

What is RET positive (RET+) Lung Cancer?

WHAT IS A BIOMARKER?

Biomarkers help identify what specific subtype of cancer you have. Cancer biomarkers are often referred to by a 3- or 4-letter abbreviation, such as RET or EGFR. Biomarkers are sometimes called molecular markers, cancer markers, or tumor markers. If you have advanced non-small cell lung cancer (NSCLC), ask to have **comprehensive biomarker testing** (which should include RET testing) before you start treatment.

If you have non-small cell lung cancer and your tumor tests positive for the RET biomarker, you have RET+ (RET positive) lung cancer. This fact sheet explains what this means and how it may affect lung cancer treatment.

WHAT IS RET?

RET (or RET proto oncogene) is a gene that plays a role in cell signaling. (Cell signaling is the way cells talk with each other to ensure healthy body functioning.) A cancer cell's RET gene can move or fuse to another gene. This is called RET fusion. When it happens, cancer can grow and spread. Doctors do not know what causes RET fusion. It is seen in some lung and thyroid cancers. Doctors have found that blocking RET in cancer tumors can slow cancer growth.

WHO HAS RET+ LUNG CANCER?

RET fusion is more often found in younger people and those who never smoked. Around 2 percent of people with non-small cell lung cancer test positive for RET. They usually have a type of non-small cell lung cancer called adenocarcinoma.

HOW DO DOCTORS TREAT RET+ LUNG CANCERS?

A positive test for the RET biomarker means that you are eligible for targeted therapy. Targeted therapy drugs keep cancer from growing and spreading. These drugs may have fewer side effects than chemotherapy.

The U.S. Food and Drug Administration has approved two drugs to treat RET+ cancers. Both **Selpercatinib**



(Retevmo™) and Pralsetinib (Gavreto™) are given as pills. Retevmo is taken twice daily. Gavreto is taken once daily on an empty stomach. Other drugs may be available through clinical trials. People taking these drugs should have regular blood tests to check liver function.

Common side effects of these drugs include:

- Constipation
- Diarrhea
- Dry mouth
- Fatigue
- High blood pressure
- High blood sugar
- High cholesterol
- Low blood pressure
- Low blood platelet count (can cause bleeding)
- Lower sodium in the blood (can cause confusion)
- Low white blood cell count (can cause infection)
- Muscle or bone pain
- Skin rash
- Swelling

For information on coping with side effects, visit www.CancerSupportCommunity.org/SideEffects.

RET+ Lung Cancer and Biomarker Testing Information

- **Cancer Support Community's *Frankly Speaking About Lung Cancer* program** • www.CancerSupportCommunity.org/Lung
- *Frankly Speaking About Cancer Targeted Therapy and Biomarker Testing for Lung Cancer* booklet • download or order from orders.CancerSupportCommunity.org
- *Frankly Speaking About Cancer Lung Cancer* book • download or order from orders.CancerSupportCommunity.org

Lung Cancer Information, Survivorship, and Support

Cancer Support Community • 888-793-9355 • www.CancerSupportCommunity.org

American Cancer Society • 800-227-2345 • www.cancer.org

American Lung Association • 800-586-4872 • www.lung.org

CancerCare • 800-813-4673 • www.cancercare.org

Cancer.net • 888-651-3038 • www.cancer.net

GO₂ Foundation for Lung Cancer • 800-298-2436 • www.go2foundation.org

Lung Cancer Research Foundation • 844-835-4325 • www.lcrf.org

LUNGeity Foundation • 321-407-6100 • www.LUNGeity.org

National Cancer Institute (NCI) • 800-422-6237 • www.cancer.gov

NCI Clinical Trial Information • 800-422-6237 • www.cancer.gov/ClinicalTrials

Patient Advocate Foundation • 800-532-5274 • www.patientadvocate.org

Cancer Support Community Resources

Cancer Support Helpline[®] — Have questions, concerns or looking for resources? Call CSC's toll-free Cancer Support Helpline (888-793-9355), available in 200 languages Mon - Fri 9am - 9pm ET.

Open to Options[®] — Need help making a cancer treatment decision? Our trained specialists can help you create a list of questions to share with your doctor. Make an appointment by calling 888-793-9355 or by contacting your local CSC or Gilda's Club.

Frankly Speaking About Cancer[®] — Trusted information for cancer patients and their loved ones is available through publications, online, and in-person programs at www.CancerSupportCommunity.org/FranklySpeakingAboutCancer.

Services at Local CSCs and Gilda's Clubs — With the help of 170 locations, CSC and Gilda's Club affiliates provide services free of charge to people touched by cancer. Attend support groups, educational sessions, wellness programs, and more at a location near you. www.CancerSupportCommunity.org/FindLocation

Cancer Experience Registry[®] — Help others by sharing your cancer patient or cancer caregiver experience via survey at www.CancerExperienceRegistry.org.

MyLifeLine — CSC's private, online community allows patients and caregivers to easily connect with friends and family to receive social, emotional, and practical support throughout the cancer journey and beyond. Sign up at www.MyLifeLine.org.

Grassroots Network — Make sure your voice is heard by federal and state policy makers on issues affecting cancer patients and survivors by joining our Network at www.CancerSupportCommunity.org/become-advocate.

LUNG BIOMARKER DIGITAL TOOL PROGRAM PARTNER:



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The Cancer Support Community and its partners provide this information as a service. This publication is not intended to take the place of medical care or the advice of your doctor. We strongly suggest consulting your doctor or other health care professionals to answer questions and learn more.

This booklet is available to download and print at www.CancerSupportCommunity.org/lung. For print copies of more resources about coping with cancer, visit Orders.CancerSupportCommunity.org.

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