncologist who can, in turn, train surgical residents and/or provide leadership in community hospitals for the proper care of the cancer patient.

Where are we today in accomplishing these goals? To answer this question I was eager to evaluate our SSO programs and will share with you what I found. The profile of the 84 surgical oncology fellows who completed training between 1996 and 1998 reveals a typical fellow to be 35 years of age, to have completed 6 years of surgical residency with 1 year in the laboratory, and to have eight publications (Table 1). Only nine fellows had no publications, and 13 had more than 15 publications (Table 2). International graduates made up 24% of fellows (Table 3). Fourteen percent of fellows were female; 21% were Alpha Omega Alpha; and 6% had a prior PhD. Laboratory experience was not a prerequisite for obtaining a fellowship, since 32 (38%) had none (Table 4). This profile indicates that the best surgical residents are applying for fellowships. Certainly, our SSO programs have excellent raw material, and "the ball is in our court" to train leaders in surgical oncology.

TABLE 2. *Number of publications*

No. publications	No. fellows (n = 84)
0	9
1–2	11
3–5	20
6–9	17
10–15	14
>15	13

TABLE 3. *International graduates (n = 20 [24%])*

Canada	6
India	4
Ireland	2
Israel, China, Germany, Lebanon, South Africa, Sweden, Korea, Greece	1 each

A survey of graduated fellows has been compiled for both the M. D. Anderson and Memorial Sloan-Kettering Hospitals spanning a recent 10-year period. I appreciate the Program Directors of each of these two institutions sharing with me the information. Seventy-four percent of the graduates remain in full-time academic practice, 20% in private practice, and 6% in academic part time practice. The distribution of practice patterns is virtually identical between these two institutions.

The goal of populating surgical departments in academic institutions with skilled surgical oncologists is being accomplished. What about the skilled surgical oncologist in private practice, where the majority of cancer patients receive their care? Since many of the SSO trainees from the past ten years reside in academic institutions, it becomes their responsibility to train the residents who will take care of the population at large. To investigate how well we are accomplishing this task at the University of Florida, I compared the average number of major oncologic procedures done by residents at our institution with the Resident Summary Data compiled by the Surgical Residency Review Committee for the academic year 1996–1997 (Table 5). As expected, our residents did significantly more hepatic resections, pancreaticoduodenectomies, esophagectomies, gastrectomies, and lymphadenectomies, but—unexpectedly—fewer thyroidectomies and breast cancer procedures. This was a valuable exercise for me, since I am proud of the expected and can, almost single-handedly, correct the unexpected.

Next, to determine the magnitude of the additional surgical training provided by SSO programs, I requested

TABLE 4. *Laboratory experience*

No. years	No. fellows
0	32
1	19
2	23
>2	4
Unknown	6

TABLE 5. *Average numbers of surgical cases*

	Resident RRC data*			Oncology fellow†		10-year recertification††	
	n = 995	n = 998	n = 26	n = 18	n = 21	n = 2434	n = 99
Procedure	1987	1997	University of Florida	A	B	General surgery	SSO
Lymphadenectomy	3.5	4.8	7.7	16	19	2	8
Major soft tissue	1.8	5.1	6.5	14	26	1	5
Radical neck	1.9	1.9	1.3	8	10	<1	2
Thyroidectomy	11.0	14.3	8.2	7	9	4	4
Modified radical mastectomy	17.5	16.2	12.6	21	22	6	11
Lumpectomy + axillary dissection	5.0	12.8	9.1	17	12	6	13
Esophagectomy	0.7	1.2	5.6	<1	4	<1	<1
Partial gastrectomy	6.0	5.1	7.8	2	5	2	2
Total gastrectomy	1.0	1.2	2.3	2	4	<1	<1
Colectomy	36.5	38.9	44.6	17	24	11	10
APR	3.9	3.2	4.1	3	6	1	2
Hepatic resection	1.0	2.5	6.0	6	22	<1	2
Whipple	0.9	2.5	4.4	7	11	<1	2
Retroperitoneal dissection	1.5	0.2	1.3	8	10	<1	<1

* Residency Review Committee averages are included for academic years 1986–1987 and 1996–1997 to allow for comparisons over this 10-year interval. University of Florida data are averaged for residents finishing since 1992.

