Media Release

Roche presents data from across its breast cancer portfolio at the 2019 American Society of Clinical Oncology (ASCO) Annual Meeting

- **Roche data from 17 breast cancer abstracts presented at this year's meeting**
- **An overall survival improvement was observed with Tecentriq and nab-paclitaxel in PD-L1-positive metastatic triple-negative breast cancer at the second interim analysis**
- **End-of-study results in phase III CLEOPATRA study showed over a third (37%) of metastatic HER2-positive breast cancer patients in the Perjeta arm were alive at eight years**

Basel, 3 June 2019 - Roche (SIX: RO, ROG; OTCQX: RHHBY) presents new and updated results from a number of abstracts highlighting studies including the treatment of both PD-L1-positive triple-negative and HER2-positive breast cancer at the 2019 ASCO Annual Meeting, 31 May – 4 June, in Chicago, United States. Data include results from the second overall survival (OS) interim analysis from the phase III IMpassion130 study evaluating Tecentriq® (atezolizumab) plus chemotherapy (Abraxane® [paclitaxel protein-bound particles for injectable suspension (albumin-bound); *nab*-paclitaxel]) for the initial (first-line) treatment of adults with unresectable locally advanced or metastatic triple-negative breast cancer (TNBC).[1] In HER2-positive breast cancer, results of an end-of-study analysis of the phase III CLEOPATRA study will also be presented, evaluating the long-term efficacy and safety of Perjeta® (pertuzumab) in combination with Herceptin® (trastuzumab) and docetaxel chemotherapy (the Perjeta-based regimen) in patients with previously untreated HER2-positive metastatic breast cancer (mBC).[2]

"Our science-driven approach has been transforming standards of care in breast cancer for more than 20 years, and we are excited to present data from a Perjeta study, that showed an unprecedented survival benefit for patients living with advanced HER2-positive disease," said Sandra Horning, MD, Roche's Chief Medical Officer and Head of Global Product Development. "We are continuing our transformative work in breast cancer, presenting updated interim overall survival results from our phase III Tecentriq combination, the first positive immunotherapy study in PD-L1-positive metastatic triple-negative breast cancer, a disease with high unmet need."

TNBC is a form of breast cancer representing approximately 15% of all cases.[3,4] Metastatic TNBC is one of the most aggressive and difficult-to-treat forms of breast cancer.[3,4] HER2-positive disease is another particularly aggressive form of breast cancer accounting for approximately 15-20% of all cases of breast cancer. [5]

IMpassion130 study results

Results presented at ASCO were consistent with the first interim analysis reported at the European Society for Medical Oncology congress in October 2018.[1,6] At the second interim analysis, statistical significance was not met for overall survival (OS) in the intention-to-treat (ITT) population (median OS=21.0 vs 18.7 months; HR=0.86, 95% CI: 0.72-1.02, p=0.078).[1] However, Tecentriq and *nab*-paclitaxel showed a clinically meaningful OS improvement of seven months vs placebo and *nab*-paclitaxel in patients who were tested

positively for PD-L1 expression on tumour-infiltrating immune cells (median OS=25.0 vs 18.0 months; HR=0.71, 95% CI: 0.54-0.93) with more mature data.[1] OS results in the PD-L1-positive population were not formally tested due to the prespecified hierarchical analysis plan of the study. Over half (51% (43-59%)) of PD-L1-positive metastatic TNBC patients in the Tecentriq arm were alive at two years, compared with 37% (29-45%) in the control arm. Follow-up will continue until the next planned analysis.[1]

Additional analyses of patient-reported outcomes from IMpassion130 showed that the combination was well-tolerated, similarly to *nab*-paclitaxel alone.[7] Tecentriq plus *nab*-paclitaxel showed gains in clinical benefit without compromising patients health-related quality of life (HRQoL), day-to-day functioning and without increasing patients toxicity burden compared to *nab*-paclitaxel alone.[7] HRQoL evaluates the overall impact of disease and treatment on patient's quality of life in terms of disease related symptoms, treatment side effects and function/well-being. An expanded safety analysis showed that the Tecentriq plus *nab*-paclitaxel arm appeared consistent with the known safety profiles from the primary data with no new safety signals observed.[8]

CLEOPATRA study results
After a follow-up of eight years, results from the phase III CLEOPATRA study, investigating patients with previously untreated HER2-positive mBC, showed a median OS benefit of 57.1 months in the Perjeta arm compared with 40.8 months in the control arm (placebo, Herceptin and chemotherapy), an absolute improvement of 16.3 months, with a 31% overall reduction in the risk of death (HR=0.69, 95% CI 0.58-0.82, p<0.0001).[2]

