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## News Release

**Not Intended for U.S. or UK Media**

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### **Bayer Receives FDA Approval for Stivarga<sup>®</sup> (regorafenib) for the Second-Line Systemic Treatment of Liver Cancer**

- Stivarga is the first and only systemic treatment to demonstrate significant improvement in overall survival in second-line hepatocellular carcinoma (HCC) patients previously treated with Nexavar<sup>®</sup> (sorafenib)
- First new treatment for HCC in a decade
- Pivotal Phase III RESORCE trial defines a new treatment plan in HCC which involves use of Stivarga directly after progression on Nexavar

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**Berlin, April 28, 2017** – Bayer announced today that the U.S. Food and Drug Administration (FDA) approved Stivarga<sup>®</sup> (regorafenib) tablets for the second-line treatment of patients with hepatocellular carcinoma (HCC) who have been previously treated with Nexavar<sup>®</sup> (sorafenib). Stivarga is the first and only treatment to demonstrate significant improvement in overall survival in second-line HCC patients. In the RESORCE trial, Stivarga was shown to provide a statistically significant and clinically meaningful improvement in overall survival (OS) versus placebo; the median OS was 10.6 [(n=379) (CI 9.1, 12.1)] vs 7.8 [(n=194) (CI 6.3, 8.8)] months, respectively (HR 0.63, 95% CI 0.50-0.79; p<0.0001). This translates to a 37% reduction in the risk of death. The number of deaths in each arm included 233 of 379 (62%) with Stivarga and 140 of 194 (72%) with placebo. Today's FDA approval expands Bayer's leadership in liver cancer with a treatment plan in HCC involving use of Stivarga directly after progression on Nexavar.

Stivarga is an oral inhibitor of multiple kinases involved in normal cellular functioning and in pathological processes such as oncogenesis, tumor angiogenesis, metastasis and tumor immunity. The FDA's approval is based on data from the international, multicenter, placebo-controlled Phase III RESORCE [REgorafenib after SORafenib in patients with hepatoCELLular carcinoma; NCT 01774344] trial, which investigated patients with HCC whose disease had progressed during treatment with Nexavar. The most frequently observed adverse drug reactions (≥30%) in patients treated with regorafenib vs. placebo-

treated patients in HCC, respectively, were: pain (55% vs. 44%), HFSR/PPE (51% vs. 7%), asthenia/fatigue (42% vs. 33%), diarrhea (41% vs. 15%), hypertension (31% vs. 6%), infection (31% vs. 18%), decreased appetite and food intake (31% vs. 15%).

“Hepatocellular carcinoma is very hard to treat, and with no new treatments in nearly a decade, options have been very limited for physicians and patients,” said Dr Jordi Bruix, lead investigator for the RESORCE trial, BCLC Group, Liver Unit, Hospital Clinic, University of Barcelona, IDIBAPS, CIBEREHD, Spain. “The U.S. approval of Stivarga for hepatocellular carcinoma therefore provides a significant step forward in addressing the high unmet need in this patient population.”

The incidence of liver cancer is increasing worldwide and it is already the sixth most common cancer in the world and the second leading cause of cancer-related deaths globally.

“Bayer is proud to have played a significant role in the treatment of hepatocellular carcinoma,” said Robert LaCaze, executive vice president and head of the Oncology Strategic Business Unit at Bayer. “We first embarked on our scientific research in this area 20 years ago. We could not have done it alone: we would like to thank the patients, caregivers and investigators for their participation and engagement in the RESORCE trial.”

The approval of Stivarga in liver cancer marks the third time that this therapy has been granted FDA approval on a priority basis. The FDA granted Fast Track designation to Stivarga in HCC, which is an expedited program designed to facilitate development and review of drugs to address an unmet medical need in the treatment of a serious or life-threatening condition. The FDA also granted Orphan Drug Designation (ODD) to Stivarga in HCC. The ODD program provides orphan status to drugs and biologics which are defined as those intended for the safe and effective treatment, diagnosis or prevention of rare diseases and disorders. Additional regulatory filings for Stivarga in HCC are under review in countries around the world, including the EU, Japan and China. Decisions in the EU and Japan regions are expected later this year.

### **About Hepatocellular Carcinoma**

Hepatocellular carcinoma, or HCC, is the most common form of liver cancer and represents approximately 70-85 percent of liver cancer worldwide. More than 780,000

cases of liver cancer are diagnosed worldwide each year (52,000 in the European Union, 501,000 in the Western Pacific region and 30,000 in the United States). In 2012, approximately 746,000 people died of liver cancer including approximately 48,000 in the European Union, 477,000 in the Western Pacific region and 24,000 in the United States.

### **About Regorafenib (Stivarga®)**

Regorafenib is an oral multi-kinase inhibitor that potently blocks multiple protein kinases involved in tumor angiogenesis (VEGFR1, -2, -3, TIE2), oncogenesis (KIT, RET, RAF-1, BRAF), metastasis (VEGFR3, PDGFR, FGFR) and tumor immunity (CSF1R).

Regorafenib is already approved under the brand name Stivarga® in more than 90 countries worldwide, including the U.S., countries of the EU, China and Japan for the treatment of mCRC. The product is also approved in over 80 countries, including the U.S., countries of the EU, China and Japan, for the treatment of metastatic GIST. In April 2017, Stivarga was approved in the U.S. for use in patients with HCC who have been previously treated with sorafenib. In the U.S., Stivarga is already indicated for the treatment of patients with mCRC who have been previously treated with fluoropyrimidine-, oxaliplatin- and irinotecan-based chemotherapy, an anti-VEGF therapy, and, if RAS wild type, an anti-EGFR therapy. It is also indicated for the treatment of patients with locally advanced, unresectable or metastatic GIST who have been previously treated with imatinib mesylate and sunitinib malate. In the EU, Stivarga is indicated for the treatment of adult patients with mCRC who have been previously treated with, or are not considered candidates for, available therapies including fluoropyrimidine-based chemotherapy, an anti-VEGF therapy and an anti-EGFR therapy, as well as for the treatment of adult patients with unresectable or metastatic GIST who progressed on or are intolerant to prior treatment with imatinib and sunitinib.

Regorafenib is a compound developed by Bayer. In 2011, Bayer entered into an agreement with Onyx, now an Amgen subsidiary, under which Onyx receives a royalty on all global net sales of regorafenib in oncology.

### **About Oncology at Bayer**

Bayer is committed to delivering science for a better life by advancing a portfolio of innovative treatments. The oncology franchise at Bayer includes three oncology products and several other compounds in various stages of clinical development. Together, these

products reflect the company's approach to research, which prioritizes targets and pathways, with the potential to impact the way that cancer is treated.

## **Bayer: Science For A Better Life**

Bayer is a global enterprise with core competencies in the Life Science fields of health care and agriculture. Its products and services are designed to benefit people and improve their quality of life. At the same time, the Group aims to create value through innovation, growth and high earning power. Bayer is committed to the principles of sustainable development and to its social and ethical responsibilities as a corporate citizen. In fiscal 2016, the Group employed around 115,200 people and had sales of EUR 46.8 billion. Capital expenditures amounted to EUR 2.6 billion, R&D expenses to EUR 4.7 billion. These figures include those for the high-tech polymers business, which was floated on the stock market as an independent company named Covestro on October 6, 2015. For more information, go to [www.bayer.com](http://www.bayer.com).

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### **Forward-Looking Statements**

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