

Sept. 2026



1st-in-class therapies tuning immunometabolism to defeat age-related inflammatory & autoimmune disease

supported by:

general inception[™]



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CEO & co-founder

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Anti-inflammatory biologics (e.g. Humira) are commercially successful tx for age-related inflammatory & autoimmune diseases, but have **major flaws**

Humira patient response in Rheumatoid Arthritis (RA):

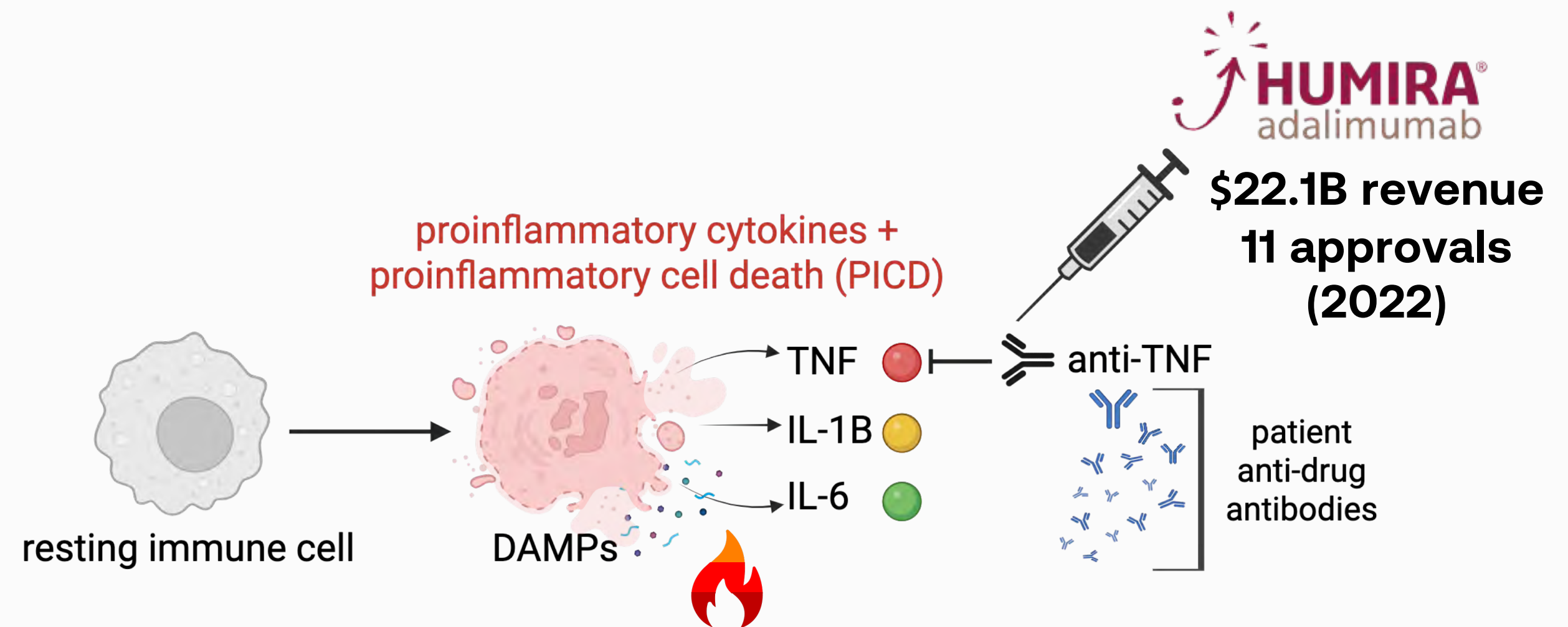
30% don't respond

Blocking just one cytokine isn't enough ("cytokine redundancy")

