AI FOR HEALTH

GRAND PALAIS

Unlocking Clinical Trial Efficiency with AI/ML-Powered Phase Duration Estimation

ClinForecast by MedInsights

About MedInsights

Medical expertise meets cutting-edge AI

Our Mission

Reimagining treatment development through patient-centric disease understanding

Our Foundation

Core Expertise

- Systems biology
- Graph theory
- Health economics
- Computational medicine

Proven Technology

NEXUS-Rx platform
Validated in 5+ peer-reviewed publications

Real-World Success

5 completed pharma/biotech implementations

- Cardiometabolism
- Neurometabolism
- Rare diseases

Our Unique Advantage

- **Deep Clinical Partnerships**
- **Privileged Data Access**

KAROLINSKA UNIVERSITY HOSPITAL
Karolinska Institutet
KTH VETENSKAP OCH KONST
ASSISTANCE PUBLIQUE HÔPITAUX DE PARIS
chu saint étienne
INEM Institut Necker Enfants Malades

IPSEN Innovation for patient care
BARIATEK
Hunt Pharma
Reventus Repurposing for Life
BAYER

Nexus-Rx

Our end-to-end discovery framework

Reventus
Repurposing for Life

Identified and repositioned assets in 3 rare mitochondrial disorders with 2 potential best-in-class compounds

KAROLINSKA
UNIVERSITY HOSPITAL

NexusRx and its RAG/LLM architecture creating the largest patient driven Cardiometabolic twin

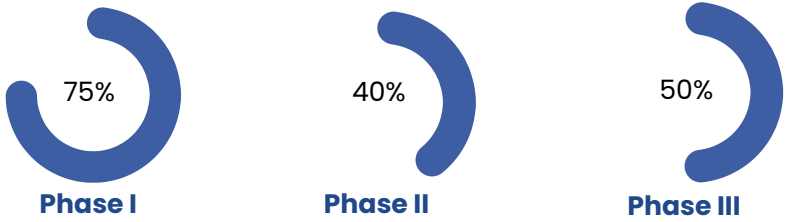
ClinForecast
IPSEN
Reventus
Repurposing for Life

Providing directional clinical trials development recommendation in rare diseases and oncology

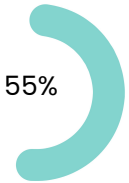
Challenges of clinical trial developmental plans

Multiple aspects impact phase-specific **duration** and **cost**

- **Diverse phenotypic presentations**
- **Rapidly evolving landscape**
- **Differential outcomes**
- **Clinical guidelines**



Trials completed within estimated time frame



Regulatory submission and approval within target time frame

ClinForecast

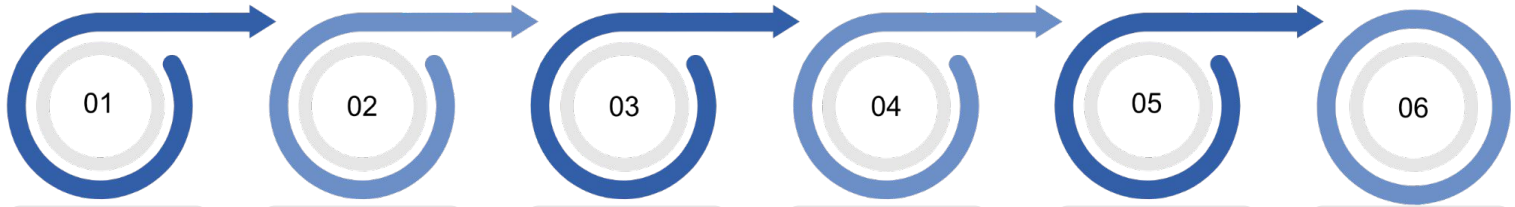
A GenAI and ML/DL-powered pipeline

Technical implementation

- Fine-tuned RAG/LLM
- Entity and content level caching
- Enhanced generation

Key features

- Medical Language Ambiguity
- Complex data and homogenization
- Ontology and classification
- Scale, efficiency & explainability



