NOVARTIS

Clinical Trial Results Summary

A clinical trial to learn more about the safety of TNO155 in people with advanced solid tumors

Thank you!

Thank you to the participants who took part in the clinical trial for **advanced solid tumors**. Every participant helped to learn more about the trial drug **TNO155**, also called **batoprotafib**.

Novartis sponsored this trial. We believe it is important to share what was learned from the results of this trial with the participants and the public. We hope this helps the participants understand their important role in medical research.

Trial information

Trial number: CTNO155X2101

Novartis drug studied: **TNO155**, also called **batoprotafib**

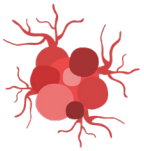
Sponsor: Novartis

If you were a participant and have any questions about the results, please talk to the doctor or staff at the trial site.

This summary only shows the results of a single clinical trial. Other clinical trials may have different results.

What was the main purpose of this trial?

The purpose of this trial was to learn about the safety of **TNO155**, alone or with **nazartinib**, in people with certain **advanced solid tumors** and to find the recommended dose for further study.



A **solid tumor** is a type of cancer that starts in an organ muscle, or bone.

Advanced solid tumors are cancers that have spread to other parts of the body and can be hard to control with available treatments.

TNO155, also known as **batoprotafib**, is a trial drug that is thought to shrink or slow down the growth of tumors that have changes in the **RTK pathway**. For **TNO155** to work, the tumor usually needs to depend on this pathway. **TNO155** might help prevent cancers from coming back or becoming resistant.

Trial drug
TNO155 also called **batoprotafib**
Pronounced as
BAT-oh-proh-ta-fib

Nazartinib is a type of drug called a **tyrosine kinase inhibitor**. **Nazartinib** blocks a part of the RTK pathway, which can help treat certain lung cancers. Other medicines like **nazartinib** are already approved for doctors to use. But sometimes the cancer comes back or stops responding. In this trial, participants who have a certain type of lung cancer were given **TNO155** with **nazartinib**.

What is tyrosine kinase inhibitor?

A drug that blocks proteins called tyrosine kinases which tell cells to grow and divide.

What is the RTK pathway?

Your body has a pathway called the 'receptor tyrosine kinase' (RTK) pathway. The RTK pathway helps your cells work properly. When this pathway is not working properly cells can grow too much and form tumors.

This trial was the first time that **TNO155**, alone and with **nazartinib**, was given to people. Therefore, the researchers had to test increasing doses in different groups of participants to learn about the safety of **TNO155**, alone and with **nazartinib**, and find the recommended doses for further study. This is what researchers call a dose escalation trial, which is the first step in testing a trial drug.

The trial's purpose was to answer these main questions:

- What is the recommended dose of **TNO155**, alone or with **nazartinib**, for participants to receive?
- What medical problems, also called adverse events, happened during this trial?
  - **Adverse events** reported are any sign or symptom that participants had during this trial. Adverse events **may** or **may not** be caused by treatments in the trial.

How long was this trial?

The trial began in May 2017. In May 2024, the sponsor decided to end the trial earlier than planned, due to business reasons. This decision was not because of safety concerns. Each participant stayed in the trial for as long as they benefited from treatment. The trial ended in July 2025.

This trial was designed to have 2 parts:

- **Part 1** looked at different doses and ways to give **TNO155**, alone or with **nazartinib**, to find the recommended doses to give to participants in Part 2
- **Part 2** was designed to look at the effects of the recommended doses of **TNO155**, alone and with **nazartinib**. Because the trial ended earlier than planned, Part 2 was not completed

At the end of this trial, the sponsor created a report of the trial results. This summary is based on that report.

Who was in this trial?

227 participants with **advanced solid tumors** received treatment in this trial – 121 males and 106 females. Participants' ages ranged from 18 to 84 years. Their average age was 59 years.