50% of initial responders develop resistance

due to anti-drug antibodies

**Expensive to manufacture
+ requires injection**





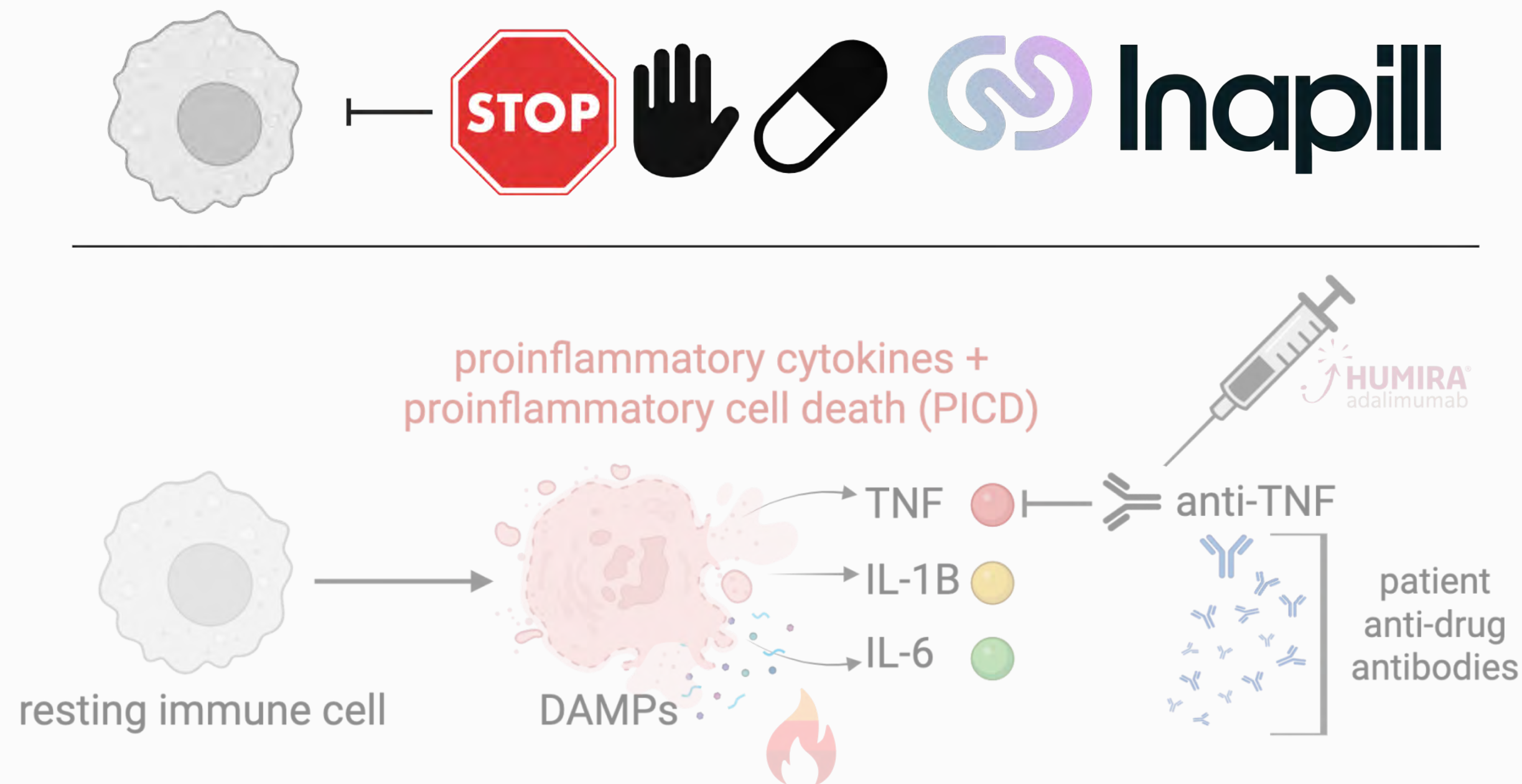
Inapill will make a **superior oral anti-inflammatory therapeutics** for age-related chronic inflammatory & autoimmune diseases

Works upstream to prevent immune cells from even becoming proinflammatory

Blocks **multiple proinflammatory cytokines**

Blocks **PICD**

Avoids drug resistance





Inapill approach: target **mTORC1**-dependent metabolic shifts in immune cells required for **proinflammatory cytokine production** and **PICD**

Internally discovered,
1st-in-class approach

MoA avoids tox of existing inhibitors (e.g. Rapamycin)

Approach externally validated
by **top academic labs & publications in top journals**

