YTA LABS

Building the biggest database of validated peptides

TEAM

Jeremie Zumer
Co-founder, CEO

- PhD AI x Bioinformatics
- Ex-Microsoft, Mila Quebec
- >1000 citations, Research patent
- 4+ startups in various roles

Sumi Sunuwar
Co-founder, COO

- MSc Comp Sci
- 5+ years IT
- Design background
- Community event orgs

Timir Baran Sil
Biologist

- PhD biophysics
- Postdoc at Umeå
- AFM expert

Simone Fratta
Translational Manager

- PhD Molecular Chemistry
- Translational Manager, Cancer UK

Tu Cuong To
Computational Biologist

- x2 Techbio Founder
- GenAI for proteins

COLLAB

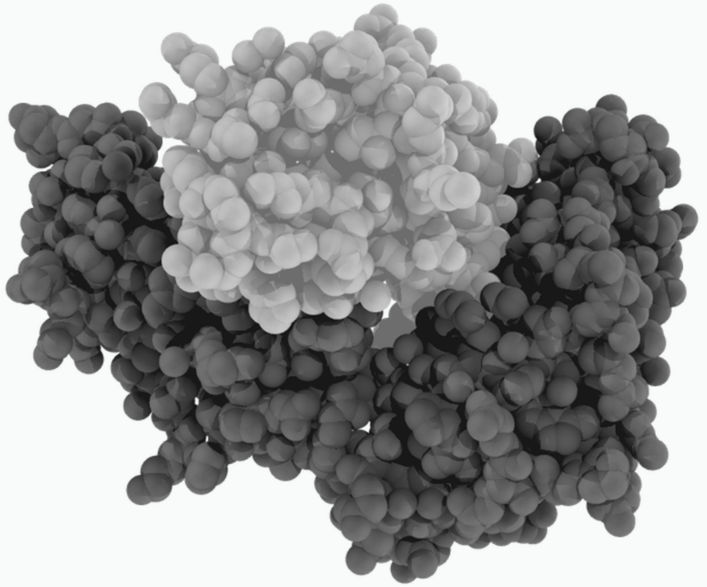
Adnane Achour
