Leading the Way in Research and Development

Why collaborate with AbbVie?

• AbbVie is dedicated to carefully evaluating every partnership and technology presented to us, and our partnerships team thoughtfully manages each opportunity and inquiry we receive.

• Bring us an idea and we’ll work with you to develop research plans with clearly defined objectives that will advance your research.

• Our research teams are highly collaborative and seek to work with motivated investigators who bring complementary skills.

• AbbVie is willing to bring our internal R&D expertise to bear, where appropriate, to advance collaborations.

• AbbVie has extensive experience in establishing fruitful relationships and will work to address the needs of investigators and institutions in setting up agreements.

As you weigh the many partnership opportunities available to you, consider what you aim to achieve.

At AbbVie, our reasons are clear. Our passion is for translating science into effective medicines for the good of patients. Together with our partners, AbbVie shares a commitment to address the world’s greatest health needs.
AbbVie Immunology is developing a portfolio of innovative programs with the goal of delivering transformational efficacy in autoimmune and inflammatory diseases.

### Targets, molecules and biology

- **Modulation of Adaptive and Innate Immunity**
  - Inhibition of cytokine signaling
  - Modulation of innate lymphoid cell (ILC) biology
  - Modulation of myeloid cell activation and differentiation
  - Immune regulation in tissues, including checkpoint stimulators, T-reg mechanisms, and stroma/immune cell interaction
  - Mechanisms that affect macrophage polarization/plasticity
  - Selective inhibition of Pattern Recognition Receptors
  - Inhibition of lymphocyte activation and cell migration
  - Modulation of co-stimulation pathways
  - Targets implicated in immunometabolism
- **Barrier Function/Tissue Repair**
  - Novel insights into epithelial biology and tissue repair mechanisms that promote mucosal healing to maintain and repair the epithelial barrier
  - Novel approaches to inhibiting aberrant ECM deposition and tissue remodeling
  - Pannus/fibroblast biology and novel approaches to modulating the synovial pannus
- **IL-17/IL-23 Pathway**
  - Inhibition of Th17 differentiation/regulation and IL-17 production
  - Blocking of IL-17 and IL-23 ligand/receptor interactions
  - Inhibition of IL-17 and IL-23 mediated signaling and cell migration
  - Novel MoAs as oral therapies for psoriasis
- **Novel Biology**
  - Immune system modulation by the microbiome
  - Novel target pairs that can be engaged/modulated simultaneously for therapeutic intervention
- **Fibrosis**
  - Molecules and/or novel targets for the potential treatment of systemic sclerosis and idiopathic pulmonary fibrosis
  - Identifications of novel mechanisms of action involved in fibrosis

### Tools and technologies

- **Novel preclinical autoimmune disease models**
- **Unique and predictive biomarkers of autoimmune disease progression and response to therapy, including biomarkers that can identify or stratify subsets of autoimmune disease patients**
- **Platforms for early identification of patients with fibrotic conditions and monitoring of disease progression**
- **Access to well annotated human patient samples**
- **Novel approaches to delivering therapeutics with cellular and/or tissue specificity in particular gut-restricted delivery**
- **Engineered cell therapies**
Oncology

AbbVie and partners of AbbVie have successfully developed now-marketed first-in-class cancer medicines targeting BTK, BCL2, and CS1. A rapidly growing pipeline encompasses product candidates in preclinical and clinical research that include small molecules, antibodies, novel biologics formats such as bispecific T-cell engagers, antibody-drug conjugates and other experimental molecules.

The goal of the AbbVie oncology strategy is to advance drug candidates that hold the potential to transform standard of care for patients with severe and life-threatening diseases. AbbVie seeks to further expand its portfolio in strategically prioritized areas with externally sourced compounds from academic and industrial collaborators.

**Targets, molecules and biology**

- Innovative product candidates in clinical development for hematological malignancies and solid tumors
- Preclinical and early clinical-stage molecules that have not yet demonstrated clinical proof-of-concept with the potential to become first-in-class medicines, or have clearly demonstrable and differentiating best-in-class attributes
- Strategically prioritized areas of cancer biology:
  - Areas of existing and emerging strengths
  - Drug candidates targeting regulation of cell death and immune cell signaling, molecules for T-cell re-direction and other next-generation immuno-oncology compounds, cell-based therapies with emphasis on off-the-shelf solutions, molecules enabling targeted protein degradation and other targeted therapies

**Tools and technologies**

- Technology platforms that enable new target discovery
- Technologies that enable development of next generations of
  - Targeted small molecules (including technologies to enable targeting of hard-to-drug proteins)
  - Novel targeted biologics
  - New T-cell-engaging and T-cell receptor-based approaches
- Access to annotated tumor samples and to fresh tumor samples
AbbVie Neuroscience is developing a portfolio of differentiated products in neurodegenerative diseases such as Alzheimer’s disease, Parkinson’s disease and multiple sclerosis.

Our current innovative research focuses on developing therapies for neurodegenerative diseases by targeting mechanisms that prevent neurodegeneration and promote neuroprotection. We are interested in drug targets, early and late stage assets, biomarkers and technologies. For assets, we prioritize first-in-class, or those that are clearly differentiated as superior vs. existing/emerging therapies.

