



ALL BIOMARKERS HAVE A FINGERPRINT

Cloud-based intelligent platform to accelerate  
personalized drug discovery

**Efficient. Flexible. Patient-centric.**



EIT Health is supported by the EIT,  
a body of the European Union



*Mayfield*



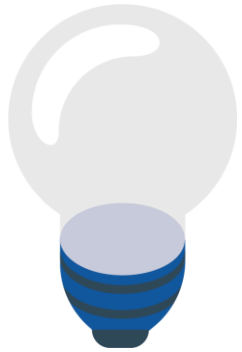


18 years

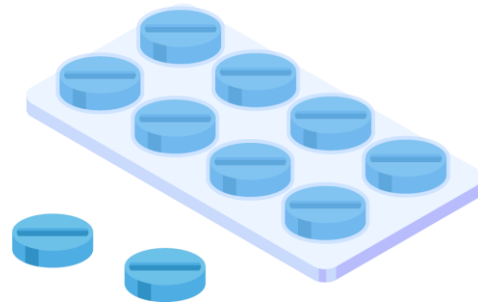
+ 400 failed trials

1 treatment

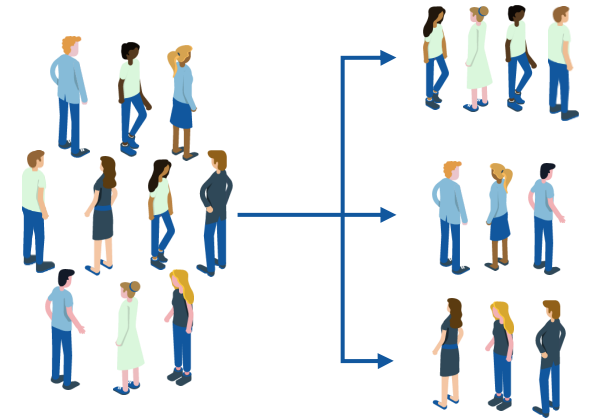
# Heterogenous diseases are hard to crack



Poor biological  
knowledge

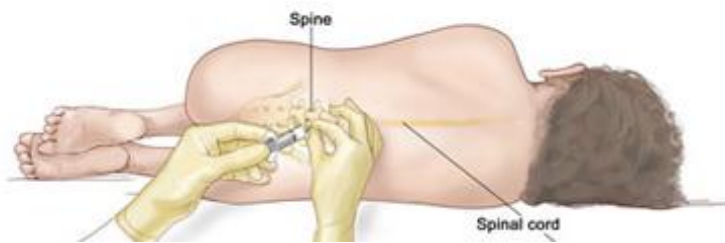


Failure of  
one-drug-fits-all



Stratification

# Personalized clinical trials have massive challenges



Invasive



Difficult to access

\$0.7B baseline

\$5.5B

Significantly more expensive

90% of patients leave clinical trials



**How many promising drugs will be abandoned or their evaluation seriously delayed?”**

**- President, Global Alzheimer's Platform Foundation**

**NATION & WORLD >** Posted June 5 | Updated June 5

**Pfizer had clues its blockbuster drug could prevent Alzheimer's. Why didn't it tell the world?**

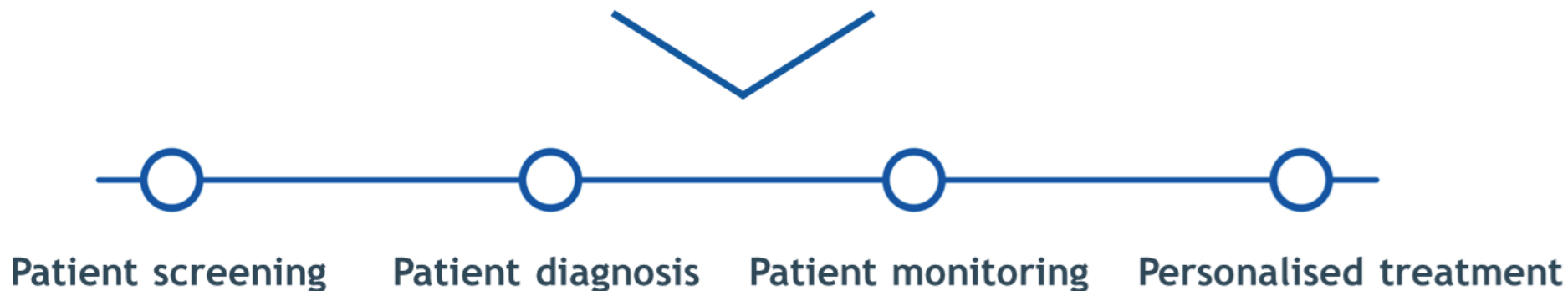
# iLoF Platform: Building a cloud-based library of personalised biomarkers and biological profiles



