

INNOVATION
COLLABORATION
LILLY COMMUNICATION
FOR EXPLORATION
BETTER SCIENCE



Lilly



THE DISCOVERY OF NEW
MEDICINES DEPENDS ON
INNOVATIVE PARTNERSHIPS.

Our ultimate goal is to efficiently and creatively connect resources and expertise. Collaborating with us means gaining access to a Lilly development team with decades of experience dedicated to exploring every avenue necessary.

WE NEVER STOP SEARCHING FOR:

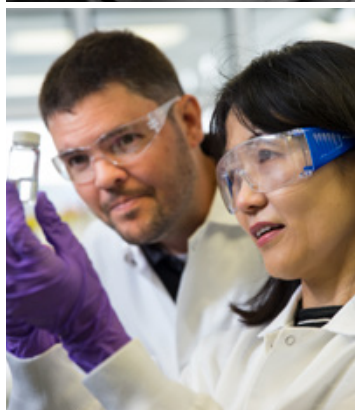
- Medicines that are novel, tailored and differentiated from the current standard of care
- New ways to address unmet medical needs
- Treatments, therapies, technologies and devices that generate better outcomes for payers, providers, prescribers and patients

And it's all done with a true sense of urgency, ensuring our medicines reach patients as soon as possible.

Information about our areas of greatest interest can be found in the pages that follow.

IMMUNOLOGY

The immunology platform's mission is to address unmet medical needs with best-in-disease or best-in-class medicines and to deliver unparalleled customer experiences.



Our focus is on small molecule and biologics in the following indications:

INDICATIONS IN SCOPE:

- Rheumatoid arthritis
- Psoriasis
- Systemic lupus erythematosus
- Crohn's disease
- Ulcerative colitis
- Ankylosing spondylitis
- Psoriatic arthritis
- Lupus nephritis
- Atopic dermatitis

TECHNOLOGIES IN SCOPE:

- Interested in small molecule NMEs with biologic efficacy and no increased safety risk
- Antibodies that have a durable MOA with a greatly improved clinical efficacy over standard of care

OUT OF SCOPE:

- Biosimilars

ONCOLOGY

At Lilly Oncology, we seek first- and best-in-class foundational agents and regimens which transform outcomes.



Our greatest interest lies in novel assets in the following areas:

- Breakthrough immuno-oncology approaches focused on targeting neoantigens, T-cell redirection, novel checkpoint agents and disruptive immunotherapy targets/platforms
- Approaches targeting the interplay between the tumor and microenvironment, including immunosuppressive mechanisms and myeloid biology
- Harnessing synthetic lethality through targeted protein degradation and other therapeutic approaches
- Novel approaches targeting tumor dependencies and resistance in molecularly enriched populations

EMERGING TECHNOLOGY AND INNOVATION

The Emerging Technology and Innovation team complements other efforts by providing distinct geographic coverage plus access to novel mechanisms and therapeutic modalities. We specialize in connecting partners to Lilly expertise and deploying flexible funding models. The team is comprised of experienced drug discovery and development scientists based in Cambridge, Mass., Indianapolis, Ind., and Europe. New opportunities of interest include pan-therapeutic and adjacent disease areas (as well as added support for Lilly's core therapeutic areas).



Areas of greatest interest:

- Novel biologic pathways (examples include: microRNA, exosome biology, epigenetics)
- Adjacent disease areas (e.g. fibrosis, kidney disease, vascular disease, other disorders of immune function, broader neurologic conditions)
- Disruptive technologies and new modalities, including
 - oligonucleotides, gene editing, gene therapy, microbiome, cell-based approaches, plus novel approaches to “drug” difficult targets, such as control of protein degradation and secretion
- Alternative funding and partnering models—access to funding via Lilly’s strategic LP position in several world class VC funds is emphasized (including early development funding with access to Lilly’s Chorus development team); other options include direct equity investments, “build-to-buy” approaches and “shared-risk” drug discovery relationships



NEUROSCIENCE



Our greatest interests include:

NEURODEGENERATIVE DISEASES:

- Novel therapeutic approaches for disease modification in neurodegenerative diseases, especially Alzheimer's disease and Parkinson's disease
- Novel treatments that address the symptoms of neurodegenerative disease including psychosis, cognitive impairment, agitation, mood and sleep
- Blood-based biomarkers for early detection of amyloid-positive dementia
- Wearable technologies and smartphone applications for early detection of Alzheimer's disease initiation and progression

