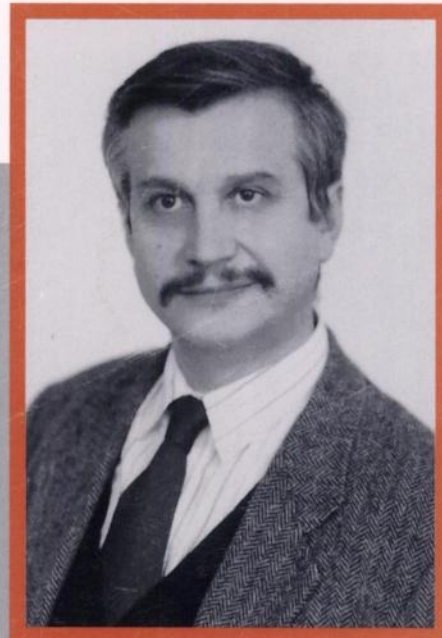


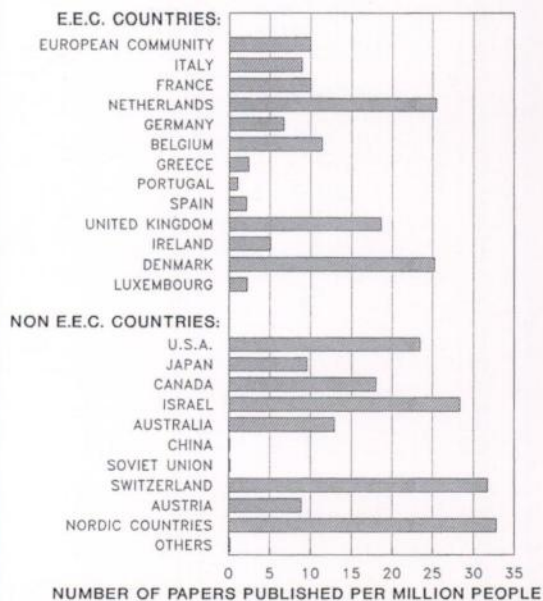


# Cancer Research

AN OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH



GRAPHIC REPRESENTATION OF PRODUCTIVITY IN DIFFERENT COUNTRIES - YEARS 1988-1990



November 15, 1995  
Volume 55 • Number 22  
PP. 5133-5487  
ISSN 0008-5472 • CNREA 8

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Mayo Cancer Center  
Mayo Clinic  
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Rochester, MN 55905

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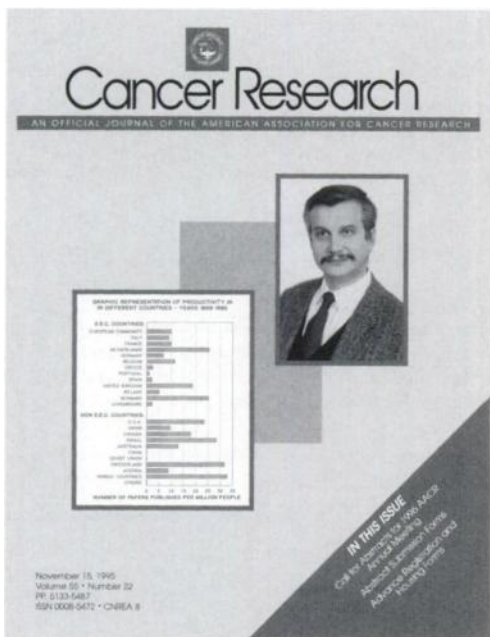
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Mayo Cancer Center  
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# COVER LEGEND