Optical Sample Analysis

Optical Fingerprint Generation

Fingerprint Matching



**Non-invasive**  
Microliters of blood



**Adaptable**  
Multiple biomarkers

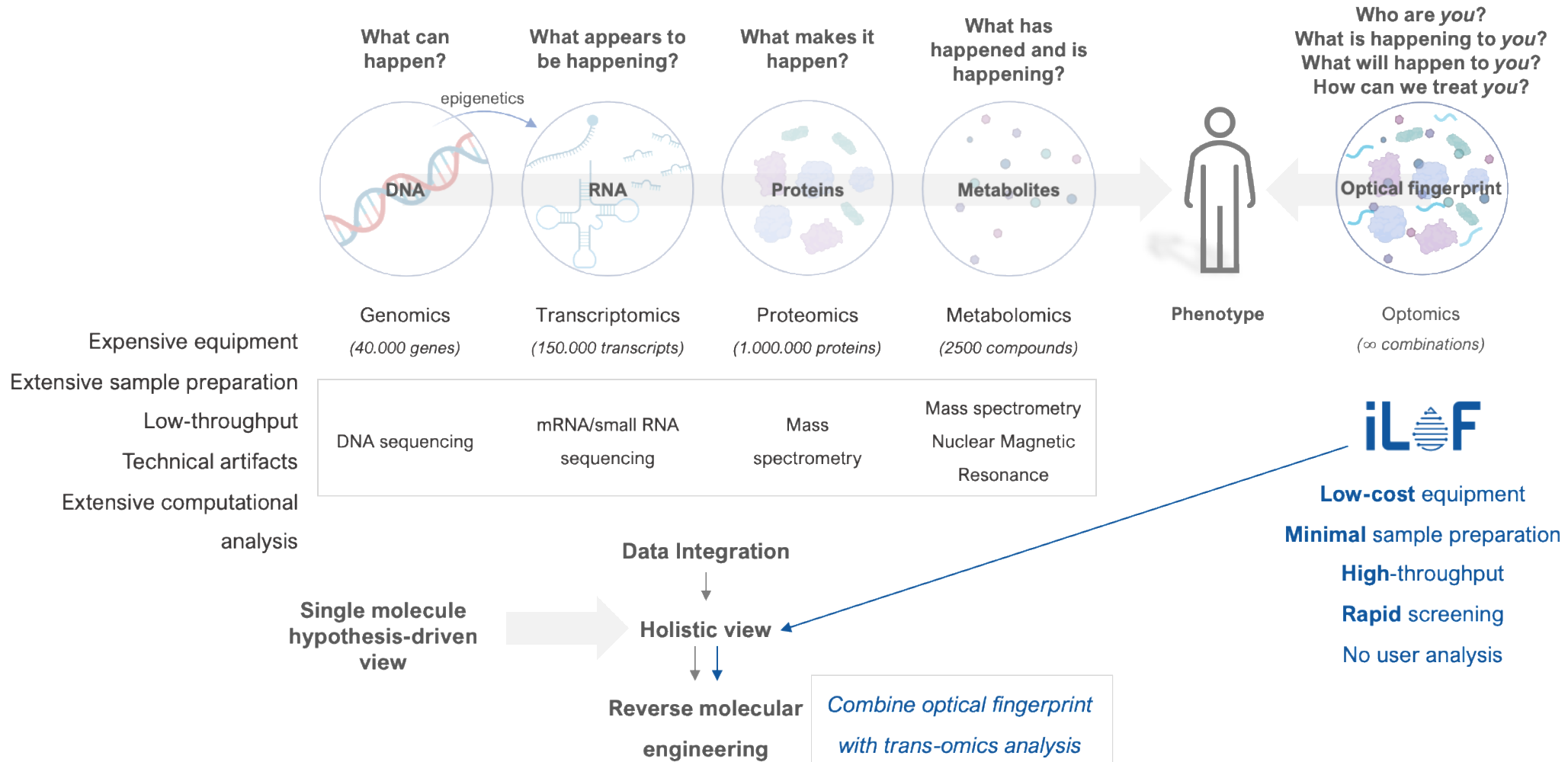


**Fast**  
2 seconds

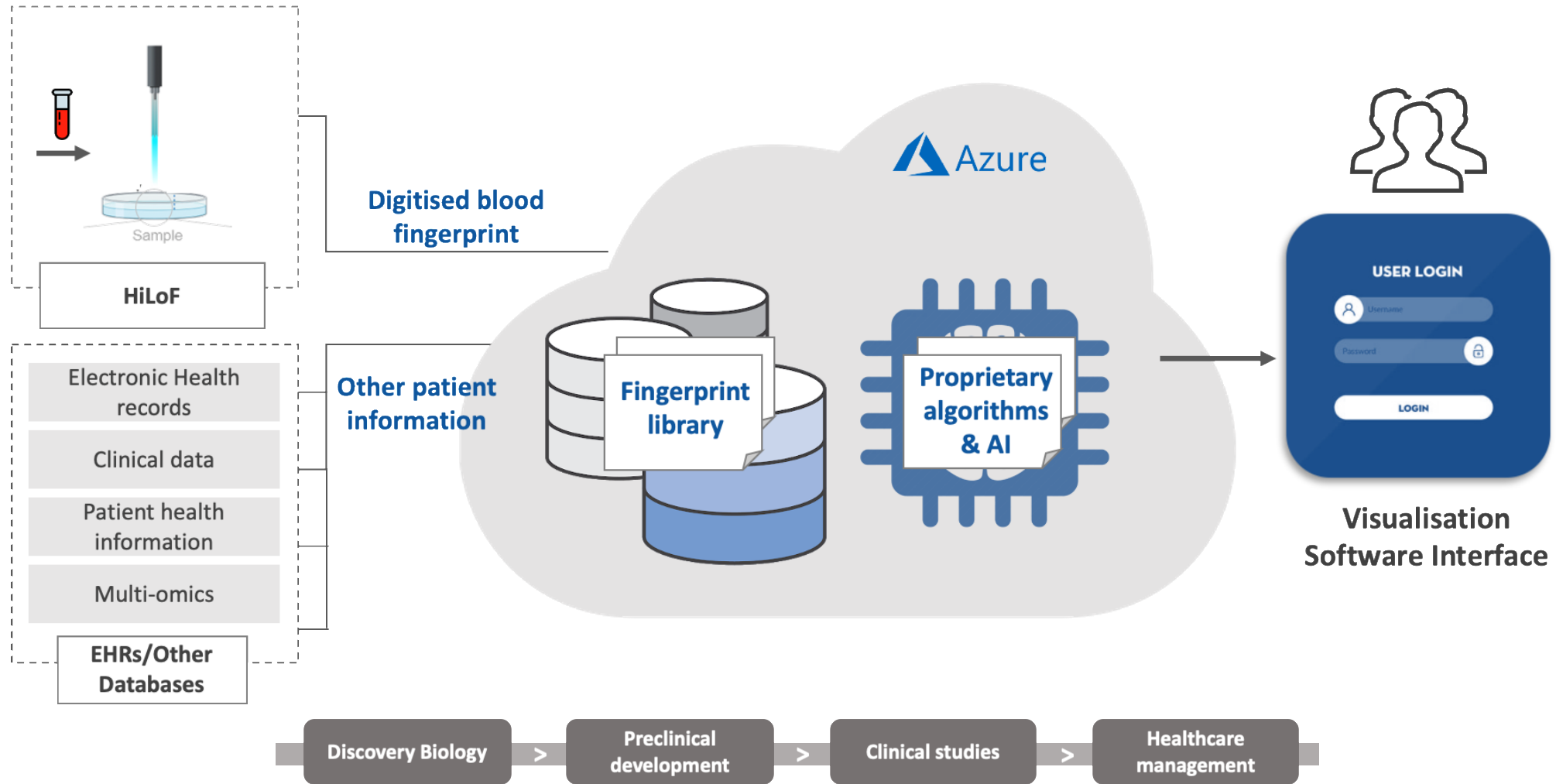


