

sanofi



# Innovation through Collaboration

R&D Scientific Relations & Initiatives

March 2024





sanofi



We chase  
the *miracles* of science  
to *improve* people's  
lives





We operate in  
**90**  
countries



There are  
**91,000**  
Sanofi  
worldwide



We work on  
**59**  
manufacturing  
sites



We have  
**20**  
R&D sites



Immunology and Cell Biology Lab,  
Cambridge, Massachusetts

sanofi

- 

## Emerging Leadership in Immunology

*Building on  
a strong foundation*

Our experience in treating inflammatory conditions is built on a deep understanding of disease, from its dynamic in a single immune cell to its impact on a patient's life. By following the science, we're accelerating our ambitious programs and building a rich pipeline of potential first- and best-in-class medicines.

# Therapeutic Areas

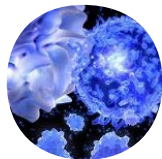
We're determined to find answers for patients. Our deep expertise in disease biology helps us select the most promising tool for each target, while our unique technology toolkit allows us to develop vaccines, drugs, biologics, and genomic medicines. We take smart risks, learn from failure, and master new techniques to overcome barriers and accelerate progress.

Discover more



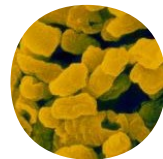
**sanofi**

## Our R&D Teams



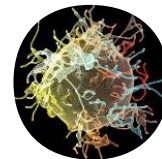
### *Immunology & Inflammation*

Rebalancing immune responses that drive, chronic diseases



### *Vaccines*

Innovation to protect against disease



### *Oncology*

Tackling difficult-to-treat cancers, such as breast, lung, and blood



### *Neurology*

Tackling inflammation and crossing barriers to protect or repair the nervous system



### *Rare Diseases*

Forging new paths to treatment, with and for patient communities



### *Rare Blood Disorders*

Groundbreaking science to transform the standard of care

# Pioneering Technology Platforms

Industry-leading technology platforms give our R&D teams the tools they need to design pioneering vaccines and therapeutics. These technologies also shed new light on the biology behind many diseases, helping us target the root causes of disease.

