Pyxis Oncology to Present Translational Data and Key Biology Findings Elucidating the Mechanism of Action of MICVO at Upcoming Medical Meetings

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Translational data validate mechanism of first-in-concept extracellular-cleaving ADC micvotabart pelidotin (MICVO)

MICVO combats solid tumors through three-pronged mechanism of action: direct tumor cell killing, bystander effect, and immunogenic cell death

Findings demonstrate MICVO's effects on tumor microenvironment remodeling and immune activation

Translational data to be presented in two posters at ESMO 2025 and six posters at AACR-NCI-EORTC

BOSTON, Oct. 13, 2025 (GLOBE NEWSWIRE) -- Pyxis Oncology, Inc. (Nasdaq: PYXS), a clinical-stage company developing next-generation therapeutics for difficult-to-treat cancers, announced today that it will present translational data for micvotabart pelidotin (MICVO), a first-in-concept antibody-drug conjugate (ADC) that cleaves in the extracellular matrix and targets extradomain-B of fibronectin (EDB+FN), at upcoming medical meetings. Data will be presented at the European Society for Medical Oncology (ESMO) Congress 2025 in Berlin, Germany (October 17-21, 2025), and at the AACR-NCI-EORTC International Conference in Boston, Massachusetts (October 22-26, 2025).

"The data we are presenting at ESMO and AACR-NCI-EORTC add to the growing body of evidence supporting the clinical development of MICVO, which deploys a distinctive non-cellular targeting strategy with an extracellular-cleaving mechanism that is unique compared to traditional cell surface targeting ADCs that internalize and cleave within the cell," said Lara S. Sullivan, M.D., President, Chief Executive Officer and Chief Medical Officer of Pyxis Oncology. "These translational findings further strengthen MICVO's scientific foundation as we continue to understand the potential it holds in solid tumors, while we advance MICVO in the clinic in our head and neck squamous cell carcinoma (HNSCC) focused expansion cohorts and combination studies."

The poster presentations at the ESMO and AACR-NCI-EORTC meetings provide deeper insights into the pharmacodynamic responses of tumors to MICVO as well as MICVO's unique mechanism of action and its potential to exert anti-tumor activity through three mechanisms: direct tumor cell killing, bystander killing and immunogenic cell death. These translational findings highlight MICVO's effects on tumor microenvironment remodeling and immune activation, further reinforcing the potential benefit of MICVO as both monotherapy and in combination with anti-PD1 therapy. Observations include changes in circulating tumor DNA (ctDNA) tumor fraction (TF) to the vast majority of 37 clinical samples tested. Notably, reduction in ctDNA TF after treatment with MICVO, particularly in HNSCC and at the 5.4 mg/kg dose, support a positive molecular response to MICVO and strengthen rationale for continued development of this tumor type and dose in the monotherapy dose expansion study. Additionally, features observed in nonclinical samples of the stromal architecture detected using digital pathology may correlate with sensitivity to MICVO - a finding that may be unique compared to tumor cell surface targeting ADCs, due to MICVO's targeting of a non-cellular structural component of the extracellular matrix.

Three additional posters will also be presented, including two trial-in-progress posters for ongoing clinical studies of MICVO in monotherapy and in combination with pembrolizumab in HNSCC, as well as previously reported Phase 1 monotherapy dose-escalation data in HNSCC.

Presentation details at ESMO 2025 are listed below (all times in Central European Daylight Time, CEDT):

- **Title:** Histological biomarker analysis of nonclinical and baseline tumor samples from the Phase 1 dose escalation study assessing micvotabart pelidotin (MICVO) in advanced solid tumors
  - Session Category: Developmental therapeutics
  - Presentation Number: 1014eTIP
  - Location: ePoster Area, Hall 25
  - ePoster available: Saturday, October 18, 9:00 AM through Monday, October 20, 6:30 PM
  - Published Abstract Number: 8020

- **Title:** Longitudinal changes in circulating tumor DNA in a Phase 1 dose escalation study of micvotabart pelidotin, a first-in-human ADC targeting EDB+FN
  - Session Category: Developmental therapeutics
  - Presentation Number: 1004eTIP
  - Location: ePoster Area, Hall 25
  - ePoster available: Saturday, October 18, 9:00 AM through Monday, October 20, 6:30 PM
  - Published Abstract Number: 6225

- **Title:** Phase 1 expansion study of the first-in-class non-cellular targeting antibody-drug conjugate (ADC), micvotabart pelidotin (MICVO), in patients with select advanced solid tumors
  - Session Category: Developmental therapeutics

    - Presentation Number: 1031eTIP
    - Location: ePoster Area, Hall 25
    - ePoster available: Saturday, October 18, 9:00 AM through Monday, October 20, 6:30 PM
    - Published Abstract Number: 8616