**Targets, molecules and biology**
- Alzheimer’s disease
  - Tau biology
  - Mechanisms/targets underlying proteostasis
  - Neuroimmunology, with emphasis on microglial biology
  - Synaptic resilience and function
- Parkinson’s disease
  - α-synuclein-based approaches
  - Mechanisms/targets underlying proteostasis
  - Mitochondrial dysfunction
- Diseases that share proteinopathy mechanisms with AD and PD such as tauopathies [e.g., progressive supranuclear palsy (PSP)], synucleinopathies [e.g., dementia with Lewy bodies (DLB)] and TDP43 [e.g., amyotrophic lateral sclerosis (ALS), frontotemporal dementia (FTD) etc.]
- Multiple sclerosis
  - Novel neuro-regeneration/neuroprotection approaches and assets

**Tools and technologies**
- Disease-specific, diagnostic, prognostic and progression biomarkers, along with validated assays for assessing serum and cerebrospinal fluid marker levels
- Imaging tools, ligands and related techniques that allow estimation of target engagement in the brain
- Wearable technologies that can enable better assessment of relevant parameters in clinical trials
- Technologies that facilitate/enhance transfer of biologics across the blood-brain barrier
- Novel preclinical disease models relevant to neurodegenerative diseases
Target Enabling Science and Technology

Target Enabling Science & Technology is a core research organization focused on target discovery/validation and small molecule lead discovery and characterization. We are dedicated to the application of new approaches that enable and advance AbbVie’s project portfolio across all Therapeutic Areas.

Our multi-disciplinary approach integrates biology, proteomics, functional genomics, human genetics and cell-based phenotypic screening for target discovery/validation and traditional high-throughput screening with fragment-based drug discovery for lead discovery. Our Genomics Research Center integrates human genetics research with Discovery capabilities to evaluate the biological impact of genetic and genomic variants to enable both forward and reverse translational research. We are seeking innovative technologies and their application, as well as analytical solutions to enhance our core capabilities. Selected areas of interest include:

New genomic & proteomic profiling technologies
• Next generation DNA/RNA sequencing methods and application
  – Single-cell sequencing
  – Long-read sequencing
• Cell-free DNA analysis
• T-Cell receptor repertoire analysis
• High throughput targeted gene expression
• Novel applications of mass spectrometry based protein detection and quantitation

Novel technology for functionalizing the genome
• New gene editing technology and viral expression systems
• Approaches to analyze chromatin state and conformation
• Methods to determine functional role of HLA variants
• Structural and functional evaluation of genetic variation

State of the art data analysis methodology
• Approaches to de novo genome assembly
• Methods for evaluating circulating DNA methylation changes and relation to disease
• Data curation, annotation and evaluation of large genetic data sets
• Novel storage and compression algorithms

Innovative small molecule screening and assay technology
• Label-free assay technologies
• New approaches to high throughput kinome and membrane protein activity profiling
• New 1D and 2D NMR methods for drug discovery
• Novel approaches to fragment-based drug discovery
• Multi-parametric cellular analysis for screening and mechanistic studies
• High throughput flow cytometry screening approaches
• New intracellular target engagement technology
• Disease relevant cell-based models for HTS (e.g., iPSC, organoids)

Cutting-edge methods in protein sciences
• Cell-free and other technologies to express and purify challenging proteins and protein complexes
• Novel methods for site-specific protein labeling
We are committed to developing a broad portfolio of highly effective, differentiated biologic therapies that address medical needs across a spectrum of disease areas.

Technologies for the discovery, engineering and optimization of protein therapeutics
- Enabling technology platform for targeting complex membrane proteins (e.g., GPCRs or ion channels)
- Innovative automation solutions for antibody generation, from B/hybridoma cell cloning to protein production
- Novel immunogenicity assessment tools
- Predictive bioinformatics tools for protein therapeutics design and engineering
- Modulation of effector function biology
- Rapid and miniaturized screening techniques for optimizing protein stability and drug-like properties
- High-throughput systems for protein expression, characterization and stability

Innovative technologies for drug delivery and distribution
- Local and sustained release of protein therapeutics
- Technologies to enable targeted localization/activation of protein therapeutics in diseased tissues
- Alternative routes of delivery (e.g., oral, dermal, topical)
- Delivery across the blood-brain barrier and related, predictive model systems
- Elimination of transplacental exposure
- Intracellular delivery of protein therapeutics

Next-generation protein therapeutics technologies
- Multispecific antibody platform technologies
- Targeted fusion protein technology
AbbVie Chemistry has a notable track record of delivering high quality tools, leads, candidate molecules and drugs for all disease areas aligned with our Strategic Pillars of Focus. This is a testament to the broad medicinal chemistry expertise across AbbVie Global Chemistry, coupled with strategic investments and expertise in technologies such as structure and fragment based drug design, high throughput chemistry, structural biology, protein mass spectrometry and chemical biology. We are interested in the following areas to enhance our internal capabilities:

Innovative technologies for drug discovery and development
- New SAR design tools
- Cryo-electron microscopy/microEM
- Small angle x-ray scattering (SAXS)
- Closed-loop synthesis-bioassay
- Drug-device combination technologies
- Bioanalysis of the immunopeptidome
- Ultra-sensitive bioanalytical technologies
- Novel applications of chemical biology

Best-in-class innovative synthesis strategies and molecules
- Novel synthetic methodologies (e.g., C-H activation, photoredox chemistry)
- Novel monomers/building blocks
- ADC linker technologies
- Alternate therapeutic modalities (e.g., peptidomimetics, PROTACs).
- Small molecule regulators of RNA function
- E3 ligase binders
- Novel bioorthogonal reactions
- High throughput experimentation for synthesis

Molecules from the following categories are not of interest:
- Generics
- Biosimilars
- Anti-mitotic mechanisms
- Anti-metastatic mechanisms
- Non-targeted cytotoxic mechanisms
- (Neo-) angiogenic mechanisms
- (Anti-) hormonal therapy
- Natural product extracts
- Chemo-, radio-sensitizers
- Precancerous lesions
- Cancer supportive/palliative care
- Inflammatory pain
- Irritable Bowel Syndrome (IBS-C, IBS-D, IBS-C/D)