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13th International Cancer Congress, Part A

# CURRENT PERSPECTIVES IN CANCER

EDITORS: Edwin A. Mirand
William B. Hutchinson
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**Proceedings of the 13th International Cancer Congress**
**September 8–15, 1982**
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# 13th International Cancer Congress, Part A

# CURRENT PERSPECTIVES IN CANCER

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# Foreword

The papers presented in the Plenary Lectures and the Congress Symposia at the 13th International Cancer Congress, September 8–15, 1982, Seattle, Washington, are included in these volumes. The United States was the official host of the Congress, which was held under the auspices of the International Union Against Cancer (UICC), and the Fred Hutchinson Cancer Research Center, Seattle, Washington was the host institution.

Dr. William B. Hutchinson of the Fred Hutchinson Cancer Research Center was the Congress President and Dr. Edwin A. Mirand of Roswell Park Memorial Institute, Buffalo, New York, was the Secretary-General.

The scientific program of the Congress contained over 4,000 presentations. The National Program Committee, chaired by Dr. Enrico Mihich of Roswell Park Memorial Institute, felt that it would be appropriate to include only the papers from the Plenary Lectures and the Congress Symposia to keep the number of volumes at a reasonable level. These papers are presented in five volumes.

*Volume A* — Final Report of the Secretary-General that includes the organizational details of the scientific program
— Plenary Lectures

*Volumes B & C* — Basic science topics in oncology

*Volumes D & E* — Clinical oncology topics

Since it would be impossible to cover all the areas of oncology presented at the Congress, by presenting the plenary and symposia sessions, we attempted to select the most rapidly advancing and promising areas of clinical and basic research. A good index of the growth in the field of oncology can be obtained by comparing the publications of this meeting with the last cancer congress publications (12th International Cancer Congress) held in Buenos Aires from October 5–10, 1978.

Looking over the topics covered herein, one can only marvel at the tremendous rate of progress and the increase in interest in oncology in the past four years. This reflects the developments in molecular biology as it relates to cancer viral and chemical carcinogenesis, in the design and evaluation of clinical trials, biological response modifiers, cancer nursing, psychosocial aspects of cancer, etc.

On behalf of the Congress officers, we wish to express our gratitude to the National Program Committee and to all the scientists, physicians, dentists, nurses, and other participants engaged in oncology who attended this Congress and who made it a success. I am sure that both the scientific and social interchange which was experienced at the Seattle meeting will have a positive, lasting effect on our lives. We hope to see you at the 14th International Cancer Congress to be held in Budapest, Hungary in 1986 to further the scientific and social interaction.

The editors are deeply indebted to all the authors for their outstanding contributions to these volumes.

We wish to express thanks and appreciation to Catherine O'Leary, Lisa Barone, Linda Beverage, Kevin Craig, Ann M. Gannon, Ramon Melendez, Amy Mirand and Lucy Mirand, all of whom aided in various ways in the preparation of these volumes.

Finally, we wish to acknowledge the support of the National Cancer Institute, American Cancer Society, Pacific Northwest Regional Commission for their generous support of the 13th International Cancer Congress.

**Edwin A. Mirand**

# Preface to Part A

All efforts to control cancer are defined and underscored by the unique coalescence of research, treatment, and educational activities, and are gauged by the impact these activities ultimately have on patient survival and quality of life. New and evolving information about cancer — generated both in and from laboratory and clinical settings — has virtually erased the vestigial "unidisciplinary" approach to the disease. Today's efforts to control cancer integrate extensive basic research, the vanguard of all clinical practice; treatment strategies and modalities that have been developed, tested, and implemented through multidisciplinary collaboration; and educational activities designed to promote professional and public awareness of the disease.

This volume of plenary lectures contains a plethora of cancer information, brought together under the aegis of disease management and cancer control. Topics deal with such timely issues and controversies as the recent trends in cancer treatment, the historical relevance of cancer epidemiology, the rationale for creating specific oncologic disciplines, and the role biology plays in the understanding of malignancy. Central to this volume is the emphasis on collaboration, both within and across institutions, disciplines, and nations.

