

# Pfizer's Innovative Core – Building a More Sustainable Engine for Patient Innovation

We continue to transform our R&D approach and capabilities to position Pfizer for sustainable innovation and productivity. Since launching a comprehensive R&D turnaround effort three years ago, we are working toward a future where R&D is delivering clear ROI, both for our shareholders and for the patients who are counting on us. By collaborating with a range of partners in new ways, instilling greater business discipline, end-to-end portfolio management, and leveraging emerging technology platforms, we are advancing our purpose of innovating to bring new therapies to patients.

## Inventing the Highest Potential Candidate Medicines and Vaccines

In earlier stage R&D, we have three key priorities, including:

### 1. Deliver high-value medicines and vaccines:

Our pipeline is focused on areas where Pfizer has a unique opportunity to bring the most important new therapies to patients in need, including cancer, chronic inflammatory and autoimmune diseases, vaccines, oncology, neuroscience and pain, cardiovascular and metabolic disease and rare diseases.

### 2. Advance leading capabilities:

**Therapeutic Vaccines:** The vaccine development program now includes therapeutic vaccines, with the potential to target chronic diseases such as asthma, addiction and cancer.

**Antibody Drug Conjugates (ADCs):** Pfizer has a leading platform in next-generation antibody drug conjugates, which are targeted therapies that combine the specificity of an antibody with the potency of small-molecule cancer chemotherapy.

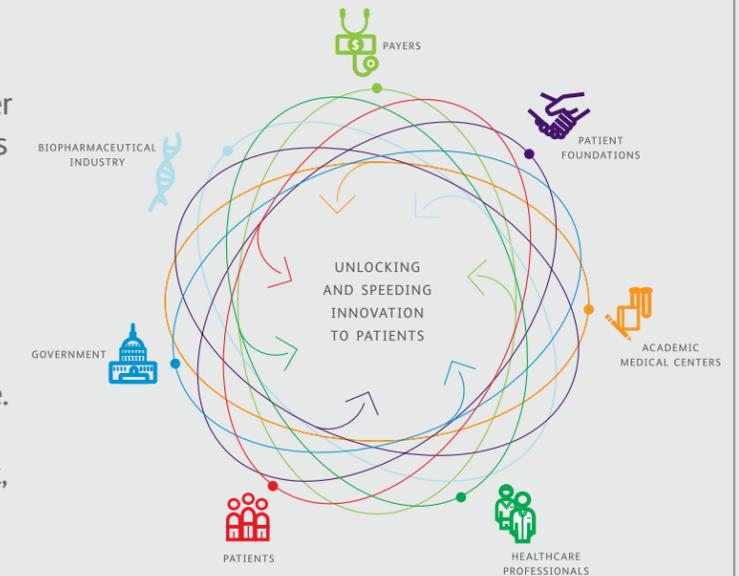
**Tissue-targeted New Chemical Entities (NCEs):** Pfizer is applying next-generation technology to enhance selectivity of small molecules to target specific tissues and deliver therapy to localized areas.

**Precision Medicine:** Our Precision Medicine approach uses cutting-edge science, biology, and medical knowledge to select the right targets, develop the right therapy/combination therapy, and identify the groups of patients who are more likely to respond to a specific therapy.

### 3. Shape the health innovation environment:

Key to expediting the translation of science into breakthrough therapies is driving greater, deeper and stronger collaborations across the healthcare landscape.

We work to advance new models of partnerships with creativity, flexibility and openness to deliver innovation quickly, regardless of where the talent and resources live. This includes working with patient foundations, patients, government, payers, healthcare professionals, academia and other leading biopharma companies.



## Developing Medicines for Maximum Value and Impact in the Real World

In mid-late stage R&D, we advance clinical development and work with regulators to bring new therapies forward

A critical part in the process of bringing new therapies to patients is clinical development, the study of potential new therapies in humans. Pfizer is committed to enhanced clinical and regulatory quality and compliance to build trust among key stakeholders, including patients and payers. We work with payer organizations to ensure our medicines are valued and reimbursed appropriately and with regulatory authorities around the world to meet and maintain their standards.

### Clinical Excellence

Pfizer is committed to improving the effectiveness and efficiency of clinical trials, while protecting the safety and interests of clinical trial volunteers. Pfizer is also innovating in the way we conduct clinical testing and is focused on making research participation easier for patients and health care providers. For example, we continue to identify ways to improve patient engagement, strive to make work easier for clinical trial sites, leverage real-world data, and use mobile health, social media and health information technology to improve trial efficiency.

### Integrated Regulatory & Safety

Patient safety is a paramount concern for Pfizer from the moment a new compound is discovered, and for as long as a medicine is prescribed. It is our ethical and regulatory responsibility to monitor the safety of our medicines everywhere they are marketed. Once a drug compound is approved, we continue to monitor its safety and work with governments and others to secure the supply chain and prevent counterfeiting.

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## Therapeutic Area Overviews

Our pipeline is focused on areas where Pfizer has a unique opportunity to bring the most important new medicines to patients in need.

