COMPANY CONTACT: **Vion Pharmaceuticals, Inc.**
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VION REPORTS 2005 YEAR-END AND FOURTH QUARTER FINANCIAL RESULTS

NEW HAVEN, CT, February 28, 2006 – VION PHARMACEUTICALS, INC. (NASDAQ CAPITAL MARKET: VION) today announced results for the fourth quarter and the year ended December 31, 2005.

The Company reported a net loss of $18.0 million, or $0.28 per share, for the year ended December 31, 2005, compared with a net loss of $16.1 million, or $0.30 per share, for 2004. Weighted-average common shares outstanding for the years ended December 31, 2005 and December 31, 2004 were 65.2 million and 53.5 million, respectively. Total operating expenses were $19.8 million and $16.8 million for the years ended December 31, 2005 and 2004, respectively. The increase in operating expenses was primarily due to higher research and development expenses resulting from late-stage clinical development of Cloretazine® (VNP40101M), including expenses not directly related to clinical trials, as well as preclinical development costs related to VNP40541 (formerly KS119W).

“We are very proud of our accomplishments in 2005. This past year Vion reached a major milestone of launching a Phase III trial in relapsed acute myelogenous leukemia. In 2006 we are focused on accruing to this trial, initiating an additional pivotal Phase II in elderly AML, and continuing our push towards the approval of Cloretazine® (VNP40101M),” stated Alan Kessman, Chief Executive Officer. "By advancing these two trials we hope to improve the lives of patients with AML and offer a positive contribution to the field of leukemia”.

The net loss was $4.7 million, or $0.07 per share, for the fourth quarter of 2005, compared with a net loss of $5.2 million, or $0.09 per share, for the same period in 2004. Weighted-average common shares outstanding for the three months ended December 31, 2005 and 2004 were 66 million and 55.8 million, respectively. Total operating expenses were $5.2 million and $5.4 million for the quarters ended December 31, 2005 and 2004, respectively.

The Company reported ending the year with $52.8 million in cash and cash equivalents.

Vion Pharmaceuticals, Inc. is developing small molecule cancer therapeutics. Vion has two agents in clinical trials: Cloretazine® (VNP40101M) a unique sulfonylhydrazine alkylating agent, is being evaluated in a Phase III trial in combnation with cytarabine in relapsed acute myelogenous leukemia. Trials of Cloretazine® (VNP40101M) as a single agent in previously untreated elderly acute myelogenous leukemia and high-risk myelodysplastic syndrome, adult and pediatric brain tumors, small cell lung cancer and chronic lymphocytic leukemia, and in

combination with temozolomide in hematologic malignancies, are also underway. Triapine®, a potent inhibitor of a key step in DNA synthesis, is being evaluated in trials sponsored by the National Cancer Institute. In preclinical studies, Vion is also evaluating VNP40541 (formerly KS119W), a hypoxia-selective compound from the sulfonylhydrazine class, and heterocyclic hydrazones. The Company also is seeking development partners for TAPET®, its modified *Salmonella* vector used to deliver anticancer agents directly to tumors. 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 ability to secure external sources of funding to continue its operations, the inability to access capital and funding on favorable terms, continued operating losses and the inability to continue operations as a result, its dependence on regulatory approval for its products, delayed or unfavorable results of drug trials, the possibility that favorable results of earlier clinical trials are not predictive of safety and efficacy results in later clinical trials, the need for additional research and testing, 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 discussed in Vion's Annual Report on Form 10-K for the year ended December 31, 2004. 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.

--Financial Statements Follow--

VION PHARMACEUTICALS, INC.
(A Development Stage Company)

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)

(In thousands, except per share data)	Three Months Ended December 31, 2005	2004	Year Ended December 31, 2005	2004
Revenues:				
Technology license fees	$5	$4	$22	$26
Research and laboratory support fees	--	--	1	149
Contract research grants	--	--	--	100
Total revenues	5	4	23	275
Operating expenses:				
Clinical trials	2,581	3,292	9,996	9,373
Other research and development	1,803	1,264	6,609	4,434
Total research and development	4,384	4,556	16,605	13,807
General and administrative	809	838	3,239	2,969
Total operating expenses	5,193	5,394	19,844	16,776
Loss from operations	(5,188)	(5,390)	(19,821)	(16,501)
Interest income	539	193	1,828	547
Interest expense	(4)	--	(4)	--
Other income (expense), net	6	(31)	(4)	(73)
Loss before income taxes	(4,647)	(5,228)	(18,001)	(16,027)
Income tax provision (benefit)	8	(6)	40	28
Net loss	($4,655)	($5,222)	($18,041)	($16,055)
Basic and diluted loss per share	($0.07)	($0.09)	($0.28)	($0.30)
Weighted-average number of shares of common stock outstanding	66,036	55,778	65,161	53,464

CONDENSED CONSOLIDATED BALANCE SHEET DATA
(Unaudited)

(In thousands)	Dec. 31, 2005	Dec. 31, 2004
Cash and cash equivalents	$52,762	$41,729
Total assets	53,719	42,644
Total liabilities	5,080	6,429
Shareholders' equity	48,639	36,215

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