† The two SSO programs are not directly comparable because of different elective rotations and because program A has 16 clinical months, whereas program B has 18 clinical months in a 2-year fellowship.

†† Cases done annually by non–SSO general surgeons (General Surgery) and SSO members (SSO) at the time of recertification by the American Board of Surgery.

RRC, Residency Review Committee; SSO, Society for Surgical Oncology.

the average number of major oncologic procedures done by fellows in two of our approved SSO programs (see Table 5). The data are not directly comparable between institutions because of different lengths of clinical rotations and the availability of elective time. Although there is some variability, both programs provide adequate supplementation to the general surgery experience obtained in the standard residency program, with the possible exception of surgery for upper gastrointestinal malignancies. Both programs provide electives or 1-year fellowships in an organ-specific discipline. For example, in a 2-month rotation on a thoracic service, 28 esophagectomies might be completed, whereas a 1-year breast fellow might do 138 modified radical mastectomies and a hepatobiliary fellow do 70 liver resections. Without question, the volume of procedures required to train a surgical oncologist exists, at least in the two programs surveyed.

Since approved SSO fellowships have been in place for more than 10 years and additional training in cancer surgery available for more than 50 years, are major surgical oncology cases being done nationwide primarily by cancer surgeons? The American Board of Surgery 10-year Recertification Examination provides an opportunity to gain insight into the answer to this question. Through the kindness of the Executive Director of the American Board of Surgery, Wallace P. Ritchie, MD, I was able to obtain annual operative caseloads of 2434 recertifying general surgeons between 1995 and 1997. From this list he was able to define 99 SSO members for caseload comparison.

The average number of major surgical oncology cases done by SSO members is significantly higher for all operations except thyroidectomy and gastrointestinal procedures, an experience which reflects the somewhat limited exposure SSO fellows get in these cases as demonstrated by the two programs surveyed (see Table 5).

The devil, however, is in the details. Whether an SSO or non-SSO member, the great majority of the more difficult cases are concentrated in the hands of only a few surgeons (Table 6). As an example, more than two Whipple procedures are done by only 3% of non-SSO members and by only 10% of SSO members. Likewise, no Whipple procedures are done by 79% and 50% of the surgeons in these respective groups. It would appear, on the surface, that Whipple procedures are concentrated in the hands of SSO members. However, 3% of 2434 surgeons represents 73 surgeons, 10 of whom are SSO members. Therefore, on a nationwide basis, 63 general surgeons without SSO fellowship training do more than two Whipple procedures per year, a technique they learned as a surgical resident, not as an SSO fellow. Even more importantly, 398 general surgeons do one or two Whipple procedures per year. A similar distribution is seen for hepatic resections, with 265 general surgeons doing one to three resections annually, although 85% of general surgeons do none, compared to only 30% of SSO

TABLE 6. *Case distribution per year at 10-year recertification (1995–1997)**

Procedure	General surgeons (n = 2434)	SSO members (n = 99)
Whipple	79% = 0 18% = 1–2 (318) 3% = >2 (63)	50% = 0 40% = 1–2 10% = >3
Hepatic resection	85% = 0 13% = 1–3 (265) 2% = >3 (39)	30% = 0 20% = 1 40% = 1–5 10% = >5
Retroperitoneal dissection	90% = 0 8% = 1 (174) 2% = >1 (39)	70% = 0 20% = 1 10% = >1
Lymphadenectomies	53% = 0 22% = 1–2 (467) 15% = 3–5 (365) 10% = >5 (233)	10% = 0 50% = >2 10% = >48
Major soft tissue	68% = 0 14% = 1–2 (340) 5% = >6 (111)	30% = 0 50% = >5 10% = >12
Modified radical mastectomy	18% = 0 50% = >3 (1167) 5% = >19 (121)	10% = 0 50% = >5 10% = >27
Lumpectomy + axillary dissection	30% = 0 20% = 1 (246) 50% = >1 (1167) 5% = >23 (121)	10% = 0 50% = >3 10% = >33
Thyroidectomy	35% = 0 5% = >12 (111)	30% = 0 10% = >13
Radical neck dissection	95% = 0 3% = 1 (53) 2% = >1 (39)	70% = 0 20% = 1 10% = >1
Partial gastrectomy	45% = 0 35% = 1 (94) 18% = 1–5 (388) 2% = >6 (49)	30% = 0 20% = 1 40% = 2–4 10% = >4
Total gastrectomy	80% = 0 18% = 1–2 (388) 2% = >2 (49)	70% = 0 20% = 1 10% = >1
Colectomy	9% = 0 50% = >8 (1167) 10% = >21 (23)	10% = 0 50% = >6 10% = >22
APR	58% = 0 40% = 1–3 (970) 2% = >3 (39)	50% = 0 40% = 1–3 10% = >3