PAIN AND MIGRAINE:

- Novel approaches to treat chronic neuropathic, inflammatory or visceral pain
- Migraine prophylaxis

DIABETES AND DIABETES-RELATED COMPLICATIONS

Our greatest interests include:

INSULINS AND GLUCAGON:

- Next-generation insulins (basal, ultra-rapid, high-concentration, thermostable)
- Glucose-responsive/sensing insulin
- Soluble glucagon

INCRETINS:

- Best-in-class GLP-1 mimetics and combinations

Technology/Devices/ Formulations:

- Artificial pancreas
- Oral peptide/protein delivery platforms and therapeutics
- Breakthrough diabetes device technology



DIABETES COMPLICATIONS AND NOVEL DISEASE MODIFIERS:

Diabetes modification and durability of response

- Pathways and mechanisms that impact breakthrough weight loss (>10%), beta cell health and/or insulin sensitization

CARDIOVASCULAR:

Chronic Heart Failure and Diabetic Dyslipidemia

- Novel mechanisms used in conjunction with existing standard of care
- Agents that have beneficial effects on multiple lipid/vascular risk factors such as triglycerides, LDL-C and Lp(a)

Diabetic kidney disease

- Agents which impact inflammation, endothelial dysfunction, remodeling and/or tissue metabolism

NAFLD/NASH

- Pathways at the intersection of NAFLD/NASH and diabetes, including lipid metabolism, insulin sensitization and weight loss



DEVICES, DELIVERY AND CONNECTED SYSTEMS



Our greatest interests lie in device, delivery and connected solutions for Diabetes, Alzheimer's, Immunology, Pain and Oncology with a specific focus in the following areas:

- Connected delivery devices, novel biosensing technologies, or digital biomarker platforms and next-generation miniaturized electronics
- Analytics platforms, including novel algorithms and deep learning techniques, for the development and optimization of actionable insights for personalized disease management
- HCP-focused platforms with EMR workflow integration for optimizing therapy management of individual patients and populations
- High volume, high viscosity, multi-pharmacology or oral peptide delivery technologies



BIOTECHNOLOGY DISCOVERY RESEARCH



Our greatest interests lie in the following areas:

- Therapeutic, fully human antibody/peptide discovery and screening platforms: in vitro and in vivo
- Protein engineering/ expression/production technologies, including alternative scaffolds (multi-specifics, macrocyclics), time-extension and non-natural amino acids
- Biotherapeutic formulation/ delivery platforms, including oral, blood brain barrier and nanotechnology

LILLY INTERNATIONAL: GEOGRAPHIC FOCUS

The Lilly International Advancing Innovation team is driven to identify, evaluate and execute opportunities with novel molecular targets and MOAs, potential first-in-class and best-in-class in-licensing and/or co-development of preclinical, early clinical development stage, and strategic partnership opportunities. The team pursues innovation globally, especially Asia and Asia-Pacific regions, targeting Lilly's core therapeutic areas and works seamlessly with therapeutic area specialists in discovery and clinical organizations located globally. The team also pursues strategic partnerships for out-licensing of Lilly portfolio assets.



Areas of greatest interest:

ONCOLOGY:

Immuno-oncology approaches, tumor metabolism pathway modulators, novel approaches targeting tumor dependencies in molecularly enriched populations and modulating epigenetic pathways

IMMUNOLOGY:

Rheumatoid arthritis, psoriasis, systemic lupus erythematosus, Crohn's disease, ulcerative colitis, ankylosing spondylitis, psoriatic arthritis, lupus nephritis and atopic dermatitis

NEUROSCIENCE:

- Neurodegenerative diseases: Novel approaches that affect disease progression or modification and/or address major symptoms of the disease
- Pain and migraine

DIABETES:

Next-generation insulins, insulin sensitizers, beta-cell health improvement, body weight loss, diabetic kidney disease, heart failure, diabetic dyslipidemia, NAFLD/NASH

DISCOVERY CHEMISTRY RESEARCH & TECHNOLOGIES

Discovery Chemistry Research & Technologies (DCR&T) invents and discovers new molecules that can become medicines. These molecules must have the right characteristics to test innovative therapeutic hypotheses and differentiate from those of our competitors. To achieve this, DCR&T works with all therapeutic areas to choose the right biological targets whose manipulation may lead to positive patient outcomes. DCR&T brings together many different scientific disciplines to design, prepare and select the best molecular scaffolds for optimization, with the ultimate goal of delivering a single molecule that has the best combination of attributes to test in the clinic.