Professor

30+ years of peptide target experience

https://ytalabs.com - contact@ytalabs.com

Cell surface peptides

Hitting all the targets

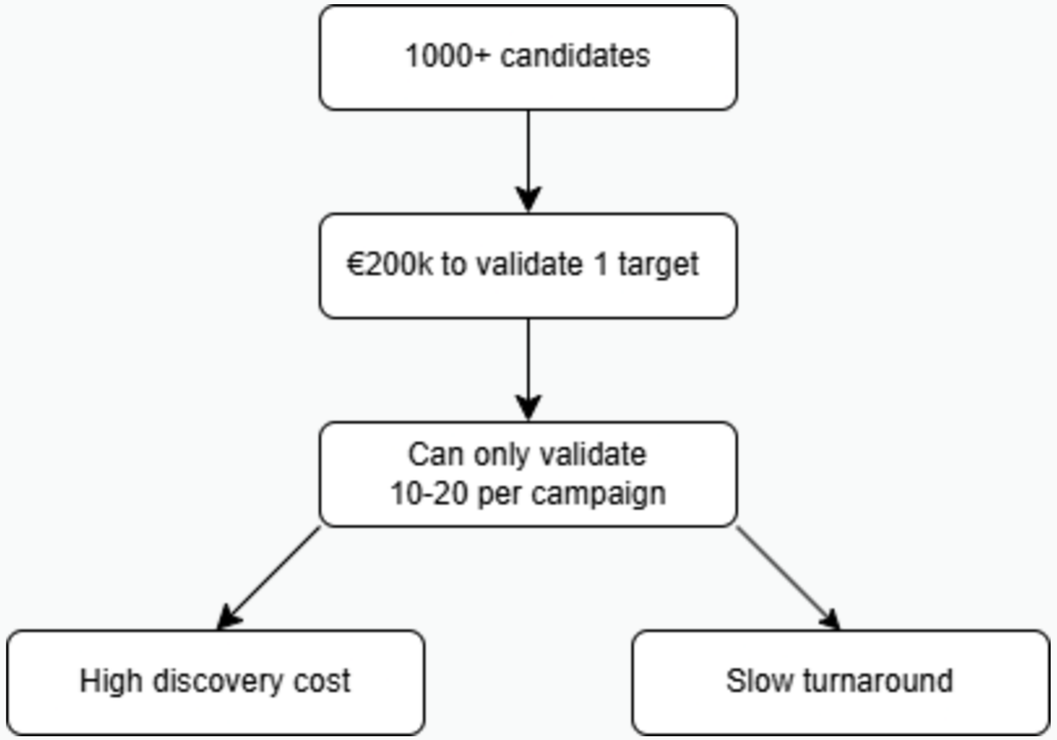


Peptides from all cell targets show up on the surface.
These are “cell surface peptides” (aka pMHCs).
Snapshot of exact cell state.
Unlike novel drug methods with unclear risk and safety in the 90% most expensive part of the pipeline, these peptide targets are safe and compatible with existing therapeutic methods.

Workflow

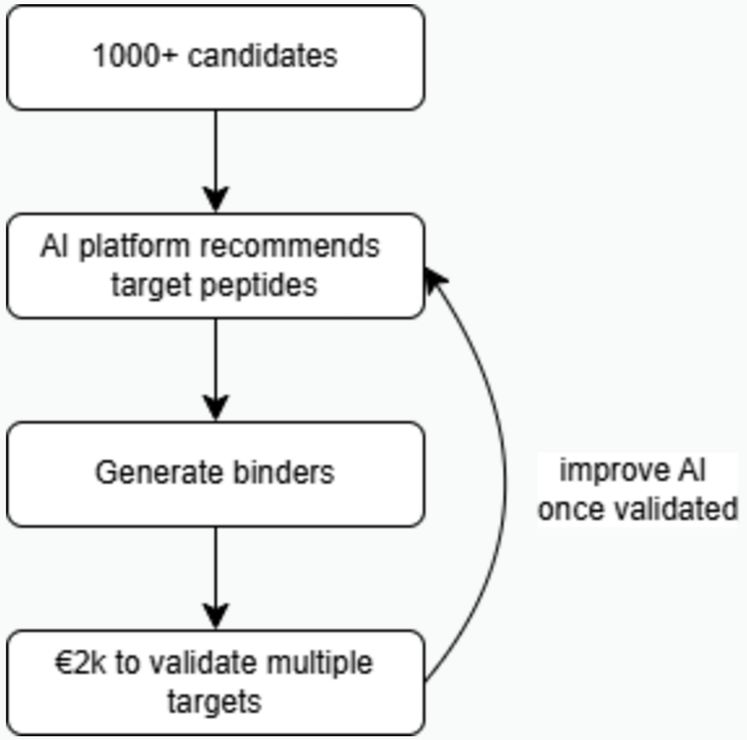
Current

Manual discovery.
Too many peptide targets.
Time consuming validation.
High cost.