ClinForecast

A GenAI and ML/DL-powered pipeline

Clinical development plan : temporal and predictive outcome

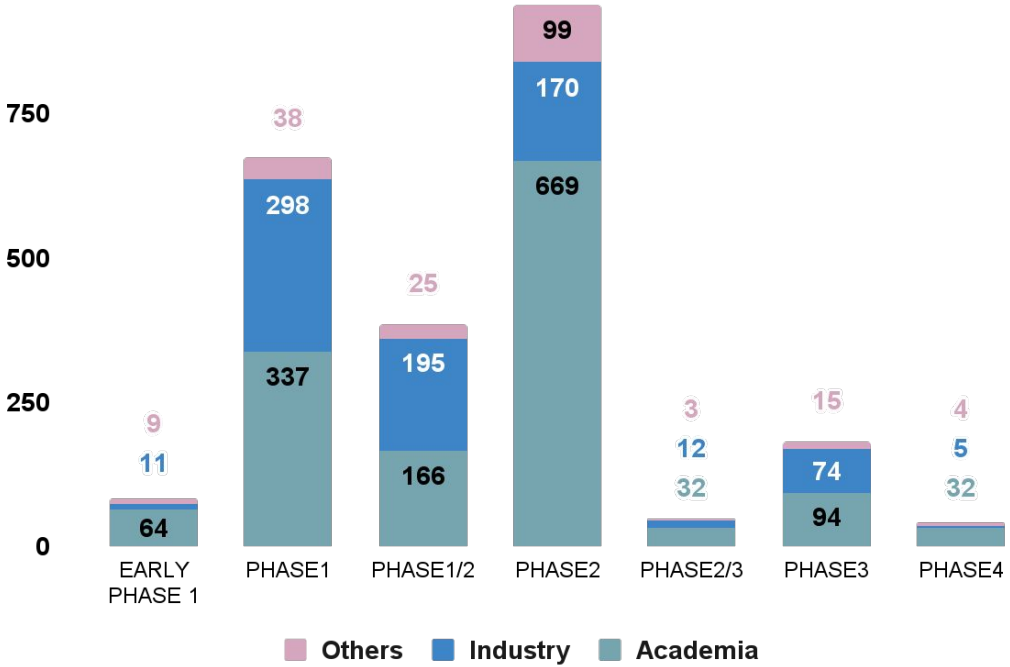
- Clinical Trial Phases
- Number of patients
- Trial Status
- Clinical Trial Sites
- Start date
- Sponsor
- Drug MoA
- End date
- Primary Endpoints

- Number of trial sites
- Primary & secondary endpoints
- Category of drugs
- Average number of patients
- Classification of pathophysiology
- MoA of drugs
- Estimated duration (months/years)

Added value

- Strategic comparative analysis
- Systematic enrichment
- Cross-indication clinical analysis
- CDP cost factor estimation

Most pancreatic cancer trials fail to cross Phase 2



3700 Trials analyzed

30% Terminated/ withdrawn

30.7% Active/ recruiting

3 Approved for marketing

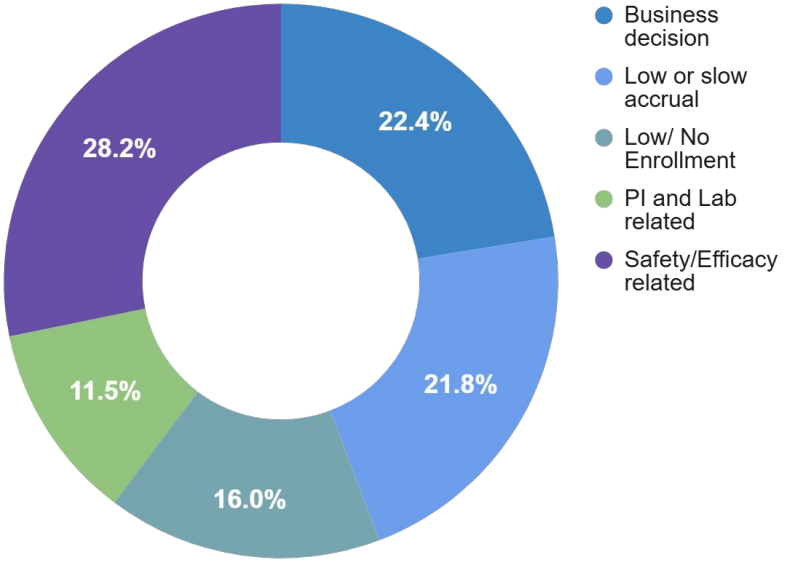
Low number of late phase trials (phase 2/3 and onwards)

