ImmunoGen Announces Multiple Presentations at AACR Annual Meeting

February 27, 2019

- Continued Innovation in ADCs Highlighted in Eleven Posters
- First-in-Class ADAM9-targeting ADC, IMGC936, Developed in Collaboration with MacroGenics, Demonstrates Preclinical Activity in Models of Non-Small Cell Lung, Gastric, and Colorectal Cancers
- Novel DARPin® Drug Conjugate Platform Evaluated in Collaboration with Molecular Partners AG

WALTHAM, Mass.--(BUSINESS WIRE)--Feb. 27, 2019-- ImmunoGen, Inc., (Nasdaq: IMGN), a leader in the expanding field of antibody-drug conjugates (ADCs) for the treatment of cancer, today announced that 11 posters highlighting continued innovation in the field of ADCs will be presented at the upcoming American Association of Cancer Research (AACR) Annual Meeting to be held March 29 – April 3, 2019 in Atlanta, Georgia.

“ImmunoGen remains at the forefront of ADC innovation and the data to be presented at AACR further demonstrate the value of our productive research platform,” said Richard Gregory, Ph.D., ImmunoGen’s chief scientific officer.

The schedule of ImmunoGen’s presentations at AACR is as follows:

IGN Payload Innovation

Title: Antibody-drug conjugates (ADCs) of a new class of N-10 amino linked DNA alkylating indolino-benzodiazepines (IGNs) – *abstract #224*
Date: March 31, 2019
Time: 1:00-5:00 PM ET

- In an ongoing effort to further explore the structure-activity relationship of DNA alkylating effector molecules for ADCs, a new class of IGNs has been developed that possesses a self-immolative peptide linker attached at the N-10 amine of the imine-reduced IGN monomer subunit. ADCs with this class of payload displayed potent, antigen-specific *in vitro* activity across a panel of folate receptor α (FRα)-expressing cell lines.

Title: Antibody-drug conjugates (ADCs) with indolinobenzodiazepine dimer (IGN) payloads: DNA-binding mechanism of IGN catabolites in target cancer cells - *abstract #1886*
Date: March 31, 2019
Time: 1:00-5:00 PM ET

- Investigation of the mechanism of binding of IGN catabolites with DNA in target cancer cells and with model duplex DNA or hairpin oligonucleotides. Both mono-and-di-imine IGN molecules remained bound to genomic DNA even at two days, suggesting a potent interaction with cellular DNA.

Advancement in Platform Linkers and Payloads

Title: Optimizing lysosomal activation of antibody-drug conjugates (ADCs) by incorporation of novel cleavable dipeptide linkers - *abstract #0231*
Date: March 31, 2019
Time: 1:00-5:00 PM ET

- Based on screens of a panel of dipeptide linkers for efficient lysosomal proteolysis, several novel, previously unreported peptide linker designs were identified and incorporated into ADCs bearing a DNA-alkylating IGN payload. Several dipeptide linker designs were superior in rates of lysosomal processing compared to a reference standard L-Ala-L-Ala dipeptide linker.

Title: LC-MS based catabolite identification study of an ADC with DM21-C, a novel maytansinoid linker-payload - *abstract #538*
Date: March 31, 2019
Time: 1:00-5:00 PM ET

- ImmunoGen’s newest ADC design uses the novel maytansinoid linker-payload, DM21-C that bears a peptidase/protease-cleavable linker. The goal of this study was to identify the catabolites generated upon incubation in antigen-positive cancer cells (both cell pellet and media), in mouse plasma, as well as in *in vitro* catabolic systems. DM51 (the thiol- resulting from self-immolation of the cleaved linker-payload) was identified as a major catabolite of the DM21-C ADC.

Title: Preclinical evaluation of DM21, a next-generation maytansinoid payload with a stable peptide linker - *abstract #3898*
Date: April 2, 2019
Time: 1:00-5:00 PM ET

- To evaluate the toxicity of DM21 as an ADC, it was conjugated to the non-targeting, chimeric anti-soybean trypsin inhibitor antibody (chKTI), and administered to cynomolgus monkeys in two groups with separate dose levels. chKTI-DM21 was

well-tolerated at both doses.

Novel Approaches to ADC Development

Title: Generation of site-specific DARPin® drug conjugates using EGFR as a model system - *abstract #215*
Date: March 31, 2019
Time: 1:00-5:00 PM ET

- DARPin® molecules are small engineered proteins, derived from natural ankyrin repeat proteins that are selected to bind to specific targets with high affinity. DARPin® drug conjugates (DDCs) were developed using a model EGFR multi-specific DARPin® molecule, consisting of four DARPin® domains linked together. Biophysical characterization showed the DDCs to be well behaved in stability and solubility assays.