- **Title:** A Phase 1/2 study of a first-in-class non-cellular antibody-drug conjugate ADC, micvotabart pelidotin (MICVO), in combination with pembrolizumab in select advanced solid tumors
    - Session Category: Developmental therapeutics
    - Presentation Number: 1025eTIP
    - Location: ePoster Area, Hall 25
    - ePoster available: Saturday, October 18, 9:00 AM through Monday, October 20, 6:30 PM
    - Published Abstract Number: 2607

- **Title:** First-in-human Study of the first-in-class non-cellular targeting antibody-drug conjugate (ADC), micvotabart pelidotin (MICVO), in patients with select solid tumors
    - Session Category: Developmental therapeutics
    - Session Date and Time: Sunday, October 19, 12:00-12:45 PM
    - Location: Hall 25
    - Poster Board Number: 965P
    - Published Abstract Number: 8502

Additional preclinical and translational results will be presented in six posters at the AACR-NCI-EORTC International Conference in Boston, Massachusetts, held from October 22 to 26, 2025, highlighting MICVO's three-part mechanism of action and tumor microenvironment remodeling, which support ongoing clinical studies.

Presentation details at the AACR-NCI-EORTC International Conference are listed below (all times in Eastern Time, ET):

- **Title:** Characterization of micvotabart pelidotin target binding properties and extracellular payload release
    - Session Date and Time: Thursday, October 23, 12:30-4:00 PM
    - Location: Poster Session A

- **Title:** Micvotabart pelidotin induces immunogenic cell death markers and activates tumor immune cells in pre-clinical studies
    - Session Date and Time: Thursday, October 23, 12:30-4:00 PM
    - Location: Poster Session A

- **Title:** Mouse analog of micvotabart pelidotin sensitizes a refractory syngeneic breast cancer model to anti-PD1 therapy
    - Session Date and Time: Thursday, October 23, 12:30-4:00 PM
    - Location: Poster Session A

- **Title:** Development of multiplex immunofluorescence workflows for characterizing tumor-immune and stromal compartments for pharmacodynamic assessments of solid tumors
    - Session Date and Time: Thursday, October 23, 12:30-4:00 PM
    - Location: Poster Session A

- **Title:** Micvotabart pelidotin, a non-cellular targeting ADC, remodels the tumor microenvironment in tumors from participants in a phase 1 dose escalation study
    - Session Date and Time: Thursday, October 23, 12:30-4:00 PM
    - Location: Poster Session A

- **Title:** Micvotabart pelidotin, an ADC targeting non-cellular EDB+FN, induces an immune response in tumors from participants in a phase 1 dose escalation study
    - Session Date and Time: Thursday, October 23, 12:30-4:00 PM
    - Location: Poster Session A

Presentation materials from the ESMO Congress and AACR-NCI-EORTC International Conference will be available on the Pyxis Oncology website following the conclusion of each meeting.

About Pyxis Oncology, Inc.
Pyxis Oncology, Inc. is a clinical stage company focused on defeating difficult-to-treat cancers. The Company is efficiently building therapeutics that hold the potential for monotherapy and combination indications. Its lead candidate, micvotabart pelidotin (MICVO), has been evaluated in ongoing Phase 1 clinical studies in multiple types of solid tumors with a go-forward development focus on treating patients with recurrent and metastatic head and neck squamous cell carcinoma (R/M HNSCC) based on the strength of the HNSCC signal that emerged. Additionally, the Company initiated a

Phase 1/2 combination study of MICVO and Merck's anti-PD-1 therapy, KEYTRUDA ® (pembrolizumab), in patients with R/M HNSCC and other advanced solid tumors.

To learn more, visit www.pyxisoncology.com or follow us on X (formerly known as Twitter) and LinkedIn.

About Micvotabart Pelidotin (MICVO)
Micvotabart pelidotin (MICVO, formerly PYX-201), is an antibody-drug conjugate (ADC) that uniquely targets extradomain-B of fibronectin (EDB+FN), a non-cellular structural component of the tumor extracellular matrix. MICVO is designed to generate a multi-pronged attack on difficult-to-treat cancers by directly killing cancer cells, reducing extra-cellular matrix density, inhibiting tumor angiogenesis and mobilizing an anti-tumor immune response.

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.

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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. These statements are often identified by the use of words such as "anticipate," "believe," "can," "continue," "could," "estimate," "expect," "intend," "likely," "may," "might," "objective," "ongoing," "plan," "potential," "predict," "project," "should," "to be," "will," "would," or the negative or plural of these words, or similar expressions or variations, although not all forward-looking statements contain these words. We cannot assure you that the events and circumstances reflected in the forward-looking statements will be achieved or occur and actual results could differ materially from those expressed or implied by these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those identified herein, and those discussed in the section titled "Risk Factors" set forth in Part II, Item 1A. of the Company's Quarterly Report on Form 10-Q filed with SEC on August 14, 2025, and our other filings, each of which is on file with the Securities and Exchange Commission. These risks are not exhaustive. 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. In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are 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. These statements are inherently uncertain, and investors are cautioned not to unduly rely upon these statements. Except as required by law, we undertake no obligation to update any forward-looking statements to reflect events or circumstances after the date of such statements.

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