**Low cost**  
Using Light and AI

# Overcoming limitations of traditional 'omics to create patient molecular phenotypes



# Integrating large volumes of optical and patient data to create rapid phenotyping and prediction tools



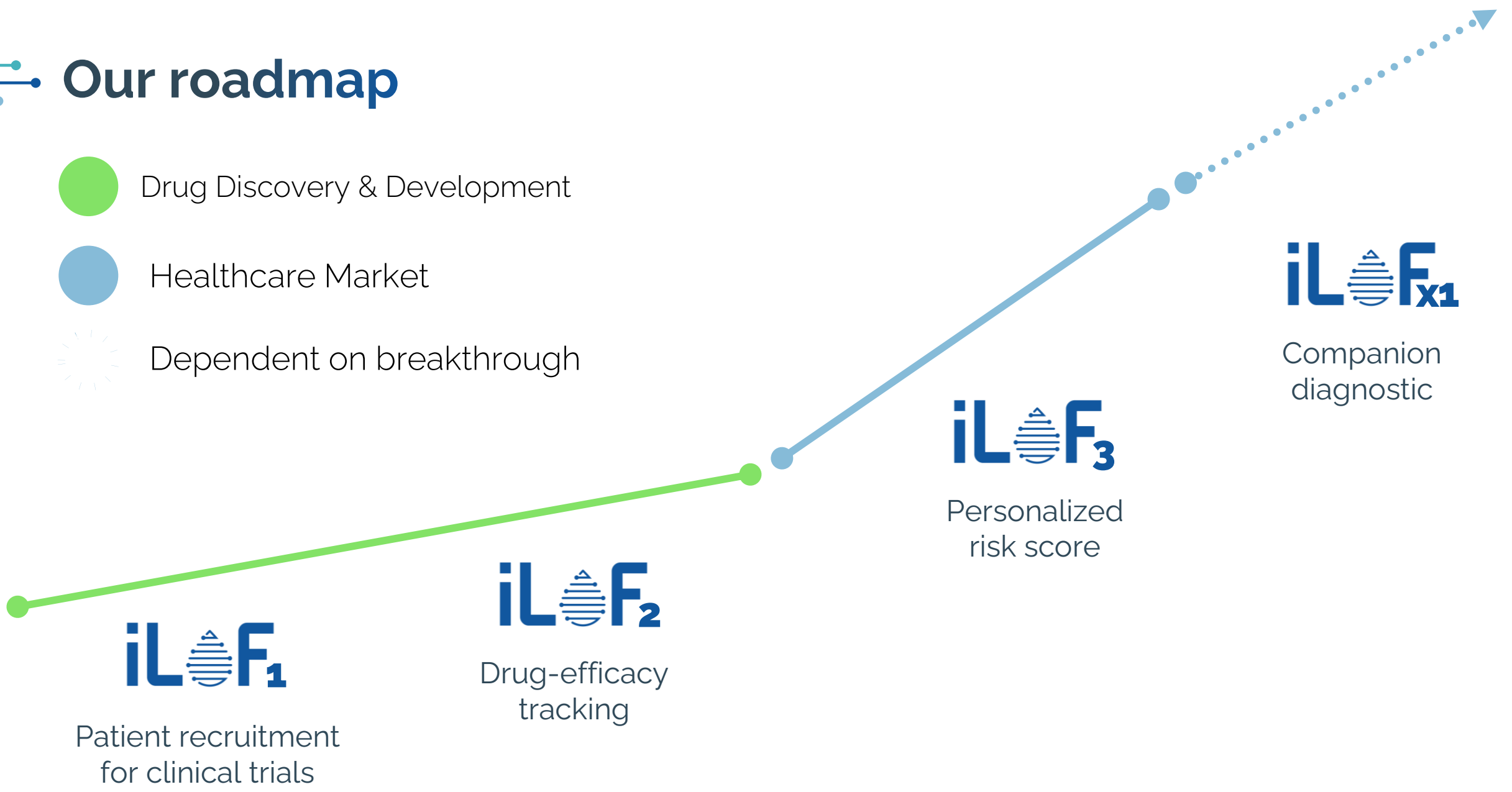


