Idera Pharmaceuticals Presents Clinical Data from the ILLUMINATE-204 Trial of the Combination of tilsotolimod and ipilimumab for Anti-PD-1 Refractory Metastatic Melanoma at the 2018 American Society of Clinical Oncology (ASCO) Annual Meeting

June 4, 2018 11:30 AM EDT

- Data from Ongoing Phase 2 Study to be Presented at 1:15 PM CT at the 2018 American Society of Clinical Oncology (ASCO) Annual Meeting -

- Of 21 patients evaluable for efficacy, 38% Overall Response Rate (ORR) observed including 2 Complete Responses (CR); Disease Control Rate observed to be 71% (15 of 21 patients achieving Stable Disease (SD) or better) -

- The combination regimen is generally well tolerated and no synergistic toxicity was observed -

EXTON, Pa., June 04, 2018 (GLOBE NEWSWIRE) -- Idera Pharmaceuticals, Inc. (NASDAQ:IDRA), a clinical-stage biopharmaceutical company developing toll-like receptor and RNA therapeutics for patients with rare cancers and rare diseases, announced results from the ongoing ILLUMINATE-204 trial investigating tilsotolimod, Idera's intratumorally-delivered Toll-like Receptor (TLR) 9 agonist, in combination with ipilimumab (Yervoy®*). Current data show an overall response rate (ORR) of 38 percent following treatment with the combination of tilsotolimod and ipilimumab. This includes 2 complete responses (1 ongoing for 23 months) and an ongoing PR for 12 months. These results will be presented at the 2018 American Society of Clinical Oncology (ASCO) Annual Meeting in Chicago, IL during the poster display session from 1:15-4:45 PM CT and as the subject of a poster discussion session from 4:45-6:00 PM CT.

"We have clinical evidence that tilsotolimod activates both the innate and adaptive immune responses, and when used in combination with a checkpoint inhibitor like ipilimumab, triggers immune responses in previously resistant tumors," stated Adi Diab, M.D., Lead Trial Investigator, Assistant Professor, Department of Melanoma Medical Oncology, Division of Cancer Medicine, University of Texas, MD Anderson Cancer Center. "In patients with metastatic melanoma receiving pembrolizumab who switched to single agent ipilimumab at the time of disease progression the reported ORR was 13%. The ORR of 38% observed in the ILLUMINATE-204 study and the duration of response, which is ongoing in most of the responders, is particularly encouraging and suggests that the combination of tilsotolimod and ipilimumab is a very promising strategy for treating patients with metastatic melanoma whose cancer does not respond to PD-1 therapy alone."

The data available for presentation includes 26 patients whose disease had progressed on anti PD-1 therapy. 21 were evaluable for efficacy [reached first disease assessment as of 09 May 2018], all of whom received tilsotolimod in combination with ipilimumab. The median age of patients at this time is 68.5; 23 of the 26 patients (~88%) had Stage IV melanoma and 11 (42.3%) M1c. 11 of the 26 patients presented with BRAF mutations. The ILLUMINATE-204 trial is planned to enroll up to 60 patients at the 8 mg dose of tilsotolimod, with enrollment completion expected by the end of 2018. Additionally, Idera initiated a global Phase 3 trial of tilsotolimod in combination with ipilimumab (ILLUMINATE-301) compared with ipilimumab alone in anti-PD-1 refractory melanoma in the first quarter of 2018.

ILLUMINATE-204 Key Findings:

- 21 patients treated with the 8 mg dose of tilsotolimod in combination with ipilimumab have had disease evaluations;
- Confirmed RECIST v1.1 responses (including 2 Complete Response [CR]) were observed in 8 of these 21 subjects (38.1%);
- Six of 8 responses are ongoing (1 CR ongoing for nearly 2 years); median duration of response for these 8 has not yet been reached;
- Overall 15 patients out of 21 evaluable for efficacy (71.4%) experienced disease control (CR, PR, or SD);
- The combination regimen is generally well tolerated. 6/26 subjects (23%) had immune-related toxicities indicating that IMO-2125 + ipilimumab does not appear to add toxicity versus ipilimumab alone.
- Injection-related toxicities were grade 1-2 transient fever and flu-like symptoms lasting <48 hours; and,
- 15/26 patients (57.7%) with lesions accessible only by image-guided injection (5 deep visceral lesions and 10 lymph nodes) were included.

