Checkmate Pharmaceuticals Announces Dosing of First Patient in a Phase 1b/2 Study in Squamous Cell Carcinoma of the Head and Neck with Lead Investigational Candidate CMP-001

CMP-001, a TLR9 Agonist, to be Evaluated in Combination with BAVENCIO®; with or without Utomilumab, a 4-1BB Agonist, and PF-04518600, an OX40 Agonist

CAMBRIDGE, Mass., October 1, 2019 – Checkmate Pharmaceuticals Inc., a clinical stage biopharmaceutical company focused upon activation of innate immunity to treat advanced cancer, today announced the first patient was treated in a Phase 1b/2 study of BAVENCIO® (avelumab) in multidrug combinations with CMP-001 in patients with Squamous Cell Cancer of the Head and Neck (SCCHN) as part of the JAVELIN Medley study sponsored by Pfizer Inc. (NYSE:PFE) in collaboration with Merck KGaA, Darmstadt, Germany. JAVELIN Medley is designed to evaluate BAVENCIO®, a human anti-programmed death ligand (PD-L1) co-developed and co-commercialized by Merck KGaA Darmstadt, Germany and Pfizer, in combination with other immune modulators in patients with locally advanced or metastatic solid tumors.

"The dosing of patients in this trial represents an important milestone for Checkmate as we seek to build upon promising data we have generated to date with CMP-001, particularly in PD-1-refractory advanced melanoma. Based upon the preclinical and clinical work conducted to date, we believe CMP-001 can effectively convert cold tumors to hot and thereby improve response to PD-1/L1-based immunotherapy in a variety of solid tumors. We look forward to the results of this clinical trial," commented Barry Labinger, President and CEO of Checkmate Pharmaceuticals.

This Phase 1b/2 study in up to 60 patients is designed to evaluate the safety, pharmacokinetics, pharmacodynamics, and preliminary antitumor activity of the doublet combination of avelumab and CMP-001; the triplet combination of CMP-001, avelumab and utomilumab (4-1BB agonist); and the triplet combination of CMP-001, avelumab and PF-04518600 (OX40 agonist), in patients with locally advanced SCCHN. For more information about this trial, please visit clinical trials www.clinicaltrials.gov. (Identifier: NCT02554812)

About CMP-001

CMP-001 is a first-in-class CpG-A Toll-like receptor 9 (TLR9) agonist that is encapsulated in a virus-like particle. CMP-001 is designed to induce both innate and adaptive anti-tumor immune responses, thereby converting immunologically "cold" tumors into immunologically "hot" tumors, with the potential to mediate tumor regression. It is the only CpG-A class TLR9 agonist in clinical trials and differs from other CpG classes in clinical development by having a native DNA backbone that induces the highest levels of type I Interferon (IFN). Based on analyses of gene expression in human tumors showing that increased IFN and related immune gene expression is associated with better response to PD-1 inhibition, it is believed that this mechanism of action may restore, enable or improve responses to antiPD-1/PD-L1 therapeutics. CMP-001 is being evaluated in multiple tumor types to assess safety, activity, alternative routes of administration and combination with other immunotherapies and

modalities. For information on CMP-001 trials that are currently recruiting patients, please visit www.clinicaltrials.gov.

Avelumab Approved Indications

Avelumab (BAVENCIO®) in combination with axitinib is indicated in the US for the first-line treatment of patients with advanced renal cell carcinoma (RCC).

The US Food and Drug Administration (FDA) also granted accelerated approval for avelumab (BAVENCIO®) for the treatment of (i) adults and pediatric patients 12 years and older with metastatic Merkel cell carcinoma (mMCC) and (ii) patients with locally advanced or metastatic urothelial carcinoma (mUC) who have disease progression during or following platinum-containing chemotherapy, or have disease progression within 12 months of neoadjuvant or adjuvant treatment with platinum-containing chemotherapy. These indications are approved under accelerated approval based on tumor response rate and duration of response. Continued approval for these indications may be contingent upon verification and description of clinical benefit in confirmatory trials.

Avelumab is currently approved for patients with MCC in more than 45 countries globally, with the majority of these approvals in a broad indication that is not limited to a specific line of treatment.

Avelumab Important Safety Information from the US FDA-Approved Label

The warnings and precautions for avelumab (BAVENCIO®) include immune-mediated adverse reactions (such as pneumonitis and hepatitis [including fatal cases], colitis, endocrinopathies, nephritis and renal dysfunction and other adverse reactions [which can be severe and have included fatal cases]), infusion related reactions, hepatotoxicity, major adverse cardiovascular events (MACE) [which can be severe and have included fatal cases], and embryo-fetal toxicity.

Common adverse reactions (reported in at least 20% of patients) in patients treated with BAVENCIO® monotherapy include fatigue, musculoskeletal pain, diarrhea, nausea, infusion-related reaction, peripheral edema, decreased appetite/hypophagia, urinary tract infection and rash. Common adverse reactions (reported in at least 20% of patients) in patients receiving BAVENCIO® in combination with axitinib include diarrhea, fatigue, hypertension, musculoskeletal pain, nausea, mucositis, palmar-plantar erythrodysesthesia, dysphonia, decreased appetite, hypothyroidism, rash, hepatotoxicity, cough, dyspnea, abdominal pain and headache. Clinical chemistry and hematology laboratory value abnormalities reported in at least 10% of patients include hyponatremia, lymphopenia, GGT increased, blood triglyceride increased and lipase increased, and grade 3-4 lymphopenia, anemia, elevated cholesterol and liver enzymes.

For full Prescribing Information and Medication Guide for BAVENCIO®, please see www.BAVENCIO.com.

About Checkmate

Checkmate Pharmaceuticals is a clinical stage company that is leveraging its expertise in the field of CpG oligonucleotides to discover and develop immunotherapies designed to increase the efficacy of existing immunotherapies and to provide new treatment options for patients and their healthcare providers. Checkmate's lead product candidate, CMP-001, is an investigational cancer immunotherapeutic that has been shown to reverse resistance to PD-1 therapy in some patients. Checkmate is a privately held

company headquartered in Cambridge, MA. Additional information regarding Checkmate is available at www.checkmatepharma.com.

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