American Association for Cancer Research (AACR) 110th Annual Meeting:

Bayer to showcase latest oncology research at AACR 2019 underscoring its commitment to advancing the future of cancer care

- Data presentation from ongoing Phase I study with BAY 2731954 (formerly LOXO-195), an oral and selective investigational next-generation TRK inhibitor, in patients who have progressed on or were intolerant to prior TRK inhibitors
- Bayer committed to expanding its precision oncology portfolio by bringing forward additional projects in this field
- Total of 30 presentations on promising projects across key areas of investigation: Oncogenic Signaling, Targeted Alpha Therapies and Immuno-Oncology, underscoring Bayer’s commitment to advancing the future of cancer care

Abstracts: Three oral presentations 924, CT127, 4454; 27 poster presentations LB-075, 2, 228, 272, 1026, 1141, 1288, 2182, 2814, 3055, 3080, 3190, 3597, 3599, 3726, 3926, 3927, 3936, 3937, 3985, 4793, 4816, 4825, 4828, 4829, 5210, CT015

Berlin, March 27, 2019 – Bayer will present research from its growing oncology portfolio at the American Association for Cancer Research (AACR) 2019 Annual Meeting, taking place March 29 to April 3 in Atlanta, Georgia (U.S.A.). The presentations highlight new findings in the company’s key areas of investigation: Oncogenic Signaling, Targeted Alpha Therapies and Immuno-Oncology. The total of 30 presentations, which include three oral presentations, underscore Bayer’s commitment in oncology to advancing highly differentiated and promising projects, many of which have the potential to be first-in-class and to redefine the way cancer patients are treated. With the first-ever approved TRK inhibitor, larotrectinib, and the investigational BAY 2731954 progressing through clinical development, Bayer has already two promising compounds in its precision oncology
portfolio and is committed to expanding this portfolio by bringing forward highly
differentiated and promising additional projects.

Among the data presented will be an oral presentation on the Phase I and expanded
access experience of BAY 2731954 (formerly LOXO-195), an oral and selective
investigational next-generation TRK inhibitor. BAY 2731954 is currently in Phase I clinical
development and designed for patients with cancers that harbor a neurotrophic tyrosine
receptor kinase (NTRK) gene fusion and have progressed on or were intolerant to
treatment with a TRK inhibitor. NTRK gene fusions are genomic alterations resulting in
uncontrolled production of tropomyosin receptor kinase (TRK) fusion proteins, and lead to
tumor growth. In February 2019, Bayer announced that it would obtain the exclusive
licensing rights for the global development and commercialization, including the U.S., for
larotrectinib and BAY 2731954. The option to obtain the exclusive licensing rights was
triggered by the acquisition of Loxo Oncology by Eli Lilly and Company. Larotrectinib was
approved in November 2018 in the U.S. under the brand name Vitrakvi®. The approval
was based on clinical trial data showing an overall response rate of 75 percent (22
percent complete response and 53 percent partial response) in pediatric and adult
patients with solid tumors that have an NTRK gene fusion. 73 percent of responding
patients had a duration of response lasting 6 months or greater at the time of data cut-off.
Both compounds are being developed globally for the treatment of adult and pediatric
patients with advanced solid tumors harboring NTRK gene fusions.

In another oral presentation, new pre-clinical data on the investigational next generation
androgen-receptor (AR) antagonist darolutamide will be presented. Bayer recently
submitted darolutamide for approval in the U.S., EU and Japan based on the data from
the Phase III study ARAMIS which investigated darolutamide in non-metastatic castration-
resistant prostate cancer. At AACR, new findings will be presented on the preclinical
efficacy of darolutamide in different prostate cancer models in monotherapy and in
combination with Bayer’s investigational ataxia telangiectasia mutated and rad3-related
kinase (ATR) inhibitor BAY 1895344. Darolutamide is being developed jointly by Bayer
and Orion Corporation, a Finnish pharmaceutical company.

In the area of Immuno-Oncology (IO), Bayer will present an investigational oral aryl
hydrocarbon receptor (AhR) inhibitor as a novel therapeutic approach to enhance anti-
tumor immune responses as a single agent or in combination with existing IO drugs.
Bayer is pursuing the AhR inhibitor program in collaboration with the German Cancer Research Center (DKFZ, Heidelberg, Germany).