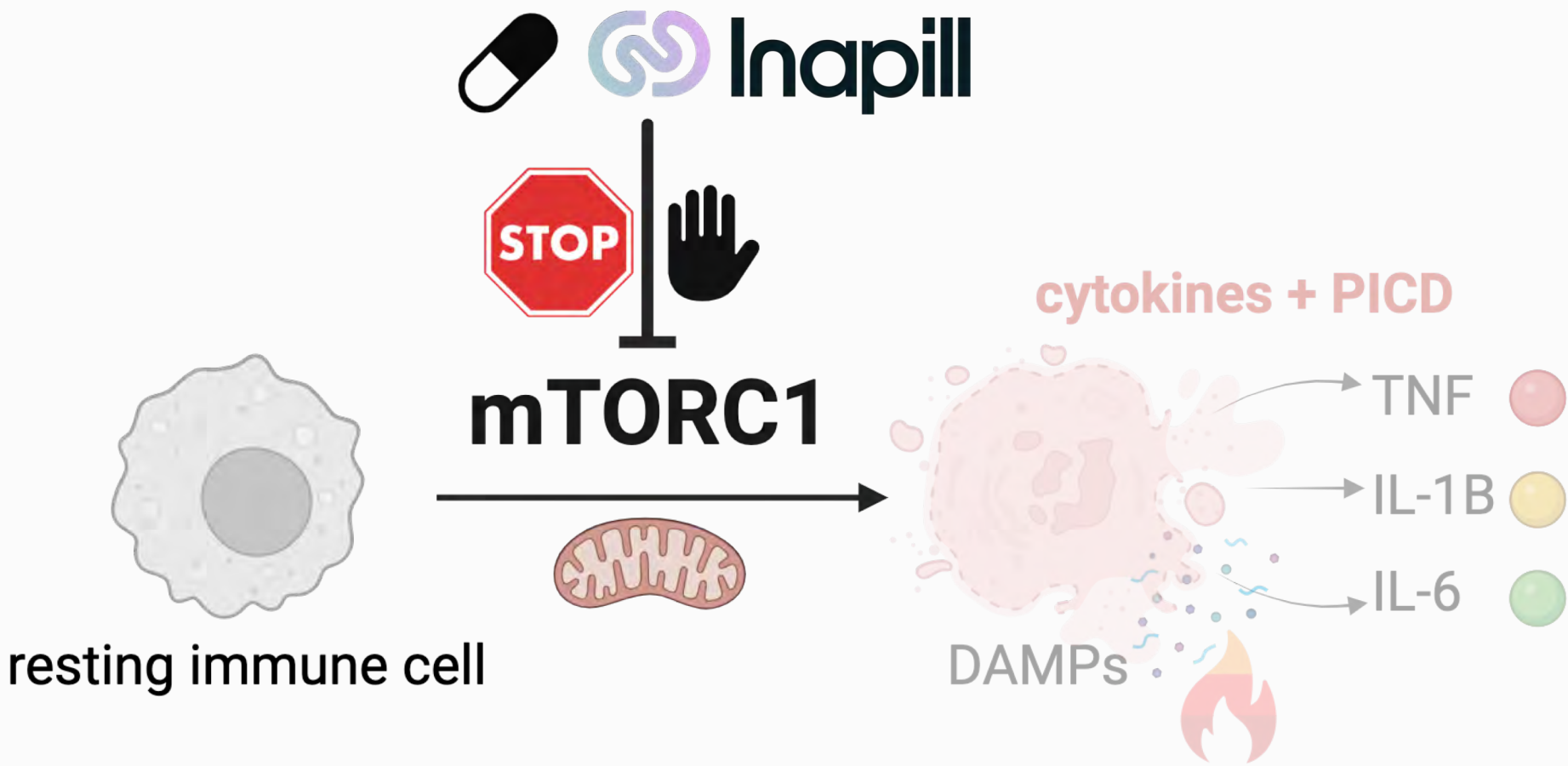
 **Cell** Supports open access

Control of gasdermin D oligomerization and pyroptosis by the Ragulator-Rag-mTORC1 pathway

Charles L. Evavold^{1,7} · Iva Hafner-Bratkovič^{1,2,3,7} · Pascal Devant¹ · ... · Arlene H. Sharpe^{4,5,6} · Jay R. Thiagarajah¹ · Jonathan C. Kagan^{1,8} · ... Show more