Majority of the drugs fail to cross Phase 2 highlighting a lack of clinical benefit

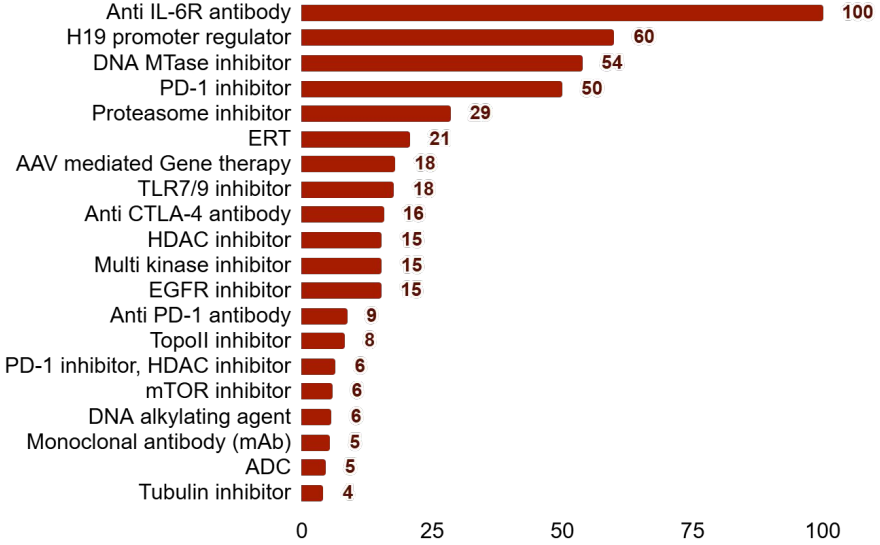
Early engagement from pharma/biotech in pancreatic cancer

Pancreatic cancer trials have low rates of transition to later phases

~50% of clinical trial termination in Phase 2 are due to **lack of primary outcome achievements** (safety/efficacy & inclusion criteria difficulty)



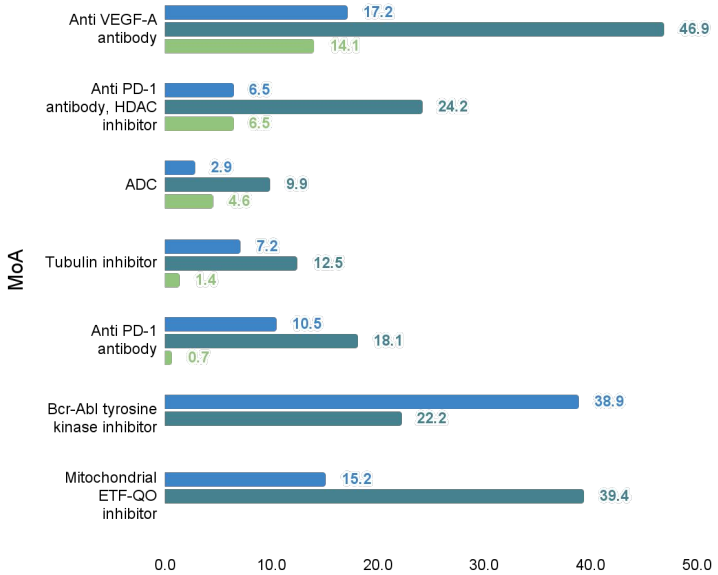
Reasons for termination of clinical trials in pancreatic cancer Phase 2 clinical development



