December 11, 2025

Investor Read Deck, Non-confidential

UNOMR
SINGLE MOLECULE

Revolutionizing Precision Medicine
with Nanopore-Based Protein Sequencing

Sensor prototype

www.unomr.com
info@unomr.com
UNOMR AG, Switzerland

Dr. Til Schlotter
Co-founder & CEO

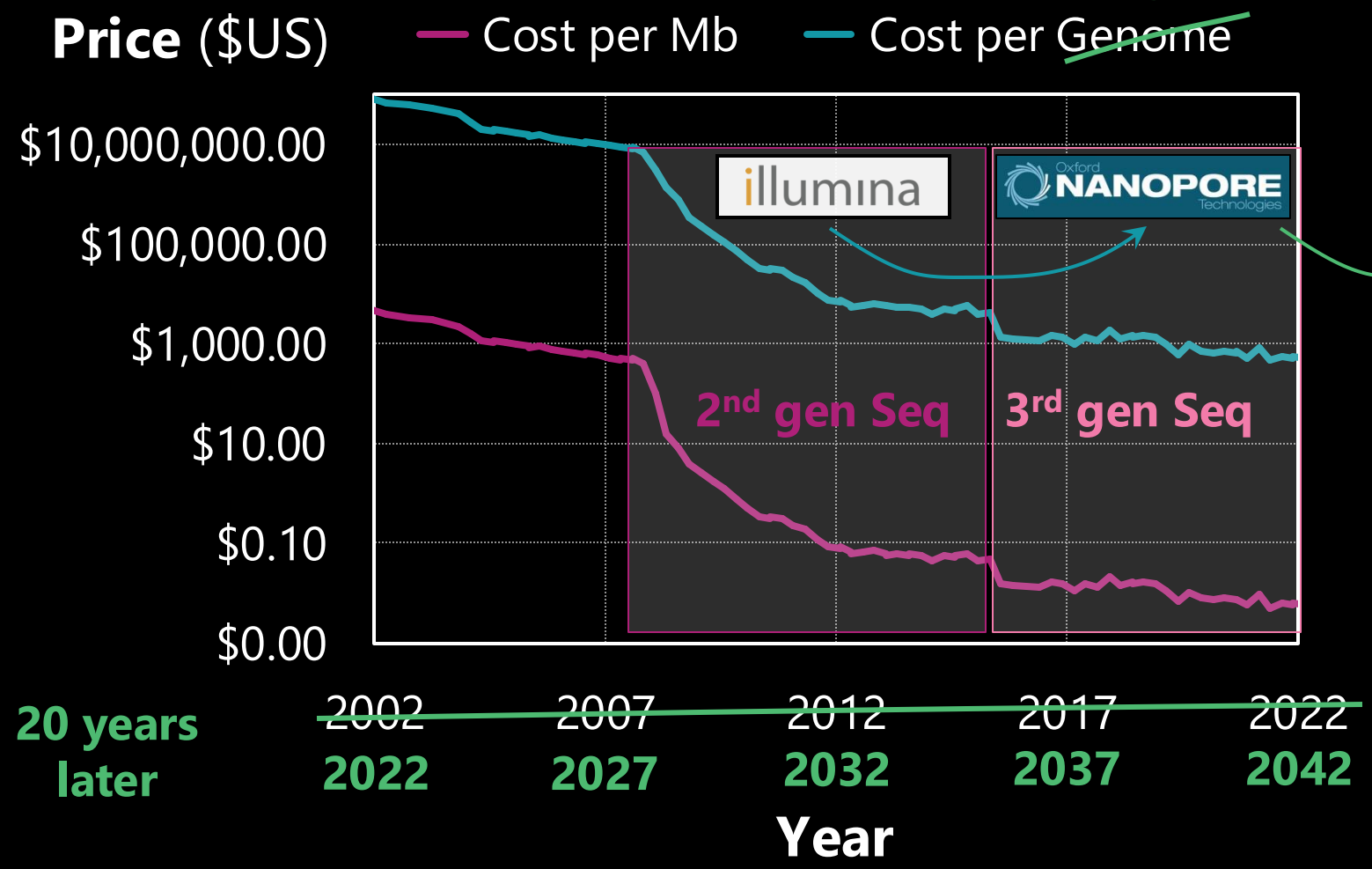
Dr. Julia Wagner
Co-founder & COO

Dr. Julian Hengsteler
Co-founder & CTO

Becoming the **Market Leader of Proteomics**

Our Mission UNOMR

proteome = set of all proteins



UNOMR SINGLE MOLECULE

Cutting down proteomics' costs

	UNO	M	R
Meaning	single	molecule	resolution
Pronounced as	U You	NO know	MR more

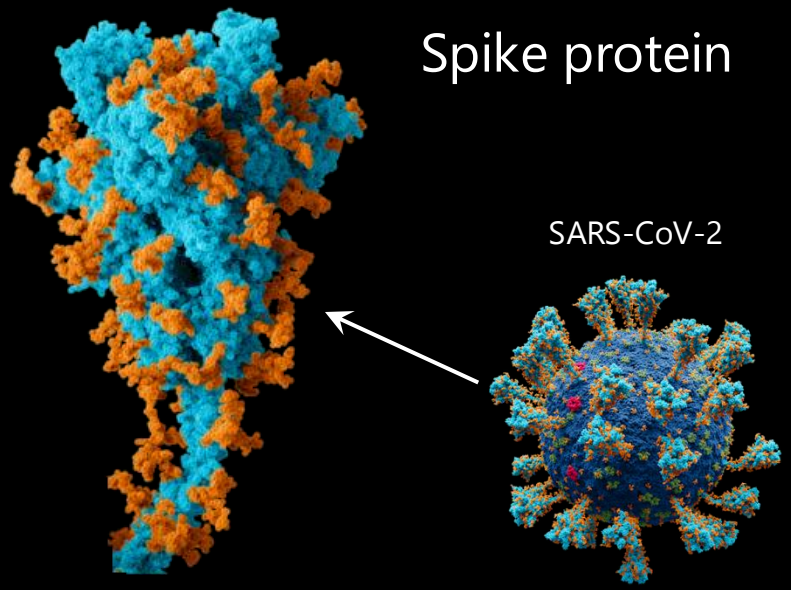
Genomics has revolutionized the life science industry in the last 20 years driven by a price drop of >$1M per genome down to <$1k. The next revolution will be based on proteomics and **UNOMR provides the enabling technology**.

Source: National Human Genome Research Institute

Lack of Accessible and **Accurate Protein Analysis**

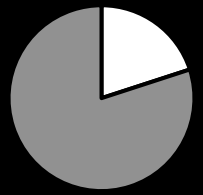
= amino acid ✓

determine protein **identity**



= modification ✗

determine protein **interactions**



~80% of human proteins unidentified with current methods

Unique protein variants inaccessible without protein profiling

>90% of trials fail due to **unexpected** interactions

