

This represents a selection of assets in our research and development portfolio in June 2021.

**~100** Clinical and pre-clinical pipeline projects

**>60** New Molecular Entities anchor an innovation-led portfolio

**20** Potential new medicine approvals over the next seven years

**50%** Of pipeline anchored in external collaborations\*

\*Across research, pre-clinical and clinical portfolios.

## CARDIOMETABOLIC DISEASES

Building on our legacy of innovative treatments for a range of cardiovascular and metabolic conditions, our R&D strategy takes a holistic view of the needs of diabetes patients who often have multiple, related conditions. We are pursuing the next wave of innovative medicines for obesity, kidney and liver diseases – including non-alcoholic steatohepatitis (NASH).

## IMMUNOLOGY

Our R&D strategy is inspired by the courage of patients living with debilitating, life-limiting auto-immune conditions. We are taking bold steps to deliver scientific breakthroughs that target, repair and prevent these diseases. Specific areas of focus include inflammatory skin diseases and inflammatory bowel diseases such as Crohn's Disease and Ulcerative Colitis.

## COVID-19

We are committed to contributing our expertise and capabilities to help find solutions for the Covid-19 pandemic.

In addition to building on our strengths in core therapeutic areas, we capture synergies by focusing research platforms on mechanisms such as immune modulation and fibrosis that contribute to multiple diseases. We focus expertise and resources to discover common pathophysiological mechanisms and accelerate the development of new medicines.

Our Research Beyond Borders function is exploring new frontiers in science and technology, both within and beyond our core therapeutic areas, to anticipate future trends in biomedical research and bring transformative advances to patients.

## ONCOLOGY

Our primary focus is in lung and gastrointestinal cancers, with the goal of delivering breakthrough, first-in-class treatments for cancer. Our commitment to innovation has resulted in pioneering treatments for lung cancer and we are advancing a unique pipeline of cancer cell-directed agents, immune oncology therapies and intelligent combination approaches to help take cancer on.

## CENTRAL NERVOUS SYSTEM DISEASES

Schizophrenia and major depressive disorder are key areas for R&D. Our approach focuses on understanding maladaptive brain circuitry to target the mechanisms directly responsible for major untreated symptom domains in neuropsychiatric diseases including cognitive impairment.

## RESPIRATORY DISEASES

We are building on a heritage of nearly a century in respiratory diseases, with treatments in asthma, chronic obstructive pulmonary disease, and idiopathic pulmonary fibrosis (IPF). Our R&D approach leverages our extensive expertise in respiratory medicine, inflammation and fibrosis to target a broad range of interstitial lung diseases such as IPF and systemic sclerosis-associated interstitial lung disease (SSc-ILD), as well as serious lung diseases with unmet patient needs, such as cystic fibrosis and COPD.

## RETINAL DISEASES

The ambition to prevent vision loss in people at risk, and preserve or restore vision in those with retinal diseases, is at the core of our R&D activities. Our extensive knowledge and insights from other therapeutic areas enable us to tackle the multifactorial pathophysiology of retinal diseases. Areas of focus include wet age-related macular degeneration, diabetic retinopathy and geographic atrophy.

**>40** pre-clinical development projects expected to deliver... **>15** new phase 1 starts in the next 12-18 months.

### PHASE 1

▶ <b>Angiotensin antibody</b>	<b>Appetite modulator</b>
<b>Hemodynamic modulator</b>	<b>Hemodynamic modulator</b>
<b>Transient receptor potential channel inhibitor*</b>	▶ <b>Food intake regulator*</b>
▶ <b>DLL3/CD3 bispecific antibody*</b>	<b>KISIMA® cancer vaccine*</b>
<b>LRP 5/6 antagonist*</b>	<b>MDM2-p53 antagonist*</b>
<b>MEK inhibitor*</b>	<b>Ezabenlimab</b> PD-1 antibody
▶ <b>ROR1 ADC*</b>	<b>SIRP1α antagonist*</b>
<b>SOS1::KRAS inhibitor*</b>	▶ <b>STING agonist</b>
<b>TRAILR2/CDH17 antibody</b>	<b>VEGF/Ang-2 antibody*</b>
<b>Cysteine protease inhibitor*</b>	<b>Leukocyte protease inhibitor</b>
▶ <b>Lysophospholipase inhibitor</b>	<b>Epithelial barrier stress modulator</b>
<b>Receptor serine/threonine kinase</b>	▶ <b>NMDA receptor modulator</b>
<b>Phosphodiesterase inhibitor*</b>	▶ <b>Ischemia modulator</b>
<b>Neuronal damage modulator</b>	<b>VEGF/Ang-2 antibody*</b>
▶ <b>SARS-CoV-2 neutralizing antibody*</b>	

### PHASE 2

<b>BI 456906*</b> GLP1/GCGR agonist   Obesity	▶ <b>BI 685509</b> Hemodynamic modulator   CKD
<b>Xentuzumab (BI 836845)*</b> IGF1/2 antibody   mBC	▶ <b>BI 1015550</b> Anti-fibrotic   IPF
<b>Spesolimab (BI 655130)</b> IL36R antibody   AtD	<b>Spesolimab (BI 655130)</b> IL36R antibody   CD
<b>Spesolimab (BI 655130)</b> IL36R antibody   GPP	<b>Spesolimab (BI 655130)</b> IL36R antibody   PPP
▶ <b>Spesolimab (BI 655130)</b> IL36R antibody   HS	<b>BI 425809</b> GlyT1 inhibitor   CIAS
▶ <b>BI 1358894*</b> TRPC 4/5 inhibitor   BoPD	▶ <b>BI 1358894*</b> TRPC 4/5 inhibitor   MDD
▶ <b>Alteplase</b> TPA   Cov-19 iARDS	

### PHASE 3

▶ <b>Empagliflozin / New indication**</b> SGLT2 inhibitor   CHF	<b>Empagliflozin / New indication</b> SGLT2 inhibitor   CKD
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#### Key

- CardioMetabolic Diseases
- Oncology
- Respiratory Diseases
- Immunology
- Central Nervous System Diseases
- Retinal Diseases
- Covid-19

\*Partnered projects or acquired assets.  
▶ Key Pipeline Advances (Jun 2020–Jun 2021)

\*\*Approved in Europe for the treatment in adults of symptomatic chronic heart failure with reduced ejection fraction, other submissions ongoing.  
In progress: Prevention of HF post MI.

#### Indication abbreviations:

AtD	Atopic dermatitis	GPP	Generalized pustular psoriasis
BoPD	Borderline personality disorder	HF	Heart failure
CD	Crohn's disease	HS	Hidradentis Suppurativa
CHF	Congestive heart failure	IPF	Idiopathic pulmonary fibrosis
CIAS	Cognitive impairment associated with schizophrenia	mBC	Metastatic breast cancer
CKD	Chronic kidney disease	MDD	Major depressive disorder
COPD	Chronic obstructive pulmonary disease	MI	Myocardial infarction
Cov-19	Covid-19 induced acute respiratory distress syndrome	PPP	Palmoplantar pustulosis