Phase III IMpower131 study showed Tecentriq (atezolizumab) plus chemotherapy (carboplatin and Abraxane) reduced the risk of disease worsening or death for people with advanced squamous non-small cell lung cancer

- Data will be featured in the ASCO press programme on Saturday 2 June and presented at ASCO on Monday 4 June

Roche (SIX: RO, ROG; OTCQX: RHHBY) today announced that results from the Phase III IMpower131 study showed Tecentriq® (atezolizumab) plus chemotherapy (carboplatin and Abraxane® [albumin-bound paclitaxel; nab-paclitaxel]) reduced the risk of disease worsening or death (progression-free survival; PFS) by 29 percent compared with chemotherapy (carboplatin and nab-paclitaxel) alone in the initial (first-line) treatment of people with advanced squamous non-small cell lung cancer (NSCLC) (median PFS=6.3 vs. 5.6 months; hazard ratio [HR]=0.71, 95% CI: 0.60, 0.85, p=0.0001).1 The 12-month PFS rate was doubled for people who received the Tecentriq combination (24.7 percent) compared to those who received chemotherapy alone (12.0 percent). A statistically significant overall survival (OS) benefit was not observed at the interim analysis, and the study will continue as planned. The safety profile of the Tecentriq plus chemotherapy combination was consistent with the safety profiles of the individual medicines, and no new safety signals were identified with the combination.

“The IMpower131 data further inform our understanding of this difficult-to-treat type of lung cancer and will continue to as we evaluate additional outcomes from this study,” said Sandra Horning, MD, Roche’s Chief Medical Officer and Head of Global Product Development. “IMpower131 is one of eight Phase III trials from our extensive research programme evaluating Tecentriq alone or in combination with other medicines in different types of lung cancer.”

Data will be featured in the official American Society of Clinical Oncology (ASCO) Annual Meeting press programme on Saturday, 2 June, 2018, at 08:00 am CDT. The oral data presentation will be on Monday, 4 June, 2018, at 15:00–15:12 pm CDT (Abstract LBA9000).
**About the IMpower131 study**

IMpower131 is a Phase III, open-label, multicentre, randomised study evaluating the efficacy and safety of Tecentriq in combination with carboplatin and nab-paclitaxel or Tecentriq in combination with carboplatin and paclitaxel versus chemotherapy (carboplatin and nab-paclitaxel) alone in people with stage IV squamous-cell NSCLC who have not been previously treated with chemotherapy. The study enrolled 1,021 people who were randomised equally (1:1:1) to receive:

- Tecentriq plus carboplatin and paclitaxel (Arm A), or
- Tecentriq plus carboplatin and nab-paclitaxel (Arm B), or
- Carboplatin and nab-paclitaxel (Arm C, control arm)

During the treatment-induction phase, people in Arm A received four or six cycles of Tecentriq plus carboplatin and paclitaxel, given on day one of each 21-day cycle. This was followed by maintenance therapy with Tecentriq every three weeks until progression of the cancer, or for as long as clinical benefit was observed.

During the treatment-induction phase, people in Arm B received four or six cycles of Tecentriq, carboplatin and nab-paclitaxel. Tecentriq and carboplatin were administered on day one of each 21-day cycle. Nab-paclitaxel was administered on days one, eight and 15 of each 21-day cycle. This was followed by maintenance therapy with Tecentriq every three weeks until progression of the cancer, or for as long as clinical benefit was observed.

During the treatment-induction phase, people in Arm C received four or six cycles of carboplatin and nab-paclitaxel. Carboplatin was administered on day one of each 21-day cycle, and nab-paclitaxel was administered on days one, eight and 15 of each 21-day cycle. In the maintenance phase, participants received best supportive care.

The co-primary endpoints were:

- PFS as determined by the investigator using RECIST v1.1 in the intention-to-treat (ITT) population (Arm B vs. Arm C)
- OS in the ITT population (Arm B vs. Arm C)
Key secondary endpoints were:

- PFS as determined by the investigator using RECIST v1.1 in the Tumour Cell (TC) 2/3 or Tumour-Infiltrating Immune Cell (IC) 2/3 population
- PFS as determined by the investigator using RECIST v1.1 in the TC1/2/3 or IC1/2/3 population
- OS in the TC2/3 or IC2/3 population
- OS in the TC1/2/3 or IC1/2/3 population
- Percentage of participants with objective response (OR) as determined by the investigator using RECIST v1.1 in the ITT population
- Duration of response (DoR) as determined by the investigator using RECIST v1.1 in the ITT population

IMpower131 met its PFS co-primary endpoint per study protocol. This analysis of IMpower131 evaluated Arm B vs. Arm C. Due to pre-specified statistical testing hierarchy, Arm A vs Arm C has not been formally tested yet. As per the statistical analysis plan, Arm B (Tecentriq plus carboplatin and nab-paclitaxel) must demonstrate a statistically significant OS result vs. Arm C (carboplatin and nab-paclitaxel), before an analysis between Arm A (Tecentriq plus carboplatin and paclitaxel) and Arm C can be made for PFS and OS.

