Deciphera's Highly-Selective Small Molecule CSF1R Immunokinase Inhibitor, DCC-3014, Demonstrates Potent Macrophage Checkpoint Inhibition as a Single Agent and In Combination with an Anti-PD1 Inhibitor

April 20, 2016

Preclinical Data Demonstrating Activity of DCC-3014 in Colorectal Cancer Model Presented at American Association for Cancer Research Annual Meeting 2016

Demonstrates highly-specific CSF1R inhibition and potential utility as a Macrophage Immunomodulatory Agent in Combination with Immune Checkpoint Inhibitors and Chemotherapeutic Agents

Deciphera Pharmaceuticals, a clinical-stage biotechnology company focused on developing advanced kinase inhibitor treatments targeting the tumor cell and the tumor microenvironment, today announced that its highly-selective small molecule CSF1R inhibitor, DCC-3014, has demonstrated highly-specific inhibition of the colony stimulating factor 1 receptor (CSFIR), a key target across many cancer indications. In addition, DCC-3014, which was designed as a highly-specific macrophage immunomodulatory agent based on the company's Switch Control Inhibitor platform, demonstrated significantly enhanced anti-tumor activity when used in combination with an anti-PD-1 checkpoint inhibitor in preclinical cancer models. Based on these data, which were presented at the American Association for Cancer Research (AACR)

Annual Meeting 2016, on April 20, 2016 in New Orleans, Deciphera plans to initiate a Phase 1 clinical trial with DCC-3014 in the second half of 2016.

“DCC-3014’s robust inhibition of the CSF1R kinase, as demonstrated by these data presented at the AACR Annual Meeting, provide encouraging evidence of its potential as a immunomodulatory agent through its action on tumor-associated macrophages (TAMs), both as a single agent and in combination with other immune checkpoint inhibitors, across a number of cancer models,” said Michael D. Taylor, Ph.D., Deciphera’s President and Chief Executive Officer. “We look forward to initiating the first-in-human Phase 1 trial with DCC-3014 later this year.”

In a poster titled, “The highly specific CSF1R inhibitor DCC-3014 exhibits immunomodulatory and anti-invasive activities in cancer models,” Deciphera researchers presented preclinical data demonstrating DCC-3014’s robust inhibition of CSF1R kinase, and potential utility as a macrophage immunomodulatory agent in combination with other immune checkpoint inhibitors or chemotherapeutic agents. Highlights of the data include:

- DCC-3014 exhibited nanomolar potency for inhibition of CSF1R, sparing highly related kinases such as KIT, PDGFR and FLT3 by greater than 100-fold, and sparing other kinases by more than 1,000-fold.
- DCC-3014 showed sustained in vivo inhibition of CSF1R, offering greater than 90% inhibition more than 24 hours after dosing, in a murine PK/PD model.
- DCC-3014 demonstrated significant single agent activity and additive effects in combination with a murine anti-PD1 antibody in a murine model of colorectal cancer.
- DCC-3014 blocked tumor growth, invasion and bone degradation in a prostate cancer model and exhibited optimized biopharmaceutical properties.

About DCC-3014

DCC-3014, a highly-selective small molecule colony stimulating factor 1 receptor (CSFIR), was designed as a highly-specific macrophage immunomodulatory agent based on the company’s Switch Control Inhibitor platform. In preclinical studies, DCC-3014 has demonstrated highly-specific inhibition of CSF1R, a key target across

many cancer indications, as well as significantly enhanced anti-tumor activity when used in combination with an anti-PD-1 checkpoint inhibitors. Based on these data, Deciphera plans to initiate a Phase 1 clinical trial with DCC-3014 in the second half of 2016.

About Deciphera

Deciphera Pharmaceuticals seeks to improve treatment for patients with cancer by designing kinase inhibitor therapies that target the hallmarks of cancer biology. We specifically design our small molecule compounds to simultaneously block multiple cancer signaling mechanisms in the tumor cell and the tumor microenvironment to prevent growth and spread. Deciphera's unique approach represents an important advance over current therapies in the durability of kinase inhibition and resiliency to genetic mutations to provide greater benefit across a range of cancers. Deciphera's business strategy is to advance its drug candidates for genetically defined cancers and cancers that target the tumor microenvironment through both proprietary and partnered programs.

Contacts:
Michael D. Taylor, Ph.D., Deciphera Pharmaceuticals
mtaylor@deciphera.com
781-209-6411

Media:
Gina Nugent, The Yates Network
gina@theyatesnetwork.com
617-460-3579