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For a listing of the Scientific Review Officer and membership roster for each study section, click on the study section roster under the study section name within an IRG listed below or go to the [study section index](#) (study sections listed alphabetically) and click on the specified roster next to the name of the study section.

### Oncology 2 - Translational Clinical IRG [OTC]

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- [Basic Mechanisms of Cancer Therapeutics Study Section \[BMCT\]](#)
- [Cancer Biomarkers Study Section \[CBSS\]](#)
- [Chemo/Dietary Prevention Study Section \[CDP\]](#)
- [Cancer Immunopathology and Immunotherapy Study Section \[CII\]](#)
- [Clinical Oncology Study Section \[CONC\]](#)
- [Drug Discovery and Molecular Pharmacology Study Section \[DMP\]](#)
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- [Radiation Therapeutics and Biology Study Section \[RTB\]](#)

### Basic Mechanisms of Cancer Therapeutics Study Section [BMCT]

[\[BMCT Membership Roster\]](#) [\[BMCT Meeting Rosters\]](#)

The Basic Mechanisms of Cancer Therapeutics [BMCT] Study Section reviews applications addressing the mechanisms of action of anti-neoplastic agents, including drug effects on tumor cell growth, death, and differentiation. Studies analyzing the mechanisms of resistance to anti-neoplastic agents and the circumvention of resistance to cancer drugs are also included. Specific areas covered by BMCT:

- Mechanism(s) of action of anti-neoplastic agents or combinations of agents at the molecular, cellular, or target tissue level
- Mechanism(s) of action of chemosensitizing agents or angiogenesis inhibitors or combinations with anti-neoplastic chemotherapeutic agents
- Mechanism(s) of resistance to anti-neoplastic agents and strategies for circumvention of resistance
- Effect of anti-neoplastic agents on tumor cell anabolic processes including: macromolecular synthesis, DNA repair, gene regulation, immortalization, differentiation, cell cycle and checkpoint control, RNA translation, and signal transduction
- Effect of anti-neoplastic agents on tumor cell catabolic processes including: DNA damage, apoptotic and non-apoptotic cell death, protein degradation, protein stability, and stress-response pathways

**The study sections with most closely related areas of similar science listed in rank order are:**

[Drug Discovery and Molecular Pharmacology Study Section \[DMP\]](#)  
[Developmental Therapeutics Study Section \[DT\]](#)  
[Cancer Molecular Pathobiology Study Section \[CAMP\]](#)  
[Radiation Therapeutics and Biology \[RTB\]](#)  
[Clinical Neuroimmunology and Brain Tumors Study Section \[CNBT\]](#)

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## Cancer Biomarkers Study Section [CBSS]

[\[CBSS Membership Roster\]](#) [\[CBSS Meeting Rosters\]](#)

The Cancer Biomarkers Study Section reviews applications addressing the discovery, development, and validation of biomarkers for diagnosing cancer, monitoring its progression, assessing patient prognosis, and assessing response to treatment through the measuring disease burden, measurement of minimal residual disease, and detection of tumor recurrence. Specific areas covered by CBSS:

- The use of specific assays or global molecular profiling to identify novel biomarkers based on DNA, RNA, protein, lipids, or metabolites obtained from tumor tissue or bodily fluids
- Early detection of cancer, monitoring of its progression or response to therapy using available medical imaging approaches including MRI, PET, MRS, fluorescence, and immunohistochemical assays
- Validation of new biomarkers using animal models, human materials and clinical trials
- Clinical trials (of all phases) where the goal is biomarker validation
- Development of novel methods for biostatistical analysis, informatics, and modeling that facilitate the discovery, evaluation, and use of markers

**The study sections with most closely related areas of similar science listed in rank order are:**

[Epidemiology of Cancer \[EPIC\]](#)  
[Clinical Oncology \[CONC\]](#)  
[Radiation Therapeutics and Biology \[RTB\]](#)  
[Medical Imaging \[MEDI\]](#)  
[Enabling Bioanalytical and Biophysical Technologies \[EBT\]](#)