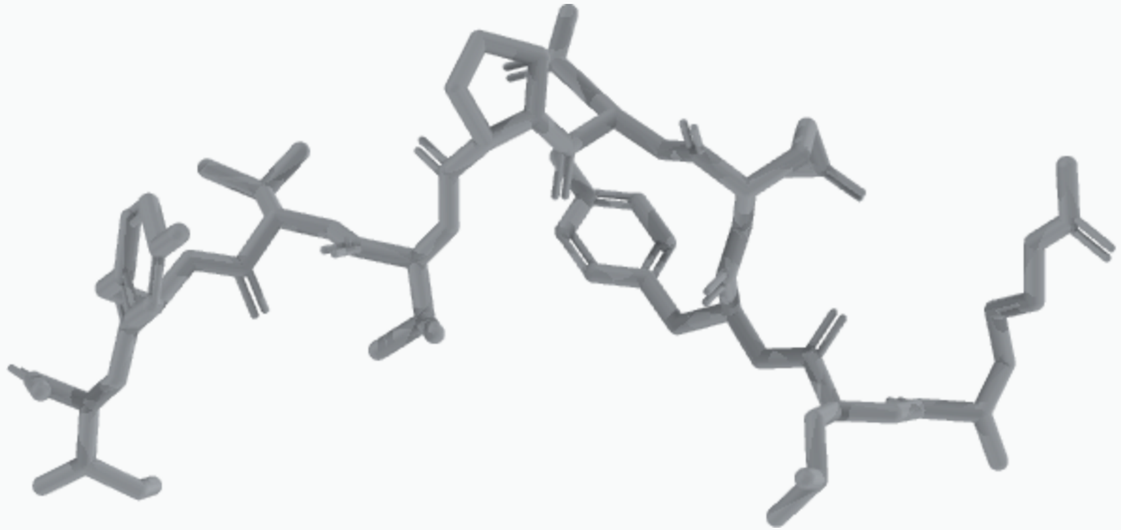


Ours

AI driven discovery.
Automated validation pipeline.
Convenient one-click solution.
Optimized for scale.



Target Identification



- YTA-001 - Meckelin: Meckelin and filamin-A colaborate in cilia formation, dysfunctions of which are involved in melanoma
- YTA-002 - FLOT1: Known to be overexpressed in melanoma
- YTA-003 - GRB10: Known to interact in melanoma through NEDD4-GRB10 interaction with IGF-1R-mediated cell proliferation
- YTA-004 - DEHAL1: No known interaction.
- YTA-005 - NALAADL1: No known association, but naftopidil (anti-NALAADL1) is known to reduce occurrence of various cancer types.

What are we doing now?

Profit Sharing

We partner together with a big pharma and share upfront + milestone payments

Affinity AI	They can make binders, but don’t know which targets to go after
Neo Splice Therapeutics	They have new hypotheses on target sources, but don’t know how to prioritize them
Dptx.ai	They can make binders and want to move into developing full therapeutics with our targets
Fletcher BioSciences	They struggle to figure out which peptide will show up on rare alleles (agreed to postpone)
Karolinska Institutet	Need a method for binder generation and for target selection (pilot entered)

Paid

We get paid per target or for platform use

ImmunoEdge	They can find better candidates, but can’t find which one to select first. €1m per target agreement. First phase pilot success.
Karolinska Institutet	In addition to Profit Sharing, we are finalizing a platform access deal with yearly commitment as a result of the first phase of the initial pilot.

Business Model

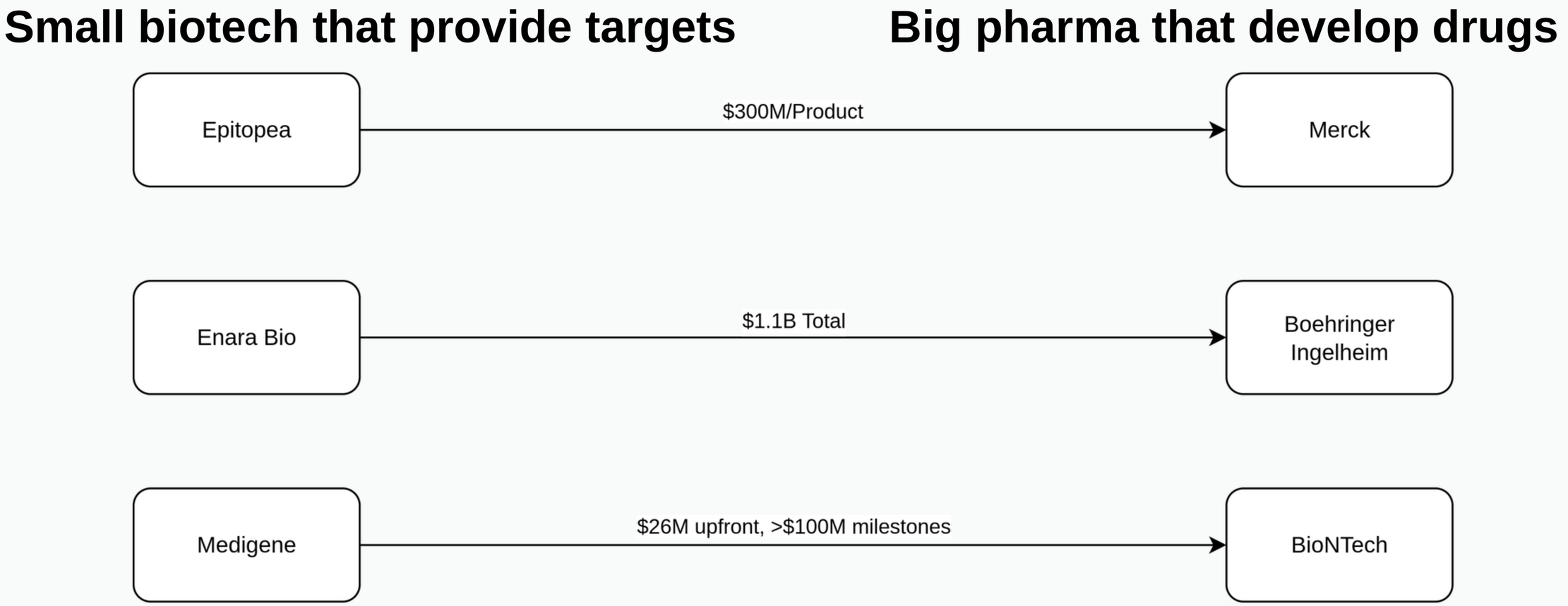
Primary endpoint through typical discovery deal format:

- Small biotech identifies targets + validate
- Big biopharma pays upfront

(€5m before validation, €25-50m with validated platform)

- Big biopharma pays milestone payments (>3fig €m) each further clinical phase
  - Months for IND
  - Months to a year for Phase I
  - 2 years for Phase II
  - 4-5 years for Phase III

Current similar deals in cell surface peptide targets



Timeline

Yta Labs

	Now	12th Month	36th Month	60th Month
Milestone	Problem & solution validation Technology developed 2 academic partners	3 comp biologists hired; >1k datapoints in database; Validated bio loop (derisked via partners); validated AI improvement loop; 2 paid partners; >3 partners	>10 partners; scaled infra; >100k datapoints in database; enriched bio labels; published results with partner/scientific validation; in-house biologist (strategic), +5 tech workers (comp bio, infra, dev, data)	First big pharma deal signed; end-to-end repeatable target identification; headcount expansion to cover partnerships, strategic platform growth, bio strategy, and outreach
Fundraise	€1.4M	€4-5M	€15-25M	€30-100M
Phase	Pre-Seed	Seed	Series A	Series B

Summary

- **9x cheaper, 15x faster** target identification + validation
- **Novel targets** identified and ready to test in the lab
- **Expert team of PhDs and MSc's** from MILA, Microsoft, Thermo Fisher, KI, ...
- **AI binder companies say:**

"*We can make binders against everything, but what should we target?*"

We are the answer.

- **Biopharma companies are out of targets.** We find new quality targets in days.

Questions?

contact@ytalabs.com

Timeline

Enara Bio (Spinout from Francis Crick, form. Ervaxx 2016)

	2018	2019	2024	2026
Milestone	Initial platform PoC, Francis Crick translation prize	17 computationally selected melanoma antigens, 1 validated in lab.	Boehringer Ingelheim Partnership deal $1.1B biobucks (2021). Plan to pivot to asset. 3 partnerships (academic)	Boehringer Ingelheim expansion, first-in-human study planned
Funding	$1.7M early $7.73M total	$17.5M	$32.5M	-
Phase	Seed	Series A	Series B	-
Implied Valuation	$55-75M	$70M-87.5M	$130-160M	-

Timeline

Immunai (2018)

	2020	Q1 2021	Q2 2021	2026
Milestone	Acquire IP from Stanford, initial database (millions of cells)	Partner’s PoC NKT candidate based on their platform; 10+ partnerships (hospitals, academics)	30+ partnerships; Dropprint Genomics + Nebion acquisition for improved bio labels on database; Scaled compute + head count; First biopharma partnerships (AZ discovery deal)	Expanded offices to 3 different locations. Collaboration expansion at $37.5M
Funding	$20M	$60M	$215M	-
Phase	Seed	Series A	Series B	-
Implied Valuation	$80-100M	$240-400M	$1.15-1.2B	-