# Our roadmap

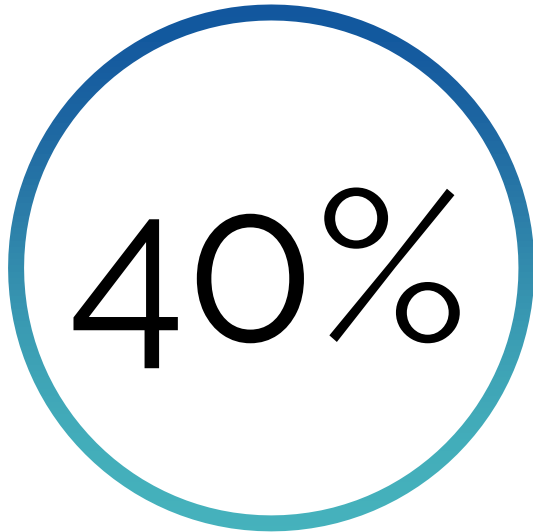
 Drug Discovery & Development

 Healthcare Market

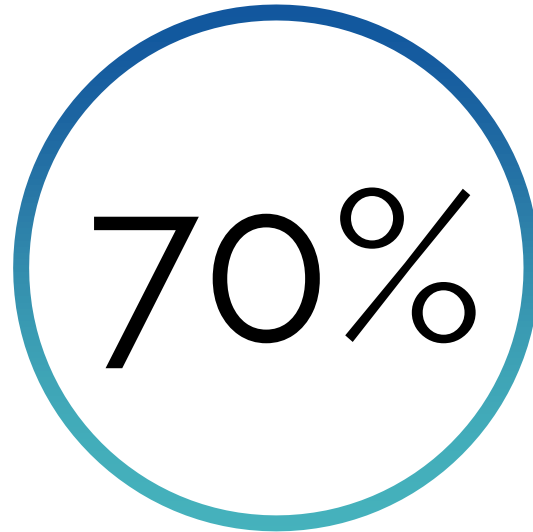
 Dependent on breakthrough



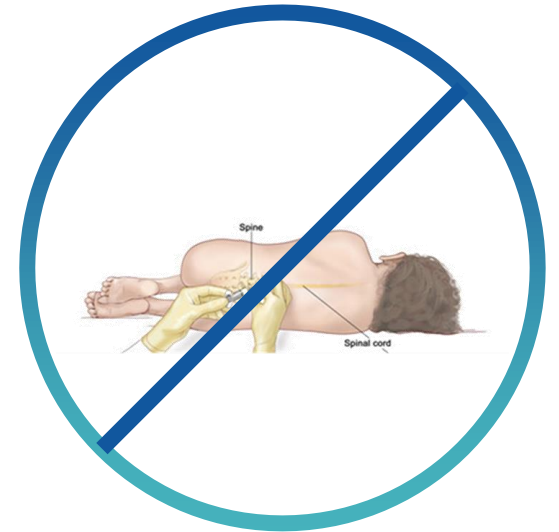
# Enabling efficient, fast and adaptable trials



**Cheaper**



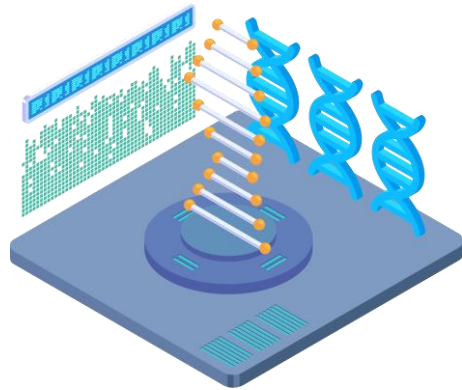
**Faster**



**Convenient**  
Non-invasive

(\*) – According to calculations using real scenarios/data. Validated with economic buyers and experts.