Additionally:

- A RECIST v1.1 PR of > 2 year duration is ongoing in a patient treated with tilsotolimod 4 mg in combination with ipilimumab; and
- A RECIST v1.1 CR is ongoing in a patient treated with tilsotolimod 16 mg in combination with pembrolizumab.

"Patients with melanoma and metastatic disease progressing on anti-PD-1 therapy have limited treatment options and need rapid intervention," stated Joanna Horobin, M.B., Ch.B., Idera's Chief Medical Officer. "We have previously reported that tilsotolimod produces maturation of pDCs to activate the immune system within 24 hours of dosing to provide a synergistic anti-tumor effect when combined with ipilimumab. The combination is generally well tolerated; specifically less than a quarter of patients experienced immune-related toxicities. Moreover, the ability to safely deliver tilsotolimod into deep visceral lesions and lymph nodes significantly broadens the opportunity to provide this new therapeutic approach to patients. This becomes particularly important as we expand the clinical program of tilsotolimod beyond melanoma to other metastatic tumor types which rarely have superficial lesions available for injection."

A copy of the poster presentation is currently available on Idera's corporate website at http://www.iderapharma.com/our-approach/key-publications/.

Two additional abstracts were accepted for publication by the review committee:

Title:	Preliminary safety of deep/visceral (D/V) image guided (IG) intratumoral injection (ITI) of IMO-2125.
Abstract Number	
For Publication:	e15150
Author:	Hani Babiker, MD, University of Arizona Cancer Center

Title:	Right tumor, right time: Systematic methodology for fiducial marker placement to achieve reliable and reproducible image guided (IG) delivery of intratumoral immunotherapy into deep/visceral (D/V) lesions and target-lesion imaging follow-up
Abstract Number	
For Publication:	e24137
Author:	Gregory John Woodhead, MD, PhD, University of Arizona Cancer Center

Investor Event and Webcast
The company plans to hold an investor/analyst event at the ASCO Annual Meeting on Monday, June 4, 2018, beginning at 6:30 PM CT, which will feature a presentation by ILLUMINATE-204 lead investigator Adi Diab, MD as well as Q&A with attendees and Idera management. As a convenience to those unable to attend in person, the event will be webcast.

The webcast can be accessed live or in archived form in the “Investors” section of the company’s website at www.iderapharma.com. The company plans to post a slide presentation on Monday, June 4, 2018 to the Idera corporate website in the “Investors” section which will be referenced during the conference call.

About Tilsotolimod (IMO-2125)
Tilsotolimod is a TLR 9 agonist that received Fast Track Designation from the US Food and Drug Administration (FDA) in 2017 for the treatment of anti-PD-1 refractory melanoma, in combination with ipilimumab as well as orphan drug designation from the FDA for the treatment of melanoma Stages IIb to IV. It signals the immune system to create and activate cancer-fighting cells (T-cells) to target solid tumors. Currently approved immuno-oncology treatments, specifically check-point inhibitors, work for some but not all, as many patients’ immune response is missing or weak and thus they do not benefit from the checkpoint therapy. Intratumoral injections with tilsotolimod are designed to selectively enable the T-cells to recognize and attack cancers that remained elusive and unrecognized by the immune system exposed to checkpoint inhibitors alone, while limiting toxicity or impact on healthy cells in the body.

About ILLUMINATE-204
The ILLUMINATE-204 study (2125-204) is for patients who have metastatic melanoma for whom treatment with an anti-PD-1 drug like Keytruda®** (pembrolizumab) or Opdivo®* (nivolumab) has failed. Melanoma is the most dangerous type of skin cancer. When it is metastatic, it means that the melanoma has spread to different parts of the body. ILLUMINATE-204 is a multi-center, two-arm Phase 1/2 study that tests the safety and effectiveness of tilsotolimod in combination with either ipilimumab (Yervoy®) or pembrolizumab (Keytruda®) for the treatment of patients with anti-PD-1 refractory metastatic melanoma.

