

Issue No. 1, November 2007

### **NEW THERAPIES**

**SORAFENIB** (Nexavar-Bayer) is a new multikinase inhibitor of RAF. Becomes the first drug to increase survival in advanced liver cancer. In a randomized, phase III trial, sorafenib treatment increased overall survival by 44%.

**RECLAST** (zoledronic acid-Novartis) is a once-a-year osteoporosis drug. A three-year trial of the 15-minute infusion approved for women with postmenopausal osteoporosis, was found to reduce the risk of spine fractures by 70%, and hip fractures by 41%. Bone mineral density increased in the spine by 6.7%.

**TORISEL** (temsirolimus-Wyeth) a targeted, first-in-class mTOR inhibitor, is “the new kid on the block” treatment for metastatic renal cell carcinoma, and the first such targeted agent to extend survival. Torisel is recommended first-line therapy for poor-prognosis patients and subsequent therapy after cytokine therapy or tyrosine kinase inhibitors.

### **ISSUES IN COMPLEMENTARY MEDICINE**

A study showed that cancer patients who participated in mindfulness stress reduction programs experienced ongoing psychological and physiological improvements, including reduction in biochemical markers of stress and inflammation (e.g., IFN- $\gamma$ ). The shift in these immune modulators that are associated with depression and cancer, may biochemically signal progress away from cancer, depression, and pro-inflammatory states.

Could a diagnosis of skin cancer (not melanoma) be good news?

Recently published data indicates that patients with evidence of high levels of sun exposure, were at a lower risk for most types of internal solid cancers later in life. The theory speculates that cumulative sun exposure also triggers vitamin D production in the skin, which may play a role in staving off more malignant cancers. Studies have also shown that levels of 25-hydroxyvitamin D below 20 ng/ml are associated with a 30 to 50% increased risk of incident colon, prostate, and breast cancer.

### **CANCER PREVENTION**

The FDA has approved raloxifen (Evista, Eli Lilly) for reducing the risk of invasive breast cancer in postmenopausal women at high risk for invasive breast cancer or with osteoporosis. In clinical trials, risk reduction was between 56% and 71%. Raloxifen can cause adverse events including blood clots and stroke.

## **NEW TECHNOLOGIES-NEW HOPE**

**MammaPrint** test (Agendia) can spare some breast cancer patients the burden of chemotherapy and its side effects, by estimating the risk of recurrence. The test targets lymph node –negative women.

**MRI** scans of the breast can identify potential tumors earlier than mammograms. The American Cancer Society now recommends annual MRI screenings, in addition to yearly mammograms, for women at high risk of developing breast cancer. Included are women who have a BRCA1 or BRCA2 gene mutation, or first –degree relative (mother, father, sister, brother, daughter, or son) with a BRCA, TP53 or PTEN gene mutation.

**MammoSite** - a new minimally invasive method for delivering a more concentrated radiation dose to the affected areas of breast, rather than treating the entire breast. The treatment starts at the time of lumpectomy, and is given on an outpatient basis twice daily for five days, rather than several weeks, allowing patients to quickly return to their former quality of life. Specific criteria for treatment have to be met.

## **PERSONALIZED MEDICINE**

TheraGuide 5-FU (Myriad Genetic Laboratories) is the first compressive test for predisposition for 5-FU toxicity caused by variations in the DPYD(DPD) and TYMS(TS) genes. By predicting 5-FU or Capecitabine toxicity, oncologists can provide enhanced therapeutic choices for improved patient outcomes. Up to 25% of patients will have variations in these genes that are associated with elevated risk of toxicity to 5-FU.

### **Services provided by OVHOMG:**

Cancer screening and prevention  
Second opinions  
Genetic testing and counseling  
Chemotherapy  
Infusion Therapy  
Palliative care  
DVT prevention/management  
Cancer Support group  
Hospice care