Title: Development of a Probody-Drug Conjugate (PDC) targeting EpCAM for the treatment of solid tumors- *abstract #1439*
Date: March 31, 2019
Time: 1:00-5:00 PM ET

- EpCAM is an attractive target for ADC development due to its overexpression on a variety of tumors of epithelial origin; however, EpCAM is also expressed on a variety of normal epithelia, thus limiting its utility as an ADC target due to potential toxicity. We aim to overcome this limitation by developing an EpCAM-targeting Probody™ drug conjugate (PDC). EpCAM-targeting PDCs were better tolerated than the corresponding EpCAM-targeting ADC even at higher dose levels and displayed longer half-lives and greater exposure.

Title: IMGC936, a first-in-class ADAM9-targeting antibody-drug conjugate, demonstrates promising anti-tumor activity - *abstract #5136*
Date: April 1, 2019
Time: 8:00 AM-12:00 PM ET

- Under a co-development agreement with MacroGenics, it has been shown that ADAM9 is overexpressed in multiple solid tumor indications and that anti-ADAM9 antibodies are efficiently internalized and degraded by tumor cell lines, making ADAM9 an attractive target for ADC development. IMGC936 is the first ADAM9-targeting ADC to enter preclinical development. *In vitro* studies have demonstrated targeted cytotoxicity of IMGC936 across a panel of ADAM9-positve tumor cell lines with activity at least 2 logs greater than a non-targeting conjugate. Consistent with the activity observed *in vitro*, an anti-ADAM9-DM21 conjugate displayed compelling anti-tumor activity in multiple xenograft models representing non-small cell lung, gastric and colorectal cancers.

Title: Preclinical evaluation of a new, non-agonist ADC targeting *MET*-amplified tumors with a peptide-linked maytansinoid - *abstract #4817*
Date: April 3, 2019
Time: 8:00 AM-12:00 PM ET

- cMet is an attractive target for ADCs, which may address the unmet treatment need for patients with tumors harboring *MET* amplification. To assess potential toxicity due to normal tissue expression, binding of our antibody to normal hepatocytes from humans and cynos was measured. Very low expression and binding versus tumor cell lines were found and demonstrated that the cytotoxic activity of disulfide-cleavable maytansinoid ADCs prepared from the hinge-variant cMet antibody was equivalent to the parental form in *in vivo* models. These data merit further exploration of this ADC as a novel treatment option for patients with *MET*-amplified tumors.

Optimizing ADC Dosing

Title: The potential benefit of lower drug-antibody ratio (DAR) on antibody-maytansinoid conjugate *in vivo* efficacy - *abstract #219*
Date: March 31, 2019
Time: 1:00-5:00 PM

- Describes development of a cross-reactive model system that utilizes a chimeric anti-murine FRα antibody that binds with similar affinity to mouse and human FRα. Using this cross-reactive system, where the target is also expressed in normal tissues, 2.0 DAR conjugates were more efficacious than 3.5 DAR conjugates when dosed at matched payload concentrations in multiple xenograft models, suggesting that lower DAR can be an effective strategy to compensate for target-mediated drug disposition (TMDD).

Title: Utilizing a mouse cross-reactive model system to better understand antibody-drug conjugate pharmacokinetics, biodistribution and efficacy - *abstract #229*
Date: March 31, 2019
Time: 1:00-5:00 PM ET

- Generation of a cross-reactive model system that utilized a chimeric anti-murine FRα antibody that binds both mouse and human FRα and can be conjugated to either maytansinoid or IGN payloads. This model system was predicted to have substantial TMDD due to normal tissue expression of FRα. The results showed that TMDD significantly affected the

pharmacokinetics, biodistribution, and activity of the conjugate relative to a non-cross-reactive ADC, with lower ADC doses being more severely impacted than higher doses.

Additional information and full abstracts can be found at www.aacr.org.

ABOUT IMMUNOGEN
ImmunoGen is developing the next generation of antibody-drug conjugates (ADCs) to improve outcomes for cancer patients. By generating targeted therapies with enhanced anti-tumor activity and favorable tolerability profiles, we aim to disrupt the progression of cancer and offer our patients more good days. We call this our commitment to "target a better now." Our lead product candidate, mirvetuximab soravtansine, is in a Phase 3 study for folate receptor alpha (FRα)-positive platinum resistant ovarian cancer, and in Phase 1b/2 testing in combination regimens. Our novel IGN candidates for hematologic malignancies, IMGN779 and IMGN632, are in Phase 1 studies.

Learn more about who we are, what we do, and how we do it at www.immunogen.com.

This press release includes forward-looking statements based on management's current expectations. For these statements, ImmunoGen claims the protection of the safe harbor for forward-looking statements provided by the Private Securities Litigation Reform Act of 1995. Various factors could cause ImmunoGen's actual results to differ materially from those discussed or implied in the forward-looking statements, and you are cautioned not to place undue reliance on these forward-looking statements, which are current only as of the date of this release. It should be noted that there are risks and uncertainties related to the development of novel anticancer products, including risks related to preclinical and clinical studies, their timings and results, and the potential that earlier clinical studies may not be predictive of future results. A review of these risks can be found in ImmunoGen's Annual Report on Form 10-K for the fiscal year ended December 31, 2017 and other reports filed with the Securities and Exchange Commission.

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