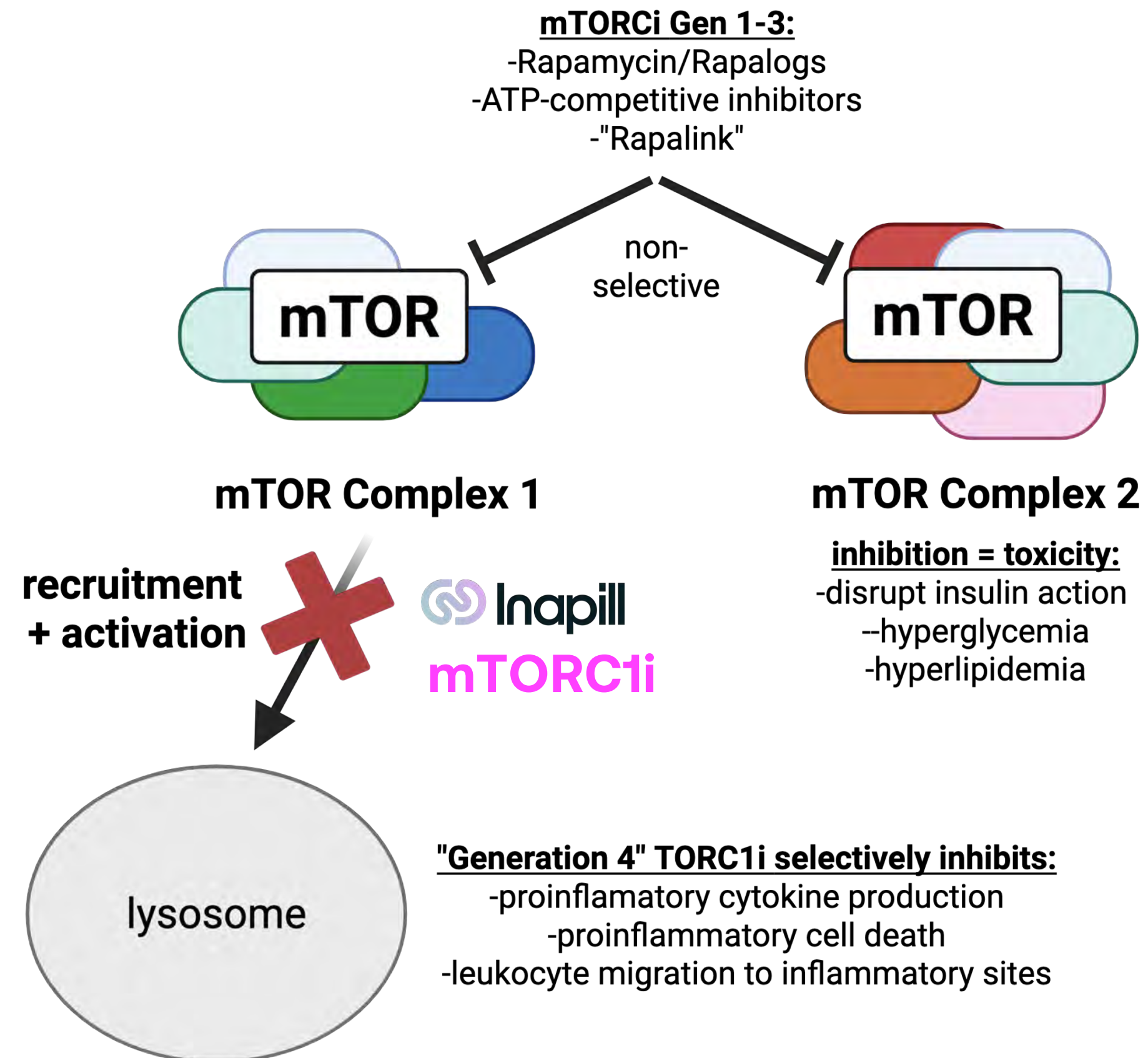


Evavold *Cell* [2021](#)
Jon Kagan, Ph.D.
(SAB member)



Timblin *Nature Metabolism* [2021](#)

Inapill is targeting **lysosomal proteins** that activate mTORC1 (but not C2), achieving **unprecedented specificity** vs. previous mTOR inhibitors



