

Pfizer Areas of Interest

Proposals are sought for research projects that aim to develop protein biotherapeutic drug candidates directed against novel biological targets or pathways in the Immunology and Inflammation, Oncology, Neuroscience, Cardiovascular and Metabolic, and Rare disease indications, as outlined in the examples below. This list is not exhaustive however, and influential pathways in similar diseases of high unmet medical need aligned to one of the five areas of focus below will also be considered.

Immunology and Inflammation

- Inflammation-related tissue remodelling
- Rheumatoid Arthritis (RA)
- Systemic Lupus Erythematosus (SLE)
- Inflammatory Bowel Disease (IBD)
- Nonalcoholic Steatohepatitis (NASH)
- Atopic Dermatitis

Specific areas of interest include:

- Cytokines and their signalling pathways
- Adaptive immunity, lymphocyte biology including Th17 lymphocytes
- Regulatory cells and tolerance induction
- Innate immune suppressors
- Oxidative stress modulators
- Anti-fibrotics

Oncology

- Lung, colorectal, breast, ovarian, renal, and haematologic cancers
- Cancers prevalent in Asia (e.g., gastric cancer, hepatocellular carcinoma)
- Targets and technologies that enable mAb, ADC, Immunotherapy (e.g. checkpoint inhibitors) and T-cell retargeting approaches
- Immuno-oncology
 - Novel Targets for Overcoming Tumour-induced Immune Resistance
 - Targets that promote immune response whether alone or in combination with checkpoint inhibitors
 - Targets that provide Innate immune support/activation
 - Targets that reduce immune suppression
 - Directed tumour killing via immune- based mechanisms
- Oncogenic signalling mechanisms, tumorigenesis
- Tumour metabolism and epigenetics
- Precision medicine approaches

Neuroscience

- Neurodegenerative Diseases
 - Alzheimer's Disease including strategic partnerships on Pfizer assets
 - Parkinson's Disease
- Functional domains relevant across multiple nervous system diseases such as Cognition, Anxiety, and Motivation/Apathy
- Neuroinflammation
 - Chronic neuroinflammation mechanisms with impact on AD or PD neurodegeneration
- Huntington's Disease
- Multiple Sclerosis – Remyelination approaches targeting Chronic Progressive disease only
- Cerebrovascular disease
- Conformational antibodies that have cross reactivity to all “amyloids” (e.g., tau, A β , huntingtin, δ -synuclein)

Cardiovascular and Metabolic Diseases

- Cardiovascular Disease and Heart Failure
 - Improving cardiac performance via myocardial protection, repair or improved myocardial perfusion and energetics
 - Primary and secondary prevention of cardiovascular events in high-risk patients
- Non-alcoholic fatty liver disease (NAFLD) and Non-alcoholic steatohepatitis (NASH)
- Obesity and Eating Disorders
- Diabetes. hyperinsulinemia and hyperglycemia
- Brain signals that regulate energy homeostasis and metabolism

Rare Disease

- Haematology
 - Haemophilia
 - Extended half-life of coagulation factors
 - Oral anti-haemophilic agents
 - Other rare hematologic (non-malignant) indications
 - Sickle cell disease
 - Haemaglobinopathies and beta-Thalassemia
 - Haemostasis
- Neuromuscular diseases
 - Duchenne/Becker muscular dystrophy
 - Friedreich's ataxia (FA)

- Amyotrophic lateral sclerosis (ALS)
- Spinal Muscular Atrophy (SMA)
- Pulmonary diseases
 - Cystic Fibrosis
 - Pulmonary arterial hypertension and idiopathic pulmonary fibrosis

Example therapeutic modalities for use in the indications above:

- Human/humanized monoclonal antibodies
- Antibody drug conjugates
- Bispecific antibodies for engaging multiple targets or multiple epitopes on single targets
- Oligoclonal antibody combinations for engaging multiple targets or multiple epitopes on single targets
- T-cell retargeting biologics for directed tumour killing via immune mechanisms
- Native proteins, peptide or receptor Fc-fusions, half-life extension conjugates (e.g. PEGylation)