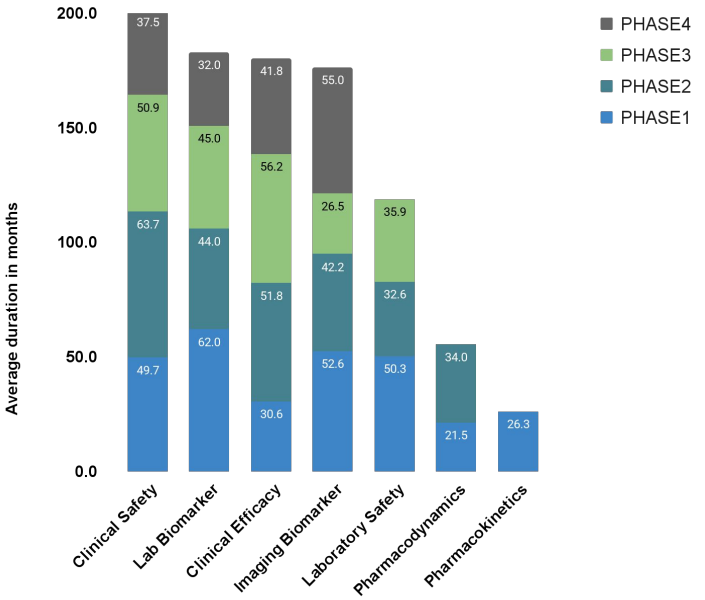
Predicted probability of termination of clinical development in Phase 2 for selected MoAs

Clinical outcomes determine trial duration & feasibility

Receptor tyrosine kinase inhibitors and **antibodies** demonstrate higher probability of success



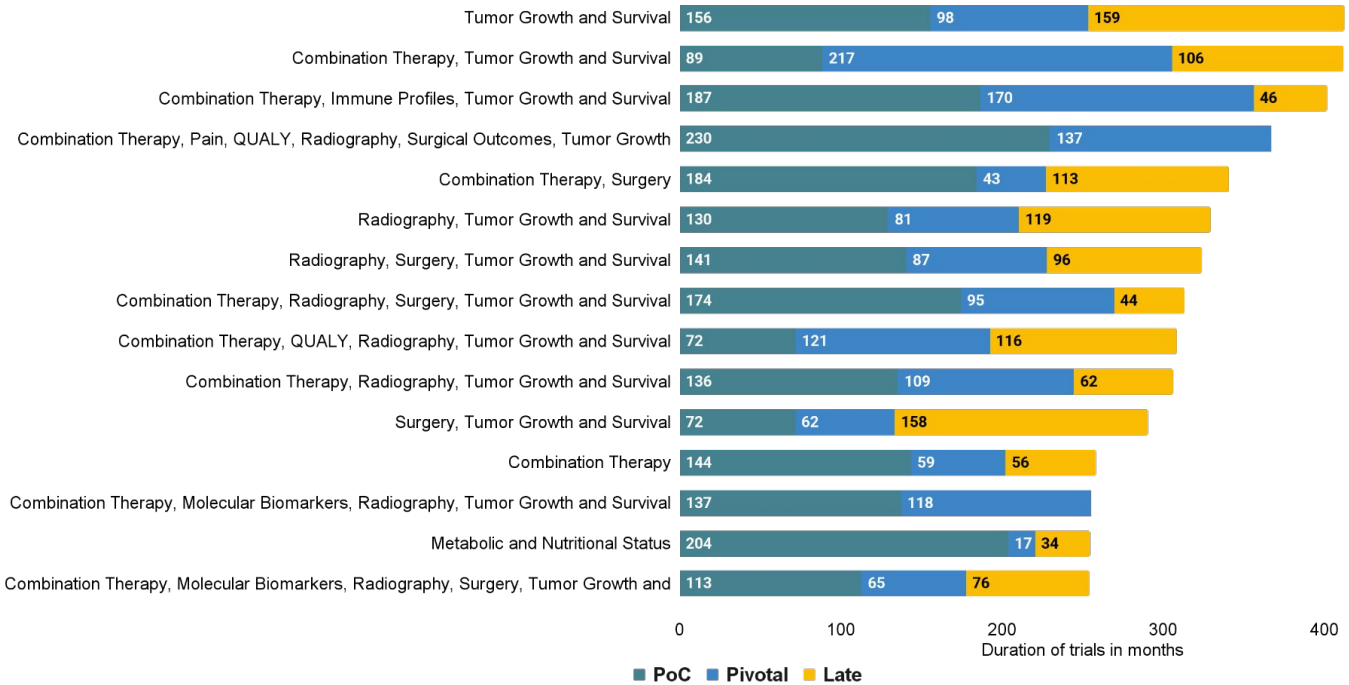
Probability of transition to next Phase of trial development for example MoAs