Proteins are complex structures formed out of a sequence of single amino acids (like a pearl neckless). The content of amino acids (blue) can be measured with limitations to identify proteins but the amino acid sequence which includes millions of post-translational modifications (orange, PTM) cannot be measured.

Affordable, Fast, and In-Depth Protein Data

The Solution

UNOMR

Bottleneck
Insufficient protein data

Customer protein solution
e.g. from urine, or a bio process

1 — 2

Proteins are chopped

Data bank

3 — Information loss — 4 — Information loss — 5

Mass Spectrometry

Results
Not *de-novo* analysis, limited data

6

whole proteins — 3 — *de-novo* analysis — 4

Hardware

Sensor platform

core IP

Nanopore chip

Software

Data Analysis, Subscription

5

Results
Affordable, fast, better protein modification data

The current gold standard is mass spectrometry (MS). Because of various fragmentation and separation steps, MS suffers from limited sensitivity (not single-molecule), low specificity (not *de-novo*), low throughput, complex operation, and limited analysis of co-occurring PTMs.

UNOMR developed a novel nanopore system that can read whole proteins and enables protein sequencing.

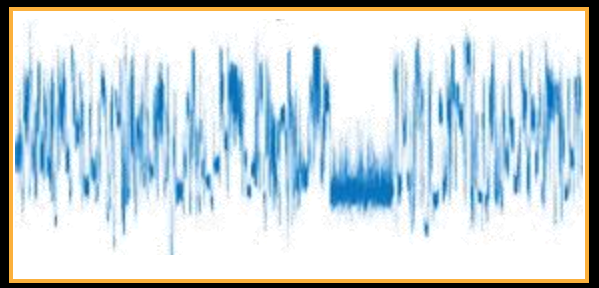
Improving Data with a **New Sensor Platform**

UNOMR

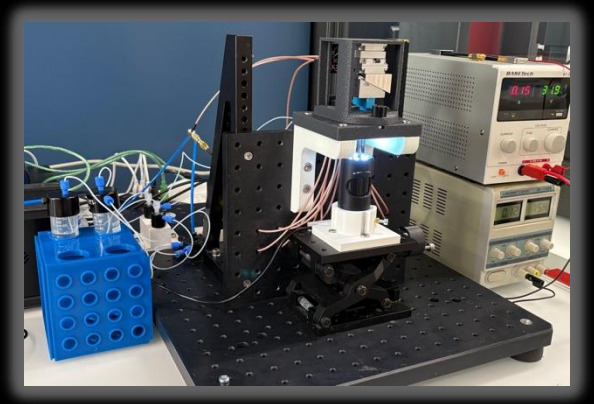
State of the art
Nanopore

- ✓ Cheap
- ✓ Easy to use

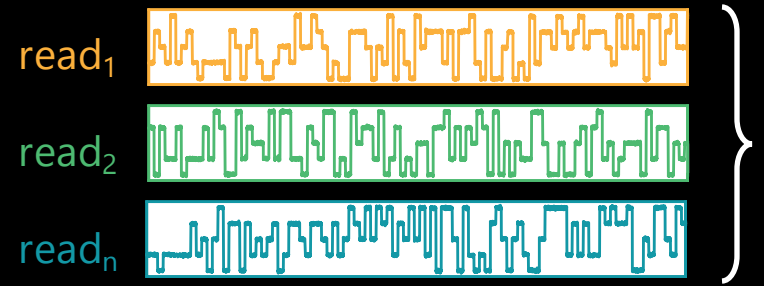
- ✕ Too complex signal
- ✕ Lack of information



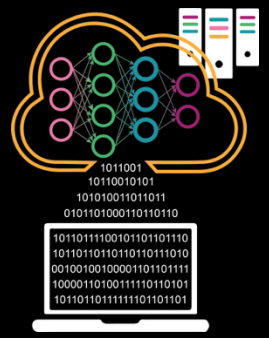
Our innovation
Dynamic interface nanopore



