



A M E R I C A N  
A C A D E M Y O F  
A N T I - A G I N G  
M E D I C I N E



Established in 1992

# Fellowship in Integrative Cancer Therapy

The American Academy of Anti-aging Medicine is proud to present the first and only existing Fellowship in Integrative Cancer Treatment.

## ■ What is Integrative Cancer Treatment (ICT)?

Integrative Cancer Treatment is a unique therapy for treating individuals with cancer. This therapy utilizes multiple modalities, including but not limited to, off-label pharmaceuticals, nutraceuticals, vaccines and other types of immunotherapy, novel drugs/substances not yet approved in the U.S., dietary treatments, mind-body techniques, hyperthermia, homeopathy, in addition to traditional therapy.

## ■ Why should Cancer patients seek ICT vs. Traditional Cancer Treatment?

Traditional cancer treatment is efficacious for early stage cancer. Unfortunately, in the U.S., we have made little progress in the treatment of advanced stage cancers in the past twenty years. A study was published in the British journal, "Clinical Oncology," in December, 2004, entitled, "The Contribution of Cytotoxic Chemotherapy to 5-Year Survival in Adult Malignancies." The authors, one medical oncologist and two radiation oncologists, analyzed the results of all randomized clinical trials performed in the U.S. and Australia, that reported a statistically significant increase in 5-year survival due to the use of chemotherapy in adult malignancies. The trials that were analyzed were performed between 1990 and 2004. The authors' conclusions were the following:

- Contribution to 5-year survival in Australia was 2.3%
- Contribution to 5-year survival in US was 2.1%
- Median survival in lung cancer has increased by 2 months in the past 20 years

Overall survival benefit of less than 5% has been achieved in the adjuvant treatment of breast, colon, and head and neck cancers. Clearly, the need for an alternative form of cancer treatment is great and imminent.

## ■ Who should attend the Integrative Cancer Fellowship?

All healthcare practitioners can benefit from this fellowship. In addition, all healthcare practitioners, regardless of specialty, can practice ICT. Although oncologists are welcomed and urged to attend this fellowship, the majority of attendees will be non-oncologists.

## ■ What benefits will be afforded by attending this Fellowship?

The knowledge gleaned from attending this fellowship will allow practitioners to provide improved cancer treatments, allowing a better quality and quantity of life for cancer patients. In addition, practitioners will be learning "cutting edge" therapies. Although, monetary gain should not be the primary motive, this type of practice is lucrative to the healthcare provider. Because much of the alternative treatments is not covered by insurance, the patients must pay out of pocket. This is analogous to the practice of Anti-aging Medicine.

## ■ Module I Objectives

Upon completion of the module, the participant will:

- Understand the normal cell cycle and cancer cell cycle.
- Be familiar with factors that promote (and inhibit) cancer cell life, death, and apoptosis.
- Have an understanding of cancer stem cells, cell differentiation, and their roles in cancer.
- Understand the vascular and interstitial biology of tumors.
- Be familiar with cancer cellular microenvironment and it promotes or inhibits metastases.
- Be familiar with intracellular signaling of normal and cancer cells.
- Understand the concepts and utility of cancer immunology.
- Be familiar with the most common DNA mutations associated with cancer.
- Be familiar with dietary and environmental triggers for cancer.
- Understand DNA damage response pathways and their contribution to cancer.
- Understand the techniques for cancer chemoprevention.
- Be familiar with hereditary cancer predisposition syndromes.
- Understand the role of viruses in the generation of cancer.
- Be familiar with immunodeficiency and its role in cancer development.
- Off-label Pharmaceuticals I
  - Be familiar with the literature regarding its efficacy for cancer.
  - Know the dosages and protocols for use of the drugs discussed, and be prepared to use them in advanced-stage cancer patients.

## ■ Module II Objectives

Upon completion of the module, the participant will:

- Be familiar with tumor classification.
- Be familiar with pathologic staging.
- Be familiar with tumor grading.
- Understand immunochemistry.
- Be familiar with fine-needle aspiration, and the literature regarding its accuracy, as well as its ability to “seed” tumors.
- Be familiar with molecular and genetic diagnostics.
- Understand the utility of tumor markers
  - Screening and early detection.
  - Diagnosis.
  - Prognosis and prediction of therapeutic response.
  - Monitoring disease.
- Understand the use of various imaging modalities
  - Screening
  - Utility, sensitivity, and specificity for
    - Plain films.
    - Ultrasound.
    - Mammography.
    - CT.
    - Angiography.
    - MRI.
    - Nuclear medicine and PET scanning.
- Understand anatomic vs. functional imaging.
- Be familiar with disease-specific imaging recommendations.
- Be familiar with various techniques for cancer prevention, screening, and early detection.
  - Understand avoidable causes.
  - Screening and early detection.

# Fellowship (ICT)

## Module Overview

- Epidemiology of cancer.
- Diet and cancer.
- Chemoprevention for specific cancers.
- Understand the surgical role in cancer.
  - Diagnosis.
  - Staging.
  - Management.
- Off-label Pharmaceuticals II
  - Be familiar with the literature regarding its efficacy for cancer.
  - Know the dosages and protocols for use of the drugs discussed, and be prepared to use them in advanced-stage cancer patients.

