



# Partnering with Janssen's Discovery Sciences

## Together, we can make a difference

At Janssen R&D we believe the discovery of transformational medicines requires multidisciplinary approaches and contributions by experts throughout the health sciences research community.

### What is Discovery Sciences?

Discovery Sciences is a center of excellence focused on small-molecule drug discovery at Janssen R&D. Our scientists, together with a deep network of partners and collaborators, perform cutting-edge research from target & lead discovery through pre-clinical safety assessment to discover and develop transformational medicines. Every day we use our deep scientific expertise in drug discovery and development and our integrated suite of enabling technologies, platforms and tools to advance the research portfolio of Janssen's five Therapeutic Areas: Cardiovascular & Metabolism, Immunology, Infectious Diseases & Vaccines, Neuroscience and Oncology.

### Why partner with Janssen Discovery Sciences?

Discovery Sciences acknowledges the value that partnering provides in the fight to develop the next generation of transformational medicines for our patients. We have a track record of success in identifying and validating novel targets, generating tractable leads against those targets and advancing optimized leads through clinical development to launch. We continue to invest in our world-class scientific talent and state-of-the-art discovery capabilities and tools (see backpage for detailed listing). Driven by scientific excellence we will help you to transform your innovation to practice and accelerate the realization of its value and increasing its probability of success. We are experienced in establishing flexible, uniquely structured partnership models, including public-private partnerships, precompetitive consortia, collaborative discovery programs and risk-/cost-sharing relationships, that will make the most out of your innovation in developing medicines for patients.

### Discovery Sciences

Driven by scientific excellence, innovation and collaboration

### Where are we located?

Discovery Sciences' scientific and technical resources are conveniently distributed across our three major R&D hubs in Beerse, Belgium; Spring House, PA, USA and La Jolla, CA, USA. Our satellite facilities include Val Du Reuil, France; Toledo, Spain and Shanghai, China. These resources support both internal and external partners and connect regional collaborators to an extensive global network of capabilities. Our J&J Innovation Centers are located in London, Boston California and Shanghai which have a high concentration of bioscience innovation, including academia and biotech centers.

The Discovery Sciences team is aligned with the mission of the J&J Innovation Centers, "to identify and foster emerging innovation to drive growth for the Johnson & Johnson pharmaceutical, consumer, and medical devices and diagnostics businesses," and have been engaging in discovery partnerships by providing our collaborators with access to Janssen's state-of-the-art technologies, tools and expertise toward advancing common strategic and scientific interests.

### How to partner with Janssen Discovery Sciences?

Partnering with Discovery Sciences is easy! Our External Innovation team (see backpage for contact information) serves as the portal through which you are connected to our extensive suite of expertise, capabilities and enabling technologies.



# DISCOVERY SCIENCES

## Lead Discovery

- Screening
- Molecular & Cellular Pharmacology
- Compound Logistics
- Computational Chemistry
- Lead Generation Chemistry
- Analytical Chemistry

## Preclinical Development & Safety

- Toxicology/Pathology Laboratory Animal Medicine (TPL)
- Pharmacokinetics, Metabolism and Dynamics (PDM)
- Drug Development expertise & global regulatory submissions

## Computational Sciences

- Bioinformatics
- High performance computing
- Lab-based 'big data' analytics

## Core Business Services

- Strategy & Business Intelligence
- Planning & Resource management
- BioBank
- Quality & Compliance management
- Technology Systems
- Knowledge management

## Emerging Science

- Exploratory Enabling Platform
- Early Cross-TA Biology

## External Innovation

- Access emerging innovation and connect Discovery Sciences expertise and capabilities with partner needs

### Lead Discovery

The Lead Discovery team is responsible for the creation of pharmacologically relevant bioassays and exploiting these to identify small-molecule lead compounds for a variety of therapeutically important targets and pathways. An integral expertise is large-scale high throughput screening of >700K proprietary Janssen compounds utilizing both activity and biophysical readouts. Using sophisticated *in silico* structure-based design, state-of-the-art chemistry, molecular and cellular pharmacology analysis and other techniques, the group also helps in the optimization of these leads into clinical quality agents.

### Preclinical Development & Safety (PD&S)

The PD&S team works closely with disease area-focused chemistry and biology teams to refine and evaluate lead molecules for entry into clinical testing. A battery of pharmacokinetic, dynamic, metabolic, toxicological and pathology assessments are used to identify the best molecules for human testing. The PD&S group supports projects from early discovery through development and is responsible for preparing documents used in regulatory filings. Expertise in investigative and mechanistic safety is available to address non-standard project compound issues and to identify and validate new innovative screening essays.

### Emerging Science

The Emerging Science team is exploring and validating new areas of biology of significance to drug discovery, as well as identifying new pharmacological tools to enable more efficient development of novel therapeutics of the future. The group works closely with external partners and internal stakeholders to investigate increasingly complex molecular and *in vitro* models of disease using innovative readouts, and to evaluate novel platforms for the modulation of therapeutically relevant targets.

### Computational Sciences

Computational Sciences provides expertise in computational/systems biology and big data analytics to support all aspects of drug discovery and development. The team provides a variety of complementary computational methodologies to extract meaningful and actionable information from biomedical data to facilitate the identification and validation of new targets in partnership with disease area experts in the therapeutic area discovery groups. The team is heavily engaged in deploying bioinformatics, machine learning and cutting-edge computational modeling and simulations techniques to advance our understanding of disease.

The *in silico* activities are complemented and experimentally validated by wet lab capabilities within the team, utilizing stem cell, molecular genetics, gene editing, next generation sequencing and a variety of '-omics' technologies.

### Core Business Services

Core Business Services allows the scientists within Discovery Sciences to focus on the science by providing key business support including lean, efficient and effective business processes and easy access to information. This dedicated team enables Janssen's discovery engine to run at optimal efficiency.

### External Innovation

The External Innovation team identifies, attracts and forms productive partnerships with leading external innovators to access, share and jointly develop enabling technologies and platforms across the small-molecule drug discovery space.

#### Contact Information

Christopher Flores, Ph.D.  
Global Head, External Innovation  
Welsh & McKean Roads  
Spring House, PA 19477  
T 215 628 7011  
F 215 540 4614  
E CFLORES2@ITS.JNJ.COM

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