Complexity decomposition



single-signal **analysis**



reconstruction using machine learning

protein sequence

- ✓ Cheap
- ✓ Easy to use

- ✓ Resolved protein complexity
- ✓ Whole protein information

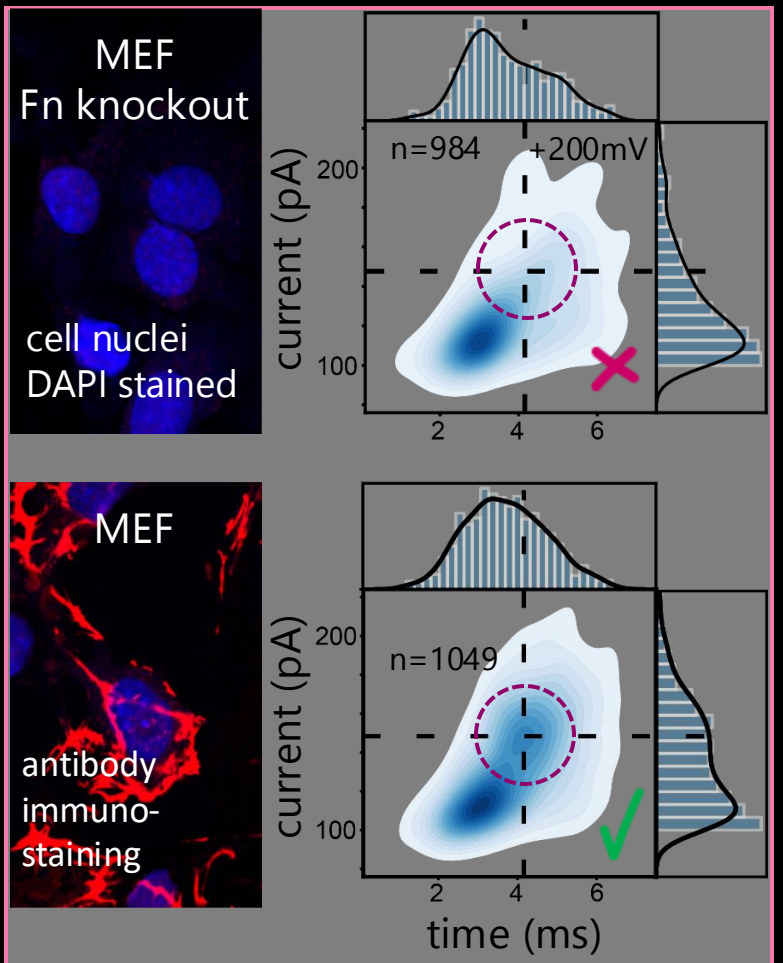
Compared to other nanopore systems, we provide dynamic (size-adjustable) nanopores which enables multiple re-reads of single molecules under different conditions ($read_1$ – $read_n$) decomposing the signal complexity and reducing the error rate to achieve whole protein sequencing.

Peer-Reviewed **Data Shows Feasibility**

Scientific Validation

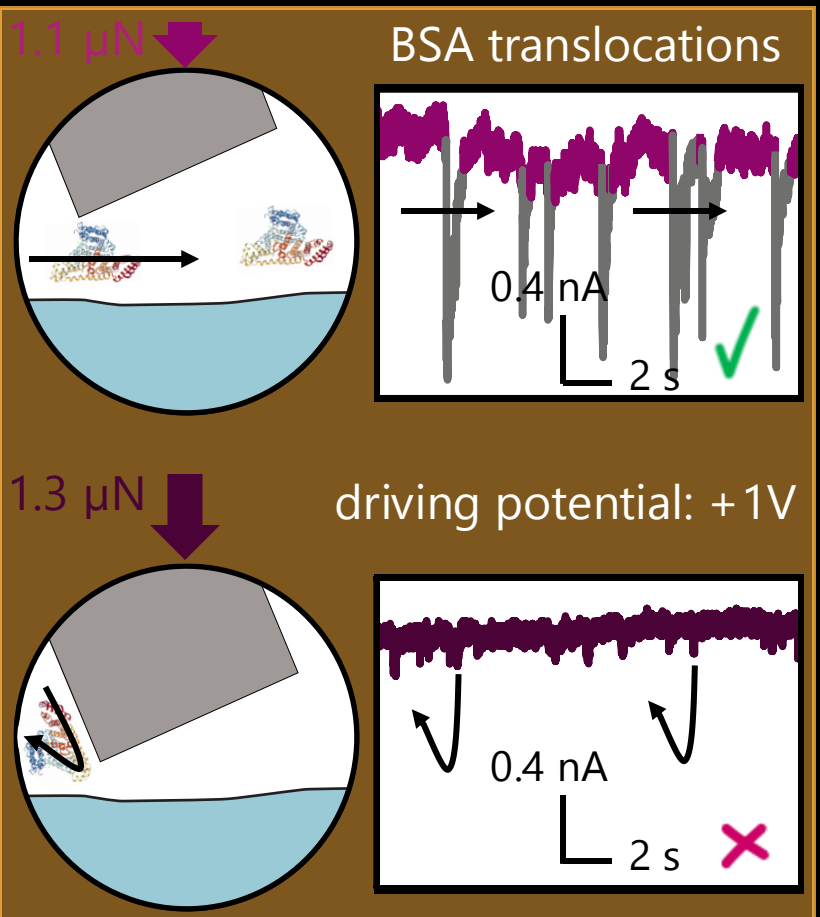
UNOMR

Aramesh, Schlotter, Vörös *et al.* Nature Nanotech. (2019)