### ■ Module III Objectives

Upon completion of the module, the participant will:

- Be familiar with radiation therapy.
  - Types of radiation
  - Biologic effects of radiation
  - Radiation-induced carcinogenesis
  - New modalities in radiation
    - Brachytherapy
    - Particle radiation therapy
- Understand chemotherapy
  - Principles of combination chemotherapy
  - Drug resistance
  - Tumor cell growth kinetics
  - Targeted agents
  - Adjuvant therapy
  - Neoadjuvant therapy
  - Management of advanced and metastatic disease
  - Chemotherapeutic agents
  - Response criteria
- Be familiar with hematopoietic stem cell transplantation
  - Allogeneic
  - Syngeneic
  - Autologous
  - Indications for Stem cell Transplant
  - Complications of Stem Cell Transplant
- Off-label Pharmaceuticals III
  - Be familiar with the literature regarding its efficacy for cancer.
  - Know the dosages and protocols for use of the drugs discussed, and be prepared to use them in advanced-stage cancer patients.

## ■ Module IV Objectives

Upon completion of the module, the participant will:

- Understand how to assess and manage cancer pain.
- Understand cachexia and anorexia
  - Factors involved in loss of adipose tissue and muscle
  - Pharmacologic treatment of cachexia
- Be familiar with the prognostic factors associated with nausea and vomiting and the various treatments.
- Understand the assessment and treatment of mucositis.
- Understand how to assess and treat radiation therapy side effects.
- Understand the etiology, pathophysiology, and treatment of lymphedema.
- Understand how to evaluate fatigue, as well as pharmacologic and non-pharmacologic treatment.
- Understand how to prevent and treat alopecia.
- Understand the role of hospice.
- Understand how to assess and treat hematologic complications.
  - Disorders of Red Blood Cells
    - Pathophysiology
    - Management
    - Safety of Erythropoietin Stimulating Agents
    - Polycythemia
  - Disorders of White Blood Cells
    - Neutropenia
    - Leukocytosis
  - Disorders of Platelets
    - Thrombocytopenia
    - Thrombocytosis
  - Acquired Marrow Failure States and Treatment
- Understand how to assess and treat cancer-related venous thromboembolism.
  - Epidemiology
  - Natural History
  - Cancer-associated Hypercoagulability
  - Challenges of Venous Thromboembolism Diagnosis in Cancer Patients
  - Cancer Patient response to Low-Molecular Weight Heparins
  - DVT and Pulmonary Embolism Management
  - Diagnosis and Management of IVC and Intra-abdominal DVT
  - Diagnosis and Management of Superficial Thrombophlebitis
  - Inferior Vena Cava Filters
  - Venous Thrombosis Prevention
- Understand how to manage cancer-related infections.
  - Risk factors (including neutropenia).
  - Sources of infection.
  - Evaluation and treatment of the neutropenic patient.
  - Management of infections.
- Metabolic and Paraneoplastic Syndromes
  - Hypercalcemia
  - Hyponatremia
  - Tumor Lysis Syndrome
  - Paraneoplastic Neurologic Syndromes
- Off-label Pharmaceuticals IV
  - Be familiar with the literature regarding its efficacy for cancer.

# Fellowship (ICT)

## Module Overview

### *Module IV Objectives Continued*

- Know the dosages and protocols for use of the drugs discussed, and be prepared to use them in advanced-stage cancer patients.

### ■ Module V Objectives

Upon completion of the module, the participant will:

- Be familiar with various forms of non-pharmacologic complementary therapies.
  - Accupuncture
  - Homeopathy
  - Mind-body techniques
- Understand dietary recommendations for cancer patients.
  - Calorie restriction
  - Amino acid restriction
  - Low carbohydrate diet
  - Ketogenic diet
- Understand how to treat cancer with immunotherapy.
  - Cancer vaccines
  - Immunocytokines
  - Monoclonal antibodies
- Understand how to inhibit glycolysis in cancer cells.
- Understand how to inhibit fatty acid metabolism in cancer cells.
- Understand the role for hyperthermia in treating cancer.
- Understand the use of herbal supplementation in cancer treatment I.

### ■ Module VI Objectives

Upon completion of the module, the participant will:

- Understand how to manage an Integrative Cancer practice.
  - Patient forms and informed consents
  - Complying with the law; avoiding a knock on the door from the FDA
  - Monetary aspects
- Understand the use of herbal supplementation in cancer treatment II.
  - Efficacy.
  - Dosages and protocols
- Questions and answers.
- “Hands on;” at Dr. Rosenberg’s office.



**Mark Rosenberg, M.D.**

Dr. Rosenberg has been involved with drug research since 1991. Having studied the mechanisms of cancer treatment failure, the following concept has become blatantly apparent to Dr. Rosenberg. There are many substances that are toxic to cancer cells in vitro (outside of the body, in a culture medium), including chemotherapy and intravenous antioxidant therapy. These therapies, however, are more often than not, ineffective in vivo (inside the body). The primary reason for the ineffectiveness is that tumor

blood flow is poor, resulting in a tumor that actually receives very little of the cytotoxic therapy that is being administered. In addition, poor tumor blood flow is associated with higher grade tumors and greater incidence of metastasis.

Dr. Rosenberg has since concentrated his efforts on improving blood flow to the cancer, while administering cytotoxic intravenous antioxidant therapy. In addition to using vasodilating therapy such as carbogen and isosorbide dinitrate, Dr. Rosenberg has just been granted approval status for

an IND (investigational new drug) using Angiotensin II. Angiotensin II is frequently used in Japan in conjunction with chemotherapy to improve tumor blood flow.

Dr. Rosenberg recently appeared on Fox News, for inducing remission on a patient with metastatic lung cancer (to liver and spine) that was refractory to chemotherapy.

**Become a Fellow in Integrative Cancer Therapy**

Call (888) 997-0112

[info@A4M.com](mailto:info@A4M.com)