NOVARTIS

Lung Cancer

Lung cancer is one of the most common cancers worldwide, accounting for more than 2 million new cases diagnosed each year[1].

There are 2 main types of lung cancer—small cell lung cancer (SCLC) and non-small cell lung cancer (NSCLC)[2]. NSCLC accounts for approximately 85% of lung cancer diagnoses[3]. More people die of lung cancer every year than from any other cancer[4].

Currently, the five-year survival rate for lung cancer remains at about 20%, decreasing further when the disease is diagnosed at later stages[5].

> Despite incredible advances in treatment over the past decade, overall survival remains low for people living with lung cancer. There is a need and an opportunity for new, effective, and safe modalities to continue to improve the outcomes for patients.
>
> – **Andrea Myers**, Global Program Head at Novartis

Advances in Genetic Research

Advances in genetic research have revealed that NSCLC is not a single disease, but rather many types of cancer with specific genetic differences. Because of these small but important differences, lung cancer medicines that target specific genes, such as anaplastic lymphoma kinase (ALK), can be developed. About 2-7% of people with NSCLC have the ALK gene rearrangement.[7]

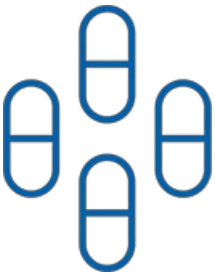
Reimaging medicine to treat ALK+ advanced non-small cell lung cancer (NSCLC)

Targeted medicine has changed the treatment of ALK+ NSCLC by blocking the action of the altered ALK gene to help shrink or slow cancer growth. However, studies have shown that patients may experience disease progression, where their cancer may continue to grow or spread, less than a year after starting treatment with their first ALK inhibitor.[7] For patients with ALK+ NSCLC, the most common sites of disease progression (or metastasis) include brain, liver and bone. Brain metastases in particular can affect up to 50% of patients with ALK+ NSCLC.[8] Today, there are targeted medicines available for patients who have experienced progression.

Driven by Science

Lung cancer is not a single disease but one with great complexity. Each person with lung cancer has an individual experience that must be considered. Novartis is committed to working with the scientific and medical communities to reimagine the treatment of lung cancer and pursue advances in medicine that could potentially extend the survival of people living with lung cancer. We are tailoring patient treatment to not only help people live longer, but also to live better.

We aspire to promote and advance **lung cancer screening** and **biomarker testing** in a way that leaves no patient behind.



We are working to **expand the range of therapies** and fight lung cancer across **multiple modalities** to **tackle**

this tough-to-treat cancer.

Novartis is exploring **drivers** and **modalities** across multiple platforms including:

- **Targeted therapies –** We are continuing our research into targeted therapies—including compounds that target difficult-to-treat mutations. These investigational therapies could provide new options for patients with no currently approved viable options.
- **Immunotherapies –** We are driving immunotherapies forward with investigating checkpoint inhibitors.
- **Radioligand therapy –** We're working to harness the power of radioactive isotopes/particles through targeted radioligand therapy (RLT) to precisely target and deliver radiation to lung cancer. We believe this technology has the potential to become a major component of cancer care.

Sound Up for Lung Cancer

Empowering lung cancer patients to speak up and have open conversations with their doctors.

Learn more

In addition to driving groundbreaking science, Novartis is committed to supporting people with lung cancer and their caregivers. We believe empowering people living with lung cancer raises the volume on what's truly important. When patients find the courage to talk about what they need, new possibilities ripple through their lung cancer journeys which include:

- Patient-centered care
- Greater trust and satisfaction with the care team
- More confidence in their abilities for self-care
- Potentially reduced health care costs[6]

It is important that people living with lung cancer speak up and advocate for themselves to help ensure the best care. The lung cancer community plays an important role in providing people affected by lung cancer with the tools they need to advocate for themselves and the information they need to make decisions about their care.

– **Jesme Fox**, Medical Director, Roy Castle Lung Cancer Foundation

Novartis developed *Sound Up for Lung Cancer*, a patient-inspired and community-led initiative that aims to empower people affected by lung cancer to advocate for themselves by sharing their experiences and needs.

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List of links present in page

1. https://prod1.novartis.com/diseases/lung-cancer
2. https://prod1.novartis.com/diseases/lung-cancer/sound-up
3. https://www.who.int/news-room/fact-sheets/detail/cancer
4. https://www.cancer.org/cancer/non-small-cell-lung-cancer/about/what-is-non-small-cell-lung-cancer.html
5. https://doi.org/10.3322/caac.21654
6. https://www.cancer.org/cancer/lung-cancer/detection-diagnosis-staging/survival-rates.html
7. http://www.ncbi.nlm.nih.gov/pubmed/25682925?dopt=Abstract