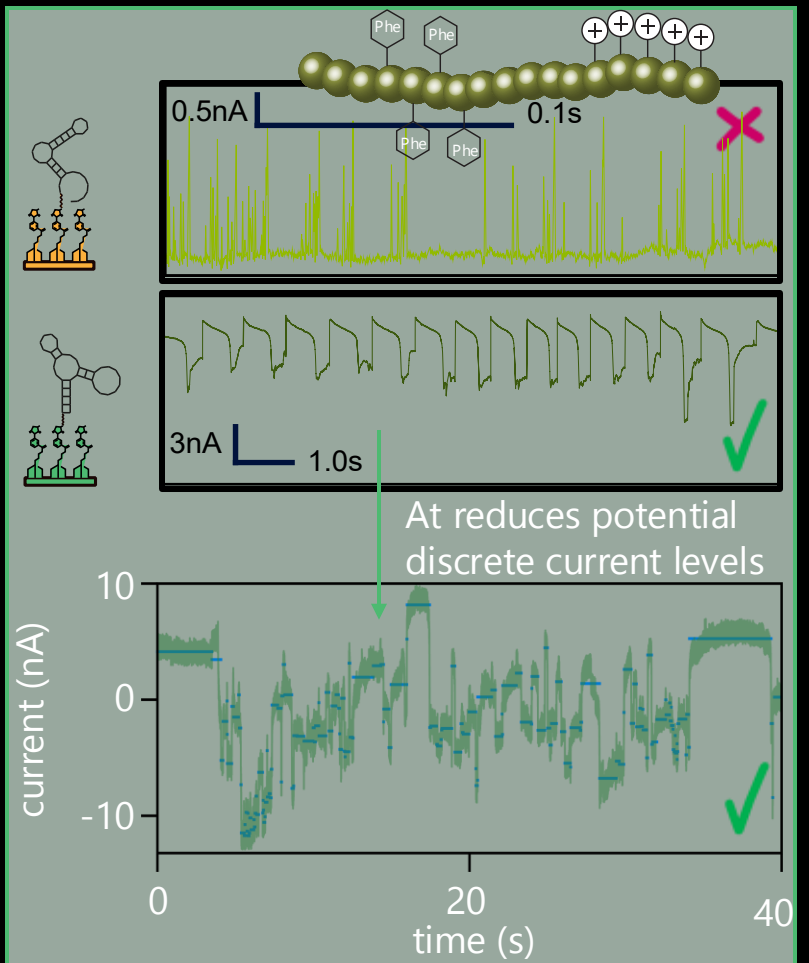
iNP can measure in **complex samples** allowing **single cell analysis**

Schlotter, Vörös, Aramesh *et al.* ACS Nano (2020)



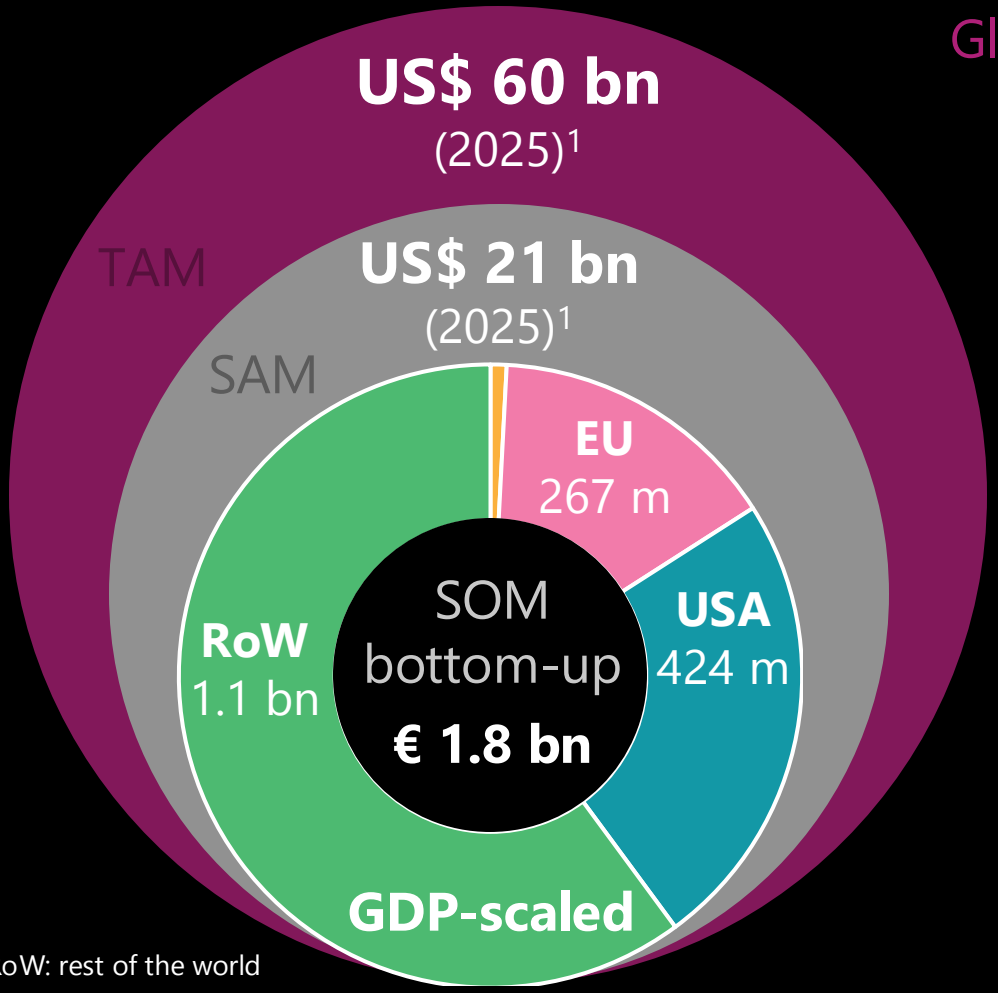
Dynamic iNP control enables dynamic **size-specific** detection of molecules