# Case Study 1: Commercial collaboration with a biotech company developing an Alzheimer's therapeutic



**Biotech X**

**Client** Biotech developing a drug for Alzheimer's Disease

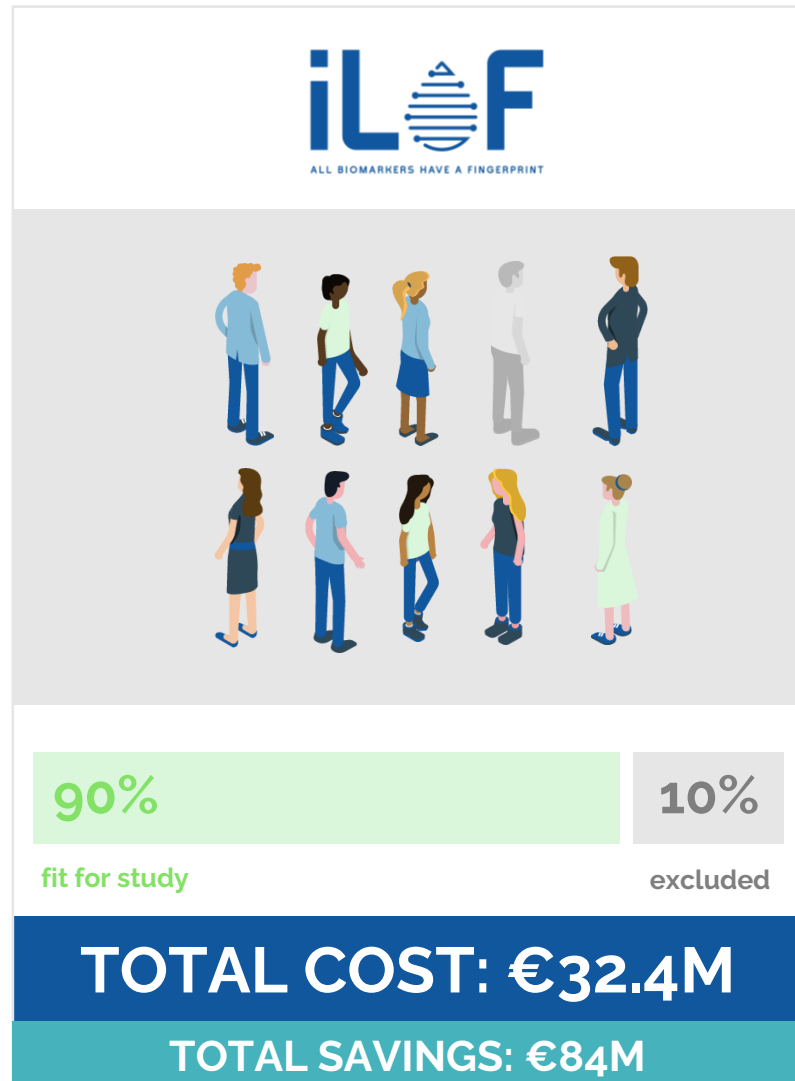
**Target** 10-20 aa peptide Y expressed in the brain

