

COMPANY CONTACT:

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VION REPORTS 2005 THIRD QUARTER AND NINE MONTH FINANCIAL RESULTS

NEW HAVEN, CT, NOVEMBER 9, 2005 – VION PHARMACEUTICALS, INC. (NASDAQ CAPITAL MARKET: VION) today announced results for the third quarter and nine-month period ended September 30, 2005.

The Company reported a net loss of \$3.7 million, or \$0.06 per share, for the three-month period ended September 30, 2005, compared to a net loss of \$3.9 million, or \$0.07 per share, for the same period in 2004. Weighted-average common shares outstanding for the three months ended September 30, 2005 and 2004 were 66.0 million and 55.4 million, respectively. Total operating expenses were \$4.2 million and \$4.1 million for the three months ended September 30, 2005 and 2004, respectively. Total operating expenses for the three months ended September 30, 2005 were reduced by \$683,000 as a result of a reduction in the accrual for clinical trial costs, as actual expenses for two Phase II clinical trials were less than original estimates.

For the nine-month period ended September 30, 2005, the net loss was \$13.4 million, or \$0.21 per share, compared to a net loss of \$10.8 million, or \$0.21 per share, for the same period in 2004. Weighted-average common shares outstanding for the nine months ended September 30, 2005 and 2004 were 64.9 million and 52.7 million, respectively. Total operating expenses were \$14.7 million and \$11.4 million for the nine months ended September 30, 2005 and 2004, respectively. The increase in operating expenses was primarily due to higher clinical trial expenses, mainly as a result of costs associated with the Company's Phase III clinical trial of Cloretazine[®] initiated in March 2005, and costs associated with preclinical support of the Company's clinical products and development of the Company's preclinical products. Total operating expenses for the nine months ended September 30, 2005 were reduced by \$683,000 as a result of a reduction in the accrual for clinical trial costs during the third quarter of 2005, as actual expenses for two Phase II clinical trials were less than original estimates.

The Company reported ending the quarter with \$57.6 million in cash and cash equivalents.

Vion Pharmaceuticals, Inc. is developing cancer therapeutics. Vion has two agents in clinical trials: Cloretazine®, a unique sulfonylhydrazine alkylating agent, is being evaluated in a Phase III trial in combination with cytarabine in relapsed acute myelogenous leukemia. Trials of Cloretazine® as a single agent in 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 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 September 30, 2005 2004 | | | | Nine Months Ended September 30, 2005 2004 | | | |
|---|--|-----|----------|-------|---|----|-------|-------|
| , | | | | | | | | |
| Revenues: | | | | | | | | |
| Technology license fees | \$ | 6 | \$ 5 | | \$ 17 | | \$ | 22 |
| Research and laboratory support fees | - | - | 45 | | 1 | | | 149 |
| Contract research grants | - | - | | | | | | 100 |
| Total revenues | | 3 | 50 | | 18 | | | 271 |
| Operating expenses: | | | | | | | | |
| Clinical trials | 1,740 2, | | 2,247 | 7,415 | | | 6,081 | |
| Other research and development | 1,703 | | 1,050 | | 4,806 | | 3,169 | |
| Total research and development | 3,443 | | 3,297 | | 12,221 | | 9,250 | |
| General and administrative | 758 | | 789 | | 2,430 | | 2,132 | |
| Total operating expenses | 4,20 | | 4,086 | | 14,651 | | 11 | ,382 |
| Loss from operations | (4,195 |) | (4,036) | | (14,633) | | (11, | 111) |
| Interest income | 494 | ļ | 148 | | 1,289 | | | 354 |
| Other expense, net | (16 |) | (18) | | (10) | | | (42) |
| Loss before income taxes | (3,717 |) | (3,906) | | (13,354) | | (10, | 799) |
| Income tax provision | 10 |) | | | 32 | | | 34 |
| Net loss | \$ (3,727 |) { | 3,906) | \$ | (13,386) | \$ | (10, | 833) |
| Basic and diluted loss per share | \$ (0.06 |) { | 6 (0.07) | \$ | (0.21) | \$ | ((| 0.21) |
| Weighted-average number of shares of common stock outstanding | 65,983 | } | 55,398 | | 64,866 | | 52 | .,687 |

CONDENSED CONSOLIDATED BALANCE SHEET DATA (Unaudited)

| | (onadanoa) | Sept. 30, 2005 | Dec. 31, 2004 | | |
|---------------------------|------------|-------------------|------------------|--|--|
| | | (In th | housands) | | |
| Cash and cash equivalents | | \$ 57,556 | \$41,729 | | |
| Total assets | | 58,474 | 42,644 | | |
| Total liabilities | | 5,313 | 6,429 | | |
| Shareholders' equity | | 53,161 | 36,215 | | |