Average duration of trials for clinical outcome measurements

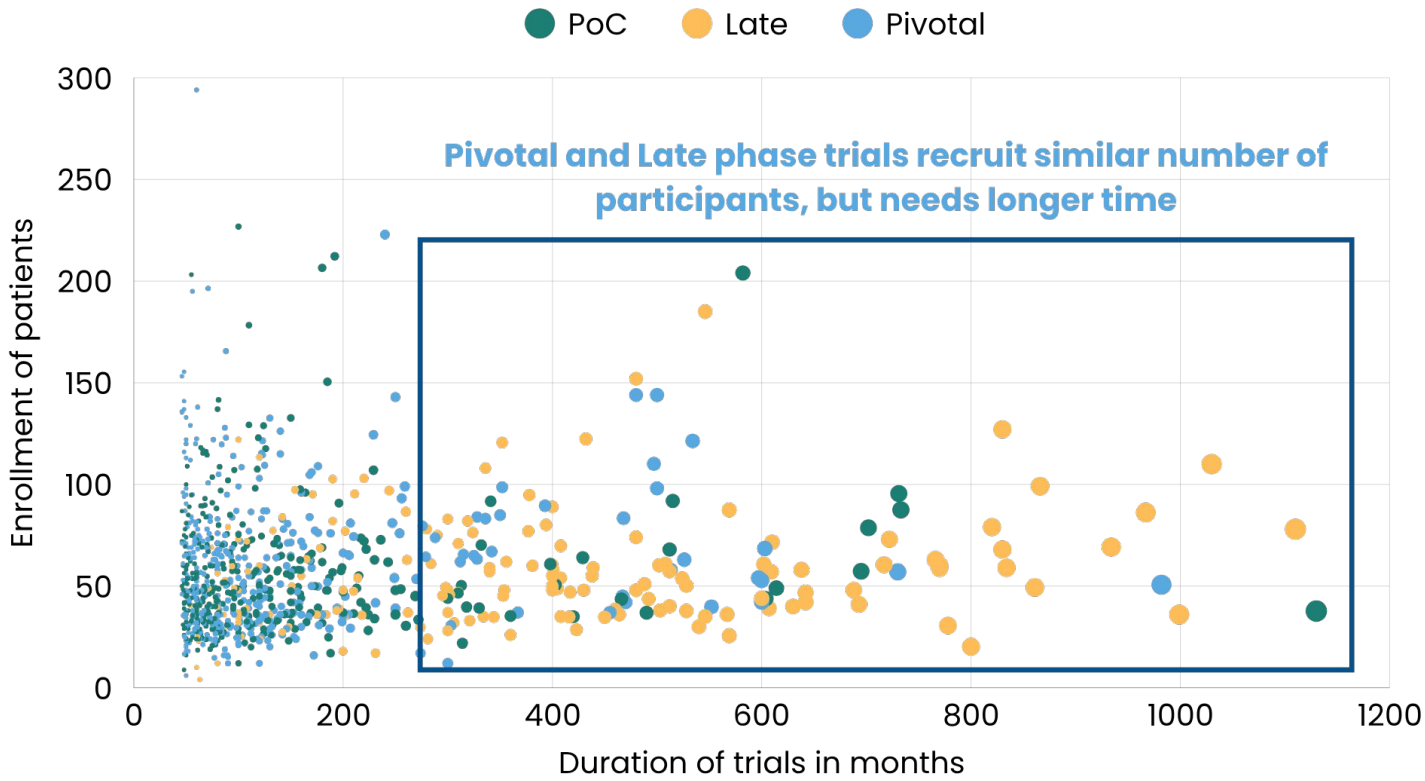
Early phases account for most of the duration of pancreatic cancer clinical trials

The **proof of concept** phase is estimated to account for **65% of the total duration of clinical trials**



