Pyxis Oncology to Present New Preclinical Data Showing Synergistic Anti-Tumor Activity in a HNSCC model with maMICVO in Combination with Anti-PD-1 at AACR 2026

April 17, 2026

Mouse analog of MICVO (maMICVO) monotherapy produced dose-dependent inhibition of tumor growth in a syngeneic preclinical model of HNSCC

maMICVO monotherapy modulated the tumor-immune environment in a syngeneic preclinical model of HNSCC toward a more favorable immune-permissive environment for immunotherapy

maMICVO in combination with anti-mouse PD-1 worked synergistically to produce greater anti-tumor activity compared with either treatment alone in an immune-refractory syngeneic preclinical model of HNSCC

Preclinical findings support the ongoing clinical development of MICVO as both monotherapy and in combination with pembrolizumab for R/M HNSCC

BOSTON, April 17, 2026 (GLOBE NEWSWIRE) -- Pyxis Oncology, Inc. (Nasdaq: PYXS), a clinical-stage company developing next-generation therapeutics for difficult-to-treat cancers, today announced that it will present new preclinical data highlighting that a mouse analogue of MICVO (maMICVO) demonstrates anti-tumor activity in a preclinical head and neck squamous cell carcinoma (HNSCC) model as monotherapy, and synergistic anti-tumor activity in combination with anti-mouse PD-1. These data will be presented in a poster session at the American Association for Cancer Research (AACR) Annual Meeting 2026 in San Diego, California, held April 17 – April 22, 2026.

“These new preclinical data are particularly compelling as they further reinforce MICVO’s clinical development in HNSCC, both as a novel monotherapy treatment and in combination with anti-PD-1,” said Tom Civik, Interim Chief Executive Officer and Director of Pyxis Oncology. “An important finding from the data is that combination treatment with maMICVO and anti-mouse PD-1 demonstrated synergistic anti-tumor activity and greater tumor control than either treatment alone in an immunotherapy-refractory preclinical HNSCC model, highlighting MICVO’s novel three-pronged mechanism of action and its potential to meaningfully enhance response to immunotherapy. Following our mid-year 2026 MICVO Phase 1 monotherapy update in 2L+ R/M HNSCC, we look forward to sharing updated data from the ongoing Phase 1/2 combination dose escalation study of MICVO in combination with pembrolizumab for 1L/2L+ R/M HNSCC patients in the second half of 2026.”

Micvotabart pelidotin (MICVO), is a first-in-concept antibody drug conjugate (ADC) that targets extradomain-B of fibronectin (EDB+FN), a non-cellular structural component of the tumor extracellular matrix (ECM). MICVO is designed to treat solid tumors through a three-pronged mechanism of action: direct cancer cell killing, bystander effect and immunogenic cell death. MICVO is currently being evaluated as monotherapy in a Phase 1 clinical study in patients with recurrent and metastatic head and neck squamous cell carcinoma (R/M HNSCC) and in combination with Merck’s anti-PD-1 therapy, KEYTRUDA® (pembrolizumab), in a Phase 1/2 clinical study in patients with R/M HNSCC and other solid tumors.

Poster Key Highlights:

- **Monotherapy with maMICVO inhibited tumor outgrowth in MOC2, a syngeneic preclinical model of HNSCC**
  - maMICVO produced dose-dependent inhibition of EDB+FN-expressing MOC2 tumor outgrowth, with 6 mg/kg showing the strongest tumor growth inhibition
- **Treatment with maMICVO modulated the immune compartment of MOC2 tumors toward a more favorable immune-permissive environment for immunotherapy**
  - Treatment with maMICVO reduced the overall abundance of immune-suppressive regulatory T cells (Tregs) in MOC2 tumors
  - maMICVO also increased the CD8 T cell-to-Treg ratio and enhanced the abundance of a progenitor exhausted T cell subset that is highly responsive to anti-PD-1 therapy
- **Combination treatment with maMICVO and anti-mouse PD-1 acted synergistically to produce greater tumor control than either treatment alone**
  - The combination of maMICVO and anti-mouse PD-1 resulted in greater tumor control and tumor growth inhibition than monotherapy with either maMICVO or anti-mouse PD-1
  - Bliss independence analysis confirmed that maMICVO acted synergistically with anti-mouse PD-1 in a preclinical model unresponsive to anti-mouse PD-1 monotherapy

Poster Information:

- **Title**: Mouse analog of micvotabart pelidotin, an antibody-drug conjugate targeting extradomain-B of fibronectin, demonstrates anti-tumor efficacy in an immunotherapy-refractory syngeneic head and neck squamous cell carcinoma model

- **Session Title:** Antibody Technologies and Platforms 2
- **Date/Time:** April 21, 2026 | 9:00 AM – 12:00 PM PT
- **Location:** Poster Section 11
- **Poster Board Number:** 14
- **Presentation Number:** 4406

This poster presentation will also be available on the Pyxis Oncology website on the Scientific publications page following the event.