Schlotter, Hengsteler, Nakatsuka *et al.* ACS Nano (2024)



Aptamer functionalization of iNP for **amino acid-specific** PTM detection

$ 1.8 bn obtainable market by 2035



RoW: rest of the world

Global **analytical instrumentation** market (**10% CAGR**)

Global **protein characterization** market (**16.5% CAGR**)

Bottom-up approach Swiss **obtainable market**

5 university hospitals
ETH/EPFL/EMPA/PSI
} 20 machines

>250 pharma in CH
101 CROs
} 70 machines (~ 20%)

} 90 machines / 5 year
+ consumables

€ 16 m / year in Switzerland

Data subscription not included

1. https://www.thebusinessresearchcompany.com/report/protein-characterization-and-identification-global-market-report

Focus on **Recurring Revenue Streams**

4 Revenue Streams

SERVICE
Priced per sample, pilot since 2024

PLATFORM
Priced per sensor, MVP 2026-27

CONSUMABLES
Recurring fee, series 1 by 2028

DATA
Recurring licensing fee, starting 2029

1
2
3
4

Products

Access lab

Sensor
(= Box, € 350’000)

+ Peripherals
(Autosampler,
tubing, etc.)

Cartridges
(€ 1’000)

Chemicals
(variable)

Data base access

Go-to-market Focus on Research & Development
in Pharma, Biotech, Food Innovation, and Academia

Customer UNOMR

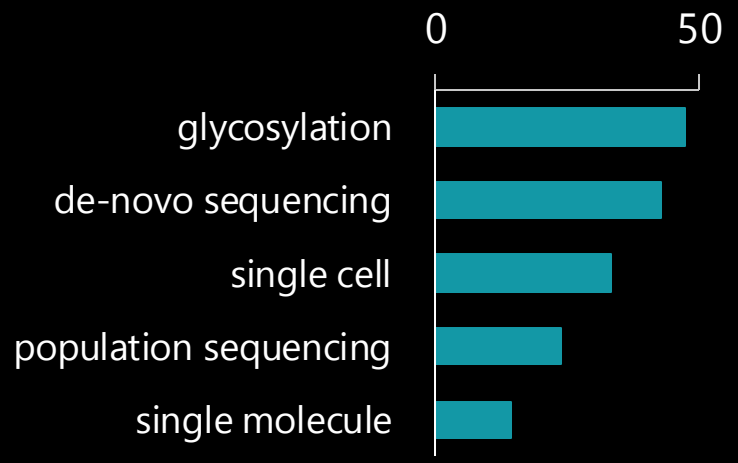
Customer segments

- Pharma & Biotech R&D
- Academia & clinical research
- Food innovation

No certification needed
(*i.e.* no IVDR / MDR)

Customer pain analysis

Top 5 applications mentioned (%)
Results from >100 interviews



Target customers

- Director of BD
- Innovation manager
- Head of R&D / principal investigators

Applications

- Drug discovery
- Biosimilars
- Cell line development
- High impact research

The Only ***De-Novo*** **Whole Protein** Analysis Tech

Competition | UNOMR

Dynamic, serial nanopores

UNOMR SINGLE MOLECULE

- **Sequencing**
- **>100 letters**
- **All PTMs**
- **Fast** (>10^9 aa/day)
- **Whole protein** (>300 aa)
- **Non-destructive**

Technology launch in 2029

Static, single nanopores

Portal

Oxford Nanopore Technologies

IPO 2021
$ >500M in funding

- Fingerprinting
- No single letters
- Small PTMs
- **Fast** (>10^9 aa/day)
- Protein fragments (<100 aa)
- **Non-destructive**

Technology launch announced for 2026

Fluorescence

QuantumSi

IPO 2021
$ >500M in funding

- **Sequencing**
- 14 letters
- Few PTMs
- Slow (<10^8 aa/day)
- Protein fragments (<20 aa)
- Destructive

Commercially available

NAUTILUS BIOTECHNOLOGY

IPO 2021
$ >300M in funding

- Fingerprinting
- No single letters
- Few PTMs
- Slow (<10^8 aa/day)
- Whole protein (>300 aa)
- **Non-destructive**

Technology launch unknown

Affinity-based

Olink

$ 3bn exit Thermo

somalogic

$ 425m exit Illumina

- Bulk identification
- No single letters
- No PTMs
- **Fast**
- **Whole protein** (>300 aa)
- **Non-destructive**

Commercially available

Current standard: **Mass Spectrometry**

ThermoFisher SCIENTIFIC

BRUKER | Waters™

All bn-$ corporates

- Bulk identification
- No single letters
- **Many PTMs**
- Slow sample prep
- Protein fragments (<20 aa)
- Destructive

Commercially available

Single-molecule technologies

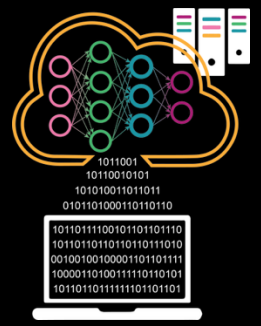
Bulk sample technologies

aa: amino acids

Strong Momentum in the Life Science Industry

Technology

The commercial roll-out of nanopore technologies for **DNA sequencing has shown the potential of this technology**. Advancements in nanotechnology allow for novel approaches that allow for adoption of the technology for proteomics.



