COMPANY CONTACT: **Vion Pharmaceuticals, Inc.**
Alan Kessman, Chief Executive Officer
Howard B. Johnson, President & CFO
(203) 498-4210

Vion Pharmaceuticals To Present Preliminary Data on its Pivotal Phase II Trial of Cloretazine® (VNP40101M) at the American Society of Hematology Meeting

Company to Hold Conference Call on Monday, December 10, 2007

NEW HAVEN, CT, December 6, 2007 – VION PHARMACEUTICALS, INC. (NASDAQ CAPITAL MARKET: VION) today announced that preliminary data from its pivotal Phase II trial of Cloretazine® (VNP40101M) in elderly patients with *de novo* acute myelogenous leukemia (AML) would be presented in a poster at the 2007 American Society of Hematology Annual Meeting in Atlanta, Georgia on Saturday, December 8, 2007.

The poster presentation (#71-1) will be at the Georgia World Conference Center, Hall B4, from 9:00 a.m. to 7:30 p.m. Poster authors will be available from 5:30 p.m. to 7:30 p.m. at the poster. A copy of the poster will be available on Vion Pharmaceuticals' website, www.vionpharm.com, on Saturday, December 8, 2007 at 9:00 a.m. Eastern Time.

A press release related to the poster will be issued on Monday, December 10, 2007 at 7:30 a.m. Eastern Time. The Company also announced that it would hold a conference call to discuss the poster on Monday, December 10, 2007. The call will begin at 9:00 a.m. Eastern Time.

To participate in the conference call, please dial (866) 356-4123 in the U.S. ((617) 597-5393 for international callers) at least 15 minutes before the start of the call. When prompted for a pass code, please enter 16444471.

An audio webcast of the call will be accessible at www.vionpharm.com. Those who wish to listen to the conference call on the Web should visit the Investor Relations section of the Company's website at least 15 minutes prior to the event broadcast, and follow the instructions provided to assure that the necessary audio applications are downloaded and installed. These programs can be obtained at no charge to the user.

A replay of the call will be available two hours after the completion of the call at

(888) 286-8010 in the U.S., ((617) 801-6888 for international callers), pass code 74113063. The replay will be available through Monday, December 24, 2007.

Vion Pharmaceuticals, Inc. is committed to extending the lives and improving the quality of life of cancer patients worldwide by developing and commercializing innovative cancer therapeutics. Vion has two agents in clinical trials. Cloretazine® (VNP40101M), a unique alkylating agent, is being evaluated in a Phase II pivotal trial as a single agent in elderly patients with previously untreated *de novo* poor-risk acute myelogenous leukemia. Clinical trials of Cloretazine® (VNP40101M) as a single agent in small cell lung cancer, with temozolomide in brain tumors, and with hematopoietic cell transplantion in advanced hematologic malignancies, are also being conducted. Triapine®, a potent inhibitor of a key step in DNA synthesis, is being evaluated in clinical trials sponsored by the National Cancer Institute. For additional information on Vion and its product development programs, visit the Company's Internet web site at www.vionpharm.com.

This news release contains forward-looking statements. Such statements are subject to certain risk factors which may cause Vion's plans to differ or results to vary from those expected, including Vion's potential inability to obtain regulatory approval for its products, delayed or unfavorable results of drug trials, the possibility that favorable results of earlier preclinical studies or clinical trials are not predictive of safety and efficacy results in later clinical trials, the need for additional research and testing, the potential inability to secure external sources of funding to continue operations, the inability to access capital and funding on favorable terms, continued operating losses and the inability to continue operations as a result, and a variety of other risks set forth from time to time in Vion's filings with the Securities and Exchange Commission, including but not limited to the risks attendant to the forward-looking statements included under Item 1A, "Risk Factors" in Vion's Form 10-K for the year ended December 31, 2006 and the Company's Form 10-Q for the quarter ended September 30, 2007. In particular, there can be no assurance as to the results of any of the Company's clinical trials, that any of these trials will continue to full accrual, or that any of these trials will not be discontinued, modified, delayed or ceased altogether. Except in special circumstances in which a duty to update arises under law when prior disclosure becomes materially misleading in light of subsequent events, Vion does not intend to update any of these forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

# # #