A summary of the IMpower131 results are included below:

<table>
<thead>
<tr>
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<th>Arm B</th>
<th>Arm C</th>
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<tbody>
<tr>
<td></td>
<td>Tecentriq + carboplatin + nab-paclitaxel</td>
<td>carboplatin + nab-paclitaxel</td>
</tr>
<tr>
<td></td>
<td>N = 343</td>
<td>N = 340</td>
</tr>
<tr>
<td>Median PFS (95% CI), mo</td>
<td>6.3 (5.7, 7.1)</td>
<td>5.6 (5.5, 5.7)</td>
</tr>
<tr>
<td>HR (95% CI), P value</td>
<td>0.71 (0.60, 0.85); 0.0001</td>
<td></td>
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<tr>
<td>12-mo PFS, %</td>
<td>24.7</td>
<td>12.0</td>
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<tr>
<td>ORR, %</td>
<td>49</td>
<td>41</td>
</tr>
<tr>
<td>Media DOR (95% CI), mo</td>
<td>7.2 (1.7, 28.1)</td>
<td>5.2 (2.1, 27.6)</td>
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<tr>
<td>Ongoing responses, %</td>
<td>32</td>
<td>16</td>
</tr>
</tbody>
</table>

CI, confidence interval; DOR, duration of response; HR, hazard ratio; ORR, objective response rate; PFS, progression-free survival

The safety profile of the Tecentriq plus chemotherapy combination was consistent with the safety profiles of the individual medicines, and no new safety signals were identified with the combination. Serious adverse events related to treatment were observed in 20 percent of people who received Tecentriq plus chemotherapy compared to 10 percent of those who received chemotherapy alone.
About NSCLC
Lung cancer is the leading cause of cancer death globally.² Each year 1.59 million people die as a result of the disease; this translates into more than 4,350 deaths worldwide every day.³ Lung cancer can be broadly divided into two major types: NSCLC and small cell lung cancer. NSCLC is the most prevalent type, accounting for around 85% of all cases.³ NSCLC comprises non-squamous and squamous-cell lung cancer, the squamous form of which is characterised by flat cells covering the airway surface when viewed under a microscope. The squamous form tends to grow near the centre of the lung, and accounts for approximately 25-30% of all NSCLC cases.⁴

About Tecentriq® (atezolizumab)
Tecentriq is a monoclonal antibody designed to bind with a protein called PD-L1 expressed on tumour cells and tumour-infiltrating immune cells, blocking its interactions with both PD-1 and B7.1 receptors. By inhibiting PD-L1, Tecentriq may enable the activation of T cells. Tecentriq Q has the potential to be used as a foundational combination partner with cancer immunotherapies, targeted medicines and various chemotherapies across a broad range of cancers.

Currently, Roche has eight Phase III lung cancer studies underway, evaluating Tecentriq alone or in combination with other medicines.

Tecentriq is already approved in the European Union, United States and more than 70 countries for people with previously treated metastatic NSCLC and for people with locally advanced or metastatic urothelial cancer (mUC) who are not eligible for cisplatin chemotherapy, or who have had disease progression during or following platinum-containing therapy.

Abraxane is a registered trademark of Abraxis Bioscience, LLC, a wholly owned subsidiary of Celgene Corporation.

About Roche in cancer immunotherapy
For more than 50 years, Roche has been developing medicines with the goal to redefine treatment in oncology. Today, we’re investing more than ever in our effort to bring innovative treatment options that help a person’s own immune system fight cancer.
By applying our seminal research in immune tumour profiling within the framework of the Roche-devised cancer immunity cycle, we are accelerating and expanding the transformative benefits with Tecentriq to a greater number of people living with cancer. Our cancer immunotherapy development programme takes a comprehensive approach in pursuing the goal of restoring cancer immunity to improve outcomes for patients.

To learn more about the Roche approach to cancer immunotherapy please follow this link: http://www.roche.com/research_and_development/what_we_are_working_on/oncology/cancer-immunotherapy.htm

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. Roche has been recognised as the Group Leader in sustainability within the Pharmaceuticals, Biotechnology & Life Sciences Industry nine years in a row by the Dow Jones Sustainability Indices (DJSI).

The Roche Group, headquartered in Basel, Switzerland, is active in over 100 countries and in 2017 employed about 94,000 people worldwide. In 2017, Roche invested CHF 10.4 billion in R&D and posted sales of CHF 53.3 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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References
1. Jotte R et al. IMpower131: primary PFS and safety analysis of a randomized phase III study of atezolizumab + carboplatin + paclitaxel or nab-paclitaxel vs carboplatin + nab-paclitaxel as 1L therapy in advanced squamous NSCLC. Presented at: ASCO Annual Meeting; 2018 Jun 1-5; Chicago, IL, USA. Abstract #LBA9000.