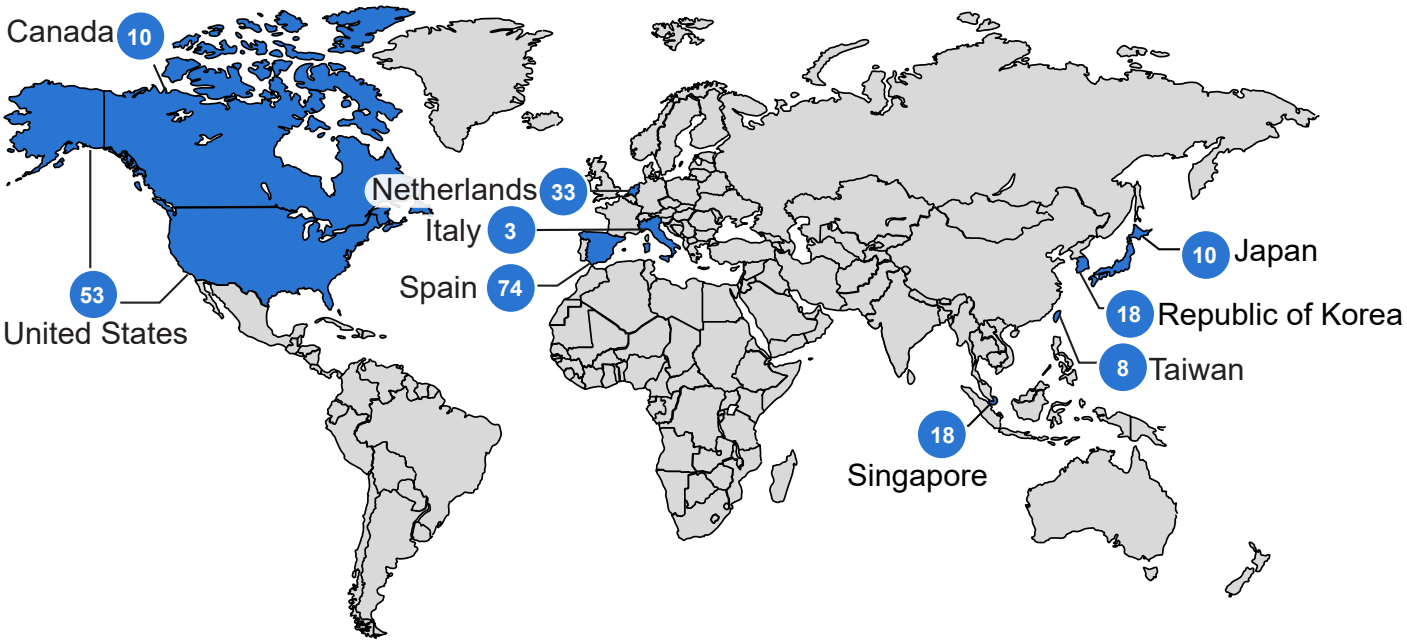
The table below shows the number of participants by race.

Race					
61	Asian	2	Black	122	White
7	Other	35	Unknown		

The participants could take part in this trial if they:

- Were adults with advanced solid tumors
- Had lung, head and neck, esophagus and digestive tract, or skin cancer, which got worse after standard treatment or standard treatment was not possible
- Were able to move around and carry out light activities

227 participants from 9 countries received treatment. The map below shows the number of participants who took part in each country.



What treatments did the participants receive?

The treatments in this trial were:

TNO155 – Participants took different doses, from 1.5 milligrams (mg) up to 70 mg. Taken as capsules or tablets by mouth once or twice a day. Depending on their group, participants either took **TNO155** every day without breaks, or in treatment **cycles**.

What is a cycle?
A cycle is a treatment period that is repeated. In this trial different treatment periods were looked at.

Nazartinib – Participants took 1 of 2 doses, either 100 mg or 150 mg. Taken as capsules by mouth once a day without breaks. Only participants with lung cancer received **nazartinib** with **TNO155**.

The participants, researchers, and trial staff knew that all participants received either **TNO155** alone or with **nazartinib**.

The participants could continue trial treatment as long as they were benefiting from it.

What happened during the trial?

Before treatment Up to 1 month

The trial staff checked to make sure the participants could be in this trial.

During treatment For as long as participants were benefiting

227 participants received one of these treatments:

TNO155	183 participants
TNO155 with **nazartinib**	44 participants

In **Part 1**, participants were given different doses in different ways based on the treatment group each participant was assigned to. This was done so that researchers could find the recommended doses for participants to take in **Part 2**.

As the trial ended early, **Part 2** did not complete as planned. Participants in **Part 2** could continue trial treatment for as long as the doctors thought they were benefiting from the trial.

After treatment Up to 1 month

Trial staff checked participants' general health and for any medical problems for up to 1 month after their last dose of trial treatment.

Trial staff checked the participants' general health throughout the trial.

What were the main results of this trial?

What is the recommended dose of TNO155 alone or with nazartinib for participants to receive?

The recommended doses were:

- For **TNO155** alone: 60 mg once a day for 2 weeks followed by 1 week without treatment in a 21-day cycle
- For **TNO155** with **nazartinib**:
  - **TNO155** 40 mg once daily for 2 weeks followed by 1 week without treatment in a 21-day cycle
  - **Nazartinib** 100 mg daily without breaks

To find these doses, researchers closely monitored the participants' health and recorded the number of participants who had dose-limiting toxicities (**DLTs**) during the first cycle of treatment in Part 1.

What are dose-limiting toxicities (DLTs)?

DLTs are adverse events that the trial doctors think could be related to the trial treatment.

