# Deciphera Pharmaceuticals Presents Preclinical Data on Rebastinib and DCC-3014 at AACR Tumor Microenvironment Conference

March 17, 2014

*Preclinical Data Demonstrate Potent Inhibition of Tumor Microenvironment Mechanisms with Rebastinib; Durable Inhibition of FMS Kinase and Bone Protection in Bone Tumor Microenvironment with DCC-3014*

Deciphera Pharmaceuticals, a clinical stage biotechnology company focused on improved kinase inhibitor treatments for cancer, today announced that it presented preclinical data on two key pipeline assets at the American Association for Cancer Research (AACR) Conference on Cellular Heterogeneity in the Tumor Microenvironment, February 26-March 1, 2014 in San Diego.

An oral presentation disclosed preclinical data demonstrating that Deciphera's product candidate rebastinib, a TIE2 kinase inhibitor currently in Phase 1 clinical development, potently inhibits tumor microenvironment mechanisms mediated by TIE2 kinase expressing macrophages. These immune cells in the surrounding tumor microenvironment are co-opted by cancers for building blood supply to the tumor, mediating tumor cell invasiveness through tissue, and in mediating dissemination into the blood stream, leading to tumor metastasis at remote sites. Rebastinib potently inhibited TIE2 kinase in cellular assays and blocked primary tumor growth by 75% as a single agent and by 90% in combination with the standard chemotherapeutic agent paclitaxel in the PyMT mouse breast cancer model. Furthermore, rebastinib therapy significantly reduced the presence of tumor-promoting macrophages in tumor biopsies

by 80%. This blockade of tumor macrophages correlated with almost complete inhibition of breast cancer lung metastases. In combination with the approved agent eribulin, rebastinib significantly prolonged survival in the PyMT breast cancer model (median survival > 200 days) compared to single agent eribulin therapy (median survival 54 days).

In addition, a poster was presented on Deciphera's preclinical candidate, DCC-3014, a highly selective inhibitor of FMS kinase, expressed in tumor-promoting macrophages in the cancer microenvironment. In a broad screen of 300 kinases, DCC-3014 only potently inhibited FMS kinase, while not inhibiting even closely related kinases FLT-3, KIT, and PDGFR. DCC-3014 exhibited profound inhibition of FMS in a pharmacodynamic model, effectively blocking FMS kinase in vivo for over 24 hours after a single dose. In a prostate cancer model of bone invasion, treatment with DCC-3014 significantly reduced invasion of long bones by the tumor. Such bone protection was shown mechanistically to correlate with inhibition of macrophages and bone-destroying osteoclasts in the bone tumor microenvironment.