**Edwin A. Mirand**

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Current Perspectives in Cancer, pages 3–23


# THE ROLE OF NATIONAL EFFORTS IN DEVELOPING COORDINATED PROGRAMS ON INTERNATIONAL ONCOLOGY

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The need to coordinate programs aimed at the cure and control of cancer is undeniable. Disparities between potential and actual control of cancer can on occasion be disappointing. Ironically, eras of rapid advance in the number and scope of activities relevant to cancer control actually may experience initially a frustrating increase in these disparities. Specialization of interest in cancer by affiliation with a particular research discipline or service approach may sometimes lead to gaps, duplication, disjointed efforts, or failure to pursue basic insights through to clinical application. The coordination of cancer research and service, therefore, is a critical consideration in the development of effective efforts to control cancer.

The term "Renaissance man" confirms the existence and the passing of an age when gifted individuals could be expected independently to remain conversant and effective in all fields of knowledge. While it probably remains true that individual creativity and initiative are the key ingredients in the advance of scientific knowledge, it also consistently is true that the most significant individual findings now typically arise through the integration of several existing disciplines or techniques. The nineteenth century development of research specialties shifted the locus of coordinated efforts from the individual laboratory or clinic to the university medical school or research centers. Despite the natural individual preference for independence and self-sufficiency coupled with the widely voiced abhorrence of bureaucracies necessitating external accountability, collaborative dependencies, committee meetings, etc., still the

observed abundance of voluntary associations and functional networks strikingly demonstrates an inherent impetus toward efforts to develop coordinated oncology programs.

The diversity in size, scope, and approach of specific associations reflects adaptation to local attributes and precedents, but the variety also reinforces the underlying observation that collaboration is universally inevitable when creative, effective individuals seek to achieve broader goals.

The turn of the twentieth century marked the transition from research with relevance for cancer to research targeted upon cancer, as exemplified in the establishment in 1898 of my own institution, Roswell Park Memorial Institute, as the first governmental support for a dedicated clinical cancer research unit. The early twentieth century also provided the first inter-institutional integration of researchers interested in cancer. That period saw the forerunners of the current major approaches to the coordination of research efforts, such as the following:

Forerunners of Current
Major Approaches to Coordination

PROFESSIONAL SOCIETIES:
  American Association for Cancer Research (1907)
  Japanese Pathological Society (1905)
JOURNALS:
  Revue des Maladies Cancereuses (1896)
  Zeitschrift fur Krebsforschung (1904)
  Bulletin du Cancer (1911)
  Journal of Cancer Research (1916)
  Gann (1907)
INTERNATIONAL CONGRESSES: Heidelberg (1906)
  Madrid (1933)
PUBLIC VOLUNTARY AGENCIES:
  American Society for the Control of Cancer (1913)
  Japanese Association for Cancer Research (1915)

Today the complexities of research and new cancer control strategies may exceed the capabilities of individual local institutions or individuals. Scientific researchers must stay abreast of relevant reports which cross the traditional disciplines of biology, chemistry, physics, etc. Investigators involved in, for example, in vitro studies must achieve further development of their research leads through

collaboration with researchers involved in animal model systems and clinical trials. Clinical researchers must coordinate a team which can incorporate into patient studies the diverse contributions of surgery, chemotherapy, radiation therapy, immunology, and supportive care. Reliance upon community medical practitioners, with their particular knowledge of the individual patient and the local setting, for delivery of care requires a concerted effort to disseminate results and promote application of the latest cancer knowledge. In short, coordination is essential to enhance the cumulative impact of individual cancer research and control activities.

