

## PERJETA® (pertuzumab)

### *A new type of medicine for late-stage HER2-positive breast cancer*

#### HER2-positive breast cancer: an aggressive disease

HER2-positive breast cancer occurs when breast cancer cells have too many copies of the HER2 protein. Around one in five women diagnosed with breast cancer will have HER2-positive breast cancer, which is an aggressive type of the disease and is likely to progress more quickly than cancer that is not HER2-positive.<sup>1,2</sup>

There is currently no cure for HER2-positive late-stage (also called metastatic) breast cancer. In around half of women given first-line Herceptin® (trastuzumab) for metastatic disease, the treatment will stop working within 1 year, meaning they need another treatment option. Many patients may receive multiple treatments over the course of their disease in an attempt to prolong their life.<sup>3</sup>

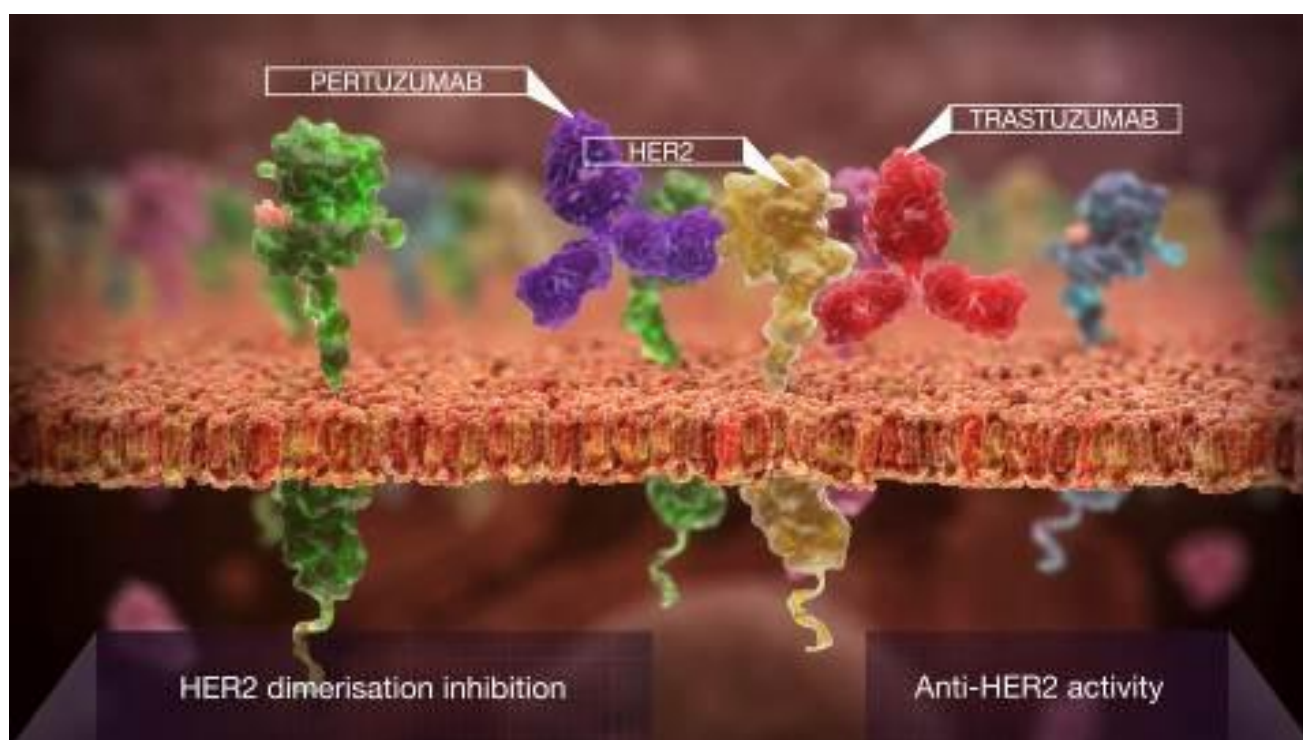
#### PERJETA: a novel HER2-targeted medicine

PERJETA is a type of targeted medicine and is the first medicine designed to stop the pairing, or 'dimerising', of the HER2 protein with other HER proteins. This pairing of HER2 can send multiple signals to the cell to grow and multiply, which is why it plays such an important role in cancer growth.

PERJETA is a personalised medicine developed to fight HER2-positive breast cancer.

PERJETA is called a targeted medicine because, like Herceptin, it targets only the cells that have too much of the HER2 protein.

**Figure 1: PERJETA and Herceptin bind to different parts of the HER2 protein.**



## PERJETA and Herceptin: complementary actions

PERJETA and Herceptin work in a complementary manner as they each attach to different parts of the HER2 receptor, providing a more comprehensive blockade of HER signalling pathways (see figure 1).<sup>4,5</sup>

## PERJETA: clinical studies

A large international study called CLEOPATRA has shown that the risk of death was reduced by 34 percent for patients who received PERJETA, Herceptin and docetaxel chemotherapy, compared to those who received Herceptin and docetaxel chemotherapy alone (HR=0.66; p=0.0008).<sup>6</sup> At the time of the analysis, the median (or average) overall survival had not yet been reached in patients receiving the PERJETA-based regimen, as more than half of these patients continued to survive. For patients who received Herceptin and docetaxel chemotherapy alone, the median overall survival was more than 3 years (37.6 months).<sup>7</sup> In addition, CLEOPATRA showed that patients lived for an average of 18.5 months without their disease getting worse (progression free survival), compared to 12.4 months for those who received Herceptin and docetaxel chemotherapy alone; an additional 6.1 months longer.<sup>6</sup> Importantly, patients who received the PERJETA-based regimen experienced a similar number of side effects compared to patients receiving Herceptin and docetaxel chemotherapy alone.<sup>6,7</sup>

PERJETA offers patients and doctors a new treatment option to help extend the lives of patients with HER2-positive breast cancer.

There are a number of studies of PERJETA in different settings and cancer types and in combination with different chemotherapies.<sup>8-11</sup>

## How is PERJETA administered?

PERJETA is given as an intravenous infusion, which means that it is delivered directly into the bloodstream through a tube called a catheter or 'port' in the patient's vein. Typically, a patient would go to hospital and have the infusion, which lasts around 30 minutes to one hour. The initial dose is 840 mg, followed by 420 mg of PERJETA every three weeks.<sup>12</sup>

## PERJETA: a new treatment option

PERJETA has received New Zealand registration from Medsafe in combination with Herceptin and docetaxel chemotherapy, for patients with HER2-positive metastatic breast cancer who have not received previous anti-HER2 therapy or chemotherapy for their metastatic disease.<sup>12</sup> PERJETA is also registered in the European Union, the United States, and Switzerland among many other countries and it is anticipated that further registrations will be received during 2013.

## References

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