Advaxis Announces Publication of ADXS-PSA Data in The Oncologist

April 8, 2022

ADXS-PSA in combination with KEYTRUDA® in metastatic castration-resistant prostate cancer (mCRPC) is associated with prolonged overall survival in this population, particularly in patients with visceral metastasis

Median overall survival of 16.4 months for patients with visceral metastases treated with ADXS-PSA in combination with KEYTRUDA® compared to ~9 months from historical data with KEYTRUDA® alone

Median overall survival of 33.7 months in all mCRPC patients treated with ADXS-PSA in combination with KEYTRUDA®, as previously reported

MONMOUTH JUNCTION, N.J., April 08, 2022 (GLOBE NEWSWIRE) -- Advaxis, Inc. (OTCQX: ADXS), a clinical-stage biotechnology company focused on the development and commercialization of immunotherapy products today announced the publication of results of their KEYNOTE-46 Phase 1/2 open-label, double-arm trial of ADXS-PSA with KEYTRUDA® (pembrolizumab) in patients with metastatic, castration-resistant prostate cancer (mCRPC). The paper, titled "ADXS31142 Immunotherapy ± Pembrolizumab Treatment for Metastatic Castration-Resistant Prostate Cancer: Open-Label Phase I/II KEYNOTE-046 Study," has been published online in *The Oncologis*t. The article can be found online here.

The KEYNOTE-46 trial was conducted in conjunction with Merck (known as MSD outside the U.S. and Canada) and evaluated ADXS-PSA, one of Advaxis' *Listeria monocytogenes* (*Lm*)-based immunotherapies, alone and in combination with KEYTRUDA®, Merck's anti-PD-1 therapy.

"The published clinical and immunogenicity data demonstrate that ADXS-PSA in combination with KEYTRUDA ® has the potential to provide meaningful increases in median overall survival in patients with advanced, metastatic, castration-resistant prostate cancer," said Kenneth A. Berlin, President and Chief Executive Officer of Advaxis. "Furthermore, these demonstrated improvements in survival in an advanced patient population encourage us to continue researching and developing the next generation of *Lm*-immunotherapies such as our off-the shelf, multineoantigen drug construct, ADXS-504, currently being studied in biochemically recurrent prostate cancer. ADXS-504 is a novel treatment alternative for these earlier stage prostate cancer patients, that has the potential to delay androgen blockade therapy initiation, improve quality of life and increase life expectancy."

As of the January 28, 2020, data cut off, 50 patients with mCRPC were enrolled with evaluable responses in Advaxis' Ph 1/2 trial of ADXS-PSA alone and ADXS-PSA in combination with KEYTRUDA®. The median overall survival (OS) in 13 patients treated with ADXS-PSA alone was 7.8 months (95%CI: 4.4-18.5) with progression free survival (PFS) of 2.2 months (95%CI: 0.8–7.4). The median OS on ADXS-PSA combined with KEYTRUDA® was 33.7 months (95%CI: 15.4-NR), while median PFS was 5.4 months (95%CI: 2.3–7.9; n=37). 56.8% (21/37) of patients on combination therapy and 30.8% (4/13) on monotherapy showed stable disease. Robust response was also observed with the combination therapy in patients with prior docetaxel treatment and visceral metastasis. In addition, patients in the combination arm who had prior docetaxel treatment (n=20; 17 of whom had also received 1 or 2 next generation hormonal agent (NGHA) therapies) had an OS of 16.0 months (95%CI: 6.4-34.6), while patients with prior visceral metastasis (n=11; 10 of whom had prior docetaxel and 9 whom had received 1-2 prior NGHA therapies) had an OS of 16.4 months (95%CI: 4.0-NE). Of note, 36 of the 37 patients in the combination arm were tested for microsatellite instability and were all found to be Microsatellite Stable (MSS).

