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Withdrawal of New Drug Application

On May 3, 2004, an FDA Advisory Committee voted ***not*** to recommend **Genasense™** (oblimersen sodium) **Injection** (Genta, Inc., Berkeley Heights, N.J.) for marketing approval. Under the Prescription Drug User Fee Act, the time for review of the new drug application (NDA) would have expired on June 8, 2004. Genta then notified the Food and Drug Administration (FDA) of its decision to withdraw a NDA for Genasense. The NDA had been submitted in December 2003 for the use of Genasense plus dacarbazine for the treatment of patients with advanced melanoma.

Approved Drugs

■ The FDA has approved **Taxotere®** (docetaxel) injection concentrate (Aventis, Bridgewater, N.J.) for use in combination with prednisone as a treatment for men with androgen-independent (hormone-refractory) metastatic prostate cancer. The FDA approval is based on the final results of a Phase III clinical trial that met its primary endpoint of increasing survival in this patient population.

■ The FDA has approved **Ceplene™** in combination with interleukin-2 (IL-2) for the treatment of patients with advanced malignant melanoma. The treatment protocol allows Maxim Pharmaceuticals (San Diego, Calif.) to provide expanded access of Ceplene to patients who face limited treatment options. Maxim continues to conduct a Phase III trial of Ceplene, with completion of the trial scheduled for late 2004.

■ The FDA has granted approval of **Gemzar®** (gemcitabine HCl), (Eli Lilly, Indianapolis, Ind.) in combination with Taxol® (paclitaxel), for first-line therapy for metastatic breast cancer. Patients diagnosed with metastatic breast cancer and treated with a combination of Gemzar and Taxol experienced a significant improvement in time-to-disease progression of their disease and response rate compared to Taxol alone.

Drugs in the Pipeline

■ 3M (St. Paul, Minn.) has received an "approvable" letter from the FDA for its supplemental new drug application on **Aldara™ (imiquimod) Cream**, 5 percent for the treatment of superficial basal cell carcinoma, a common form of non-melanoma skin cancer. The FDA requested 3M provide additional safety data as a condition of approval, which the company plans to submit shortly. In March 2004 the FDA approved Aldara cream as a treatment option for certain patients with actinic keratosis (AK), a pre-cancerous skin disease caused by cumulative sun exposure.

■ Progen Industries Limited (Brisbane, Australia) has received orphan drug designation from the FDA for its lead anti-angiogenesis product **PI-88** for treatment of malignant melanoma. Orphan drug designation will provide PI-88 seven years market exclusivity when approved for this disease indication.

PI-88 is one of a new class of multi-targeted cancer therapeutics inhibiting both angiogenesis or tumor promoting factors such as Vascular Endothelial Growth Factor (VEGF), Fibroblast Growth Factors-1 and -2 (FGF-1 and -2) and heparanase, an enzyme implicated in tumor metastasis.

PI-88 is undergoing a Phase II clinical trial in metastatic melanoma as a single agent therapy; in advanced non-small cell lung cancer (NSCLC) in combination with chemotherapy (Taxotere®); as adjuvant treatment in post-operative primary liver cancer (imminent); and as a single agent therapy in multiple myeloma (completed).

■ **BAY 43-9006** (Bayer Pharmaceuticals Corp., of Leverkusen, Germany and Onyx Pharmaceuticals, Inc., of Richmond, Calif.) has been granted fast track approval by the FDA. BAY 43-9006 is being evaluated for the treatment of metastatic renal cell carcinoma or advanced kidney cancer. Currently in Phase III clinical testing, BAY 43-9006 is a novel RAF kinase and VEGF inhibitor that prevents tumor growth by combining two anticancer activities: inhibition of tumor cell proliferation and tumor angiogenesis.

■ The FDA has granted fast track designation to Telik, Inc., (Palo Alto, Calif.) for **TELCYTA™** (TLK286) for the following two

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FAST FACTS

A Peek at Wages

Occupation	Average Hourly Wage	Average Yearly Wage
Surgeons	$91.48	$190,280
Anesthesiologists	$88.89	$184,880
Pharmacists	$37.80	$78,620
Physician Assistants	$31.15	$64,790
Registered Nurses	$24.63	$51,230
Radiation Therapists	$30.83	$64,130
Radiologic Technologists/ Technicians	$20.03	$41,660

Source: The Bureau of Labor Statistics. Report available online at *www.bls.gov/news.release/pdf/ocwage.pdf*. 2003 data released April 2004.