80% Biologics  
83% First & Best in Class

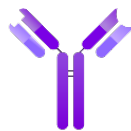
Discover more



sanofi



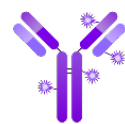
Monoclonal antibodies



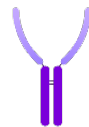
Bispecific antibodies



Trispecific antibodies



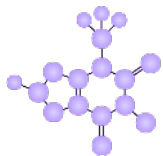
Antibody-drug conjugates



Fusion proteins



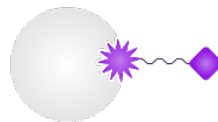
NANOBODY<sup>®</sup> molecules



Small molecule drugs



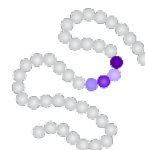
Enzymes



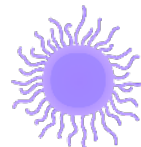
Protein degraders



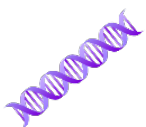
TAILORED COVALENCY<sup>™</sup>



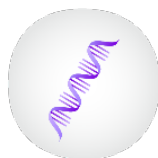
SYNTHORIN<sup>™</sup> molecules



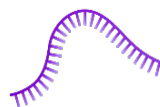
Natural Killer cells



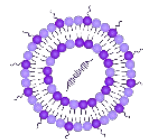
Gene therapy



mRNA



siRNA



Lipid nanoparticles

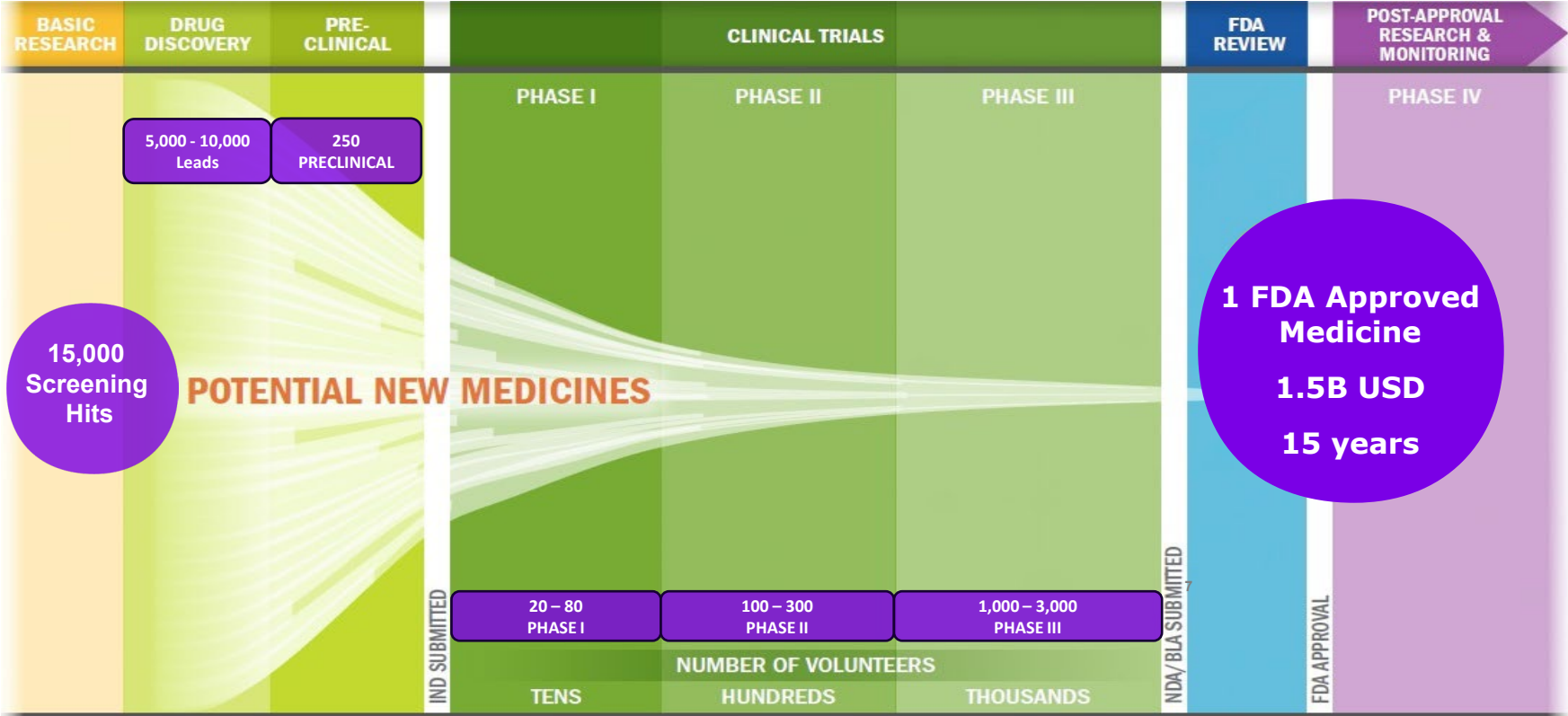


Live-attenuated and inactivated vaccines



Recombinant proteins

# Biopharmaceutical Drug and Development Process



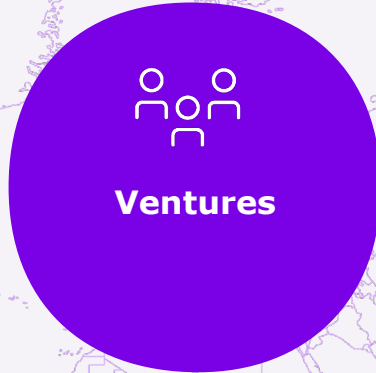
Source: 1. Adapted from Tufts Center for the Study of Drug Development 2. Pharmaceutical Research and Manufacturers of America.  
 Key: IND: Investigational New Drug Application, NDA: New Drug Application, BLA: Biologics License Application