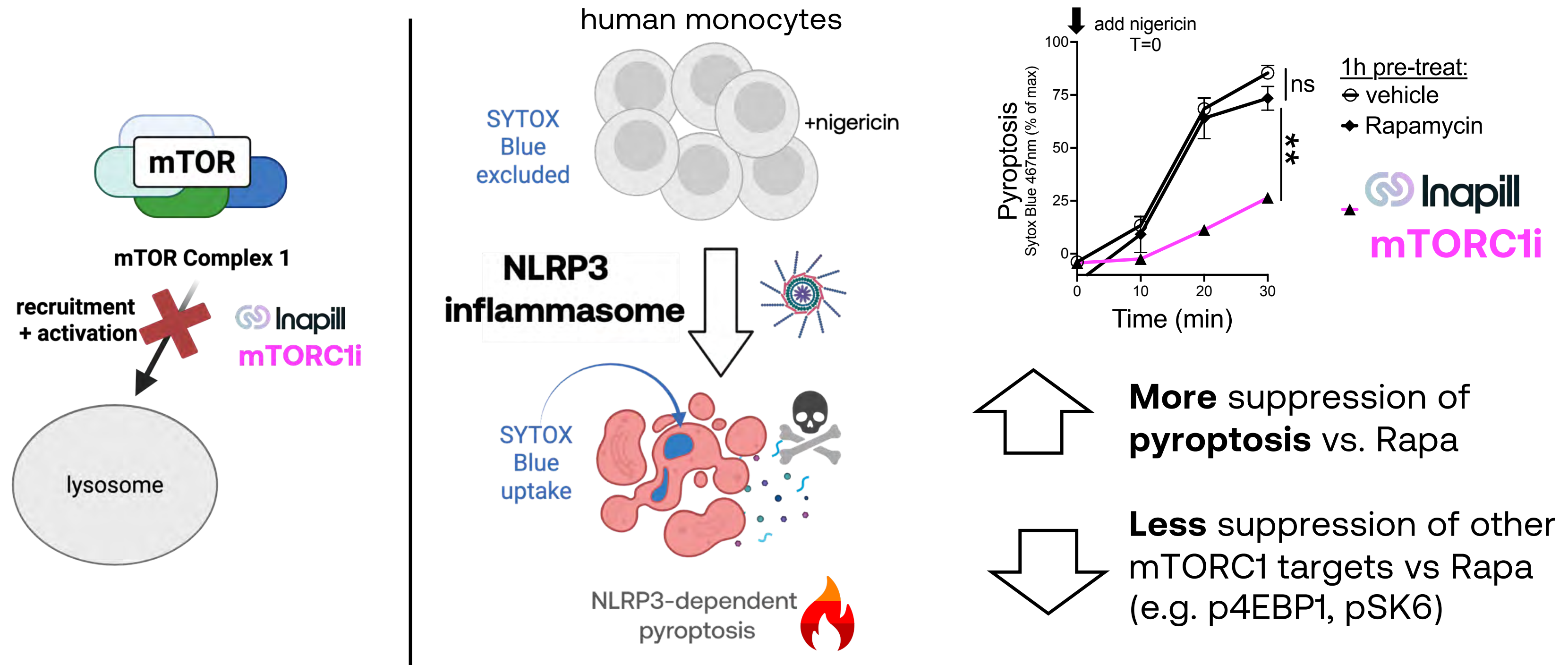
off-target C2 TOX precludes use as autoimmune disease tx

METABOLISM | MARCH 18 2010

Chronic Rapamycin Treatment Causes Glucose Intolerance and Hyperlipidemia by Upregulating Hepatic Gluconeogenesis and Impairing Lipid Deposition in Adipose Tissue 

Vanessa P. Houde; Sophie Brûlé; William T. Festuccia; Pierre-Gilles Blanchard; Kerstin Bellmann; Yves Deshaies; André Marette 

Inapill's mTORC1i MoA inhibits proinflammatory processes **better than** existing modes of mTOR inhibition (e.g. Rapamycin)





Inapill will make the **1st oral tx for CAPS**, an orphan autoimmune disease driven by an **NLRP3-** and **mTORC1**-dependent inflammaging pathway



