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FOR IMMEDIATE RELEASE:

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**GENVEC ANNOUNCES REGISTERED OFFERING OF
\$6 MILLION IN COMMON STOCK AND WARRANTS**

GAITHERSBURG, MD – August 27, 2009 – GenVec, Inc. (Nasdaq: GNVC) announced today that it has entered into a purchase agreement with a single institutional investor for the sale of 8,000,000 shares of its common stock and warrants to purchase 4,000,000 shares of its common stock. The shares of common stock and warrants are being offered in units consisting of one share of common stock and 0.50 warrants to purchase one share of common stock at a price of \$0.75 per unit. This represents a discount of approximately 8.3% to the closing price of GenVec common stock on August 26, 2009. The warrants have a term of five years and an exercise price of \$0.828 per share.

The gross proceeds of the offering are expected to be approximately \$6.0 million and net proceeds, after deducting the placement agent's fee and estimated offering expenses payable by GenVec, are expected to be approximately \$5.6 million. Merriman Curhan Ford (Nasdaq: MERR) acted as exclusive placement agent in this transaction.

GenVec will use proceeds from the offering for further development of its lead clinical program, TNFerade™, and other general corporate purposes. The offering is expected to close on or about August 31, 2009, subject to the satisfaction of customary closing conditions.

The securities described above are being offered by GenVec pursuant to a registration statement previously filed and declared effective by the Securities and Exchange Commission. A prospectus supplement related to the offering will be filed with the Securities and Exchange Commission (SEC). Copies of the prospectus supplement and accompanying base prospectus relating to this offering may be obtained at the SEC's website at www.sec.gov or from Merriman Curhan Ford & Co. at 135 East 57th Street, 24th Floor, New York, NY 10022, by calling (646) 292-1425 or by emailing ahudspeth@mcfco.com. This announcement is neither an offer to sell nor a solicitation of an offer to buy any of our common stock. No offer, solicitation, or sale will be made in any jurisdiction in which such offer, solicitation, or sale is unlawful.

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. TNFerade has also been and is currently being evaluated for its potential use in the treatment of several other cancers, including esophageal cancer, rectal cancer, and head and neck cancer. 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 HSV-2. Additional information about GenVec is available at www.genvec.com and in the company's various filings with the Securities and Exchange Commission.

This press release contains forward-looking statements subject to risks and uncertainties that may cause actual results to differ materially from those anticipated, including whether the offering will close as expected on August 31, 2009, if at all, any unanticipated costs and expenses related to the offering, and other risks detailed from time to time in GenVec's filings with the Securities and Exchange Commission, including its Annual Report on Form 10-K for the year ended December 31, 2008, and other documents subsequently filed with or furnished to the Commission, 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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