## INTERNATIONAL ONCOLOGY

Given then the need for coordinated cancer programs, at what level should this integration occur? Certainly the desire to cure and control cancer is worldwide, and many aspects of oncology are appropriately addressed at an international level. The credibility of the term "international oncology" is evident in the responsibilities and services of the International Union Against Cancer (UICC). In general, these international responsibilities include:

1) fostering collaborative research
2) enhancing the training of personnel
3) coordinating services
4) disseminating information
5) assisting local and regional initiatives

Several references to specific UICC projects can illustrate the realm of international oncology. The most immediately apparent example is this International Cancer Congress, which provides a worldwide forum to exchange ideas and communicate results on cancer research, therapy, control and prevention.

The recently published UICC International Directory of Specialized Cancer Research and Treatment Establishments compiles a synopsis of the organization, resources, and activities of cancer centers throughout the world. The UICC Committee on International Collaborative Activities (CICA) also has been instrumental in initiation of an International Cancer Patient Data Exchange System, a patient registration network facilitating information sharing between European and American cancer centers. In collaboration with the National Cancer

Institute of the United States (NCI), an international computerized reference service, the International Cancer Research Data Bank (ICRDB) has been maintained since 1974. The ICRDB data base incorporates information on:

1) recently published literature (CANCERLIT)
2) current projects (CANCERPROJ)
3) current protocol studies (CANCERPROT)

and is accessible through the on-line capabilities of CANCERLINE. The system provides the basis for the Directory of Cancer Research Information Resources and specialized reports (Cancergrams) of abstracts of recently published articles in a particular field which have appeared in the more than 3000 journals monitored.

In addition, International Scientist to Scientist Communication has represented a major UICC objective. The International Cancer Research Technology Transfer Program (ICRETT) has provided to date over 600 awards since 1975 supporting researchers for travel, study and work at foreign centers.

As in most collaborative endeavors, the variety of activities to be integrated and the diverse skills of multi-institutional agencies usually means that coordination will not equate with absolute centralization of responsibilities. In the field of international oncology, the UICC has shared the role of integrating worldwide endeavors with the World Health Organization (WHO) and the International Agency for Cancer Research (IARC) in Lyon, France. These agencies and their programs demonstrate the international scope of efforts to promote the cure and control of cancer.

## THE ROLE OF NATIONAL EFFORTS

While the term "international oncology" reflects the fact that ultimately collaboration on cancer research and service should be integrated at the international level, the driving forces that stimulate and foster activities throughout the world must be closer and more responsive to the local setting and its specific individuals and institutions. One could draw an analogy with industry.

Each of the international cancer associations has en-

couraged the formation of regional groups that promote cooperation aimed at the priorities of specific sectors of the world. The UICC has assisted the establishment of affiliations such as:

Regional Associations of Cancer Institutes

- European Organization for Research on Treatment of Cancer
- Organization of European Cancer Institutes
- Scandinavian Cancer Union
- Latin American Association of Cancer Institutes
- Federation of Middle Eastern Cancer Organizations
- Asian Federation of Organizations for Cancer Research and Control
- COMECON

One of the older regional associations, EORTC, has evolved into an extensive network of institutions in 13 countries conducting nearly 100 clinical trials and publishes the European Journal of Cancer & Clinical Oncology in collaboration with the European Association for Cancer Research. Roswell Park is one of 10 U.S. centers joining 12 Latin American centers in a Collaborative Cancer Treatment Program of the Pan-American Health Organization and NCI, with studies addressing hematological malignancies, osteosarcomas, and advanced breast, gastric, and head and neck tumors.

NCI-PAHO Collaborative Cancer
Treatment Research Program

Argentina:
Grupo Argentino de Tratamiento (GATLA), Academia Nacional de Medicina
Grupo Argentino de Tratamiento de los Tumores Solidos (GATTS), Universidad del Salvador
Instituto "Angel H. Roffo"

Brazil:
Fundacao A. C. Camargo
Instituto Nacional de Cancer

Chile:
Universidad Catolica de Chile
Hospital Luis Calvo Mackenna