Additional presentations include preclinical data on the following investigational agents:

- Rogaratinib, a pan-fibroblast growth factor receptor (FGFR) inhibitor currently in Phase II/III clinical development that Bayer is developing in the indication of urothelial carcinoma and other FGFR-positive tumors.
- The dihydroorotate dehydrogenase (DHODH) inhibitor BAY 2402234 derived from Bayer’s collaboration with the Broad Institute of MIT and Harvard (Cambridge, Massachusetts, USA) that is currently in Phase I in patients with acute myeloid leukemia. Research presented includes data on potential additional indications such as colorectal cancer and lymphoma.
- The ataxia telangiectasia rad3-related protein (ATR) inhibitor BAY 1895344, a DNA damage response inhibitor currently in Phase I.
- In the area of Immuno-Oncology, a CEACAM6 (Carcinoembryonic Antigen Related Cell Adhesion Molecule 6) function-blocking antibody currently investigated in Phase I, which was derived from Bayer’s collaboration with the DKFZ.
- Bayer’s emerging Targeted Thorium Conjugate (TTC) platform (a form of Targeted Alpha Therapy). Research presented includes data on BAY 2315497, a TTC targeting the prostate-specific membrane antigen (PSMA), and BAY 2287411, a mesothelin-targeting TTC. Both compounds are currently in Phase I clinical trials.
- Anetumab ravtansine, a mesothelin-targeting antibody-drug conjugate. Research presented includes data on anetumab ravtansine as monotherapy in non-small cell lung cancer (NSCLC) preclinical models.

The following list provides an overview of presentations on the aforementioned pipeline projects presented at AACR 2019:

**Oral presentations:**

- The androgen receptor antagonist darolutamide shows strong anti-tumor efficacy in patient- and cell line-derived xenograft prostate cancer models
  - Abstract #924, Session: MS.EN01.01 – Endocrine-Related Cancer Research
  - Sunday, March 31, 4:20 PM – 4:35 PM (EDT), Room C302 – Georgia World CC
• **Phase I and expanded access experience of LOXO-195 (BAY 2731954), a selective next-generation TRK inhibitor (TRKi)**
  o Abstract #CT127, Session: CTMS02 – The Next Generation of Clinical Trials in Molecularily-driven Therapy
  o Monday, April 1, 3:05 PM – 3:20 PM (EDT), Marcus Auditorium, Building A – Georgia World CC

• **Identification of BAY-218, a potent and selective small molecule AhR inhibitor, as a new modality to counteract tumor immunosuppression**
  o Abstract #4454, Session: MS.CH01.01 – Next-Generation Small Molecules: From Hits to Leads to Candidates
  o Tuesday, April 2, 3:50 PM – 4:05 PM (EDT), Room B206 – Georgia World CC

**Poster presentations:**

• **Discovery of BAY 2402234 by phenotypic screening: A human dihydroorotate dehydrogenase (DHODH) inhibitor in clinical trials for the treatment of myeloid malignancies**
  o Abstract #2/Poster #2, Session: PO.CH01.01 – Novel Small Molecules for Cancer Therapy
  o Sunday, March 31, 1:00 PM – 5:00 PM (EDT), Section 1

• **Synergistic activity of the ATR inhibitor BAY1895344 in combination with immune checkpoint inhibitors in preclinical tumor models**
  o Abstract #272/Poster #16, Session: PO.ET04.01 – Cell Death and DNA Repair Pathways
  o Sunday, March 31, 1:00 PM – 5:00 PM (EDT), Section 11

• **Preclinical analysis of biodistribution and PET imaging of a zirconium-89 labeled PSMA-targeted antibody-chelator-conjugate**
  o Abstract #1141/Poster #13, Session: PO.TB07.01 – Novel Imaging Targets
  o Monday, April 1, 8:00 AM – 12:00 PM (EDT), Section 7
• Increased T-cell activation resulting from the combination of the anti-CEACAM6 function-blocking antibody BAY 1834942 with checkpoint inhibitors targeting either PD-1/PD-L1 or TIM-3
  o Abstract #LB-075/Poster #20, Session: LBPO.IM01 – Late-Breaking Research: Immunology 1
  o Monday, April 1, 8:00 AM – 12:00 PM (EDT), Section 41

• Activity of pan-FGFR inhibitor rogaratinib and PI3K inhibitor copanlisib in preclinical urothelial bladder cancer models
  o Abstract #3080/Poster #14, Session: PO.ET06.03 – Novel Antitumor Agents 1
  o Tuesday, April 2, 8:00 AM – 12:00 PM (EDT), Section 14

• BAY 2402234: Preclinical evaluation of a novel, selective dihydroorotate dehydrogenase (DHODH) inhibitor for the treatment of diffuse large B-cell lymphoma (DLBCL)
  o Abstract #3597/Poster #13, Session: PO.MCB08.04 – Targeting Metabolism for Cancer Therapy
  o Tuesday, April 2, 8:00 AM – 12:00 PM (EDT), Section 39