About Pyxis Oncology, Inc.
Pyxis Oncology, Inc. is a clinical-stage biopharmaceutical company developing therapeutics for difficult-to-treat cancers. The Company's lead candidate, micvotabart pelidotin (MICVO), is a first-in-concept antibody drug conjugate (ADC) that targets extradomain-B of fibronectin (EDB+FN), a non-cellular structural component of the tumor extracellular matrix (ECM). EDB+FN is selectively overexpressed in the tumor microenvironment of a wide range of solid tumors and largely absent from normal adult tissues. MICVO is designed to treat solid tumors through a three-pronged mechanism of action: direct cancer cell killing, bystander effect and immunogenic cell death. MICVO is currently being evaluated as monotherapy in a Phase 1 clinical study in patients with recurrent and metastatic head and neck squamous cell carcinoma (R/M HNSCC) and in combination with Merck's anti-PD-1 therapy, KEYTRUDA® (pembrolizumab) in a Phase 1/2 clinical study in patients with R/M HNSCC and other solid tumors. Pyxis Oncology is focused on advancing MICVO, with the goal of improving outcomes for patients living with R/M HNSCC and contributing to meaningful progress in cancer treatment.

MICVO received Fast Track Designation from the U.S. Food and Drug Administration for the treatment of adult patients with R/M HNSCC whose disease has progressed following treatment with platinum-based chemotherapy and an anti-PD-(L)1 therapy.

KEYTRUDA® is a registered trademark of Merck Sharp & Dohme LLC, a subsidiary of Merck & Co., Inc., Rahway, NJ, USA.

To learn more, visit www.pyxisoncology.com or follow us on LinkedIn.

Forward Looking Statements

This press release contains forward-looking statements for the purposes of the safe harbor provisions under The Private Securities Litigation Reform Act of 1995 and other federal securities laws. All statements other than statements of historical facts contained in this press release, including without limitation statements regarding the Company's plans to develop, manufacture and commercialize its product candidate, including micvotabart pelidotin ('MICVO'); preliminary preclinical and clinical data, timing and progress of the Company's ongoing clinical trials; the expected results of the Company's clinical trials; the ability of preliminary, initial and topline clinical data to de-risk MICVO and be confirmed with clinical trial progression, including the safety, tolerability, and potential efficacy of MICVO; the potential differentiation, advantage or effectiveness of MICVO compared to other approved products or products in development; the dosage and treatment potential of MICVO; the plans and objectives of management and the future results of operations and financial position of the Company, are forward-looking statements. These statements are neither promises nor guarantees, but are statements that involve known and unknown risks, uncertainties and other important factors that are in some cases beyond the Company's control that may cause actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements, including, but not limited to, the following: the risks inherent in drug research and development; the Company's projected cash runway and potential needs for additional funding; the lengthy, expensive, and uncertain process of clinical drug development, including potential delays in or failure to obtain regulatory approvals; the Company's reliance on third parties and collaborators to conduct clinical trials, manufacture their product candidate, and develop and commercialize their product candidate; and the Company's ability to compete successfully against other drug candidates. In addition, any forward-looking statement reflects our beliefs and opinions on the relevant subject based upon information available to us as of the date hereof, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. Accordingly, investors should not rely upon forward-looking statements as predictions of future events. Except as required by applicable law, the Company undertakes no obligation to update publicly or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise. Additionally, investors should read risk factors in the section titled "Risk Factors" set forth in Part II, Item 1A. of the Company's Annual Report on Form 10-K filed on March 23, 2026, and our other filings, each of which is on file with the Securities and Exchange Commission, with the further understanding that these risks are not exhaustive and new risk factors emerge from time to time, and it is not possible for our management to predict all risk factors, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

Pyxis Oncology Contact
Alex Kane
IR@pyxisoncology.com

Media
Cailyn McCutcheon
Real Chemistry
cmccutcheon@realchemistry.com