PoC = Early Phase 1, Phase 1, Phase 1/2 stages

Pivotal and late phase trials require identical enrollment to early phases



PoC = Early Phase 1, Phase 1, Phase 1/2

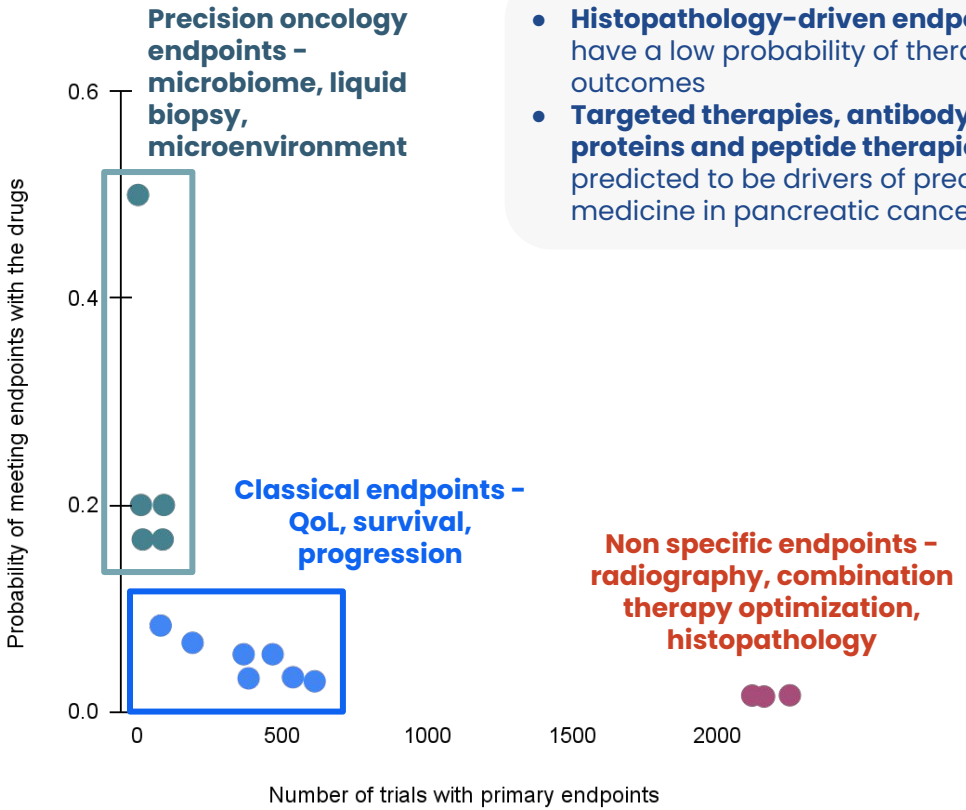
Pivotal = Phase 2, Phase 2/3

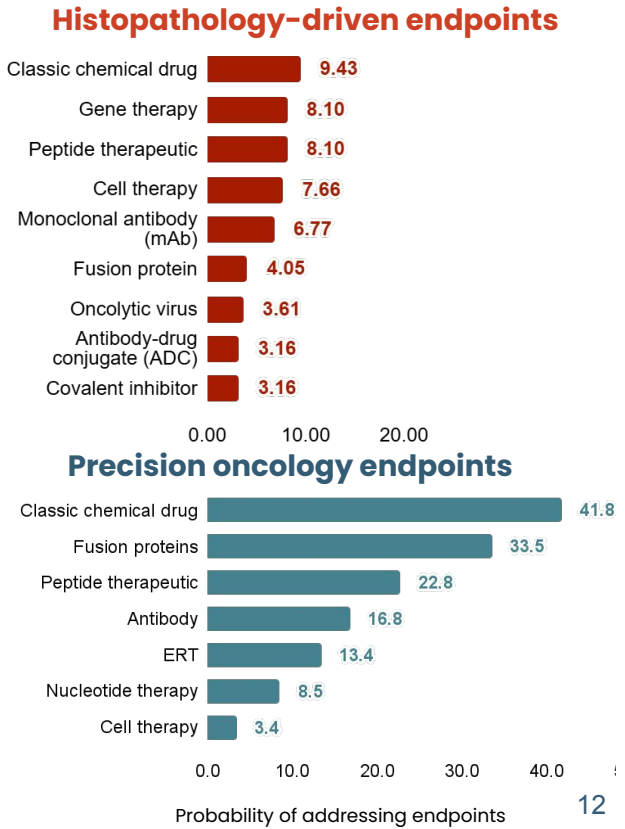
Late = Phase 3, Phase 4

The size of the dots relate to the number of expert centers engaged

Clinical endpoints determine the probability of therapeutic success

- **Histopathology-driven endpoints** have a low probability of therapeutic outcomes
- **Targeted therapies, antibody, fusion proteins and peptide therapies** are predicted to be drivers of precision medicine in pancreatic cancer





ClinForecast

A game-changer in clinical development

Clinical development is time-consuming, expensive, and unpredictable.
With **ClinForecast**, it becomes **explainable**.