An article by Silvio Parodi *et al.*, entitled “Cancer Research in the European Community and Other Non-EC Countries (*Tumori*, 79: 9–15, 1993),” provides interesting and thought-provoking data on the magnitude of cancer research published globally. It describes the output of cancer research articles (including original articles, reviews, advances, clinical reports, and various other types of commentaries) from 12 European Community (EC) countries<sup>1</sup> and most of the developed non-EC countries<sup>2</sup> according to data gathered from 15 of the highest ranking oncology journals. The journals studied were: *Advances in Cancer Research*, *British Journal of Cancer*, *Cancer*, *Cancer Genetics and Cytogenetics*, *Cancer Metastasis Reviews*, *Cancer Research*, *Cancer Surveys*, *Cancer Treatment Reviews*, *Carcinogenesis*, *Experimental Cell Research*, *Hematological Oncology*, *International Journal of Cancer*, *Journal of Biological Response Modifiers*, *Journal of Clinical Oncology*, and *Journal of the National Cancer Institute*. The data are presented in a series of tables and figures and represent, as far as we are aware, the first such study. These data were collected for the years 1988–1990; differences in rank were not great over this period. The 15 journals were chosen on the basis of their impact, namely, the number of citations over the past 2 years divided by the number of articles published during the same period (*SCI<sup>®</sup> Journal Citation Reports<sup>®</sup>*, Philadelphia, PA: Institute for Scientific Information, 1987 and 1990 editions). The “half-life” for older articles, a parameter related to the rate of decrease in citation frequency of articles published in a given journal, was also considered. Altogether, 12,691 items over the 3-year period were included in Parodi *et al.*’s analysis.

<sup>1</sup> EC countries studied include: Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom.

<sup>2</sup> Non-EC countries studied include: Australia, Austria, Canada, China, Israel, Japan, the Nordic countries (Finland, Norway, and Sweden), the Soviet Union, Switzerland, and the United States.

Perhaps the most significant data are depicted in the productivity of the various countries shown in the figure on this cover (reprinted with permission from the *Tumori* article). Of the 12 EC countries (excluding Luxembourg, which had only 1 publication), the most productive were the Netherlands with approximately 26 publications per population of a million, Denmark (25/million) and the United Kingdom (18/million). At times, local factors were also involved; for instance, the majority of the United Kingdom publications appeared in the *British Journal of Cancer*. Italy and France had about 9 and 10 publications, respectively, per million population. Among the non-EC countries, Switzerland and the Nordic countries published the most (32–33 publications/million); Israel was second, with 28/million, followed by the United States (23/million), Canada (18/million), and Japan (10/million). Weighing the data according to impact factor times half-life had little effect on the relative rankings.

For 1990, the *British Journal of Cancer* published the highest number of articles from EC countries, 299 per year, followed by *Cancer Research* with 237 and *Cancer* with 186. Significantly, all three of these journals are published in English. For U.S. articles, the comparable figures are: 837 in *Cancer Research*, 427 in *Cancer*, and 184 in *Carcinogenesis*. Among the non-English-speaking countries, Japan published 144 articles per year in *Cancer Research*, 110 in *Cancer*, and 51 in *Carcinogenesis*. Germany (including former East Germany) published 48 in *Cancer Research*, 43 in *Carcinogenesis*, and 32 in *Cancer*. Comparable values for Italy, France, the Netherlands, and the Nordic countries were, in general, slightly lower than those for Germany and were extremely low for the Soviet Union and China. Parodi *et al.* recognize that many factors enter into productivity, such as economic status, salary scales, and private and public funding. The most striking difference between the EC and non-EC countries, as shown in Table 4 of the Parodi article, is that only 27% of the total number of papers published come from EC countries, of which 24% come from the United Kingdom, Italy, France, the Netherlands, and Germany. The remaining 73% come from the non-EC countries, with 46% originating in the United States, 9% in Japan, 5% in the Nordic countries, and 4% in Canada.

The world is experiencing much political and economic upheaval, a situation paralleled by an extraordinary avalanche of new information that could affect the future of cancer incidence and mortality, as well as the direction of research in the field. The data in the *Tumori* article will be a benchmark of how the field of cancer research, as well as other biomedical sciences, will fare in future years. An interesting fact that was not measured in the analysis of Parodi *et al.*, but was often evident simply from the names of the authors of the most relevant articles, especially in the laboratories of the United States, the country that is publishing close to half of all of the articles published in the cancer field, is that the population of the investigators working in the most advanced laboratories is largely multiethnic and multicultural (S. Parodi, personal communication).

Dr. Parodi, Director of the Laboratory of Chemical Carcinogenesis, Istituto Nazionale per la Ricerca sul Cancro, Genoa, Italy, is pictured on the cover. We gratefully acknowledge his efforts in providing us with the information and photographs for this cover feature.

Sidney Weinhouse