The combination of ADXS-PSA and KEYTRUDA® increased T-cell expansion compared to ADXS-PSA alone, suggesting broader immune stimulation. In addition, contraction of T-cell clones was observed in the combination group, which suggests that T-cell clones with lower avidity for PSA (and other prostate-related antigens) were reduced in favor of high-avidity T cells under PD-1 blockade. The combination arm also showed antigen spreading with antigen-specific T-cell responses documented against other relevant prostate cancer antigens.

Naomi B Haas, MD, Director of the Prostate and Kidney Cancer Program and Professor of Medicine at University of Pennsylvania Hospital, and senior author of this publication, said, "Altogether these data are encouraging given the prolonged survival observed in patients in the combination therapy arm regardless of prior therapy with docetaxel, NGHAs or presence of visceral metastasis. It is interesting to see increases in median overall survival to 16.4 months in patients with measurable disease/visceral metastasis as compared to historical data of ≤9.5 months with pembrolizumab alone in this population." She added, "Furthermore, one patient who completed the 2-year study-treatment with ADXS-PSA in combination with KEYTRUDA® moved on to a compassionate use protocol and remained with stable disease for yet another 22 months while on combination treatment. These outcomes, delivered with a generally safe and well-tolerated treatment regimen, may warrant additional evaluation of ADXS-PSA in combination with KEYTRUDA® or of new generation *Lm*-immunotherapies in prostate cancer."

The combined therapy was safe and well tolerated in this heavily pretreated population. All patients had more than one treatment-related adverse event, mostly transient Grade 1-2 chills/rigors, fever, hypotension, nausea and fatigue, with no additive toxicity on the combination therapy.

About KEYNOTE-046
KEYNOTE-046 (NCT02325557) was an open-label, multicenter, dose-determining, safety and tolerability Phase 1/2 trial of 50 heavily pretreated patients conducted in two parts (Part A and Part B), with a Phase 2 expansion cohort. While the objective of the study was to evaluate ADXS-PSA as a monotherapy (Part A; n=14 [13 treated]) and in combination with KEYTRUDA® (Part B; n= 37) in heavily pretreated patients with progressive and refractory mCRPC, the study was not designed to compare the two treatment regimens. Primary endpoints included safety, tolerability and dosing. Secondary endpoints were anti-tumor activity, progression-free survival and overall survival, and exploratory endpoints included associations between

biomarkers of immunologic response (serum PSA) with clinical outcomes.

About Advaxis, Inc.
Advaxis, Inc. is a clinical-stage biotechnology company focused on the development and commercialization of proprietary *Lm*-based antigen delivery products. These immunotherapies are based on a platform technology that utilizes live attenuated Listeria monocytogenes (*Lm*) bioengineered to secrete antigen/adjuvant fusion proteins. These *Lm*-based strains are believed to be a significant advancement in immunotherapy as they integrate multiple functions into a single immunotherapy and are designed to access and direct antigen presenting cells to stimulate anti-tumor T cell immunity, activate the immune system with the equivalent of multiple adjuvants, and simultaneously reduce tumor protection in the tumor microenvironment to enable T cells to eliminate tumors.

To learn more about Advaxis, visit www.advaxis.com.

Forward-Looking Statements
This press release contains forward-looking statements that are made pursuant to the safe harbor provisions within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements are any statements that express the current beliefs and expectations of management, including but not limited to statements related to the expected clinical development of the Company's drug product candidates. These and other risks are discussed in the Company's filings with the SEC, including, without limitation, its Annual Report on Form 10-K, filed on filed on January 22, 2022, and its subsequent periodic reports on Form 10-Q and Form 8-K. Any statements contained herein that do not describe historical facts are forward-looking statements that are subject to risks and uncertainties that could cause actual results, performance and achievements to differ materially from those discussed in such forward-looking statements. The Company cautions readers not to place undue reliance on any forward-looking statements, which speak only as of the date they were made. The Company undertakes no obligation to update or revise forward-looking statements, except as otherwise required by law, whether as a result of new information, future events or otherwise.

Contact:
Tim McCarthy, LifeSci Advisors, LLC
212.915.2564
tim@lifesciadvisors.com

ADVAXIS
IMMUNOTHERAPIES™

Source: Advaxis, Inc.