Number of participants who had DLTs in Part 1:

13 participants who took only **TNO155** had DLTs across the different dose groups. The most common DLT was:

- **The amount of blood the heart can pump out going down** (decreased ejection fraction) in 5 participants

2 participants who took **TNO155** with **nazartinib** had DLTs. The DLTs were:

- **Diarrhea**
- **Levels of platelets (cells that help your blood clot) going down** (decreased platelet count)

What medical problems, also called adverse events, happened during this trial?

Trial doctors keep track of all medical problems, also called **adverse events**, that happen in trials. They do this even if they think the adverse events are not related to the trial treatments.
Researchers need results from many trials to decide if a drug or treatment causes an adverse event.
This section is a summary of the adverse events that happened from the day participants started the trial treatment until 1 month after the last treatment.

An **adverse event** is:

- Any **sign or symptom** that the participants have during a trial
- Considered **serious** when it is life-threatening, causes lasting problems, requires hospital care, or results in death

Treatments in the trial **may** or **may not** cause adverse events.

All 183 participants who took only **TNO155** had adverse events, including serious and other adverse events.

- 64 participants had serious adverse events
- 38 participants died due to any cause, including their **advanced solid tumor**

A total of 43 out of 44 participants who took **TNO155** with **nazartinib** had adverse events, including serious and other adverse events.

- 19 participants had serious adverse events
- 5 participants died due to any cause, including their **advanced solid tumor**

The researchers concluded there were no new or unexpected safety concerns for **TNO155**, either alone or with **nazartinib**, in this trial.

What adverse events did participants have?

All participants who only took **TNO155** had at least 1 adverse event.

The most common adverse events were:

- **Swelling in the arms, legs, hands and feet** (peripheral oedema) in 76 of 183 participants (42%)
- **Diarrhea** in 64 of 183 participants (35%)
- **Possible sign of liver damage** (increased aspartate aminotransferase) in 52 of 183 participants (28%)
- **Possible sign of liver damage** (increased alanine aminotransferase) in 42 of 183 participants (23%)

43 out of 44 participants who took **TNO155** with **nazartinib** had at least 1 adverse event. The most common adverse event among participants was **diarrhea**, occurring in 31 out of 44 individuals (71%).

What serious adverse events did the participants have?

64 participants who took only **TNO155** and 19 participants who took **TNO155** with **nazartinib** had serious adverse events.

The most common serious adverse event was **lung infection** (pneumonia), which happened in 6% of those who took only **TNO155** and 11% of those who took **TNO155** with **nazartinib**.

What was learned from this trial?

Researchers learned about the safety and recommended doses of **TNO155**, alone and with **nazartinib**, in people with **advanced solid tumors**.

The researchers concluded that:

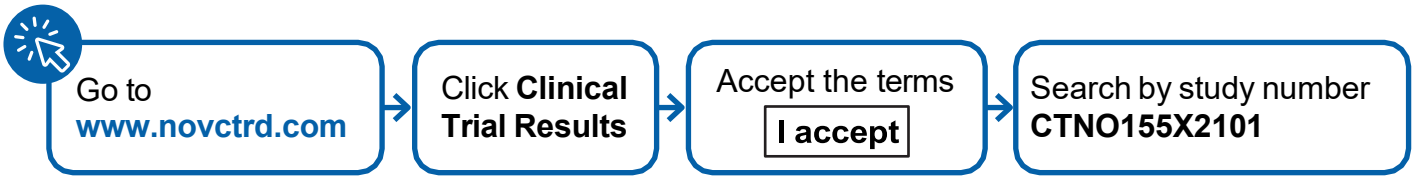
- The recommended dose of **TNO155** alone was 60 mg once a day for 2 weeks followed by 1 week without treatment in a 21-day cycle
- The recommended doses for **TNO155** with **nazartinib** were: **TNO155** 40 mg once daily for 2 weeks followed by 1 week without treatment in a 21-day cycle, and **nazartinib** 100 mg daily without breaks
- There were no new or unexpected safety concerns for **TNO155** either alone or with **nazartinib** in this trial

When this summary was written, the sponsor had no plans for future trials of **TNO155** in people with **advanced solid tumors**.

Where can I learn more about this trial?

To learn more about the results and adverse events in this trial, read the scientific summary of the results. It is available on the Novartis Clinical Trial Results website, **www.novctrd.com**.

Follow these steps to find the scientific summary:



For more information about this trial, go to any of these websites:

- **clinicaltrials.gov** – search using the number **NCT03114319**
- **euclinicaltrials.eu** – search using the number **2023-508925-29-00**

Other trials of **TNO155** may appear on the public websites above. When there, search for **TNO155** or **batoprotafib**.

Full clinical trial title: An open-label, multi-center, phase I, dose finding study of oral TNO155 in adult patients with advanced solid tumors

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