98% retrieval rate

Build more realistic project plans

3 days to insights

Reduced duration, risk and success factors

Manually curated

Plans you can trust to hit your milestones

Integrate KOL insights

Learn from past failures and design strategic workarounds

Competitive advantage

Precision data, not just more data

Market Players

IQVIA™

GlobalData.

medidata

Clarivate™

Veeva

octozi

100% retention rate in the last 3 years

Clients who trust our workflows

Clients	2023	2024	2025	2026
IPSEN Innovation for patient care	■	■	■	■
BAYER	■	■	■	■
BariaTek Advanced Bariatric Solutions		■	■	■
Reventus Repurposing for Life		■	■	■
Hunt Pharma			■	■
chu saint étienne			■	■
Karolinska Institutet / KAROLINSKA UNIVERSITY HOSPITAL			■	■

High client retention rates highlight **potential for expansion** in framework deliverables and actionable insights

Under discussion

ACADIA

BIOMUNEX pharmaceuticals

Lilly

SERVIER

Business model

We implement **value-based contracting** and **trust-based expansion** to ensure **adoption**, **interoperability** and **actionability**

Cost model	Service types	Market segment
Subscription	**Project or question driven**	**Pharma/ Biotech**
Consulting reports & dashboard	**One-time payment for implementation and HITL**	**Pharma/ Investors**
Premium pricing : Federated learning modules	**Integration of databases and RAG/ fine-tuned LLM on client premises**	**All segments**

Target custom segments

- Medical Affairs
- Research & Development (R&D)
- Clinical Operations
- Business development
- Mergers & Acquisitions
- Commercial

Pharma and biotech value chains are our primary target

Executive & team

Président | Directeur Général | CEO

Experience

- MedInsights (2022- Present)
- HTW Berlin - Visiting Lecturer (2024 - Present)
- IPSEN Pharmaceuticals (2021- 2023)
- Institut Pasteur (2014-2020)

Education

- Ph.D. in Systems Neuroscience (Sorbonne Université)
- Princeton University : Advanced Neuroscience

Paris Biotech Santé · Université Paris Cité · RePo4EU · bpifrance · eurostars · EUREKA innovation across borders · BNP PARIBAS

R&D

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Biophysicist and Clinical Scientist

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Senior Scientist, Systems Neuroscience and Molecular Biology

BD and Strategy

Manish SARKAR
Business Developer & intelligence Molecular & Structural biology

Daria KRASAVINA
Product Strategist - Intern Business development

AI/ML & software

Moutayam KHADDOUR
Data Engineer, Software Engineer

Future Junior Data Engineer, Software Engineer

Scientific advisors

Prof. Serge LUQUET

Professor/researcher at the University Paris Cité (CNRS) who specializes in the brain's control over energy balance and metabolism.

Dr. Franck OURY

Neurobiologist at INEM specializing in research of bone-derived hormone osteocalcin and its influence on brain function and memory.

Prof. Paolo PARINI

Professor at the Karolinska Institute, specializing in molecular basis of cardiometabolic diseases, including cholesterol and lipoprotein metabolism.

Dr. Kingsley URAKPO

Fellow, Faculty of Pharmaceutical Medicine, Royal College of Physicians (UK) with extensive experience in drug development, medical affairs, and business development across diverse therapeutic areas.

Dr. Sandra JERNSTROM

Serial entrepreneur and biotech co-founder developing innovative, high-risk cancer diagnostics and therapeutics and involved in deeptech venture advisory roles.

Thank you

Our team is happy to chat and provide more detailed information on any of the above applications

Feel free to reach out to

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