**Goal** Demonstrate iLoF's sensitivity to detect and quantify peptide of interest in blood samples

**Future applications**

- 1) Patient screening for clinical trials
- 2) Companion diagnostic

# Alzheimer's: A business case



# Alzheimer's: Beachhead market size

Top 4  
Pharma Groups

**400M €**

40k  
patients

With PET/CSF

**1.15B €**

115k  
patients

Trials open for  
recruiting TODAY

**1.6B €**

160k  
patients

# Case Study 2: Prognosis in infections diseases with a healthcare provider



**Hospital X**

**Client** Large public Hospital

**Problem** Difficulty managing influx of COVID-19 patients, and optimizing resources

**Goal** Demonstrate iLoF's ability to stratify COVID-19 patients based on likelihood of ICU admission

**Future applications**

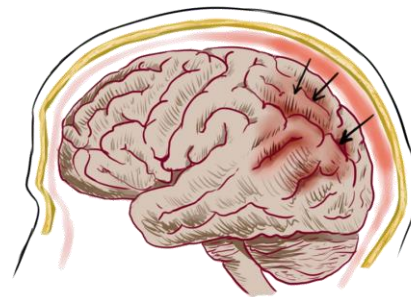
- 1) Managing ICU occupancy
- 2) Personalizing treatment