Data analysis

Advancements in data analysis and **machine learning open new possibilities** for nanopore data analysis, extracting in-depth data also from complex signals.

Market

Our pilots and interviews with global life science companies show the **increased awareness** of improved protein analysis as the genomic revolution of the last decades imposed new questions which only proteomics can answer.

Better Data For **Better Medical Products**

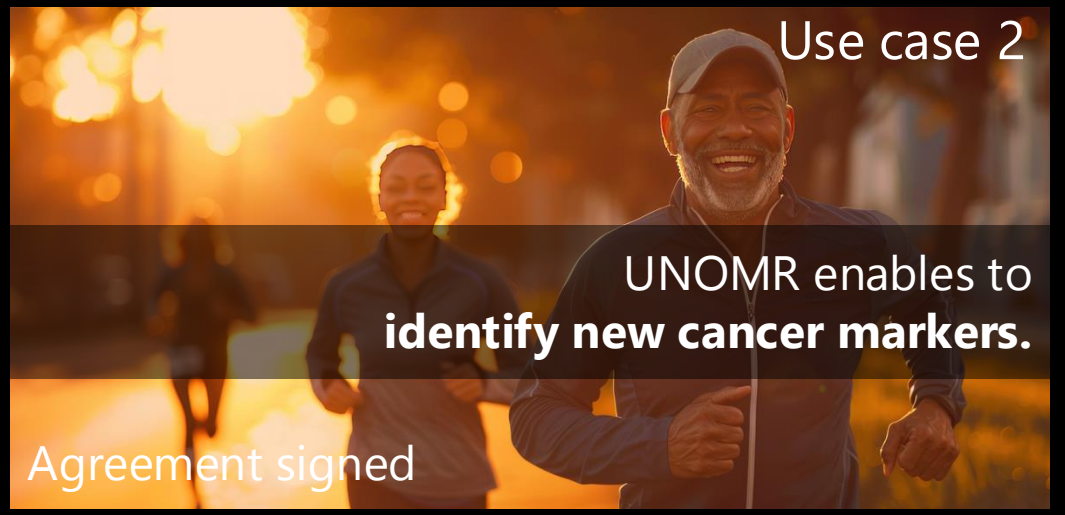
Customers We Already Help

UNOMR

Customer's **goal:**
Developing **medical food**
(e.g. cancer preventive yoghurt)

The bottleneck **we solve**:
Glycans (= attached sugar) indicate medical impact, but **can't be measured**

The impact **we enable**:
Opening a **billion-dollar market**



Customer's **goal:**
Enabling **earlier tumor detection**
(e.g. prostate, pancreatic, breast cancer)

The bottleneck **we solve**:
Identifying next-generation of **biomarkers**

The impact **we deliver**:
Better and **cheaper preventive strategies**

Roadmap for **Fast Growth**

UNOMR

2 patent applications

5 peer-reviewed publications

5 LOIs

2 pilots

(Prospective) Partners

In advanced discussions with **large Swiss pharmaceutical companies** (undisclosed)

Evaluation of technology with **corporates providing scientific tools** (undisclosed)

Implementation of novel projects with **SMEs in biotechnology** (undisclosed)

Funding until now

Non-dilutive

> € 1.3M BRIDGE, Innosuisse, InnoBooster, SPRIN-D, and other

Convertible

€ 160k VENTURE KICK winner stage 3

<2025 PoC	Prototype	Early Access Device	**MVP**	**Series 1**
TRL 1-4	TRL 5	TRL 6	TRL 7	TRL 8 >> 9
2025	2026	2027	2028	2029