# How Sanofi Partners



**Explore early-stage, cutting-edge science & technology collaborations**

Universities.  
Early start-ups



**Invest in helping to shape new start-ups**

Startups



**Explore later-stage licensing, M&A, partnerships**

Biotech  
Pharma





SRI collaborates & partners with the *innovation ecosystem* to chase the *miracles* of science to *improve* people's lives

## Award Programs



**sanofi**  
iAwards



**sanofi**  
iDEA-iTECH Awards

## Strategic Partnerships



**Stanford**  
Immunology

Universities

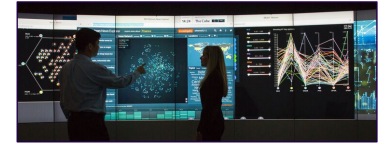
Clinical  
Res Ctrs

Start-  
Ups

## Sanofi Open Innovation Lab



Co-locate in state-of-the-art R&D labs



Connecting collaborators to data

## External Engagement Strategy

Strengthen our networks and  
reputation as a valued partner

Support and attract early and  
diverse talent

Public-Private  
Orgs

Bioclusters

Talent  
programs

# Sanofi Innovation Awards: *iAward*



## Goals

- **Open Innovation** concept-based partnership **with multiple top-tier academic institutions**
- Quickly bring **early stage, value-creating projects** to R&D research pipeline
- Improve **Sanofi visibility** and offer opportunity to build **strong relationships** with **new partners**
- Accelerate **longer-term partnerships**

An  
efficient  
operating  
model

- A **single framework agreement** to join program and **dedicated budget** (up to \$150K per project)
- **Personalized follow-up** (Sanofi scientists, SRI team) to support funded projects
- Ensure alignment with **Sanofi R&D strategy** and **commitment** from external partner(s)
- **Coordinated alignment** with iAwards globally

# iAwards Key Areas of Interest

<https://www.sanofi.com/en/science-and-innovation/research-and-development>



**Immunology  
&  
Inflammation**

**Vaccines**

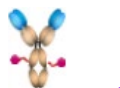
**Neuroscience  
&  
Rare Disease**

**Immuno  
Oncology**

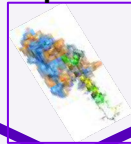
**Precision  
Medicine**

**Genomic  
Medicine**

**Antibody  
Conjugates**



**Peptides**



**Enzymes**



**Fusion  
Proteins**



**Disease  
Models**



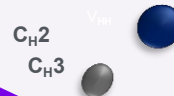
**Multispecific  
Antibodies  
(bi- & tri-specific)**



