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GENVEC PRESENTS NEW RESEARCH ON TNFERADE™

GAITHERSBURG, MD – April 15, 2008 – At today’s 98th Annual Meeting of the American Association of Cancer Research (AACR) in San Diego, GenVec, Inc. (Nasdaq: GNVC) presented preclinical data illustrating the activity of GenVec’s lead product candidate, TNFerade™, when used in combination with gemcitabine in preclinical models of pancreatic cancer.

GenVec presented a poster entitled “Combination of Human Tumor Necrosis Factor Alpha (hTNF α) gene delivery with gemcitabine is effective in models of pancreatic cancer” (Abstract #4036). Results of the research show that a combination of TNFerade and standard chemotherapy results in superior anti-tumor activity compared to chemotherapy alone.

“These results demonstrate the ability of TNFerade to have activity in combination with chemotherapy and without the use of radiotherapy in a preclinical setting. These data help us understand how TNFerade works and suggest how we may use it more broadly,” stated Dr. Rick King, GenVec’s Senior Vice President of Research.

Dr. Mark Thornton, Senior Vice President of Product Development at GenVec, added, “In addition to the potential value of combining TNFerade with radiation therapy in settings such as locally advanced pancreatic cancer, the possibility of activating TNFerade with chemotherapy expands the number of clinical settings where TNFerade might be efficacious. In order to gain more insight on the use of TNFerade in the pancreatic cancer setting, GenVec is planning a potential Phase I/II trial of TNFerade and chemotherapy in metastatic pancreatic cancer patients.”

About GenVec

GenVec, Inc. is a biopharmaceutical company developing novel therapeutic drugs and vaccines. GenVec’s lead product, TNFerade™, is currently in a pivotal clinical study (PACT) in locally advanced pancreatic cancer with infusion 5-FU and radiation in non-resectable, locally advanced pancreatic cancer. Additional clinical trials are in progress in rectal cancer, head and neck cancer, and melanoma. GenVec also uses its proprietary adenovector technology to develop vaccines for infectious diseases including HIV, malaria, foot-and-mouth disease, respiratory syncytial virus (RSV), and influenza.

Additional information about GenVec is available at www.genvec.com and in the company's various filings with the Securities and Exchange Commission.

Statements herein relating to future financial or business performance, conditions or strategies and other financial and business matters, including expectations regarding future revenues and operating expenses, are forward-looking statements within the meaning of the Private Securities Litigation Reform Act. GenVec cautions that these forward-looking statements are subject to numerous assumptions, risks and uncertainties, which change over time. Factors that may cause actual results to differ materially from the results discussed in the forward-looking statements or historical experience include risks and uncertainties, including GenVec's financial condition and ability to raise capital to fund clinical programs and future operations; certain of GenVec's product candidates being in the early stages of development; uncertainties with, and unexpected results and related analyses relating to clinical trials of GenVec's product candidates (including the length of time required to enroll suitable patient subjects and its ability to secure clinical trial sites); the timing, amount, and availability of revenues from GenVec's government-funded vaccine programs; the timing and content of future FDA regulatory actions related to GenVec or its product candidates; GenVec's ability to find collaborators on or commercialize its product candidates; the scope and validity of patent protection for GenVec's product candidates and its ability to commercialize products without infringing the patent rights of others. Further information on the factors and risks that could affect GenVec's business, financial conditions and results of operations, are contained in GenVec's filings with the U.S. Securities and Exchange Commission (SEC), which are available at www.sec.gov. These forward-looking statements speak only as of the date of this press release, and GenVec assumes no duty to update forward-looking statements.

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