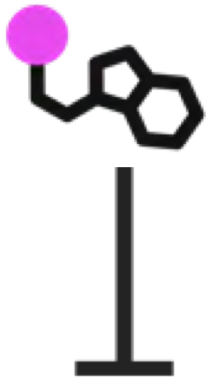
discovered
CAPS
Nlrp3
mutations

Dr. Hal Hoffman
UC San Diego

CAPS
activating
NLRP3
mutations

>

 **Inapill**
lead molecule =
immune-selective
mTORC1 inhibitor

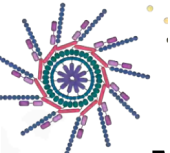


mTORC1/
gasdermin

>

cytokines
+ **PICD** 

>



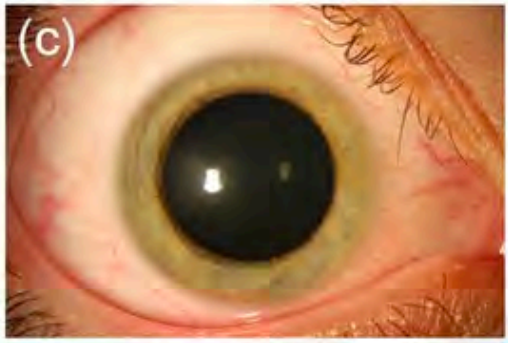
CAPS
pathology

(a)

Daily symptoms

- Fever
- Headache
- Musculoskeletal symptoms (arthralgia, arthritis, myalgia)
- Abdominal pain
- Urticarial rash
- Conjunctivitis
- Fatigue

(b) 

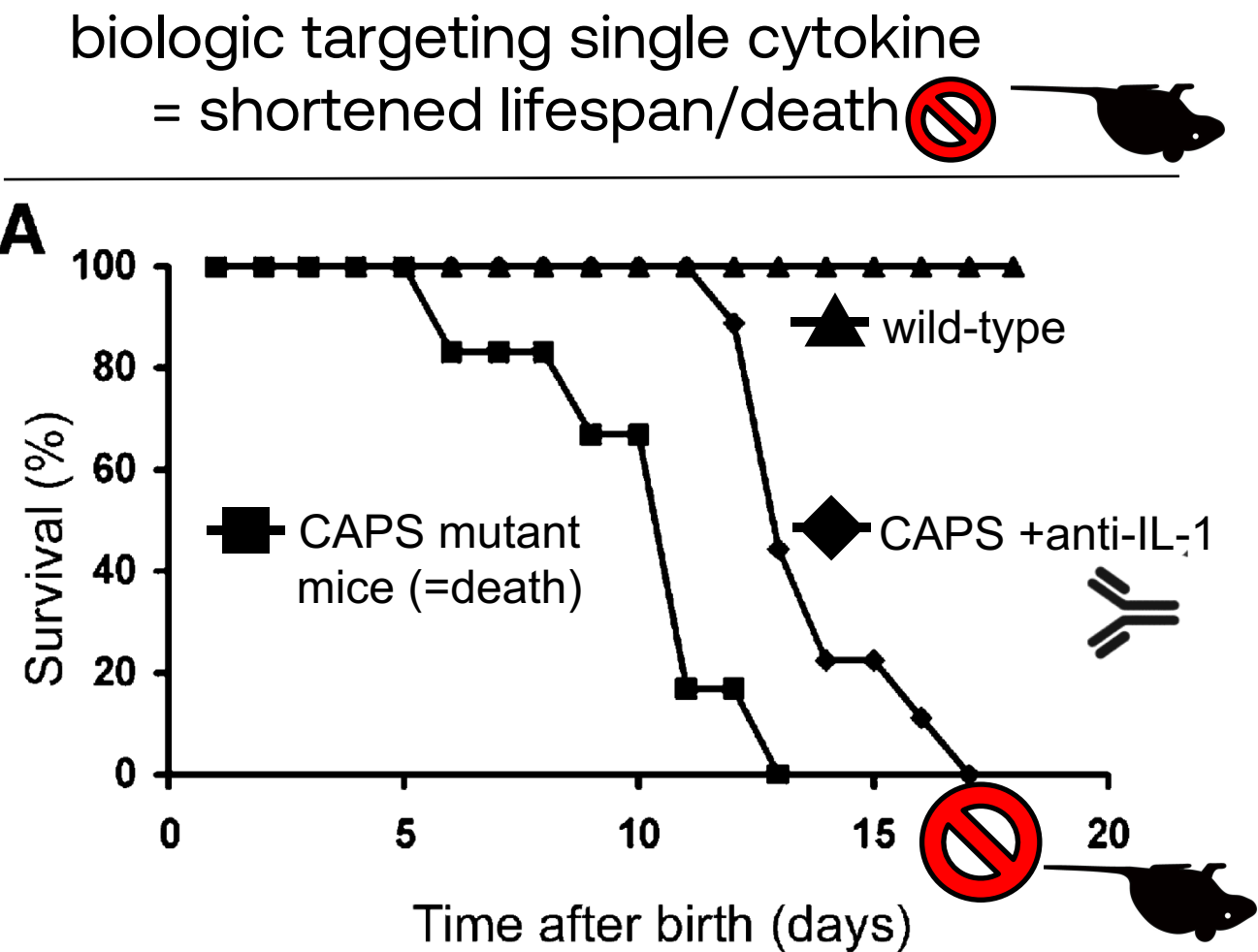
(c) 