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## Chemo/Dietary Prevention Study Section [CDP]

[\[CDP Membership Roster\]](#) [\[CDP Meeting Rosters\]](#)

The Chemo/Dietary Prevention (CDP) Study Section reviews applications that address nutrition, dietary and chemopreventive factors and their use in intervention for modulation of cancer risk, and inhibition of cancer progression. Emphasis is on basic mechanistic studies, preclinical and clinical (phase-I and phase-II) studies as well as discovery, evaluation, and validation of dietary factors. Specific areas covered by CDP:

- Discovery and evaluation of diets as well as individual dietary factors, chemopreventive agents, and targets for the prevention and modulation of cancer; design, development and synthesis of preventive agents
- Studies on mechanisms of nutritional prevention at the biochemical, molecular and cellular levels; effects of dietary factors on hormonal carcinogenesis, chemical carcinogenesis, differentiation/transdifferentiation, apoptosis, and cell signaling pathways; the role of diet in oxidative stress, antioxidant defense mechanisms, DNA methylation, histone acetylation, and gene expression
- Development and validation of biomarkers important in prevention, including markers of cancer risk and progression
- Design and development of approaches to the prevention of tumors via other factors, such as exercise, diet restriction, or vaccines
- Preclinical prevention studies including in vitro and in vivo evaluation of efficacy and safety as well as in vitro and in vivo pharmacokinetic and pharmacodynamic studies of chemopreventive agents; Phase I and Phase-II clinical trials of chemopreventive agents

**The study sections with most closely relate areas of similar science listed in rank order are:**

[Cancer Etiology Study Section \[CE\]](#)

[Tumor Cell Biology Study Section \[TCB\]](#)

[Cancer Biomarkers Study Section \[CBSS\]](#)

[Basic Mechanisms of Cancer Therapeutics Study Section \[BMCT\]](#)

[Integrative Nutrition and Metabolic Processes Study Section \[INMP\]](#)

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## Cancer Immunopathology and Immunotherapy Study Section [CII]

[\[CII Membership Roster\]](#) [\[CII Meeting Rosters\]](#)

The Cancer Immunopathology and Immunotherapy [CII] Study Section reviews applications addressing immunologic therapies of cancer and modulation of the innate and adaptive immune responses to cancer cells. This includes in vitro studies, the evaluation of immunotherapeutic strategies in preclinical models, and translational studies leading to pilot and/or phase I clinical trials. Specific areas covered by CII include:

- Tumor vaccines of all types and dendritic cell-based therapies to induce or amplify tumor immunity
- Therapeutic use of antibodies, conjugated antibodies, or antibody fragments to target tumor cells or to modulate immune response to cancer cells
- Hematopoietic stem cell transplantation and other adoptive cellular therapies with immune cells as cancer treatment
- Modulation of tumor immune response by gene therapy, cytokines, chemokines, growth factors, signal agonists and antagonists, or biological response modifying drugs
- Development and testing of methods and models of immune responses to cancer and assessing such responses in cancer patients
- Mechanisms of tumor resistance and escape from immune recognition or killing including modulation of tumor antigen processing and presentation, alteration of susceptibility of tumors to innate and adaptive immunologic responses, tumor-induced immune suppression and tolerance

**The study sections with most closely related areas of similar science listed in rank order are:**

[Transplantation, Tolerance and Tumor Immunology Study Section \[TTT\]](#)

[Clinical Oncology Study Section \[CONC\]](#)

[Developmental Therapeutics Study Section \[DT\]](#)

[Radiation Therapeutics and Biology Study Section \[RTB\]](#)

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## Clinical Oncology Study Section [CONC]

[\[CONC Membership Roster\]](#) [\[CONC Meeting Rosters\]](#)

The Clinical Oncology Study Section reviews applications in the areas of clinical patient-oriented research and clinical therapeutic trials. This includes clinical trials with therapeutic intent using drugs, radiation, surgery, and/or biological agents. Specific areas covered by CONC:

- Clinical therapy trials including surgical intervention, chemotherapy, radiation therapy and radiopharmaceuticals, combined modality therapy, immunotherapy (antibody and cellular), vaccine and gene therapy, and therapy with biological response modifiers.
- Pharmacologic and toxicologic studies of new modalities in patients and correlative studies relevant to therapeutic clinical trials.
- Non-behavioral alternative cancer therapies and trials.
- Research on the treatment of cancer therapy-related nausea and vomiting, pain, mucositis, alopecia and fatigue.
- Age-specific issues including: changes in tumor behavior with aging, clinical and laboratory assessment of the older cancer patient, age-related factors that withstand effective cancer treatment, coordination of care of the older cancer patient, pharmacology of chemotherapy agents, and amelioration of toxicity

**The study sections with most closely related areas of similar science listed in rank order are:**

[Developmental Therapeutics Study Section \[DT\]](#)

[Cancer Immunopathology and Immunotherapy Study Section \[CII\]](#)

[Cancer Biomarkers Study Section \[CBSS\]](#)

[Transplantation, Tolerance and Tumor Immunology Study Section \[TTT\]](#)

[Medical Imaging \[MEDI\]](#)

[Aging Systems and Geriatrics Study Section \[ASG\]](#)

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## Drug Discovery and Molecular Pharmacology Study Section [DMP]

[\[DMP Membership Roster\]](#) [\[DMP Meeting Rosters\]](#)

The Drug Discovery and Molecular Pharmacology [DMP] Study Section reviews applications concerned with discovery, design, identification, isolation, development and synthesis of novel agents that are potentially useful in cancer therapy. Emphasis is on identification of antineoplastic agents and validation with novel preclinical models for anticancer drug evaluation. Specific areas covered by DMP:

- Novel drug discovery: identification of molecular targets of antineoplastic agents that modulate signal translation, cell cycle, differentiation, apoptosis, and hormone signaling; mechanism of action of novel agents that lead to translation of these agents in the clinic and validation of target
- New drug development and production: identification, synthesis and isolation of novel drugs and modification of existing compounds for evaluation in both in vitro and in vivo tumor model systems
- New technology development: development and application of new technologies for the drug discovery process, including microarray analysis, proteomics, genomics, and bioinformatics
- Assay development: development of high throughput in vitro screens and cell-based assays for cancer therapeutics
- Model validation: development, validation, and use of novel mammalian and non-mammalian models for anticancer therapeutic experimentation

**The study sections with most closely related areas of similar science listed in rank order are:**

[Basic Mechanisms of Cancer Therapeutics Study Section \[BMCT\]](#)

[Developmental Therapeutics Study Section \[DT\]](#)

[Synthetic and Biological Chemistry A Study Section \[SBCA\]](#)

[Synthetic and Biological Chemistry B Study Section \[SBCB\]](#)

[Macromolecular Structure and Function A Study Section \[MSFA\]](#)

[Macromolecular Structure and Function B Study Section \[MSFB\]](#)

[Macromolecular Structure and Function C Study Section \[MSFC\]](#)

[Macromolecular Structure and Function D Study Section \[MSFD\]](#)

[Macromolecular Structure and Function E Study Section \[MSFE\]](#)

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## Developmental Therapeutics Study Section [DT]

[\[DT Membership Roster\]](#) [\[DT Meeting Rosters\]](#)

The Developmental Therapeutics [DT] Study Section reviews applications addressing the experimental therapy of neoplastic diseases in in vitro systems and in vivo model systems, including some early-stage, pilot clinical trials. The major emphasis of this study section is on the rational development of novel therapeutic strategies that have a significant potential for early translation to the clinic. Specific areas covered by DT:

- Evaluation of drug-delivery strategies (including nanoparticles, liposomes and other delivery vehicles) and gene therapy approaches involving non-immunologic targets for the treatment of cancer.
- Translational studies of novel antineoplastic agents and pre-clinical drug toxicity, pharmacokinetic/pharmacodynamic and biomarker studies of anticancer agents.
- Development of anti-angiogenic therapeutic strategies and rational combinations of cytotoxic drugs with novel agents including those targeting: growth factors, signaling, cell cycle regulation, angiogenic, and differentiation pathways.
- Development and application of mathematical and computational methods for the investigation of combination chemotherapy using small molecules and other modalities.
- Therapeutic approaches involving biologic response modifiers, (including cytokines, and hormonal agents) either alone or in combination with novel or conventional drugs for cancer treatment.
- Early-stage, pilot clinical trials of novel anticancer therapeutic and drug-delivery strategies involving pharmacokinetic, pharmacodynamic, toxicologic, or pharmacogenomic endpoints

**The study sections with most closely related areas of similar science listed in rank order are:**

[Basic Mechanisms of Cancer Therapeutics Study Section \[BMCT\]](#)

[Gene and Drug Delivery Systems Study Section \[GDD\]](#)

[Cancer Immunopathology and Immunotherapy Study Section \[CII\]](#)

[Drug Discovery and Molecular Pharmacology Study Section \[DMP\]](#)

[Clinical Oncology Study Section \[CONC\]](#)

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## Radiation Therapeutics and Biology Study Section [RTB]

[\[RTB Membership Roster\]](#) [\[RTB Meeting Rosters\]](#)

The Radiation Therapeutics and Biology [RTB] Study Section reviews applications on therapeutic interactions of ionizing radiation, radionuclides, electromagnetic radiation, and heat at the molecular, cellular, organ and patient levels. This ranges from basic studies of DNA damage responses and DNA repair to preclinical applications in which dose, dose rate, type of radiation, and quality of radiation are variables. Specific areas covered by RTB:

- Basic molecular/cellular-radiation/thermal interactions at therapeutic doses: radiation chemistry, DNA damage and repair, cell cycle regulation, hypoxia, signal transduction, apoptosis, heat shock proteins, growth factors, cytokines, oxidative stress, reactive oxygen species, tumor suppressor genes, cytogenetics, genomic instability, as well as radiation carcinogenesis and investigations of mechanisms of DNA damage and repair
- Mechanisms and applications of modifiers of radiation response (including radiation sensitizers, radioprotectors, fractionation, hypoxia, and other modulators) and combination of radiation with novel agents (including those targeting growth factors, signaling pathways, DNA repair, and tumor angiogenesis)
- Physics of treatment planning, treatment delivery, and dosimetry of brachytherapy, intravascular brachytherapy, thermal therapy, targeted radionuclide therapy, photodynamic therapy (PDT), heavy ion or neutron capture therapy, and technology and outcome analysis methodologies

related to radiation treatment and planning

- Therapies including: intensity modulation radiation therapy, conformal therapy, tomotherapy, hyperthermia, PDT (including interstitial PDT), photoimmunotherapy, radiofrequency ablation, cryoablation, intravascular radiotherapy, radiation-induced gene therapy, feasibility studies to establish proof-of-principle of novel radiation therapeutics or combinations of radiation with systemic agents, as well as imaging and image analysis as it relates to targeting of radiation and assessment of response
- Pre-clinical studies to model radiation therapeutics, tumor biology, and radiation response modulation including: pharmacokinetics, response assessment, efficacy; and internal dosimetry of targeted radio labeled agents (including: antibodies, peptides, oligonucleotides, and liposomes)

**The study sections with most closely related areas of similar science listed in rank order are:**

[Cancer Etiology Study Section \[CE\]](#)

[Cancer Genetics Study Section \[CG\]](#)

[Clinical Oncology Study Section \[CONC\]](#)

[Medical Imaging \[MEDI\]](#)

[Molecular Genetics A Study Section \[MGA\]](#)

[Molecular Genetics B Study Section \[MGB\]](#)

[Molecular Genetics C Study Section \[MGC\]](#)

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