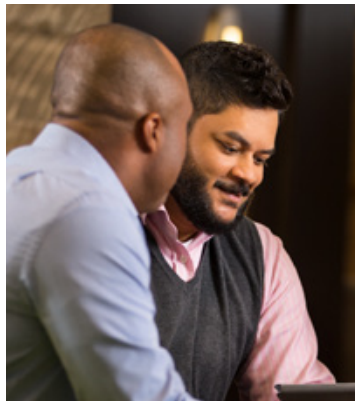


Our greatest interests lie in the following areas:

- Cell imaging and analytical biosensor platforms for elucidating MOA
- CRISPR Platforms [CRISPR libraries, screening platforms, genome editing in cell culture and animal (knockout/knock-in)]
- Chemoproteomics, including artificial intelligence/machine learning for novel drug discovery
- Platforms for measuring covalent drug-target occupancy and drug (ligand) binding residence times
- Novel biological targets/assays, including human disease relevant cell based in vitro assays

CHORUS

Since its creation in 2002, Chorus has supported more than 70 internal Lilly and external-sponsored programs in various clinical indications, some of which have progressed to Phase III and as marketed products. The Chorus model results in time and cost savings compared to average pharmaceutical R&D metrics.



The Chorus team:

- Specializes in drug development from candidate selection to clinical proof-of-concept (PoC)
- Focuses only on those experiments that can provide quick go/no go decisions and create strong PoC data packages
- Pulls risk forward and increases marketability of the development program by implementing development work that drives the largest change in technical probability of success and greatest value in the shortest time
- Operates with a small, cross functional, experienced and co-located team, and has global clinical development and regulatory experience for both small molecules and biologics

ELANCO ANIMAL HEALTH EXTERNAL INNOVATION

Since our start at Eli Lilly and Company in 1954, Elanco has been working to empower our customers, veterinarians and food producers to address these global challenges and advance a vision of food and companionship, enriching life. We strive to develop and deliver products safe for consumers, animals and the environment through innovation and a shared vision to enrich the lives of people worldwide.



Elanco's partnership engine provides rapid evaluation of external opportunities for both companion and food animals.

PARTNERING WITH ELANCO:

- Global presence in food animal and companion animal markets
 - Significant sales and marketing capabilities in health and nutrition
 - Extensive R&D capabilities with an innovative pipeline and approach
- Research areas of interest include:
 - Infectious disease and parasites
 - Alternative to antibiotics
 - Animal nutritional health
 - Dermatology
 - Pain and osteoarthritis disease modifying drugs
 - Metabolic (diabetes and cardiovascular)
 - Chronic kidney disease and inflammatory bowel disease

TRANSLATIONAL & COMPARATIVE MEDICAL RESEARCH (TCMR)

TCMR collaborates with external scientific organizations (biotechs, startups, universities, government agencies) to de-risk early human health drug discovery packages by applying proof-of-concept studies from the naturally occurring diseases in companion animals that parallel human diseases.



TCMR has:

- An extensive full-service R&D unit within Elanco, a division of Eli Lilly and Company
- In-house veterinary scientists, clinical specialists and operational experts
- Specialization in pre-clinical, drug development with a focus on informing go/no go decisions and creating strong proof-of-concept data packages
- Specialization in the design and implementation of companion animal studies in diseases with parallel human diseases, such as, but not limited to:
 - Oncology
 - Osteoarthritis
 - Gastroenterology
 - Endocrine
 - Pain
 - Autoimmune
 - Heart failure
 - Neurology

High-quality safety and efficacy data from companion animals with naturally occurring diseases that parallel human diseases can increase the marketability of proof-of-concept data packages, particularly for target diseases with high failure rates in Phase II and III clinical trials.

“ We continue to build a sustainable R&D program by integrating our internal efforts with broad access to external innovation. ”

Jan Lundberg Ph.D.

Executive Vice President, Science and Technology
President, Lilly Research Laboratories

HAVE AN IDEA?

**COLLABORATE
WITH US.**

▶ [LILLY.COM/PARTNERS](https://www.lilly.com/partners)

Lilly