**Small Molecules**



**Nanobodies®**



**Gene  
Therapy**



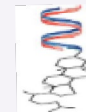
**Gene  
Editing<sup>(2)</sup>**



**mRNA<sup>(3)</sup>**



**siRNA  
Conjugates<sup>(4)</sup>**



# Benefits of iAward Collaboration



Partner and Sanofi complimentary capabilities

Sanofi capabilities

Drug targets/therapeutics



Disease models



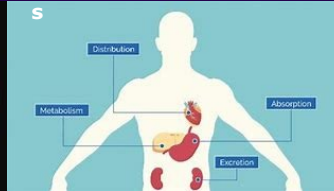
Platform support



Disease mechanisms



Pharmacodynamics/kinetics



Scaling

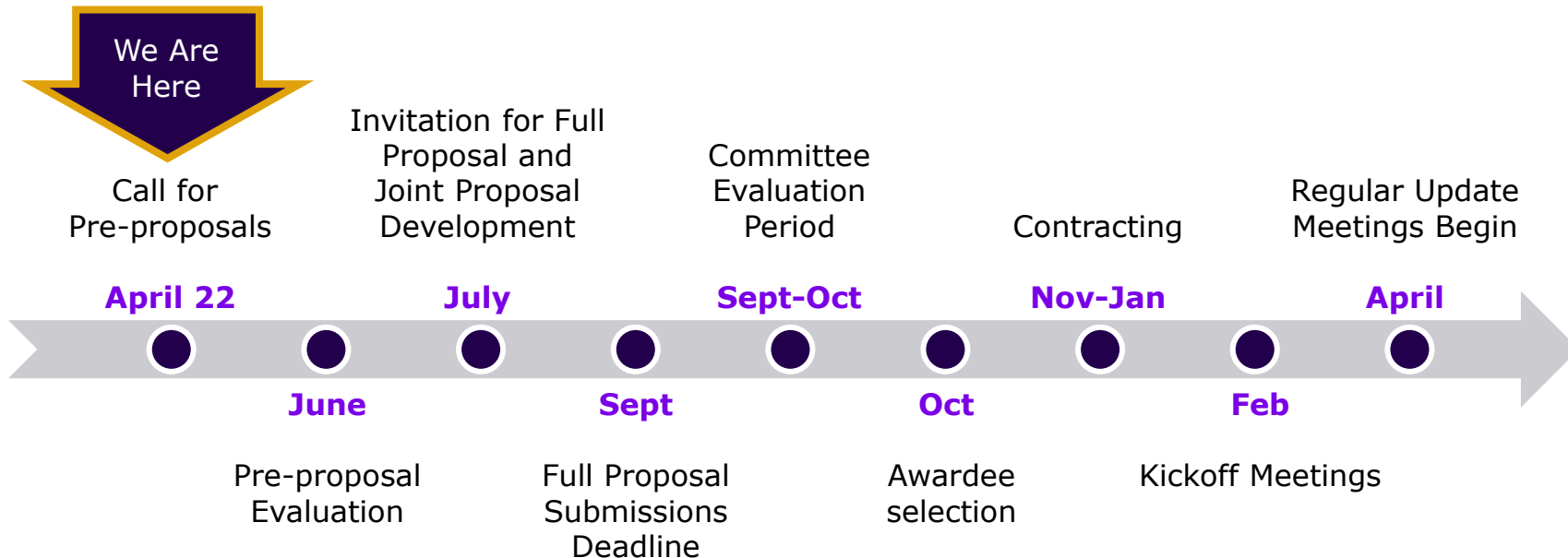
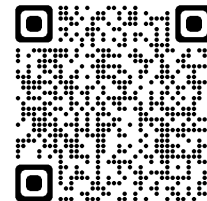


Optimization

Clinical trials



# iAwards Timeline



# Criteria for Conversion of iAwards to SRAs

- ✓ iAwards projects *meet their projected milestones in 10-12 months*
- ✓ Research *aligns with Sanofi R&D Strategy* and continues to be of high interest to R&D
- ✓ *Faculty interest* in continued collaboration

## Examples of scope of SRA research

- Target/pathway validation particularly through pharmacological intervention with tool compounds/antibodies
- High-throughput screening using Sanofi proprietary compound libraries
- Novel targets identification through RNA-Seq, CRISPR based approaches
- Platform development/validation

# Sanofi Innovation Awards: *iDEA-TECH Award*



## Goals

- **Leverage cutting edge digital/data science tools and technologies** from key academic institutions and start-ups
- **Support** existing priority projects at all R&D stages and **de-risk** projects of high potential value to R&D
- Improve **Sanofi visibility** and offer opportunity to build **strong relationships** with **new partners**
- Accelerate **longer-term partnerships**

An  
efficient  
operating  
model

- **Sanofi team invites potential partners** to submit proposal
- **Dedicated budget** (up to \$150K/project)
- **Cross functional teams and personalized follow-up** (Sanofi scientists, SI&SR team) to support funded projects
- Ensure alignment with **Sanofi R&D strategy** and **commitment** from external partner(s)
- Coordinated **alignment between iDEA and iTech initiatives**



•

*Charting a new course  
with digital and data science*

## Seeing is Believing

We're seeing science with new eyes: advanced bioimaging is revealing proteins at work; single-cell sequencing allows us to map every gene in every cell of the body; and smart devices are telling the real story of the patient experience. We gain new insights from this deluge of data using AI, deep learning, and other computational approaches.

