Myrexis Presents Data on Cancer Metabolism Inhibitor Program at 102nd AACR Annual Meeting

Synergistic Anti-Tumor Activity With DNA Damaging Agents

SALT LAKE CITY, April 5, 2011 (GLOBE NEWSWIRE) -- Myrexis, Inc. (Nasdaq:MYRX), a biotechnology company focused on developing and commercializing novel treatments for cancer, today announced it presented five posters on its novel cancer metabolism inhibitor, MPC-9528, at the 102nd annual meeting of the American Association for Cancer Research (AACR) in Orlando, Florida. MPC-9528, which is currently in preclinical studies, is an orally bioavailable small molecule inhibitor of an enzyme called Nicotinamide phosphoribosyltranferase (Nampt), which results in tumor cell death following depletion of a critical metabolic cofactor, nicotinamide adenine dinucleotide (NAD).

The five posters include data on multiple aspects of MPC-9528 activity that support that potential for broad spectrum tumoricidal activity alone and in a variety of combinations with other agents. Significantly, MPC-9528 was shown to exhibit synergistic anti-tumor activity when coupled with DNA damaging agents such as DNA alkylating agents and thymidylate synthase inhibitors. These common classes of chemotherapy drugs also reduce NAD cellular levels as a result of their mechanism of action, specifically by activating the NAD-consuming enzyme poly(ADP-ribose) polymerase (PARP). The mechanism of action of MPC-9528 is distinct from these other agents, leading to a combined effect on cellular NAD levels and synergistic anti-tumor activity.

"The capacity of our Nampt inhibitor to synergize with DNA damaging agents suggests multiple clinical opportunities," stated Robert Carlson, Ph.D., Vice President and Head of Translational Science at Myrexis. "We continue to believe MPC-9528 has best-in-class potential and we look forward to continuing the development of this promising preclinical candidate."

Other posters include data on dramatic MPC-9528-induced tumor regression in animal models across multiple tumor types and dosing schedules. This anti-tumor activity is dose-dependent and tightly correlated to the level of NAD depletion, confirming the on-target mechanism of action for MPC-9528 activity. Also, the sensitivity of tumor cells to MPC-9528 *in vitro* appears to parallel its anti-tumor potency in xenograft models and was linked to basal Nampt expression levels. Nampt expression levels may therefore have utility for predicting tumor response to MPC-9528.

In previous studies, Myrexis demonstrated that healthy cells are able to utilize niacin (vitamin B3) as an alternative pathway for NAD production, but that many tumor cell lines (~40%) are deficient for a critical enzyme in this pathway called Naprt (nicotinic acid phosphoribosyltranferase). Two posters include data supporting co-administration of niacin as a method of increasing the therapeutic index of MPC-9528 by reducing or preventing adverse events associated with higher doses and enhancing the anti-tumor activity of MPC-9528 in Naprt-deficient tumors. A simple companion diagnostic may be used to measure Naprt expression and thereby identify patients with tumors most likely to respond to a combination of MPC-9528 and niacin.

Myrexis is conducting investigational new drug (IND) enabling studies on MPC-9528.

All posters presented at AACR 2011 are available at www.myrexis.com.

About MPC-9528

MPC-9528 is an orally bioavailable, small molecule Cancer Metabolism Inhibitor (CMI) discovered by Myrexis that is currently in preclinical development for the treatment of a variety of cancers. MPC-9528 potently and selectively inhibits nicotinamide phosphoribosyltransferase, or Nampt, an enzyme critical for converting nicotinamide into nicotinamide adenine dinucleotide (NAD). Cellular processes such as glucose metabolism, DNA repair and gene expression require and consume NAD. Cancer cells have increased NAD requirements and are highly sensitive to NAD depletion. Blocking the Nampt-NAD pathway severely inhibits cancer cell metabolism, resulting in energy deprivation and ultimately cell death. In animal models, MPC-9528 causes dramatic tumor regressions across multiple tumor types.

Normal healthy human cells produce NAD by a number of different pathways. Additional research however, indicates that that many cancers, as much as 40% of all cancers, lose the ability to produce NAD by these alternative pathways and become dependent upon Nampt activity. Patients with these tumor types may be particularly responsive to MPC-9528 therapy and a simple companion diagnostic may be used to identify these patients. MPC-9528 has the potential to be the best-in-class Nampt inhibitor with promise for treating a wide variety of cancers.

About Myrexis, Inc.

Myrexis, Inc. is a biotechnology company focused on developing and commercializing novel treatments for cancer. The Company has leveraged a unique understanding of the genetic causes of human disease to generate a strong pipeline of clinical and preclinical product candidates. These include compounds with distinct mechanisms of action and novel chemical structures that have first-in-class and/or best-in-class therapeutic potential. Myrexis is led by an experienced management team with expertise in all aspects of pre-clinical, clinical and commercial drug development.

For more information, please visit www.myrexis.com.

The Myrexis, Inc. logo is available at http://www.globenewswire.com/newsroom/prs/?pkgid=6327.

Forward-looking statement safe harbor

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, including statements relating to the attributes and potential efficacy of Myrexis' product candidates MPC-9528 and MPC-3100. These "forward-looking statements" are based on management's current expectations of future events and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by forward-looking statements. These risks and uncertainties include, but are not limited to, the factors discussed under the heading "Risk Factors" contained in Myrexis' Form 10-K, for the year ended June 30, 2010, which was filed with the Securities and Exchange Commission on September 13, 2010, as well as any updates to those risk factors filed from time to time in Myrexis' Quarterly Reports on Form 10-Q or Current Reports on Form 8-K. All information in this press release is as of the date of the release, and Myrexis undertakes no duty to update this information unless required by law.

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