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News Release

Bayer partners with Population Health Research Institute (PHRI) on global clinical research evaluating COVID-19 treatments

- Investigation of combination therapies including Bayer's chloroquine and interferon beta-1b to foster much needed solutions for patients in fight against coronavirus pandemic
- Bayer Canada to make CAD 1.5 million (approximately 1 million euros) financial commitment and to supply products in support of the research
- Plans to include more than 60 contributing research locations involving 6.000 patients

Berlin, April 21, 2020 – Bayer announced today its Canadian organization Bayer Inc., Mississauga, Ontario, will partner with the Population Health Research Institute (PHRI) in launching a major clinical research program aimed at identifying potential treatments against COVID-19. The two studies will evaluate the safety and efficacy of different combination therapies including Bayer's chloroquine and interferon beta-1b.

“Treatments against COVID-19 are urgently needed as no validated options are currently available,” said Dr. Mike Devoy, Member of the Executive Committee of Bayer AG's Pharmaceuticals Division and Chief Medical Officer. “We want to contribute to the global fight against the coronavirus through our products and expertise and look forward to partnering with the PHRI.”

Bayer will make a financial commitment of CAD 1.5 million (approx. 1 million euros) towards the studies and will supply study drugs to support the research. This adds to the CAD 0.5 million committed by the PHRI earlier this month which enabled the development of the research program.

“Specifically, an outpatient study will evaluate the combination of chloroquine with azithromycin to see if this treatment can prevent deterioration leading to hospital admission, while a second study will evaluate the combination of chloroquine with

azithromycin, as well as interferon beta-1b, to prevent admission to intensive care, mechanical ventilation and/or death to combat COVID-19,” said Salim Yusuf, Executive Director of PHRI. “Our goal is to assess the value of these and other therapies rapidly so that the results can inform practice as soon as possible.”

PHRI plans to enroll 6,000 patients into the two studies from more than 60 contributing research sites across the Canadian province of Ontario and internationally.

“Ontario is home to world-class researchers who are continually furthering our understanding within the health sciences and finding new ways to keep our communities healthy and safe,” said Ross Romano, Minister of Colleges and Universities of the Government of Ontario. “I want to thank Bayer, the Population Health Research Institute, and all of our research community for their critical work to limit the impact of COVID-19. I know that, because of your efforts, we will emerge from this stronger than ever.”

About the investigational treatments

Developed by Bayer in the 1930s, chloroquine (trade name: Resochin™) was used in the prevention of malaria for decades. The Chinese health authorities have included chloroquine in the treatment recommendations for COVID-19. Subsequently, many other health authorities, such as the U.S. Food and Drug Administration (FDA), have adopted similar guidance for supervised emergency use of chloroquine outside of the established indications.

As peer-reviewed and published clinical data are currently not available for chloroquine in the COVID-19 treatment setting, Bayer is working with researchers, governments and front-line practitioners to support generation and exchange of data to help to close this knowledge gap.

In addition, Bayer is donating chloroquine tablets to health authorities in different countries to allow for coordinated and emergency use of the drug outside of the established indications under the guidance of physicians.

In addition to looking into the potential of chloroquine, Bayer is actively participating in several global coalitions supporting research for drugs and treatment strategies against SARS-CoV-2.

Interferon beta-1b in a recombinant form is one of the marketed interferon beta formulations (brand name Betaseron/Betaferon®). This was the first drug to show in multiple sclerosis (MS) a decrease in relapse rate and to reduce MS disease activity as measured by MRI in clinical studies. These findings led to its approval by the FDA as the first therapy for treatment of the former orphan's disease MS in 1993. Approvals by other agencies around the world followed subsequently.

Azithromycin is an antibiotic used for the treatment of a number of bacterial infections including strep throat and pneumonia, as well as travellers' diarrhea and certain other intestinal infections. Along with other medications, it may also be used for malaria. Azithromycin was first approved for medical use in 1988. It is on the World Health Organization's List of Essential Medicines.

About Population Health Research Institute (PHRI)

The Population Health Research Institute (PHRI) is a joint Research Institute of McMaster University and Hamilton Health Sciences. It is Canada's premiere global health research institute and a world leader in large clinical trials and population studies. Originally formed with a focus on cardiovascular disease and diabetes, PHRI's research areas have broadened to include population genomics, perioperative medicine and surgery, stroke, thrombosis, renal disease, and obesity, with unparalleled expertise in epidemiology, population health and clinical trials. For more information, please visit www.phri.ca.

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 2019, the Group employed around 104,000 people and had sales of 43.5 billion euros. Capital expenditures amounted to 2.9 billion euros, R&D expenses to 5.3 billion euros. For more information, go to www.bayer.com.

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