* The total number of general surgeons recertified in 1995–1997 was 2434, 99 of whom were SSO members. The number of surgeons within each percentage category is indicated in parenthesis. For the SSO members, the percentage is the same as the number of surgeons, because the total is 99. Where appropriate, the SSO members have been subtracted from the general surgeons, because the General Surgeon column contains both groups. There were too few esophagectomies done by either group to generate statistics.

members. The distributions are more equalized for thyroidectomies and gastrointestinal and breast procedures, reflecting adequate training in residency programs and/or minimal exposure in SSO fellowships.

Multiple studies on morbidity and mortality from difficult surgical operations conclude that the best outcome is directly correlated to volume. Most of these studies have reviewed institutional volume and assumed that the procedures are done by only a few surgeons.[3,4] However, there are data showing an outcome disparity among surgeons within one institution.[5,6] Nevertheless, judging by the distribution data presented in the tables, general

TABLE 7. *Comparative national data for procedures performed by residents**

	Average	Distribution				
		10%	30%	50%	70%	90%
Whipple						
1986–1987	0.9	0	0	0	0	2
1996–1997	2.5	0	1	2	3	5
Major hepatic resection						
1986–1987	1.0	0	0	0	0	2
1996–1997	2.5	0	1	2	3	6

* As the data are presented, the 90% distribution denotes only 10% of surgical residents, i.e., 10% of the residents did an average of two Whipple procedures and two major hepatic resections in 1986–1987. By 1996–1997, 10% of the residents did an average of five and six of these procedures respectively, and 70% of the residents did at least one of these procedures.

surgeons today are required to do major cancer operations. As David Nahrwold, MD, pointed out at last year's annual SSO meeting in his presentation entitled "Practice Reality: General Surgeons as Oncologists," there are not enough SSO trainees to make an impact on this volume nationwide. There are 1000 general surgeons certified each year by the American Board of Surgery and only 34 to 39 SSO fellows trained. Even if we wished, we are not going to have critical mass to assume the care of all patients needing pancreatic or hepatic resections for some time to come. SSO fellowships are not a threat to general surgeons or to general surgery residencies. In fact, oncologic procedures make up a significant portion of general surgery training. I am more concerned about the threat to general surgery as a broad-based discipline from organ-specific fellowships such as breast, hepatobiliary, and endocrine.

In the two programs surveyed, 74% of our SSO trainees in the last 10 years have joined academic faculties and are dedicated to training general surgeons in the art and science of surgical oncology both judgmentally and technically. Are there data to indicate that these academic surgeons have made an impact? The national resident data compiled by the Residency Review Committee shows that the average number of Whipple procedures and hepatic resections done by residents, comparing those finishing in 1987 to those finishing in 1997, has increased from 0.9 to 2.5 and from 1.0 to 2.5, respectively (see Table 5). Even more impressive is the change in distribution between these two periods (Table 7). In 1987, 70% of surgical residents did no pancreatectomies or hepatic resections, whereas in 1997, 50% of residents did two or more of each and 10% did five or more. No doubt, explanations for these changes are many, such as better diagnostic techniques and neoadjuvant treatment creating more surgical candidates, yet at most academic institutions, surgical volume and case mix are dictated by the expertise and interest of the surgical staff members. Surgical oncologists are concentrating themselves in tertiary care facilities, most of which train general surgical residents, who, in turn, are better qualified to provide oncologic care for the population at large. And another goal of the SSO has been fulfilled.

