IMUGENE
Developing Cancer Immunotherapies

ASX Announcement

HER-Vaxx & CF33 platforms featured at ASCO Gastrointestinal Cancers Symposium

Sydney, Australia, 20 January 2023: Imugene Limited (ASX: IMU), a clinical stage immuno-oncology company, is pleased to provide further details of its HER-Vaxx and CF33 technologies being featured at the ASCO Gastrointestinal Cancers Symposium currently being held in San Francisco.

The presentation and posters being presented at the event can be downloaded and viewed in full on the Imugene website at https://www.imugene.com/conference-presentations.

Imugene and its technologies featured in the following sessions:

Oral Abstract Session

HERIZON: A phase 2 study of HER-Vaxx (IMU-131), a HER2-targeting peptide vaccine, plus standard of care chemotherapy in patients with HER2-overexpressing metastatic or advanced gastric/GEJ adenocarcinoma— Overall survival analysis.

In presenting the session Dr Tanuj Chawla outlined the following conclusions:

- HER-Vaxx (IMU-131) + chemotherapy showed a statistically significant 45% overall survival benefit compared to chemotherapy alone (14.0 vs 8.3 months)
- Duration of response was longer in HER-Vaxx + chemotherapy arm over chemotherapy alone arm (30 vs 19 weeks)
- Vaccination with HER-Vaxx induced persistent HER-2 specific antibodies which correlated with clinical response as proof of concept for a first-in-class B Cell Immunotherapy based on HER-2 peptides
- No additive toxicity was seen when HER-Vaxx was administered in combination with chemotherapy
- Exploring alternative HER-Vaxx doses in single arm phase 2 extension study
- The nextHERIZON study (NCT05311176) is currently enrolling (TIP #16 @ASCO GI): HER-Vaxx plus ramucirumab /paclitaxel OR pembrolizumab following progression with trastuzumab treatment in GC

Trials in Progress Poster Session

nextHERIZON: A phase 2 study of HER-Vaxx, a HER2-targeting peptide vaccine, in combination with chemotherapy or pembrolizumab in patients with HER2 metastatic or advanced gastric/gastroesophageal adenocarcinoma that progressed on or after trastuzumab treatment.

Imugene's CMO Dr Giovanni Selvaggi presented this poster as part of a Trials in Progress Poster Session, outlining an introduction to HER-Vaxx and its clinical programme, the study design, objectives and key eligibility criteria.

Poster Sessions

Development of a novel chimeric oncolytic viral platform, CF33 and its derivatives, for peritoneal-directed CF33-OV treatment of gastric cancer peritoneal carcinomatosis.

Dr Annie Yang from City of Hope presented the following results in this poster session:

- CF33-OVs infects and replicates in a dose dependent manner in both diffuse and intestine subtypes of human GC cell lines without attenuation caused by insertion of human transgenes
- Immunofluorescence imaging showed virus-encoded hNISand anti-PD-L1 antibody expression in CF33-OV-infected GC cells
- CF33-OVs killed a range of GC cell lines in a dose dependent manner
- Flow cytometry confirmed GC cell surface PD-L1 blockade by virus-encoded anti-PD-L1
- In the xenograft model, CF33-hNIS-antiPDL1 (IP; 3x105pfu x 3 doses) significantly reduced peritoneal tumors ($p<0.0001$), decreased amount of ascites (62.5% PBS vs. 25% CF33-hNIS-antiPDL1) and prolonged animal survival ($p<0.01$). At day 91, 6/8 mice were alive in the virus-treated group vs.1/8 in the control group.

The poster concluded that CF33-OVs demonstrates robust infection, replication, functional protein delivery and killing of GC in vitro. IP CF33-hNIS-antiPDL1 treatment improves survival of GCPM xenograft mouse models when compared to PBS controls.

Ex vivo oncolytic and immune activity of CF33-hNIS-antiPDL1 against fresh peritoneal cells from patients with gastric cancer with and without peritoneal metastases.

Dr Yanghee Woo from City of Hope presented the following key takeaways from this poster session:

• Oncolytic CF33-hNIS-antiPDL1 virus is effective in infecting and killing fresh human peritoneal cancer cells of GCPM with expression of functional anti-PD-L1 scFv.

• Phase I trial investigating the safety and biologic activity of intraperitoneal CF33-hNIS-antiPDL1 for the treatment of GC patients with peritoneal metastases is planned.The 20th iteration of the annual ASCO GI event highlights the latest developments and breakthroughs in the field of gastrointestinal oncology, attended by more than 4,000 scientific figures, clinical researchers, academics, oncologists and medical practitioners from around the world.

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About Imugene (ASX:IMU)

Imugene is a clinical stage immuno-oncology company developing a range of new and novel immunotherapies that seek to activate the immune system of cancer patients to treat and eradicate tumours. Our unique platform technologies seek to harness the body's immune system against tumours, potentially achieving a similar or greater effect than synthetically manufactured monoclonal antibody and other immunotherapies. Our product pipeline includes multiple immunotherapy B-cell vaccine candidates and an oncolytic virotherapy (CF33) aimed at treating a variety of cancers in combination with standard of care drugs and emerging immunotherapies such as CAR T's for solid tumours. We are supported by a leading team of international cancer experts with extensive experience in developing new cancer therapies with many approved for sale and marketing for global markets.

Our vision is to help transform and improve the treatment of cancer and the lives of the millions of patients who need effective treatments. This vision is backed by a growing body of clinical evidence and peer-reviewed research. Imugene is well funded and resourced, to deliver on its commercial and clinical milestones. Together with leading specialists and medical professionals, we believe Imugene's immuno-oncology therapies will become foundation treatments for cancer. Our goal is to ensure that Imugene and its shareholders are at the forefront of this rapidly growing global market.

Release authorised by the Managing Director and Chief Executive Officer
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