

**HUMAN GENOME SCIENCES AND FIVEPRIME THERAPEUTICS ANNOUNCE
DEVELOPMENT AND COMMERCIALIZATION AGREEMENT FOR NOVEL ANTI-CANCER
DRUG**

- FP-1039 is a fibroblast growth factor (FGF) ligand trap being studied in early stage clinical trials in a variety of cancers
- HGS acquires exclusive rights to develop and commercialize FivePrime's FP-1039 in the United States, Canada and European Union
- FivePrime retains minority co-promotion rights in the U.S. and full rights to rest of world territories, including Asia

ROCKVILLE, Maryland and SOUTH SAN FRANCISCO, California – March 16, 2011 –

Human Genome Sciences, Inc. (Nasdaq: HGS) and FivePrime Therapeutics, Inc. announced today that they have entered into an agreement to develop and commercialize FivePrime's FP-1039 product for multiple cancers. FP-1039 is a first-in-class biologic discovered by FivePrime that targets multiple fibroblast growth factor (FGF) ligands. Under the terms of the agreement, HGS has acquired rights to develop and commercialize FP-1039 in the United States, Canada and the EU markets, while FivePrime retains minority co-promotion rights in the U.S. and full development and commercialization rights in rest of world territories, including Asia.

"Today's announcement underscores Human Genome Sciences' commitment to developing novel targeted therapies that address significant unmet medical needs for patients," said H. Thomas Watkins, President and Chief Executive Officer, HGS. "We are excited to add FP-1039 to our pipeline and look forward to working with FivePrime to develop and commercialize this innovative biologic product."

Under the terms of the agreement, HGS will pay FivePrime an upfront license fee of \$50 million and FivePrime will be eligible to receive up to \$445 million in future development, regulatory and commercial milestone payments. The agreement calls for tiered double-digit percentage royalty payments on net sales. HGS has exclusive rights to develop and commercialize FP-1039 for all indications in the United States, Canada and the European Union. FivePrime has an option to co-promote FP-1039 and any next-generation products in the United States, and retains full development and commercialization rights in all other regions of the world outside the U.S., Canada and the EU, including Asia, Latin America and non-EU nations in Europe, including Russia. At FivePrime's request, HGS will supply FivePrime with FP-1039 for use in the rest of world territories.

“We are delighted to enter into this collaboration with HGS. It will significantly broaden the clinical plan for FP-1039, enabling us to address the multiple tumor types in which FP-1039 may have activity,” said Julia P. Gregory, President and Chief Executive Officer of FivePrime. “This strategically important collaboration evidences the rapidly growing excitement surrounding novel oncology drugs.”

“FivePrime’s valuable discovery platforms have enabled us to develop a very promising therapeutic agent in a signaling pathway that has been historically untapped for drug development. HGS is a great partner for FP-1039 because of their track record of success in developing breakthrough biologics,” stated Lewis T. Williams, M.D. Ph.D., Executive Chairman and Founder of FivePrime.

FP-1039 is being evaluated in an ongoing phase 1 clinical study in which it has been shown to be safe and well tolerated to date. Patients are currently being screened for a phase 2 trial for a form of endometrial cancer.

ABOUT FP-1039

FP-1039 is a first-in-class ligand trap that binds to and inhibits most members of the FGF (Fibroblast Growth Factor) family. FGF proteins are growth factors that, along with VEGF (Vascular Endothelial Growth Factor) and EGF (Epidermal Growth Factor), play important roles in the growth and maintenance of many solid tumors. FP-1039 is a soluble fusion protein consisting of the extracellular portion of Fibroblast Growth Factor Receptor 1 (FGFR1) that is attached to the base of a human antibody. The drug is designed to neutralize the activity of multiple FGF ligands and inhibit their signaling through all FGF receptors. Data indicate that FP-1039 is a very effective inhibitor of the complex and crucial FGF signaling pathway. Moreover, FP-1039 is expected to exert a dual effect on cancer cells both as a result of direct inhibition of tumor cell growth and through inhibition of tumor-associated angiogenesis — both of which are FGF-mediated processes.

ABOUT HUMAN GENOME SCIENCES

Human Genome Sciences exists to place new therapies into the hands of those battling serious disease. For more information about HGS, please visit the Company’s web site at www.hgsi.com. Health professionals and patients interested in clinical trials of HGS products may inquire via e-mail to tomedinfo@hgsi.com or by calling HGS at (877) 822-8472. HGS and

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ABOUT FIVEPRIME

FivePrime Therapeutics, Inc. is a clinical-stage, privately-held, biotechnology company discovering and developing innovative protein and antibody therapeutics. Using its novel, high-tech discovery platform, FivePrime is building a strong pipeline of oncology, immunology and metabolic disease drug candidates. Its proprietary platform mines FivePrime's comprehensive library of secreted and extracellular human proteins to screen for medically relevant new therapeutic proteins and antibody targets. FivePrime has active collaborations with Pfizer, Inc. in the fields of oncology and diabetes and GlaxoSmithKline for skeletal muscle disorders. For more information about FivePrime, please visit FivePrime's web site at www.fiveprime.com.

HGS SAFE HARBOR STATEMENT

This announcement contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. The forward-looking statements are based on Human Genome Sciences' current intent, belief and expectations. These statements are not guarantees of future performance and are subject to certain risks and uncertainties that are difficult to predict. Actual results may differ materially from these forward-looking statements because of Human Genome Sciences' unproven business model, its dependence on new technologies, the uncertainty and timing of clinical trials and regulatory approvals, Human Genome Sciences' ability to develop and commercialize products, its dependence on collaborators for services and revenue, its substantial indebtedness and lease obligations, its changing requirements and costs associated with facilities, intense competition, the uncertainty of patent and intellectual property protection, Human Genome Sciences' dependence on key management and key suppliers, the uncertainty of regulation of products, the impact of future alliances or transactions and other risks described in the Company's filings with the SEC. Existing and prospective investors are cautioned not to place undue reliance on these forward-looking statements, which speak only as of today's date. Human Genome Sciences undertakes no obligation to update or revise the information contained in this announcement whether as a result of new information, future events or circumstances or otherwise.

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