Coll *Nature Medicine* [2015](#), Xiao *PLoS Biology* [2018](#), Evavold *Cell* [2021](#)

poorly managed w/ anti-IL-1 biologics

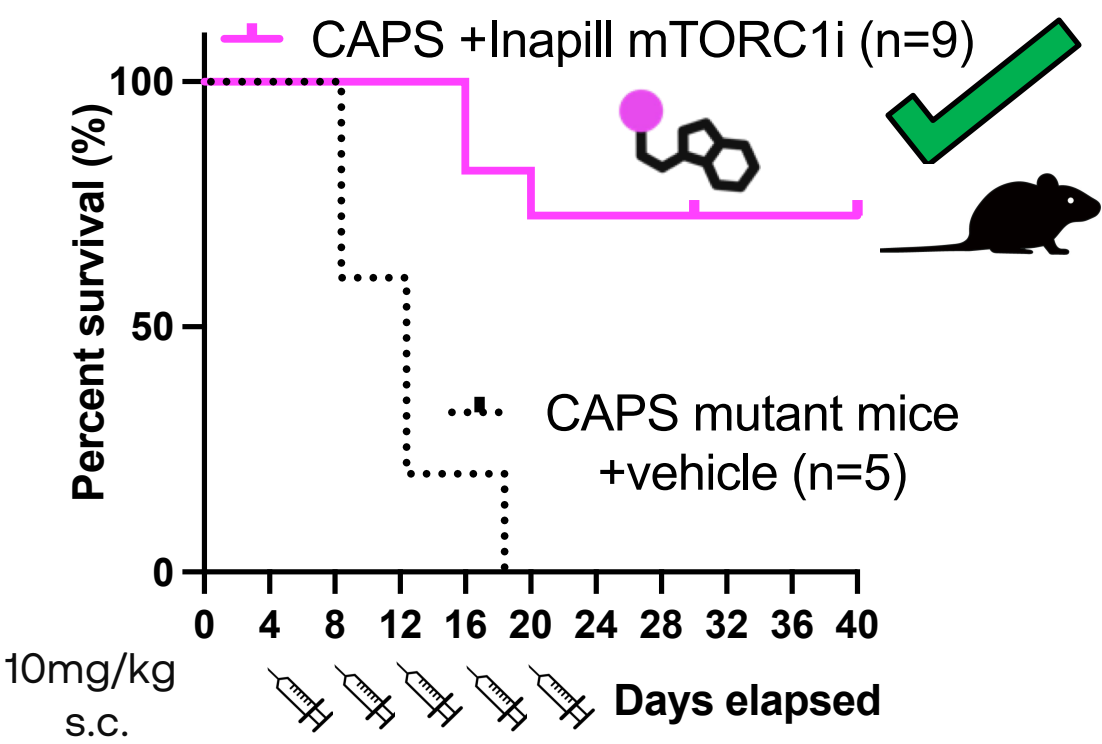


Inapill's lead immune mTORC1i targets validated biology to **cure CAPS mice** in which *biologics fail* to prevent lethal inflammaging