Pre-Seed (Q4 2025) → **Seed** → **A**

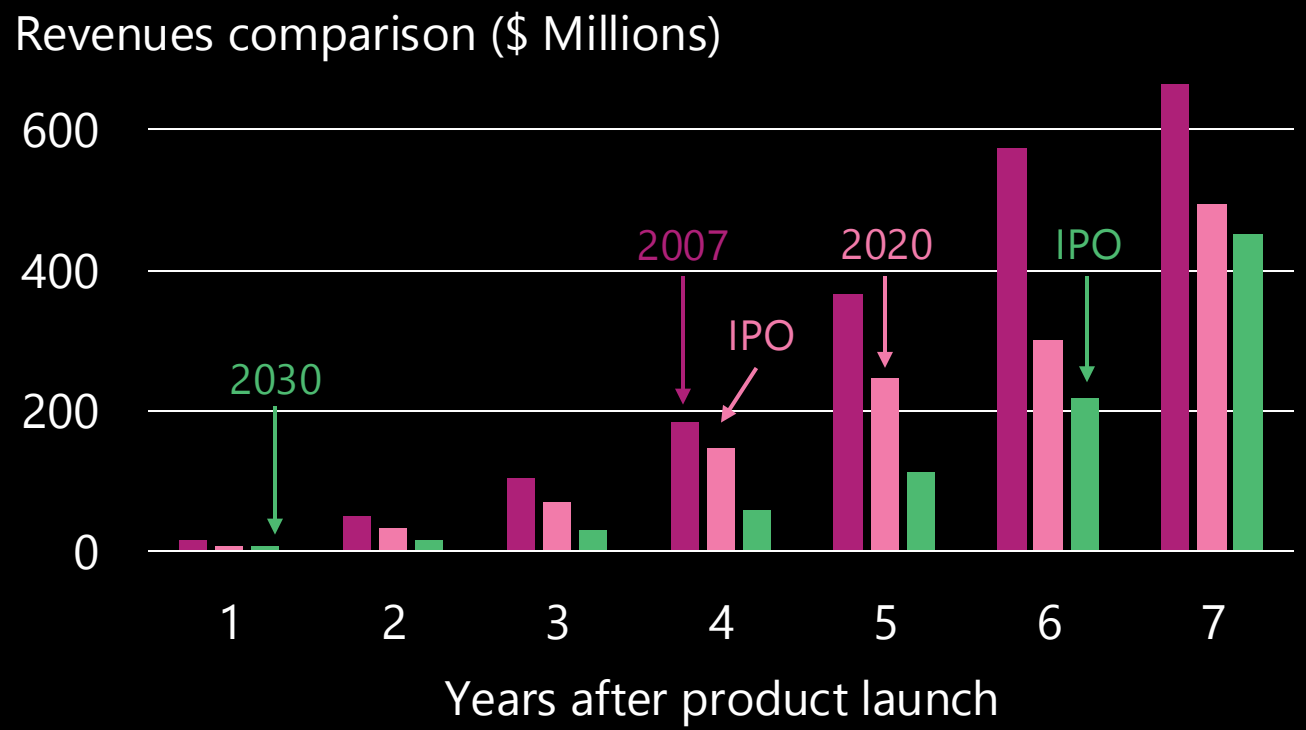
\+ non-dilutive funding

Exit plan: IPO (>2035)

Proven Growth **Model**

	illumina	10x GENOMICS	UNOMR
Market leader in	**genomics**	**single-cell genomics**	**proteomics**
Performance	founded in 1998, IPO 2000 2023: US$ 4'500m	14 years later	founded in 2012, IPO 2019 2023: US$ 620m	15 years later	founded in 2025, IPO 2035 2035: US$ 219m

Illumina and 10x Genomics prove that breakthrough platforms in molecular analysis can scale into billion-dollar businesses within a decade. Both companies followed a predictable growth curve: rapid adoption after launch, strong recurring revenues, and IPOs within 5–7 years. UNOMR is positioned to replicate this trajectory in proteomics, the next frontier, by enabling de novo protein sequencing – a capability that will redefine drug discovery and diagnostics. Market timing is ideal: genomics and single-cell genomics have matured, creating demand for deeper protein-level insights, and UNOMR's technology addresses this unmet need. For investors, this is a rare opportunity to enter early in a market poised for exponential growth and disruption once the technology becomes available.



Grow Team to **Boost Go-2-Market** & Development

Fundraising

UNOMR

18 months objectives

1 Team expansion

- Software & Machine learning
- System engineering
- Biochemistry

2 Technology

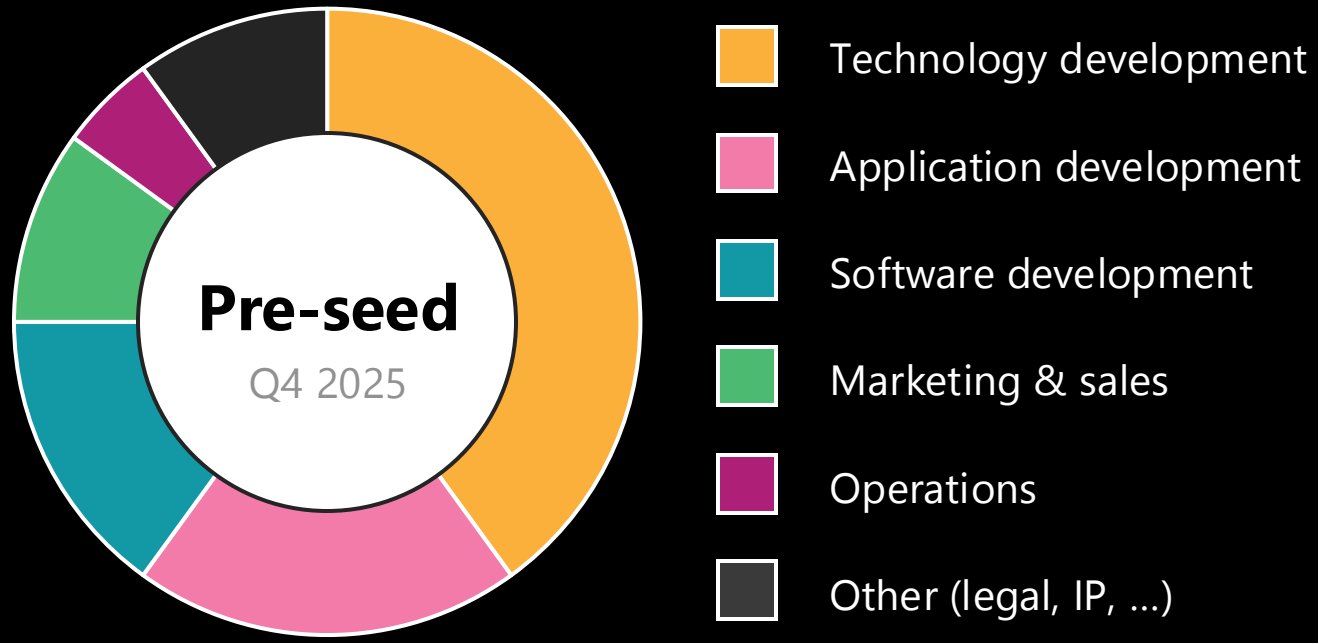
- Early access device in end of 2026
- On-site testing by mid 2027