# Future vision

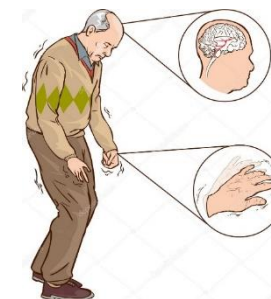


Using AI to accelerate personalized treatments for complex diseases

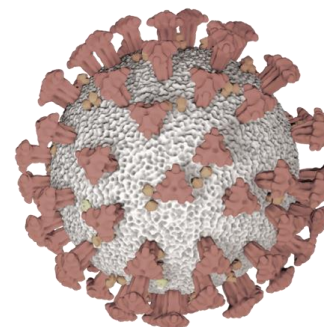
MULTIPLE SCLEROSIS



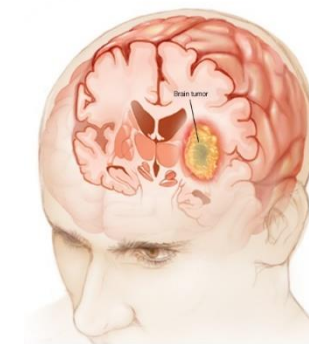
PARKINSON



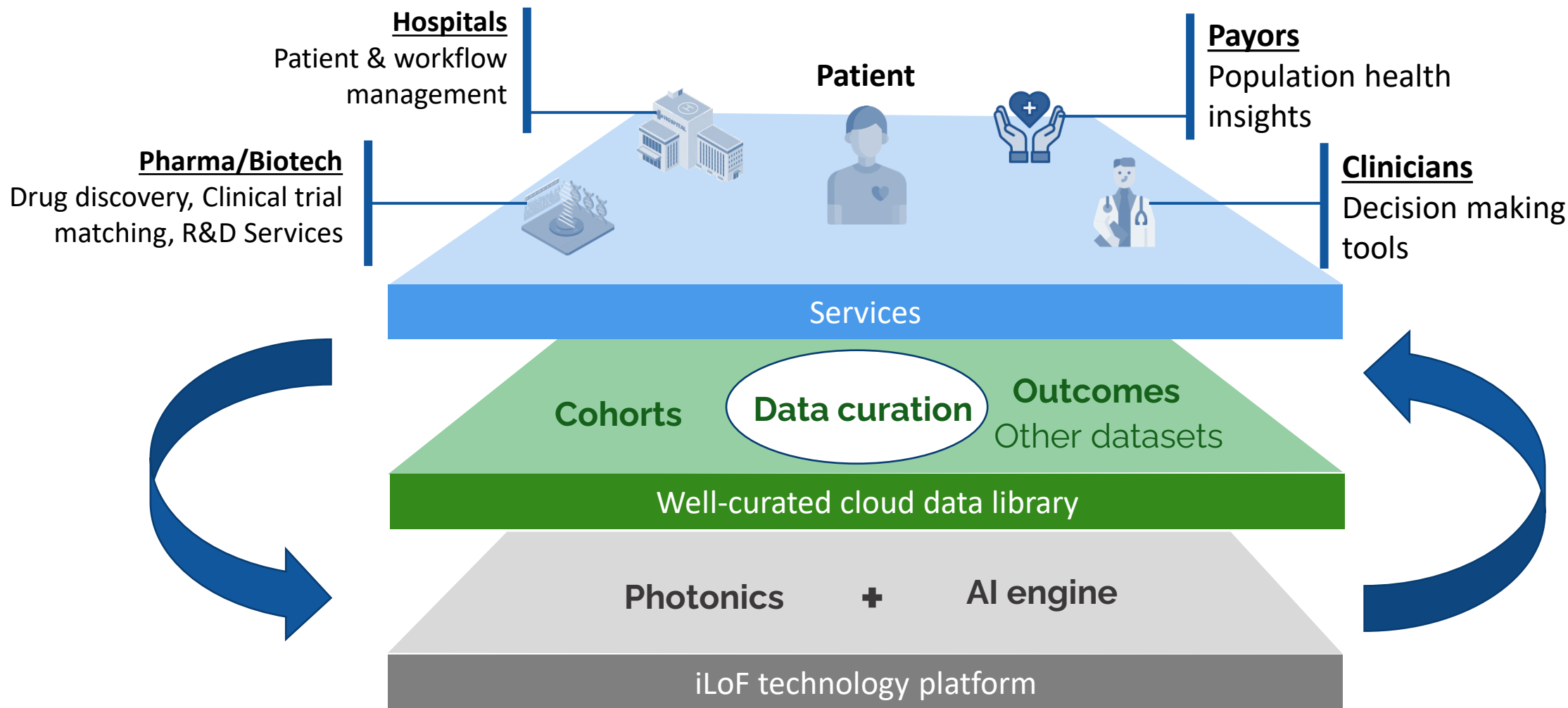
COVID-19



BRAIN TUMORS



# A health insights platform driven by iLoF tech platform and enabled by a cloud-based library of biological profiles





# Current traction



**>1000**

Biological profiles stored



**12**

Academic and Research partners



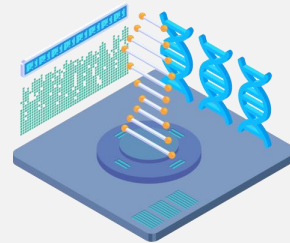
**2**

Big Pharma engagements



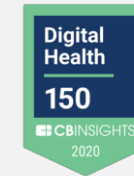
**+ 6M**

Seed Funding (€)



**3**

Commercial studies



**>10**

Awards

# Managerial Experience, Technical Skills & Passion for Healthcare



## Luis Valente (MSc)

CEO

- Award-winning business manager
- Management & engineering skills
- Founded first company at 18



## Henkjan Gersen (PhD)

Head of Photonics

- >8 years as Head of Group on Nanophotonics at Bristol University
- PhD in Physics



## Mehak Mumtaz (PhD)

COO

- Strategy consultant
- Fellow at Oxford University
- Personalised medicine expert



## Alex Turpin (PhD)

Head of Biosignal & Analytics

- PI in Institute La Caixa
- Post-Doc in Max-Planck Institute
- CEO of data science & deep tech consulting firm



## Paula Sampaio (PhD)

CSO

- Research center coordinator
- Light technologies expert
- Senior scientist: >50 publications



## Catarina Maia (MBA)

Head of BD & IP

- Former VC for a pharma-led fund
- Mentor & board of several deep-tech start-ups
- IP expert (>75 patents filled)

A team of > 20 FTE

(inc. 12 PhD)

## Supported by a world class Board of Advisors



## Derek Hill

- 25+ years of experience in digital health & medical imaging, focused on the regulatory environment



## Marcus Cicerone

- 25+ years of relevant experience in nonlinear light-matter interactions



## Jorge Fernandez

- 25+ years of experience as an advisor & board member in the healthcare & life-science industry



## David Clifton

- Professor & researcher at Oxford University with + 17 years specialized in clinical AI



**“A good life is a collection of  
happy memories”**

-Denis Waitley



Cloud-based intelligent  
platform to transform  
drug discovery

Luis Valente, Co-Founder & CEO

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