For additional details about ILLUMINATE-204, please go to clinicaltrials.gov and search for study identifier NCT02644967.

About ILLUMINATE-301
The ILLUMINATE-301 study (2125-MEL-301) is for patients who have metastatic melanoma for whom treatment with an anti-PD-1 drug like Keytruda® (pembrolizumab) or Opdivo® (nivolumab) has failed. ILLUMINATE-301 is a global, multi-center, randomized Phase 3 study that compares the effectiveness and safety between two treatment groups: IMO-2125 combined with ipilimumab (Yervoy®) versus ipilimumab given alone.

For additional details about ILLUMINATE-301, please go to clinicaltrials.gov and search for study identifier NCT03445533.

About Metastatic Melanoma
Melanoma is a type of skin cancer that begins in a type of skin cell called melanocytes. As is the case in many forms of cancer, melanoma becomes more difficult to treat once the disease has spread beyond the skin to other parts of the body such as the lymphatic system, liver or other visceral organs (metastatic disease). Because melanoma occurs in younger individuals, the years of life lost to melanoma are also disproportionately high when compared with other cancers. Although melanoma is a rare form of skin cancer, it comprises over 75% of skin cancer deaths. The American Cancer Society estimates that there were approximately 76,000 new invasive melanoma cases and 10,000 deaths from the disease in the USA in 2016. Additionally, according to the World Health Organization, about 132,000 new cases of melanoma are diagnosed around the world every year.

About Idera Pharmaceuticals
Harnessing the approach of the earliest researchers in immunotherapy and the Company’s vast experience in developing proprietary immunology platforms, Idera’s lead development program is focused on priming the immune system to play a more powerful role in fighting cancer, ultimately increasing the number of people who can benefit from immunotherapy. Idera continues to invest in research and development, and is committed to working with investigators and partners who share the common goal of addressing the unmet needs of patients suffering from rare, life-threatening diseases. To learn more about Idera, visit www.iderapharma.com.

Forward Looking Statements
This press release contains forward-looking statements 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. All statements, other than statements of historical fact, included or incorporated in this press release, including statements regarding the Company's strategy, future operations, collaborations, intellectual property, cash resources, financial position, future revenues, projected costs, prospects, clinical trials, plans, and objectives of management, are forward-looking statements. The words "believes," "anticipates," "estimates," "plans," "expects," "intends," "may," "could," "should," "potential," "likely," "projects," "continue," "will," and "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Idera cannot guarantee that it will actually achieve the plans, intentions or expectations disclosed in its forward-looking statements and you should not place undue reliance on the Company's forward-looking statements. There are a number of important factors that could cause Idera's actual results to differ materially from those indicated or implied by its forward-looking statements. Factors that may cause such a difference include: whether the Company’s cash resources will be sufficient to fund the Company’s continuing operations and the further development of the Company’s programs for the period anticipated; whether interim results from a clinical trial, such as the preliminary results reported in this release, will be predictive of the final results of the trial; whether results obtained in preclinical studies and clinical trials such as the results described in this release will be indicative of the results that will be generated in future clinical trials, including in clinical trials in different disease indications; whether products based on Idera's technology will advance into or through the clinical trial process when anticipated or at all or warrant submission for regulatory approval; whether such products will receive approval from the U.S. Food and Drug Administration or equivalent foreign regulatory agencies; whether, if the Company's products receive approval, they will be successfully distributed and marketed; whether the Company's collaborations will be successful; and such other important factors as are set forth under the caption "Risk factors" in the Company’s Annual Report filed on Form 10-K for the period ended December 31, 2017 and the Company’s Quarterly Report filed on Form 10-Q for the period ended March 31, 2018. Although Idera may elect to do so at some point in the future, the Company does not assume any obligation to update any forward-looking statements and it disclaims any intention or obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

*Yervoy (ipilimumab) and Opdivo (nivolimumab) are registered trademarks of Bristol-Myers Squibb.

**Keytruda (pembrolizimab) is a registered trademark of Merck & Co., Inc.

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