The Aging-Cancer Program brings together Case Comprehensive Cancer Center members whose research focused or is refocused on aging-cancer issues; investigators from Case schools of medicine, nursing, arts and sciences and social sciences; and clinical faculty from Cleveland Clinic and University Hospitals Case Medical Center.

Scientific Themes
The Program’s goal is to develop interdisciplinary research activities that integrate aging and cancer research. Cancer prevention and control in elders cannot be the same as for younger people and strategies must address patients’ complex clinical presentation. On the other hand, to improve cancer outcomes in general, research relative to elders must identify areas of disparities and potential improvement in cancer screening and treatment across subgroups of this population. One of only eight in the country to receive NCI P20 funding for Aging Cancer Research Program Development, the Program selected four research priority areas from eight identified by the National Institute on Aging and the Development, the Program selected four research priority areas to receive NCI P20 funding for Aging Cancer Research Program Development.

Scientific Focus Areas
Three focus areas are fully integrated research efforts among collaborating investigators; the others [*] have three to four members and are prioritizing recruitment.

- **Comorbidities**

- **Age-Related Changes in Brain Tumor Biology**

- **Screening and Therapy**

- **Psychosocial Aspects of Cancer in the Elderly**

- **Screening and early detection, long-term survivorship, advanced cancer and end-of-life care; quality of life and quality of care for older patients and family members; health care utilization and cost outcomes.**

The graying of America, and the exponential increase in cancer screening and early detection, long-term survivorship, advanced cancer and end-of-life care; quality of life and quality of care for older patients and family members; health care utilization and cost outcomes. The graying of America, and the exponential increase in cancer incidence in the final decades of life, compounded by comorbidities, require diverse disciplines. Interprogrammatic aging-cancer research already has resulted in noteworthy findings.

Research Highlights – Publication Citations p.33

1. 3, 4. Nathan Berger described the critical need for further research of age-associated disorders such as acute leukemia and myelodysplastic syndrome. Berger based his appeal on Stanton Gerson’s study of microsatellite instability in hematopoietic stem cells that showed more high level aberrations in stem cells derived from bone marrow of older patients than than from younger adults and from cord blood samples from neonates. 3. 4.5. Karen Bowman, Julia Rose and Gary Deimling used a dataset of matched family member/survivor dyads and established that: 1) family members acted as health maintenance advocates for survivors, with greater advocacy related to being a caregiver during diagnosis and treatment; 2) family members apprised the cancer experience as being more stressful than their surviving relatives; and 3) during diagnosis and treatment, family members and survivors had broadly divergent perceptions of their communication with each other, with important predictors for family members being situation factors (family distress and prostate cancer) and for survivors being person factors (education, age, gender, and race).

6. 7. 8. 9. Deimling and Bowman found the most prominent forms of coping used by long-term survivors were planning and acceptance while the least used were venting and denial, and that decreased life satisfaction was associated with more cancer-related health worry, younger age, being African American, having survived more years, and experiencing more than one type of cancer. The most consistent predictor of psychosocial distress was dispositional optimism/pessimism, with more optimistic individuals reporting fewer cancer-related health worries and lower levels of anxiety and depression, and that in terms of overall health status, many older survivors were more vulnerable due to both cancer related symptoms and comorbid conditions, with females and African Americans at special risk.

15. Eva Kahana led a study testing a new model of cancer communication as a predictor of patient outcomes in terms of satisfaction with medical care, practice use, and quality of life. Investigations showed that cancer screening recommendations must be considered in a gender-specific context. For example, 85.7% of males reported that their physicians recommended that they have a PSA blood test and 65% of females reported being recommended for a mammogram. When cancer screening recommendations and marital status was assessed, physicians were less likely to recommend fecal occult blood testing to their unmarried patients in comparison to married patients. 12, 13, 14, Rose, Bowman and Elizabeth O’Toole reported initial findings for a unique coping and communication support (CCS) intervention for middle-aged and older advanced cancer patients and their family caregivers. Baseline age group differences in advanced cancer patients’ psychosocial well being and preferences for care indicated poorer adaptation in middle-aged patients and low patient-family caregiver agreement in priorities for physician communication.

16. Siran Koroukian, who with Gregory Cooper and Alfred Rimm developed the Cancer-Aging Linked Database (CALD) that merges databases to assess comorbid conditions in older patients with cancer, uses the methodology to identify comorbidities, geriatric syndromes; and disabilities leading to functional impairment in patients 65 and older with breast cancer, colorectal cancer and prostate cancer. One finding indicates that geriatric syndromes such as depression and dementia are associated with late stage diagnosis of breast cancer and demonstrates marked overlap of patients with combinations of two or more of these complicating conditions.

**Research Highlights**

- **Program Membership**

  - Nathan A. Berger, MD
  - Karen F. Brennan, PhD
  - Horst Bronxgrabner, MD, PhD
  - Barbara J. Daly, RN, PhD, FAAN
  - Gary T. Deimling, PhD
  - Eva F. Kahana, PhD
  - Siran M. Koroukian, PhD
  - Elizabeth E. O’Toole, MD [*]
  - Cynthia Ouasic, MD, PhD [*]
  - Susan Redline, MD, PhD [*]
  - Julia H. Rose, PhD, MA
  - Kathleen A. Smyth, PhD [*]
  - Theodore T. Suh, MD, PhD [*]
  - Alison L. Townend, PhD [*]

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  - Kathleen A. Smyth, PhD [*]
  - Theodore T. Suh, MD, PhD [*]
  - Alison L. Townend, PhD [*]
13. Tailoring coping and communication support for advanced cancer patients and their family caregivers. Psycho-Oncology, 14, Supplement 1, S34, 2005.