November

Cell and organ cultures, and the application of the cultures to studies in carcinogenesis and chemotherapy, occupy an important place in contemporary cancer research. B. A. Flaxman and E. J. Van Scott (Temple University Health Sciences Center, Philadelphia, Pennsylvania) report on successful short-term cultures of human mammary gland epithelium. Etienne Y. Lasfargues et al. (Institute of Medical Research, Camden, New Jersey), achieved heterotransplantation of a human breast carcinoma cell line into rats and hamsters by in vitro fusing the tumor cells with normal cells from the prospective host. There is scientific consensus (based more on faith than on facts) that research on cells derived from man has advantages over cells derived from rodents or other animals, despite the greater heterogeneity of the material and the obvious limitations of such explorations.

David L. Ahmann et al. (Mayo Clinic, Rochester, Minnesota), compared CCNU with a combination of imidazole carboxamide and vincristine in disseminated malignant melanoma. Remissions, lasting 13 to 36 weeks, were achieved in four of 18 patients on combination therapy and in one of 19 patients on CCNU.

Jordan U. Gutterman et al. (M.D. Anderson Hospital and Tumor Institute, Houston, Texas) studied the relationship between cell-mediated tumor immunity and prognosis in 35 patients with acute leukemia. A strong correlation was identified between the intensity of lymphocyte responsiveness to autologous leukemia cells and the likelihood of achieving a subsequent remission, as well as the duration of such remission. Another feature has been added to the generalization that immunocompetence is associated with a more favorable prognosis in patients with acute leukemia. The extrapolation of this generalization to other neoplasms requires specific studies.

December

Emil Frei III, formerly of the M.D. Anderson Hospital and Tumor Institute in Houston and now at Children’s Cancer Research Foundation in Boston, Massachusetts chose Combination Cancer Therapy as the subject of his presidential address before the American Association for Cancer Research. It is an excellent summary of cancer chemotherapy developments over the past two decades, during which cancer chemotherapy and clinical oncology have reached mature research and clinical status. Interdisciplinary approaches involving all basic and clinical sciences are essential for further progress, as they were in the past. But the difficult field of neoplasia does have successes to record, and there is every reason to predict that those successes will continue.
One of the areas in which such successes are inevitable is immunology. H. F. Oettgen and G. Klein (Sloan-Kettering Institute, New York, New York) summarize a workshop in human tumor immunology, sponsored by the American Cancer Society and held in October, 1971. Twenty-eight research workers not only discussed cell-mediated and antibody-mediated immune reactions to cancer in man, but performed concurrent experiments in the laboratory. The highly technical level of the proceedings requires reading of the report itself. A year later, another workshop seems in order, indicating the pace of progress in this exciting research.

Emmanuel Farber (Temple University Health Sciences Center) reports on the third meeting of the American Cancer Society Research Professors, held in December 1971. The program was initiated in 1952; currently there are 19 such professorships. The group considered some active current interests in cancer research, such as mammalian cell surfaces in the regulation of cell activities, the structure of RNA oncogenic viruses and reverse transcriptase, in vitro transforming systems in carcinogenesis, and the metabolism and mechanism of action of the steroid hormones.

The meeting included directors and other top administrators of the American Cancer Society and the National Cancer Institute, for a discussion of the expanded national program. The balance between grants and contracts, basic and applied research, cancer centers and communication and accountability with the public and the Congress were among the major topics discussed.

The issue and problems related to the overselling and overexpectation of cancer prevention or cures were also considered. It was emphasized that there is acceptance of the long-term nature of the cancer investment.

I would like to add an editorial note. One of the most effective ways to stimulate and to expand cancer research in the United States is to expand the ACS Research Professorships from 19 to 108, or one for every School of Medicine in the country thus providing a more stable base for the long-term investment against cancer.