3 Customers

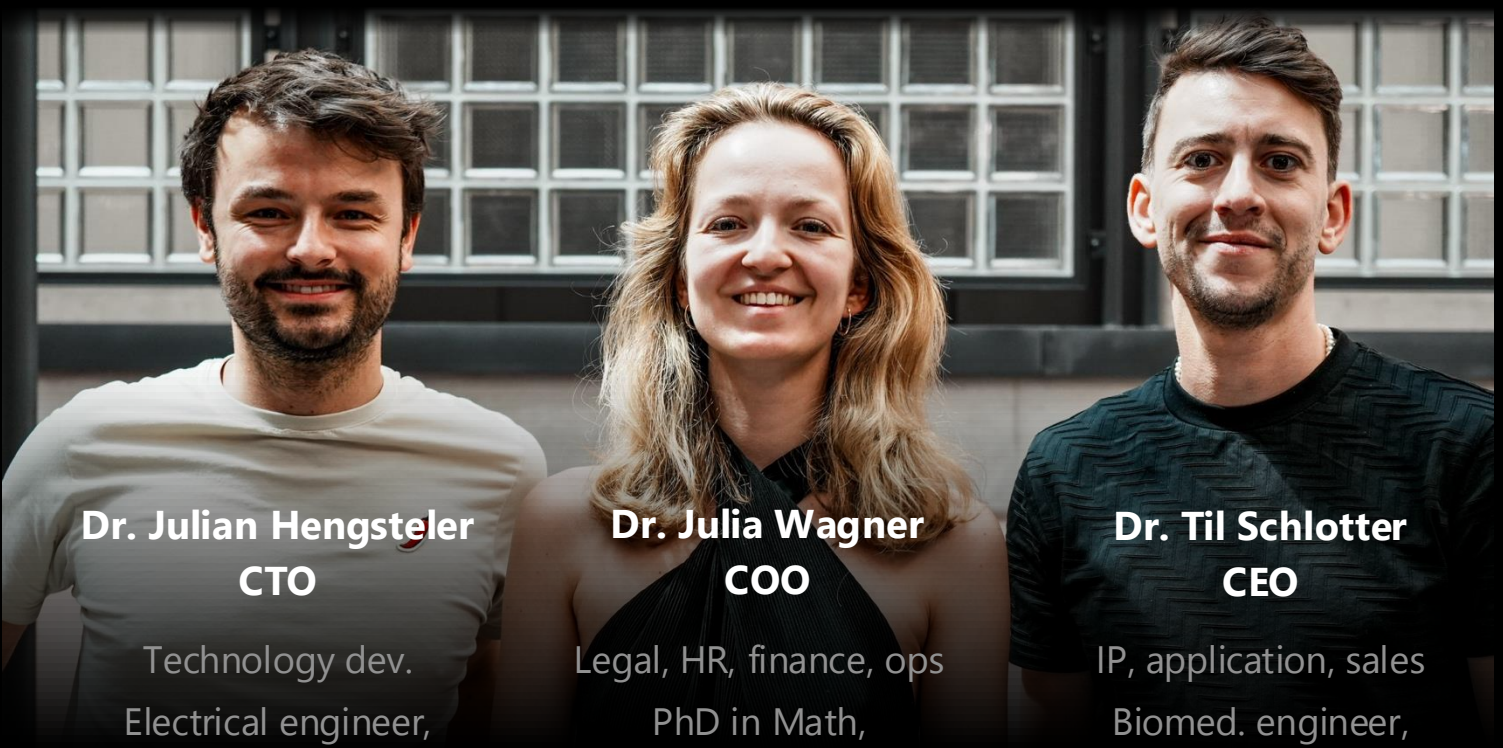
- Two additional paid
- Two more pre-orders

Raising pre-seed

(lead investor signed, closing January 2026)



Vision driven co-founders



Dr. Julian Hengsteler
CTO

Technology dev.

Electrical engineer,
PhD on technology

Dr. Julia Wagner
COO

Legal, HR, finance, ops

PhD in Math,
VC @ Positron

Dr. Til Schlotter
CEO

IP, application, sales

Biomed. engineer,
PhD on technology

SENSIRION NANOLEQ positron ventures S2S Ventures Deloitte. CARBON RECYCLING INTERNATIONAL

Dr. Mark Nüesch
biochemistry

Dr. Anahit Torosyan
biophysics

Dr. Martin Holub
bioengineering

Total team

+ 1 ext. software developer
+ 1 intern
+ students

Scientific advisors & collaborators

Prof. M. Aramesh
protein biophysics (ETH)

Prof. J. Vörös
bioelectronics (ETH)

Prof. N. Nakatsuka
aptamer sensors (EPFL)

Prof. W. Wong
Protein conjugation (Harvard)

Business & industry advisors

A. Sethi
Business coach
(Innosuisse)

R. Hahn
>20y pharma expert
(Novo Nordisk, Sanofi)

UNOMR
SINGLE MOLECULE

Revolutionizing Precision Medicine
with Nanopore-Based Protein Analysis

email us!

Supported by

ETH zürich
Laboratory of Biosensors & Bioelectronics
BMC laboratory
Innosuisse Swiss Innovation Agency
INNOBOOSTER GEBERT RÜF STIFTUNG
BRIDGE
VENTURE KICK
SPRIN-D
eit Health
EP PerMed European Partnership for Personalised Medicine
BIOINCUBATE
START FELD
Nucleate
Promega
UNTERNEHMER TUM
XPRENEURS INCUBATOR
MC MASSCHALLENGE
USZ Universitäts Spital Zürich
Lonza

info@unomr.com

UNOMR AG Switzerland, Uetlibergstrasse 44, CH-8045 Zürich

Dr. Til Schlotter | Dr. Julia Wagner | Dr. Julian Hengsteler