



# INNOVATION IN IMMUNO-ONCOLOGY RESEARCH

The State of Cancer Today

Cancer: A Global View

Different Approaches  
to Cancer Treatment

The Immune System and  
Immuno-Oncology Research

For years, Bristol-Myers Squibb has been at the forefront of Immuno-Oncology research, and remains committed to further study of new Immuno-Oncology investigational approaches, including novel combination strategies and next wave I-O assets, with the goal of changing survival expectations in hard-to-treat cancers and the way patients live with cancer.

# THE STATE OF CANCER TODAY

**CANCER IS ONE OF THE  
LEADING CAUSES OF  
DEATH WORLDWIDE**

**AND ITS INCIDENCE  
IS EXPECTED TO RISE  
BY APPROXIMATELY**

**70%**

**OVER  
THE NEXT  
20 YEARS.**



# CANCER: A GLOBAL VIEW

In 2012, there were an estimated 14 million new cancer cases reported worldwide. Worldwide annual diagnosis figures for some of the most common forms of cancer include:

Lung Cancer (SCLC and NSCLC): **1.82 Million +**



Breast: **1.67 Million +**

Colorectal: **1.36 Million +**



Gastric: **951,000 +**

Liver: **782,000 +**



Head & neck: **686,000 +**

Bladder: **429,000 +**



Non-Hodgkin Lymphoma: **385,000 +**

Pancreatic: **337,000 +**



Renal Cell Carcinoma: **337,000 +**

Brain: **256,000 +**



Melanoma: **232,000 +**

Multiple Myeloma: **114,000 +**



Hodgkin Lymphoma: **65,000 +**

# DIFFERENT APPROACHES TO CANCER TREATMENT

There are a number of different approaches to treating cancer including, Immuno-Oncology, chemotherapy, radiation, surgery and targeted therapies for certain types of cancers. Traditional cancer treatment approaches are directed towards cancer cells, but Immuno-Oncology is designed to work differently.



## IMMUNO-ONCOLOGY

Therapies that are designed target the body's natural immune response to fight cancer.



## CHEMOTHERAPY

Medicines that stop the growth of cancer cells.



## TARGETED THERAPY

Treatments that may identify and attack cancer cells directly.



## RADIATION

Uses high-energy particles or waves to destroy cancer cells.



## SURGERY

An invasive procedure used to remove tumor tissue in an attempt to reduce cancer cells or improve symptoms in a patient.



# THE IMMUNE SYSTEM AND IMMUNO-ONCOLOGY RESEARCH



The immune system is responsible for defending the body against threats and illness, including cancer.



Some cells may acquire the ability to evade detection by interfering with mechanisms of immune system activation and suppression, which can eventually lead to cancer progression.



The goal of Immuno-Oncology is to restore the ability of the immune system to eliminate cancer cells by either activating the immune system directly, or by inhibiting mechanisms of suppression by tumors.



Research is ongoing to understand how targeting immune system pathways may restore the immune system's ability to fight cancer, with the goal of leading to new treatment options for patients.