• BAY 2402234: Preclinical evaluation of a novel, selective dihydroorotate dehydrogenase (DHODH) inhibitor for the treatment of colorectal carcinomas
  o Abstract #3599/Poster #15, Session: PO.MCB08.04 – Targeting Metabolism for Cancer Therapy
  o Tuesday, April 2, 8:00 AM – 12:00 PM (EDT), Section 39

• Preclinical activity of PSMA-targeted thorium conjugate (BAY 2315497) in combination with androgen receptor antagonists in prostate cancer models
  o Abstract #3726/Poster #3, Session: PO.TB09.02 – Radiation Tissue Tolerance, Immunity, and in Vivo Effects of Radiation
  o Tuesday, April 2, 1:00 PM – 5:00 PM (EDT), Section 5

• MSLN-TTC (BAY 2287411) induces immunogenic cell death and secretion of pro-inflammatory cytokines in vitro and triggers an immune memory effect against a mouse tumor model
• Radium-223 α-particle radiation: Characterization of the in vitro effects on cancer cells in monotherapy and in combination with DNA repair inhibitors
  o Abstract #3927/Poster #8, Session: PO.ET09.01 – Preclinical Radiotherapeutics
  o Tuesday, April 2, 1:00 PM – 5:00 PM (EDT), Section 15

• Efficacy of single agent radium-223 in the syngeneic MBT-2 bladder cancer bone growth model in mice
  o Abstract #3936/Poster #17, Session: PO.ET09.01 – Preclinical Radiotherapeutics
  o Tuesday, April 2, 1:00 PM – 5:00 PM (EDT), Section 15

• MSLN-TTC (BAY 2287411) demonstrates increased activity in comparison to standard of care chemotherapy in models of acquired drug resistance
  o Abstract #3937/Poster 18, Session: PO.ET09.01 – Preclinical Radiotherapeutics
  o Tuesday, April 2, 1:00 PM – 5:00 PM (EDT), Section 15

• Preclinical evaluation of the combination rogaratimib and copanlisib in HNSCC and HCC in preclinical in vitro and in vivo models
  o Abstract #4793/Poster #7, Session: PO.ET06.05 – Novel Antitumor Agents 3
  o Wednesday, April 3, 8:00 AM – 12:00 PM (EDT), Section 13

• Anetumab ravtansine has monotherapy efficacy in mesothelin positive patient-derived NSCLC tumor models and in a syngeneic tumor model in immunocompetent mice
  o Abstract #4816/Poster #4, Session: PO.ET07.01 – Targeted Therapies
  o Wednesday, April 3, 8:00 AM – 12:00 PM (EDT), Section 14

• Darolutamide impairs prostate cancer growth by altering chromatin conformation and transcriptional activity of genes involved in cell proliferation and survival
About Bayer’s Research Platforms
Bayer focuses its research activities on first-in-class innovations across the following scientific platforms: Oncogenic Signaling, Targeted Alpha Therapies, and Immuno-Oncology. In the field of Oncogenic Signaling the company is developing small molecules and other modalities to target crucial pathways of intracellular tumor signaling that are responsible for the development and survival of cancer in well-defined patient populations identified using selection biomarker. In regard to Targeted Alpha Therapies drug candidates are being developed using the company’s proprietary Thorium-227 platform for delivering high-energy alpha-radiation via different targeting molecules such as antibodies to tumor cells. In Immuno-Oncology Bayer is developing next-generation treatments that intervene at different levels of the cancer immunity cycle specifically addressing IO resistance mechanisms in patients not responding to immune checkpoint inhibitors.

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 five marketed products and several other assets 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.

About Bayer
Bayer is a global enterprise with core competencies in the life science fields of health care and nutrition. Its products and services are designed to benefit people by supporting efforts to overcome the major challenges presented by a growing and aging global population. At the same time, the Group aims to increase its earning power and create value through innovation and growth. Bayer is committed to the principles of sustainable development, and the Bayer brand stands for trust, reliability and quality throughout the world. In fiscal 2018, the Group employed around 117,000 people and had sales of 39.6 billion euros. Capital expenditures amounted to 2.6 billion euros, R&D expenses to 5.2 billion euros. For more information, go to www.bayer.com.
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Forward-Looking Statements
This release may contain forward-looking statements based on current assumptions and forecasts made by Bayer management. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. These factors include those discussed in Bayer’s public reports which are available on the Bayer website at www.bayer.com. The company assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.