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VION REPORTS 2006 THIRD QUARTER AND NINE-MONTH FINANCIAL RESULTS

NEW HAVEN, CT, November 9, 2006 – VION PHARMACEUTICALS, INC. (NASDAQ CAPITAL MARKET: VION) today announced results for the three-month and nine-month periods ended September 30, 2006.

The Company reported a net loss of $6.3 million, or $0.10 per share, for the three-month period ended September 30, 2006, compared to a net loss of $3.7 million, or $0.06 per share, for the same period in 2005. Weighted-average common shares outstanding for the three months ended September 30, 2006 and 2005 were 66.2 million and 66.0 million, respectively.

For the nine-month period ended September 30, 2006, the net loss was $19.2 million, or $0.29 per share, compared to a net loss of $13.4 million, or $0.21 per share, for the same period in 2005. Weighted-average common shares outstanding for the nine months ended September 30, 2006 and 2005 were 66.2 million and 64.9 million, respectively.

Total operating expenses were $6.8 million and $4.2 million for the three months ended September 30, 2006 and 2005, respectively, and $20.8 million and $14.7 million for the nine months ended September 30, 2006 and 2005, respectively. The increase in operating expenses was primarily due to higher total research and development expenses resulting from (i) late-stage clinical development of Cloretazine® (VNP40101M), including higher spending for clinical trials, drug development and development costs in support of a potential registration filing, as well as (ii) preclinical development costs related to the Company's preclinical anticancer agent, VNP40541, and (iii) stock-based compensation expense. In addition, general and administrative expenses were higher than the previous period, primarily due to stock-based compensation expense.

During the quarter, the Company continued to accrue patients to its Phase III trial of Cloretazine® (VNP40101M) in combination with Ara-C in patients with relapsed acute myelogenous leukemia (AML), and opened up clinical sites and accrued patients to its pivotal Phase II trial of Cloretazine® (VNP40101M) in elderly patients with previously untreated *de novo* poor-risk AML. In late October, the Company also announced initial data from its Phase II single agent trial of Cloretazine® (VNP40101M) in relapsed and refractory small cell lung cancer.

Alan Kessman, Chief Executive Officer, said, "In the third quarter, we continued to make progress in the two pivotal trials of our lead agent Cloretazine® (VNP40101M) in acute

myelogenous leukemia. We are also pleased with the initial data recently announced from of our clinical trial of Cloretazine® (VNP40101M) in small cell lung cancer." He concluded, "Everyone in the Company is focused on the accrual of patients to these three Cloretazine® (VNP40101M) trials. We expect to complete accrual of our pivotal Phase II trial, complete the interim analysis for our Phase III trial, and present more data for our trial in small cell lung cancer at the American Society for Clinical Oncology (ASCO) meeting in the first six months of 2007."

The Company reported ending the quarter with $36.2 million in cash and cash equivalents.

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: (i) a Phase III trial in combination with cytarabine in relapsed acute myelogenous leukemia and (ii) a Phase II pivotal trial as a single agent in elderly patients with previously untreated *de novo* poor-risk acute myelogenous leukemia. Additional trials of Cloretazine® (VNP40101M) as a single agent in pediatric brain tumors, small cell lung cancer, 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 clinical trials sponsored by the National Cancer Institute. In preclinical studies, Vion is also evaluating VNP40541, a hypoxia-selective compound. 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, 2005. 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 September 30, 2006	2005	Nine Months Ended September 30, 2006	2005
Revenues	$ 6	$ 6	$ 16	$ 18
Operating expenses:				
Clinical trials	3,285	1,740	9,983	7,415
Other research and development	2,336	1,703	6,514	4,806
Total research and development	5,621	3,443	16,497	12,221
General and administrative	919	758	3,072	2,430
Marketing	297	--	1,188	--
Total operating expenses	6,837	4,201	20,757	14,651
Loss from operations	(6,831)	(4,195)	(20,741)	(14,633)
Interest income	502	494	1,560	1,289
Other income (expense), net	(3)	(16)	(31)	(10)
Loss before income taxes	(6,332)	(3,717)	(19,212)	(13,354)
Income tax provision	10	10	34	32
Net loss	$ (6,342)	$ (3,727)	$ (19,246)	$ (13,386)
Basic and diluted loss per share	$ (0.10)	$ (0.06)	$ (0.29)	$ (0.21)
Weighted-average number of shares of common stock outstanding	66,231	65,983	66,167	64,866

CONDENSED CONSOLIDATED BALANCE SHEET DATA
(Unaudited)

(In thousands)	Sept. 30, 2006	Dec. 31, 2005
Cash and cash equivalents	$ 36,187	$ 52,762
Total assets	36,943	53,719
Total liabilities	6,115	5,080
Shareholders' equity	30,828	48,639

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