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Five Prime Therapeutics Announces Completion of Enrollment for the Phase 2 Part of the Ongoing Trial of Cabiralizumab for the Treatment of Pigmented Villonodular Synovitis (PVNS)

SOUTH SAN FRANCISCO, Calif., April 10, 2017 (GLOBE NEWSWIRE) -- Five Prime Therapeutics, Inc. (Nasdaq:FPRX) today announced that it has completed enrollment in the initially planned 30-patient cohort of the Phase 2 part of the ongoing clinical trial evaluating cabiralizumab in patients with tenosynovial giant cell tumor, diffuse type, also known as pigmented villonodular synovitis (PVNS), an aggressive tumor confined to the synovium.

"Completing enrollment in the Phase 2 part of this trial marks another important milestone for Five Prime," said Helen Collins, M.D., Senior Vice President and Chief Medical Officer of Five Prime. "PVNS is a rare neoplastic joint disease that can be associated with significant pain and debilitation. We are evaluating cabiralizumab, our investigational antibody that blocks CSF1R, as a potential treatment for this rare disease for which there are no currently approved medical treatments."

Five Prime initiated patient dosing in this Phase 1/2 clinical trial of cabiralizumab in July 2015. During the Phase 2 part of the trial, the company is evaluating response rate and duration, as well as measures of pain and range of motion, in approximately 30 patients.

The U.S. Food and Drug Administration (FDA) and European Commission granted Orphan Drug Designation for cabiralizumab for the treatment of PVNS. The company estimates that the U.S. prevalence for diffuse PVNS patients may be as high as 25,000 patients.

Five Prime plans to seek regulatory feedback on the design of a pivotal trial. In addition, the company plans to present initial data from this clinical trial at 2017 American Society of Clinical Oncology (ASCO) Annual Meeting.

About PVNS
PVNS is a rare, locally aggressive tumor of the synovium. It is characterized by local over-expression of CSF-1, which recruits macrophages into the joints, forming the non-malignant tumor mass. It is associated with high morbidity, and there are no approved therapies for the condition. Five Prime is conducting a Phase 1/2 clinical trial studying cabiralizumab as a treatment for PVNS.

About Cabiralizumab (FPA008)
Cabiralizumab is an investigational antibody that inhibits the CSF-1 receptor and has been shown in preclinical models to block the activation and survival of monocytes and macrophages. Inhibition of CSF1R in preclinical models of several cancers reduces the number of immunosuppressive tumor-associated macrophages (TAMs) in the tumor microenvironment, thereby facilitating an immune response against tumors. Cabiralizumab is currently in a Phase 2 clinical trial in pigmented villonodular synovitis (PVNS) and a Phase 1 clinical trial in oncology indications. Cabiralizumab is being developed under an exclusive worldwide license and collaboration agreement entered into with Bristol-Myers Squibb (BMS) in October 2015.

About Five Prime
Five Prime Therapeutics, Inc. discovers and develops innovative therapeutics to improve the lives of patients with serious diseases. Five Prime's comprehensive discovery platform, which encompasses virtually every medically relevant extracellular protein, positions it to explore pathways in cancer, inflammation and their intersection in immuno-oncology, an area with significant therapeutic potential and a growing focus of the company's R&D activities. Five Prime has entered into strategic collaborations with leading global pharmaceutical companies and has promising product candidates in clinical and late preclinical development. For more information, please visit www.fiveprime.com.

Cautionary Note on Forward-looking Statements
This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "may," "will," "expect," "plan," "anticipate," "estimate," "intend" and similar expressions (as well as other words or expressions referencing future events, conditions or circumstances) are intended to identify forward-looking statements. These forward-looking statements are based on Five Prime's expectations and assumptions as of the date of this press release. Each of these forward-looking statements involves risks and uncertainties. Actual results may differ materially from these forward-looking statements. Factors that may cause actual results to differ from those expressed or implied in the forward-looking statements in this press release are discussed in Five Prime's filings with the U.S. Securities and Exchange Commission, including the "Risk Factors" contained therein. Except as required by law, Five Prime assumes

no obligation to update any forward-looking statements contained herein to reflect any change in expectations, even as new information becomes available.

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