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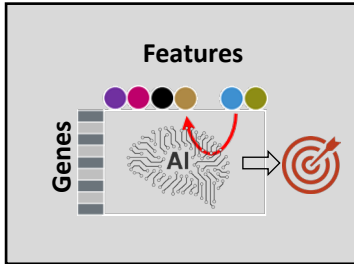


# Advanced Data Analytic Approaches to Accelerate Innovation

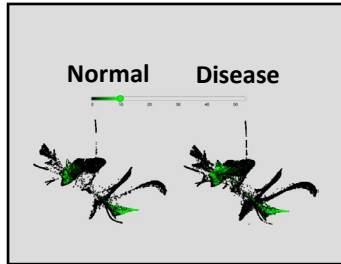
*Improving quality and productivity of our research portfolio*



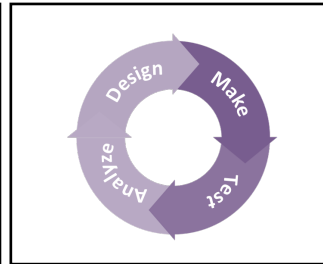
**Target Identification Engine**



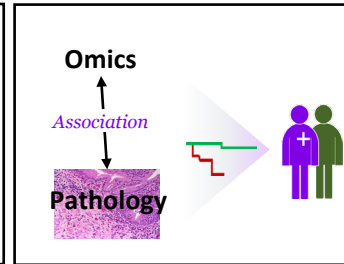
**Single-Cell Disease Maps**



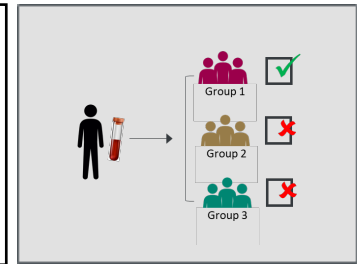
**DMTA based Molecular Design**



**Digital Pathology**



**Disease Endotyping & Patient Stratification**



Reducing timelines and increasing probability of success

# iDEA-TECH Key Areas of Interest

*Snap-shot of past project topic areas*



Predict patient outcomes



Biomarker identification



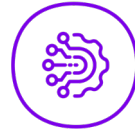
Test new data and analytics solutions



Optimize clinical trial design



Predict and track disease progression and drug effects



High throughput screening tools



Drug target enabling platforms

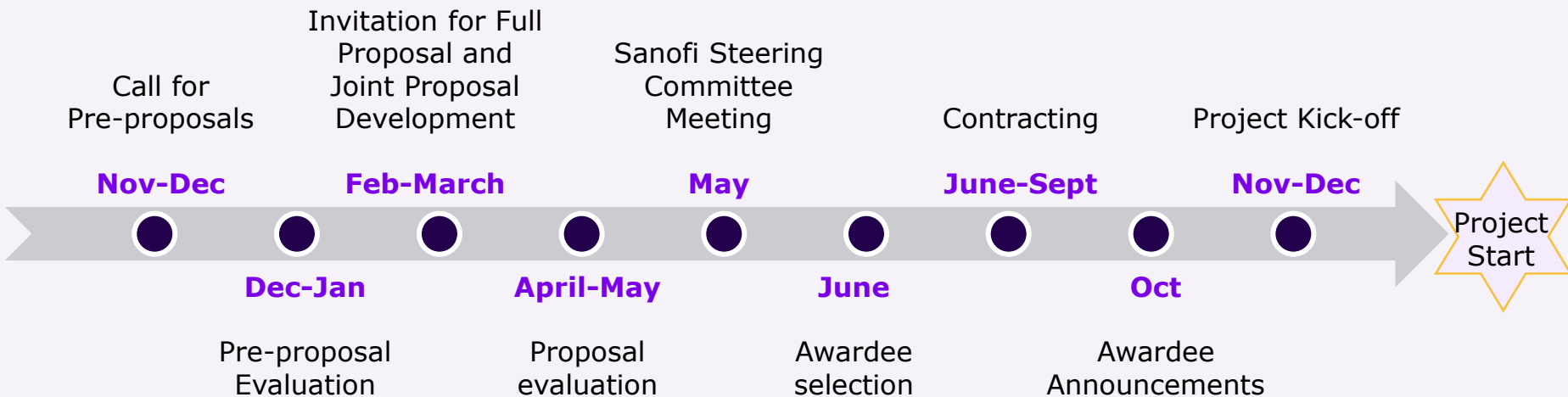
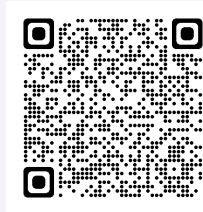