These new data are consistent with previously published results and confirm that the unprecedented OS benefit of the Perjeta-based regimen was maintained after an additional four years of follow-up.[2] Significantly, over a third (37%) of HER2-positive mBC patients in the Perjeta arm were alive at eight years, compared with 23% in the control arm.[2] Safety data from the long-term follow-up study were consistent, and showed that the cardiac and overall safety profiles of the Perjeta-based regimen were maintained.[2]

Additionally, data from the Chinese phase III PUFFIN study were presented at this year's meeting further confirming the use of the Perjeta-based regimen in HER2-positive mBC, as results were consistent with those seen in the CLEOPATRA study.[9]

Roche's breadth of expertise continues to advance breast cancer research with the goal of expanding treatment options to improve the lives of patients living with the disease worldwide.

About the IMpassion130 study
The IMpassion130 study is a phase III, multicentre, randomised, double-blind study evaluating the efficacy, safety and pharmacokinetics of Tecentriq plus *nab*-paclitaxel compared with placebo plus *nab*-paclitaxel in people with unresectable locally advanced or metastatic TNBC who have not received prior systemic therapy for mBC. The study enrolled 902 people who were randomised equally (1:1). The co-primary endpoints are progression-free survival (PFS) per investigator assessment (RECIST 1.1) in the ITT population and in the PD-L1-positive population and OS in the ITT population. Secondary endpoints include objective response rate and duration of response.

About the CLEOPATRA Study
CLEOPATRA (CLinical Evaluation Of Pertuzumab And TRAstuzumab) was an international, phase III, randomised, double-blind, placebo-controlled study. The study compared the combination of Perjeta, Herceptin and docetaxel chemotherapy with placebo, Herceptin and chemotherapy in 808 people with previously untreated HER2-positive mBC, or with HER2-positive mBC that had come back after prior therapy in the adjuvant or neoadjuvant setting. The primary endpoint of the study was PFS as assessed by an independent review committee. Secondary endpoints included OS and safety profile.

About Roche in breast cancer
Roche has been advancing breast cancer research for more than 30 years with the goal of helping as many people with the disease as possible. Our medicines, along with companion diagnostic tests, have contributed to bringing breakthrough innovations in HER2-positive breast cancer. As our understanding of breast cancer biology rapidly improves, we are working to identify new biomarkers and approaches to treatment for all forms of early and advanced breast cancer, including triple-negative and hormone receptor-positive.

Our targeted medicines Herceptin, Perjeta and Kadcyla are continuing to transform the treatment of early and advanced HER2-positive breast cancer and, through our Tecentriq and ipatasertib clinical programmes, we are committed to bring new treatment combinations to people with triple-negative breast cancer, ultimately improving outcomes.

About Roche
Roche is a global pioneer in pharmaceuticals and diagnostics focused on advancing science to improve people's lives. The combined strengths of pharmaceuticals and diagnostics under one roof have made Roche the leader in personalised healthcare – a strategy that aims to fit the right treatment to each patient in the best way possible.

Roche is the world's largest biotech company, with truly differentiated medicines in oncology, immunology, infectious diseases, ophthalmology and diseases of the central nervous system. Roche is also the world leader in in vitro diagnostics and tissue-based cancer diagnostics, and a frontrunner in diabetes management. Founded in 1896, Roche continues to search for better ways to prevent, diagnose and treat diseases and make a sustainable contribution to society. The company also aims to improve patient access to medical innovations by working with all relevant stakeholders. Thirty medicines developed by Roche are included in the World Health Organization Model Lists of Essential Medicines, among them life-saving antibiotics, antimalarials and cancer medicines. Moreover, for the tenth consecutive year, Roche has been recognised as the most sustainable company in the Pharmaceuticals Industry by the Dow Jones Sustainability Indices (DJSI).

The Roche Group, headquartered in Basel, Switzerland, is active in over 100 countries and in 2018 employed about 94,000 people worldwide. In 2018, Roche invested CHF 11 billion in R&D and posted sales of CHF 56.8 billion. Genentech, in the United States, is a wholly owned member of the Roche Group. Roche is the majority shareholder in Chugai Pharmaceutical, Japan. For more information, please visit www.roche.com.

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Roche Group Media Relations

Phone: +41 61 688 8888 / e-mail: media.relations@roche.com
- Nicolas Dunant (Head)
- Patrick Barth
- Ulrike Engels-Lange
- Simone Oeschger
- Anja von Treskow