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**GENVEC PRESENTS ENCOURAGING DATA
ON TNFERADE™ IN ESOPHAGEAL CANCER**

GAITHERSBURG, MD — May 29, 2008 — GenVec, Inc. (Nasdaq: GNVC) will present an overview of TNFerade™ development and an update on long-term survival data from its Phase II clinical trial using TNFerade in patients with esophageal cancer this morning at the American Society of Gene Therapy (ASGT) 11th Annual Meeting in Boston, MA.

Dr. Mark Thornton, GenVec's Senior Vice President of Product Development, will present data on GenVec's multi-center, dose escalating study of TNFerade in patients with resectable stage II and III esophageal cancer. Following treatment with TNFerade and chemoradiation, the median overall survival of patients in this study was 48.4 months. This compares favorably to a literature review of comparable studies showing median survival ranging from 9.7 to 18.6 months.

"We are encouraged by these clinical results, which suggest a trend toward clinical improvement and supports the continued development of TNFerade in this indication," said Dr. Thornton. Dr. Thornton's presentation is available on GenVec's website, www.genvec.com. To view the presentation, click on "Investor Relations" then "Webcasts and Data."

Two additional presentations given today—"Novel Adenoviral Vaccine Vectors Derived from Human Serotypes 14 and 28" and "Strategies for Adenovector Gene Delivery in the Inner Ear in the Context of Pre-existing Immune Response"—will provide updates on research conducted at GenVec. "Modification of Ad5 Hexon Hypervariable Regions Circumvents Pre-existing Ad5

Neutralizing Antibodies” will be presented on Saturday, the 31st of May. These presentations illustrate how advancements in GenVec’s adenovector technology could be used in new product opportunities.

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. 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 the failure by GenVec to secure and maintain relationships with collaborators; risks relating to certain of our product candidates being in early stages of development; uncertainties relating to clinical trials; risks relating to the commercialization, if any, of GenVec’s proposed product candidates; dependence on the efforts of third parties; dependence on intellectual property; and risks that we may lack the financial resources and access to capital to fund our operations. 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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