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indications: NSCLC patients who have failed two prior chemotherapy regimens and women with resistant ovarian cancer. TELCYTA is a small molecule tumor-activated drug, which is activated by an enzyme present in higher levels in many human cancers than in normal tissues.

■ American Pharmaceutical Partners, Inc. (Schaumburg, Ill.) has received FDA approval of its abbreviated new drug application (NDA) for **Cladribine Injection**. Cladribine is indicated for the treatment of active hairy cell leukemia, and is the generic equivalent of Ortho Biotech's Leustatin® Injection.

■ SuperGen Inc., (Dublin, Calif.) has been granted its request from the FDA for rolling NDA submission for **Dacogen™ (decitabine) for Injection**. The planned NDA will focus on patients with myelodysplastic syndromes (MDS). Dacogen was granted fast track status by the FDA on May 9, 2003.

■ On May 10, American Pharmaceutical Partners, Inc., and American BioScience, Inc., (Schaumburg, Ill.) announced that the NDA for **Abraxane™**, for the treatment of metastatic breast cancer, has been accepted for filing with standard review by the FDA. The FDA has determined that the application is sufficiently complete to permit a substantive review. The final portion of the NDA was submitted March 8, 2004, under the FDA's fast track designation.

■ OSI Pharmaceuticals, Inc. (Melville, N.Y.) has initiated the "rolling" submission of a NDA with the FDA for the use of **Tarceva™** (erlotinib HCI) in the treatment of patients with incurable Stage IIIB/IV NSCLC who have failed standard therapy for advanced or metastatic disease. Rolling submission is an FDA provision available to drug candidates that have received fast track designation, and allows for completed sections of an NDA to be submitted on an ongoing basis. Data from this clinical trial are expected in the second quarter of 2004.

Tarceva is designed to block tumor cell growth by inhibiting the tyrosine kinase activity of the HER1/EGFR receptor thereby blocking the HER1/EGFR signaling pathway inside the cell.

New Products

■ ChromaVision Medical Systems (San Juan Capistrano, Calif.) has been granted FDA clearance to market the company's **ACIS System**. This imaging device detects, counts, and classifies the presence of the HER2 protein, allowing physicians a more precise and quantitative understanding of the specific traits of individual cancer tumors.

■ The FDA has approved marketing for **On-Board Imager™** on Clinac® and Trilogy™ linear accelerators (Varian Medical Systems, Inc., of Palo Alto, Calif.). The new imaging accessory is designed to improve the precision and effectiveness of cancer treatments by giving doctors the ability to target and track tumors more accurately.

■ Varian Medical Systems, Inc. (Palo Alto, Calif.) has also been granted 510(k) clearance from the FDA for a new single-channel device for delivering high dose rate brachytherapy. Varian's **MammoSource Afterloader** is a computer-controlled device that delivers a high-energy radioactive source through a single catheter, into the cavity left when a tumor has been surgically removed. The device works with Varian's BrachyVision™ software, an image guided HDR brachytherapy treatment planning system.

■ Proxima Therapeutics, Inc. (Alpharetta, Ga.) has received FDA marketing approval for **elliptical-shaped MammoSite balloon catheters**. This new product will enable women to now be eligible for partial breast irradiation following lumpectomy. The spherical MammoSite balloon catheters, which have been used to treat thousands of patients, will still be available.

■ Hologic, Inc. (Beford, Mass.) and R2 Technology, Inc. (Sunnyvale, Calif.) announced that the FDA has approved **R2's ImageChecker® CAD** for Hologic's Selenia™, a full-field digital mammography system.

On the Internet

■ **www.cms.hhs.gov/medicarereform/issueoftheday** offers concise, one-page explanations of provisions within the Medicare Prescription Drug, Improvement, and Modernization Act (MMA) of 2003. Logging onto the web site, viewers have access to all the daily fact sheets, starting with the premier issue that was released on Jan. 5, 2004. Among other topics of interest to the oncology community are fact sheets on hospice provisions in the new Medicare legislation, payment reforms for outpatient services, and detailed information on the new prescription drug benefit.

■ **http://www.cms.hhs.gov/mailinglists/** is a web site for healthcare professionals who want to subscribe to one of CMS's e-mail lists. This CMS site offers a drop down menu option that narrows the lists, an alphabetized listing of e-mail lists, and also lists organized by topic. More than 60 e-mail lists are available.