A parallel can be drawn with vascular surgery (Table 8). As this discipline matured and residency programs recruited vascular surgeons with formal training, the overall vascular operative experience for general surgery

TABLE 8. *Comparative national data for peripheral vascular procedures performed by residents**

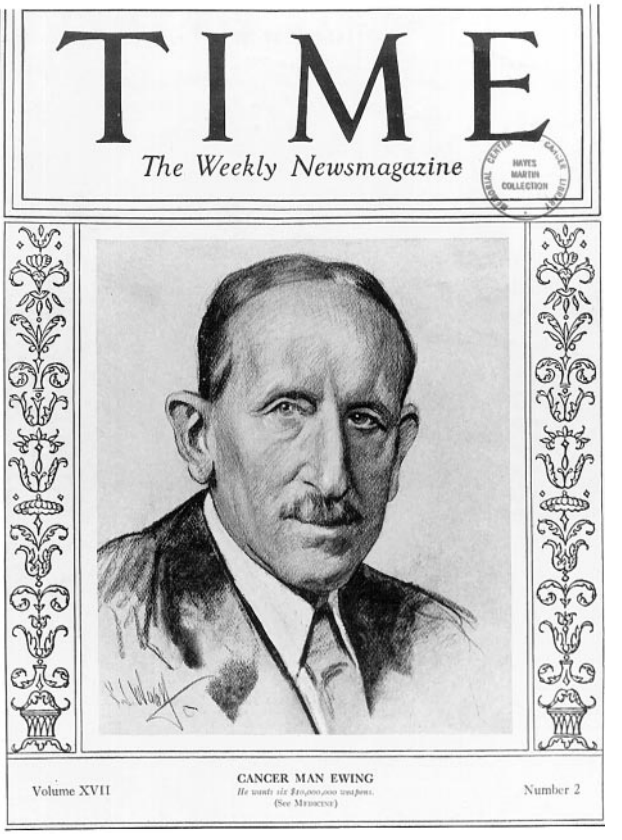
	Average	Distribution				
		10%	30%	50%	70%	90%
Aneurysms						
1986–1987	9.6	2	5	7	11	17
1996–1997	13.7	5	9	12	17	24
Cerebrovascular						
1986–1987	10.1	1	4	7	12	20
1996–1997	22.5	7	13	20	27	42

* As in Table 7, the 90% distribution denotes only 10% of general surgery residents, i.e., 10% of the residents did an average of 17 aneurysms and 20 cerebrovascular procedures in 1986–1987. The average number of aneurysms and cerebrovascular procedures (50% distribution) had risen from seven for each of these procedures in 1986–1987 to 12 and 20, respectively, by 1996–1997.

residents increased, even in programs with approved vascular fellowships. In fact, the requirements for an approved vascular surgery fellowship dictate that the general surgeons in the same training program have adequate vascular operative experience. In many instances, the existence of a vascular fellowship not only has improved the quality of vascular training for general surgery residents but has increased the volume as well. The SSO Training Committee should track operative volumes for fellows and general surgery residents in institutions where both exist to ensure an experience similar to that of vascular surgery. Institutions with inadequate volume for both must be denied surgical oncology fellowships.

Surgical oncology has now evolved into a mature discipline within general surgery. The 14 SSO-approved fellowship programs attract excellent residents, who most often choose an academic career. The SSO membership has grown to a total of 1730; 1620 registrants attended the Annual Meeting in San Diego in 1998. Our financial reserves have grown from $17,000 in 1992 to $1.5 million in 1998. Industry is eager to support us. NIH research grants to Departments of Surgery have increased from 702 to 814 since 1992, and total dollar awards have gone from $165 million to $190 million in the same time intervals.[7] Representatives from our standing committees are well received when they visit our congressional delegation in Washington. The American Board of Surgery has created the Surgical Oncology Advisory Council, the initial members of which I had the pleasure of appointing. David P. Winchester, MD, brings his past experience as the Executive Director of the American College of Surgeons' Commission on Cancer. Daniel G. Coit, MD, is the Chairman of the SSO Training Committee and most knowledgeable on SSO requirements for established fellowship programs. Courtney M. Townsend, Jr., MD, is a member of the Surgical Residency Review Committee and knows the requirements for accreditation of training programs under the auspices of the American Council for Graduate Medical Education. Certification of surgical oncology by the American Board of Surgery should not be an immediate goal, and possibly never a goal at all. Likewise, we should oppose fragmentation of general surgery, especially since surgical oncology is the backbone of most general surgery residency programs. Nevertheless, were fragmentation to occur in spite of our opposition, as a mature discipline, we stand poised to control our own destiny.

