arGEN-X Uses its Simple Antibody™ Platform to Identify Four 'Hotspots' on MET as Targets for its Therapeutic Antibody Program

By content manager
Created 2014-04-07 15:09

New findings to be presented at the American Association for Cancer Research annual meeting

arGEN-X, a clinical stage human therapeutic antibody company, will present data on how its SIMPLE Antibody™ platform has identified four 'hotspots' on the MET protein that are suitable for therapeutic antibody targeting. Encoded by the oncogene c-Met, MET signalling is involved in cancer proliferation and metastasis and is activated by hepatocyte growth factor (HGF) in multiple cancers.

The new findings, resulting from a collaboration between arGEN-X scientists and the group of Professor Paolo Michieli at the Institute for Cancer Research and Treatment (Turin, Italy), will be presented by Dr. Anna Hultberg of arGEN-X on Tuesday 8 April in a Late-Breaking Mini-symposium at the American Association for Cancer Research (AACR) annual meeting in San Diego, CA, USA. Further details are given below.

Using its SIMPLE Antibody™ platform, arGEN-X selected 68 distinct antibodies that competed with HGF for MET binding. From this panel, antibodies recognizing four different regions or 'hotspots' for blockade of HGF-induced signalling on the known extracellular domains of MET were identified. These antibodies prevented metastatic spread in a triple-negative breast cancer model following neo-adjuvant therapy, and in a mutated KRAS colon cancer model as adjuvant therapy.

arGEN-X is targeting MET with ARGX-111, a SIMPLE Antibody™ based monoclonal antibody with differentiated product features, currently in a Phase Ib clinical trial.

According to Prof. Hans de Haard, Chief Scientific Officer of arGEN-X: "MET plays an important role in the signal transduction mechanisms responsible for cancer cell spread. Based on our understanding of the importance of certain MET epitopes in these mechanisms, we have created ARGX-111, a unique, MET-specific antibody with several modes of therapeutic action."

Details of the presentation are:

Four individually druggable MET hotspots mediate HGF-driven tumor progression

- Authors: Anna Hultberg, Cristina Basilio, Christophe Blanchetot, Natalie De Jonge, Valerie Hanssens, Gitte de Boeck, Alessia Mira, Manuela Cazzanti, Virginia Morello, Torsten Dreier, Michael Saunders, Hans De Haard, and Paolo Michieli
- Abstract #LBB-330, Late-Breaking Mini-symposium: Novel Drug Targets, Compounds, and Signatures of Response and Resistance
- Tuesday, 8 April, 4.35-4.50pm (Pacific time), Room 8, San Diego Conference Center

About ARGX-111

ARGX-111 is a human monoclonal antibody that blocks the known mechanisms of action of the cancer target MET, the product of the c-Met oncogene. ARGX-111 was discovered using the SIMPLE Antibody™ platform and has been equipped with NHance™ technology to optimize its pharmacokinetic half-life. Moreover, the antibody has been produced as a defucosylated antibody using POTELLIGENT® technology to boost Antibody Dependent Cellular Cytotoxicity (ADCC) and potentiate immune system destruction of MET-positive tumor cells. With this combination of unique attributes, ARGX-111 has demonstrated superior therapeutic potential in both solid and hematological MET-positive malignancies when
compared to established biologic and small molecule inhibitors of the target.

A first-in-man Phase Ib study (NCT02055066) is recruiting patients with advanced MET over-expressing cancers that harbor circulating tumor cells (CTCs), from which metastases are known to arise.

POTELLIGENT® technology is licensed by BioWa Inc., a wholly-owned subsidiary of Kyowa Hakko Kirin Co. Ltd.

About arGEN-X

arGEN-X is a clinical stage human therapeutic antibody company that is rapidly developing a product pipeline using its unique suite of antibody technologies. arGEN-X is creating first and best in class antibody therapeutics with highly differentiated target product profiles. Its therapeutic antibody programs, focused on cancer and autoimmune indications, are designed to deliver tangible benefits to patients with these diseases.