Maximize real world drug value

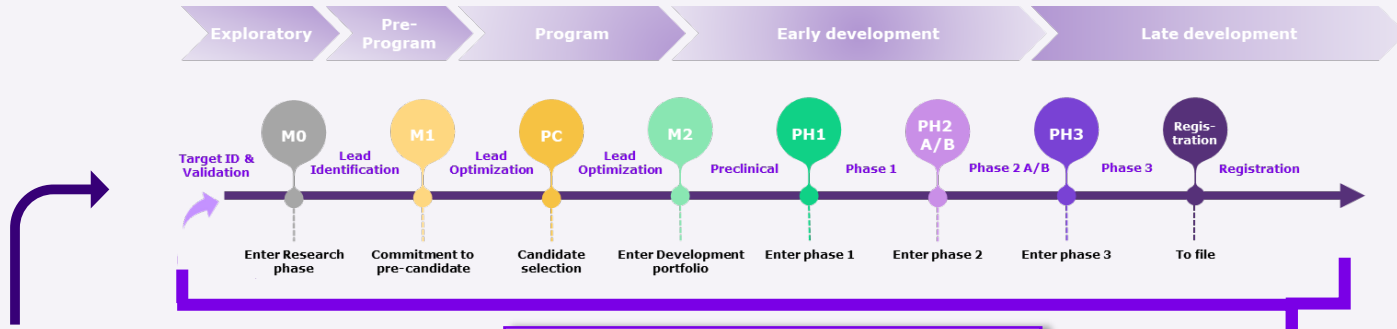


Analytic tools to understand drug mechanism or product quality

# iDEA-TECH Timeline



# Sanofi Innovation Awards: *Comparison*



## iAward

**Scope:** New biology & targets  
 Framework agreement  
 Spring CFP submission cycle

**Eligibility:** Academics

*\*Partnering with Sanofi Therapeutic Area*



## *Similarities*

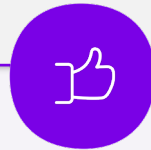
Dedicated scientific project champion

SRI alliance management team

12-month project

\$150K in funding

Two stage submission review



## iDEA-TECH

**Scope:** digital, data science & technology platforms

Hybrid internal/external call  
 Fall CFP submission cycle

**Eligibility:** Academics & Start-ups

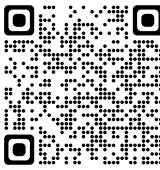
*\*Partnering with Sanofi Platforms*



# Overall value proposition for partners



# Sanofi *Scientific Relations and Initiatives* (SRI) NA Team



**Karen Chandross, PhD**  
Head



**Jamee Downes, MEd**  
*SRI Coordinator,  
Innovation Xchange*



**Lucie  
Rochard, PhD**

*External Ecosystem Strategy  
& Initiatives*



**Wayne  
Rowe, PhD**

*iAwards SRAs,  
Stanford partnership*



**Luke  
Hanlin, PhD**

*iAwards,  
SRI Portfolio & Dashboard,  
KOL Mapping*



**Mary-Clare  
McCorry, PhD**

*iDEA-iTECH awards,  
Open Innovation Lab*



**Laura Chambre,  
PhD**

*Digital AI Awards & SRAs,*



**Oluwatosin  
Sanda, MSC, PMP**

*Portfolio management*



Thank you



**sanofi**