Many general surgeons have the perception that, as a group, we suffer because of unfocused national representation by any single organization. The American College of Surgeons has accepted the challenge of representing general surgeons—as well it should, since we comprise 41% of the dues paying members. Under the new College leadership there are plans to triple the staff in the Socioeconomic Office. The SSO should work in concert with the American College of Surgeons to speak as one voice and to exert an ever increasing influence in areas of specific importance to surgical oncology. We have the financial resources to do so. An example would be in-depth participation by our members in the clinical trials of the American College of Surgeons Oncology Group (ACOS-OG). We should review our membership requirements and allow general surgeons with a professed interest in surgical oncology into our Society without having to wait 6 years after completion of training. Since major surgical oncology cases are increasing in general surgical training programs, possibly the only prerequisites for membership should be certification by the American Board of Surgery, a demonstrable surgical oncology practice, and appropriate ethical behavior. To effect such a change as this one, of course, depends upon what and whom the Society wishes to represent. Do we wish to be a rather exclusive group and subconsciously think that our membership certificate might at some time


TIME

The Weekly Newsmagazine

HAYES MARTIN COLLECTION

CANCER MAN EWING

Volume XVII

Number 2

FIG. 4. *Time: The Weekly Magazine,* Vol. 17, No. 1, 1931.

in the future be used to exclude those who do not have it from doing surgical oncology procedures? Or do we wish to take the lead in representing a major portion of general surgery by expanding our membership to include those general surgeons early in their careers who are doing major surgical oncology cases? The surgeons in this latter group exist because they are identified by the case lists of the individuals undergoing certification and recertification by the American Board of Surgery.

Surgical oncology has reached a new plateau; it has evolved into a mature discipline, and we need to act accordingly. I have proposed to the Executive Committee that a retreat or workshop be planned to define and prioritize our responsibilities for the near future. The first retreat of this society was in 1983 and was entitled "Surgical Oncology: Progress and Plans." This retreat was only 8 years after the James Ewing Society changed its name to the Society of Surgical Oncology and became more inclusive by admitting to membership medical oncologists, radiation therapists, and surgeons who had not trained at Memorial Hospital. Much has happened in the ensuing 15 years.

How far have we and the field of oncology evolved? Dr. James Ewing adorned the cover of Time Magazine in 1931 (Fig. 4). In closing, I would like to read to you a portion of the contained article on the cause of cancer[8]:

> "There are two schools of thought on what may be the cause:
>
> 1. The 'localized' school thinks that, since cancer always appears in connection with prolonged irritation (bruises, unhealed wounds, sores, chemicals, heat, burns) it is the irritation which is the important cause of the cancer. The mechanism is supposed to be this: the irritation kills body cells; new cells replace the dead ones; the irritation kills the new ones, and continues to kill succeeding new crops; eventually the body becomes vexed, as it were, and rushes the production of new cells; those hastily created cells grow so fast that they get beyond control of that mechanism in the body which regulates growth; and there is the Cancer.
>
> 2. The 'generalized constitutional' school thinks that the system as a whole gets out of kilter over a long period of time. It gets so that it cannot manage itself with normal efficiency. Along comes an irritation which disables one of its parts, say the breast. The body hastily drafts its defense forces. Like Falstaff's paltry men, they are unhealthy, poorly armed. They scurry to the site of the injury, stumble hither and thither, heedless of leadership, out of control—Cancer."

The teleologic explanation of 1931 has been replaced by the ever expanding scientific understanding of the cause of cancer today. The groundwork is being laid for the discovery of the cause, prevention and cure of all malignant diseases. Let us maximize our opportunities and stimulate our successors to make scientific advances as dramatic as those made by the trainees of men such as Dr. James Ewing.

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