 <b>Oncology</b>	 <b>Neuroscience &amp; Pain</b>	 <b>Immunology and Inflammation</b>	 <b>Vaccine Research</b>	 <b>Cardiovascular and Metabolic</b>	 <b>Rare Disease</b>
<ul style="list-style-type: none"> <li>Our oncology researchers use a multi-disciplinary approach to identify and target specific alterations that drive the growth and progression of malignant disease. We combine innovative approaches to drug discovery with a strong emphasis on our Precision Medicine approach, which matches targeted therapies with the patients most likely to respond to those therapies.</li> <li>Our core R&amp;D interests include cancer cell signaling mechanisms and oncogenic drivers, cancer stem cells, mechanisms of drug resistance, and technologies that enable selective drug delivery to tumor tissues. One key technology focus is advancing the next wave of antibody drug conjugates.</li> </ul> <p><b>Our clinical portfolio includes:</b></p> <ul style="list-style-type: none"> <li>Palbociclib for advanced breast cancer &amp; high-risk early breast cancer</li> <li>Inlyta® (axitinib) for liver cancer</li> <li>ALK-1 inhibitor monoclonal antibody for liver cancer</li> <li>SMO (Smoothened) inhibitor for acute myeloid leukemia</li> </ul>	<ul style="list-style-type: none"> <li>Neurologic and psychiatric diseases are some of the most devastating disorders of our time, causing significant disability around the world. Our scientists are targeting neurodegenerative and neuropsychiatric diseases through our Precision Medicine approach, rooted in human biology, neuroimaging, novel biomarkers and a deeper understanding of brain circuitry.</li> <li>With one of the broadest franchises of pain therapies, Pfizer is taking a multi-faceted approach to pain management, developing new and unique approaches across different mechanisms, a variety of modalities and a range of delivery technologies.</li> </ul> <p><b>Our clinical portfolio includes:</b></p> <ul style="list-style-type: none"> <li>ALO-02 oxycodone/naltrexone for moderate to severe pain</li> <li>PDE10 Inhibitor for Huntington's Disease and schizophrenia</li> <li>SAM-760 (5HT6 antagonist) for Alzheimer's disease</li> <li>NaV family for pain</li> </ul>	<ul style="list-style-type: none"> <li>Pfizer is focused on transforming chronic inflammatory diseases, many of which are poorly managed by existing treatments that only provide symptom relief, at best. We seek to address the root cause of this inflammation at a molecular level and develop first-in-class or best-in-class medicines.</li> <li>We are advancing a robust pipeline of novel agents that target fundamental disease pathways for inflammatory bowel disease (IBD)—including Crohn's and ulcerative colitis—lupus, psoriasis, COPD and other chronic diseases.</li> </ul> <p><b>Our clinical portfolio includes:</b></p> <ul style="list-style-type: none"> <li>Xeljanz® (tofacitinib) for IBD, psoriasis (oral and topical), psoriatic arthritis and ankylosing spondylitis</li> <li>IL-6 monoclonal antibody for Crohn's and lupus</li> <li>Anti-MAdCAM antibody for Crohn's disease and ulcerative colitis</li> <li>JAK-1 inhibitor for lupus</li> </ul>	<ul style="list-style-type: none"> <li>Building on our world-leading pneumococcal disease vaccine franchise, Pfizer is leveraging advanced technologies to usher in a new era of innovation to expand the benefits of vaccines to more patients across ages and geographies.</li> <li>Our clinical-stage programs target some of the most deadly adult and adolescent infectious diseases, and our therapeutic vaccines in clinical development may be used as potential treatments for chronic conditions or diseases.</li> </ul> <p><b>Our clinical portfolio includes:</b></p> <ul style="list-style-type: none"> <li>Prophylactic vaccine for meningococcal B</li> <li>Prophylactic vaccine for <i>Staphylococcus aureus</i> infection</li> <li>Prophylactic vaccine for <i>Clostridium difficile</i> colitis</li> <li>Therapeutic vaccine for smoking cessation</li> <li>Therapeutic vaccine for allergic rhinitis/asthma</li> </ul>	<ul style="list-style-type: none"> <li>We are dedicated to developing therapies to treat, slow or prevent disease progression and improve the quality of life of patients with obesity, Type 2 diabetes (T2D), cardiovascular (CV), and kidney diseases. Our core focus areas include cholesterol management, next-generation blood glucose control, targeting weight management in T2D, and improving outcomes in those at highest risk for CV and kidney diseases.</li> <li>Through our scientific platforms, we're enabled to understand whole body metabolism, insulin sensitivity and underlying human genetic associations with these diseases.</li> </ul> <p><b>Our clinical portfolio includes:</b></p> <ul style="list-style-type: none"> <li>PCSK9 Inhibitor (bococizumab/RN316) for hyperlipidemia</li> <li>Ertugliflozin for Type 2 diabetes (in collaboration with Merck)</li> <li>CCR 2/5 receptor antagonist for chronic kidney disease (CKD)</li> <li>PDE5 inhibitor for diabetic nephropathy</li> </ul>	<ul style="list-style-type: none"> <li>We are applying world-class expertise in protein therapeutics and small molecule protein chaperones to develop next generation therapeutics for rare diseases, with an emphasis on hematologic, neuromuscular, and pulmonary diseases.</li> <li>In addition to our internal research programs, we actively collaborate with patient advocacy groups, academic investigators, and other industry partners to accelerate the drug development process.</li> </ul> <p><b>Our clinical portfolio includes:</b></p> <ul style="list-style-type: none"> <li>Tafamadis for TTR-cardiomyopathy</li> <li>Rivipansel (GMI-1070) for sickle cell disease</li> <li>Anti-GDF8 monoclonal antibody for Duchenne muscular dystrophy</li> <li>Factor VIIa for hemophilia</li> </ul>