Hélène

AI at Scale in Drug Development:
Fighting the Odds to Accelerate Breakthroughs to Patients

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We chase the miracles of science so you can chase your dreams.
"Having a dream since my diagnosis truly changed my vision of things. Anything is possible."
Céline, 2x World Champion para-surfer, France
Living with secondary progressive multiple sclerosis
Every person's experience is unique and individual experiences may vary. Remember, your healthcare provider is the best source of health-related information and be sure to ask them any questions you may have. Individuals featured were compensated.
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sanofi

We set ourselves bold ambitions

Digital Tomorrow

Horizon 2030

Stronger Together, we aspire to ...

Enable to **halve the time** from discovery to therapy while increasing probability of success

Become **the first bio pharma** company powered **by artificial intelligence at scale**

Our purpose is to deliver **best-in-class and first-in-class** science faster to the patients

Development timelines @ Sanofi: 8.9 years

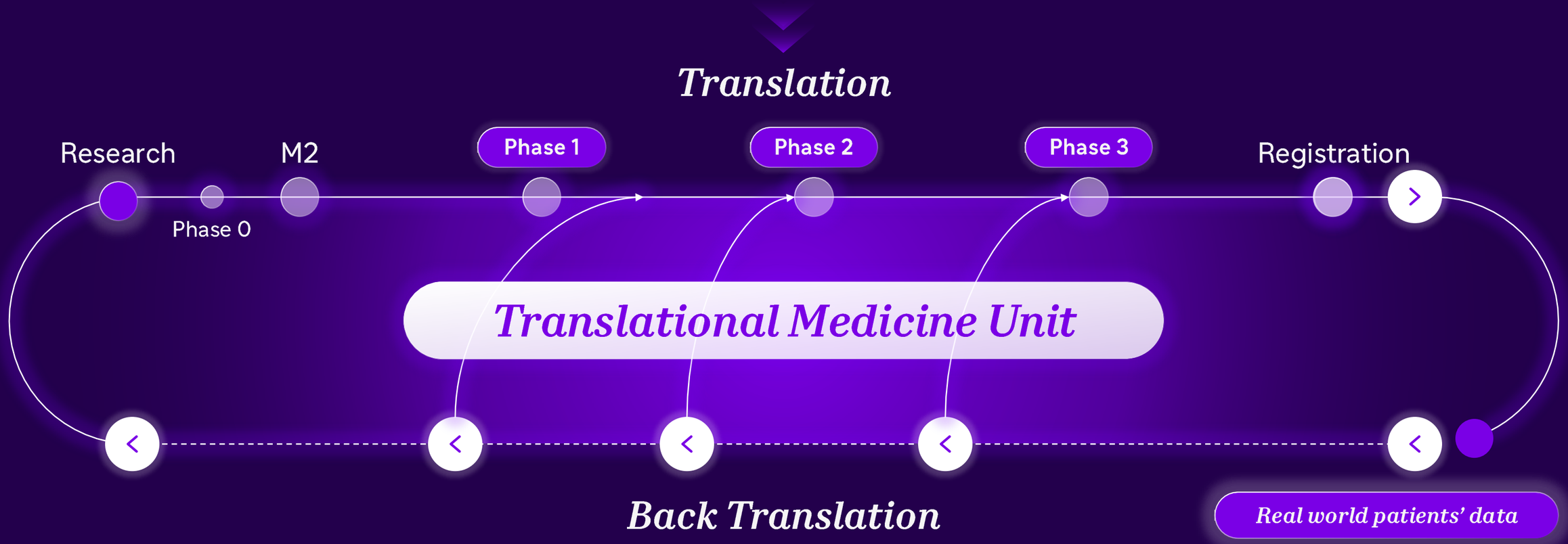
1-year faster than Industry median

Protocol Development > *Study Planning* > *Study Conduct* > *Analysis & Reporting* > *Submissions* > *Post Approval*

Translational Medicine: Harnessing Clinical Trial data along with Real World Data

Saving up to 2 years with in silico trials

Integrated evidence generation to help develop patient-centered drug development strategies



Digital study platform

Break the codes to disrupt a traditionally slow & inefficient process

Protocol Development > *Study Planning* > *Study Conduct* > *Analysis & Reporting* > *Submissions* > *Post Approval*

Protocol designer Agent

Site Selection Agent

Patient Finder Agent

Trial Monitoring Agent

Data Quality Agent

Patient Safety Agent

Statistical Coding Agent

Document Gen. Agent

Medical LLM

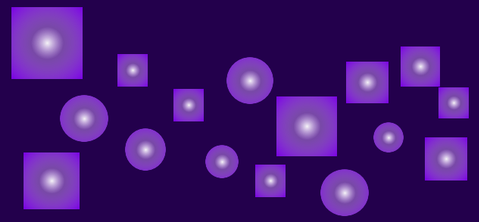
Data Hub

Scientific Knowledge Graph

Analysis and Coding Models

Federated data platform with RWD Data Networks

Protocol Optimization and Digitalization Downstream



Study design & protocol characteristics

- Clinical trials that better match routine medical care
- Reduced patient burden
- Use of local healthcare network
- Patient-centered endpoints
- Disease-specific patient support

Build smarter, patient centric protocols with endpoints patients care most about

Automated protocol & downstream documents

- Auto-generation of protocol
- Downstream generation of documents, case report forms, edit checks, medical/patient review, study report shells, etc.

Reduce time and costs in downstream activities to move novel medicines to patients faster

Patient Finder Agent : Muse

2 months / study accelerated

On patient recruitment with AI-generated omnichannel strategies that target unmet needs in diverse patient populations

How we did it?

Tripartite *partnership with OpenAI and Formation Bio to develop a patient recruitment Product with capabilities to generate Patient-Facing material*

Problems

Suboptimal patient recruitment strategy

Limited recruitment approach to diverse populations

Recruitment delays on priority trials

Patient data review, data validation & Safety Signal Detection

Before
Complex & Manual

Now
Centralized & Automated

+ 20%	***- 50%***	***- 33%***	***From 4 to 2 weeks***
in Periodic Monitoring Visit productivity	Source data verification & coordination activities	In Medical review cycle time planned	for DataBase Lock

Identification and review of potential safety signals for development and post-marketing products

Real-time signal detection capabilities

Rapid Epidemiology

Predictive signal dispositions

Document Gen. Agent (CSR)

From 17 weeks to 5 weeks

Leverage GenAI technology to generate the first draft of Clinical Study Reports (CSR), reducing the process duration from database lock to final CSR

60%

Writing time efficiencies

Reusable assets across R&D & M&S for document creation

Thank You