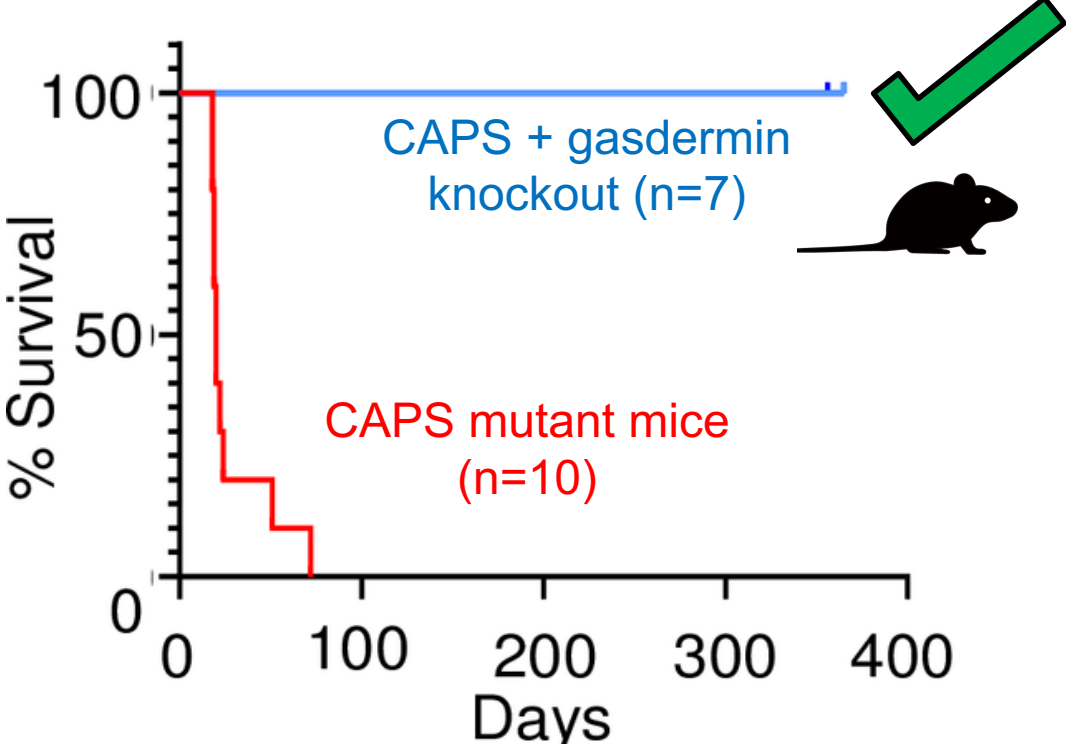


Brydges Immunity [2009](#)

Targeting **mTORC1**/gasdermin pathway w/ small molecule **or** genetics
= survival! 



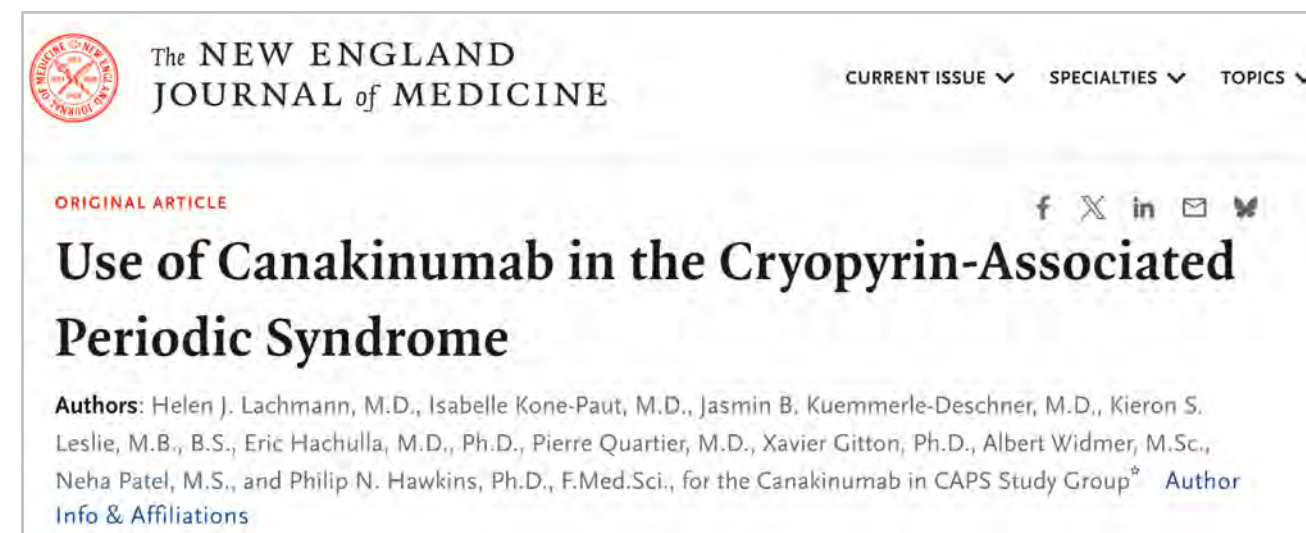
 **Inapill** + Dr. Hoffman
(unpublished)



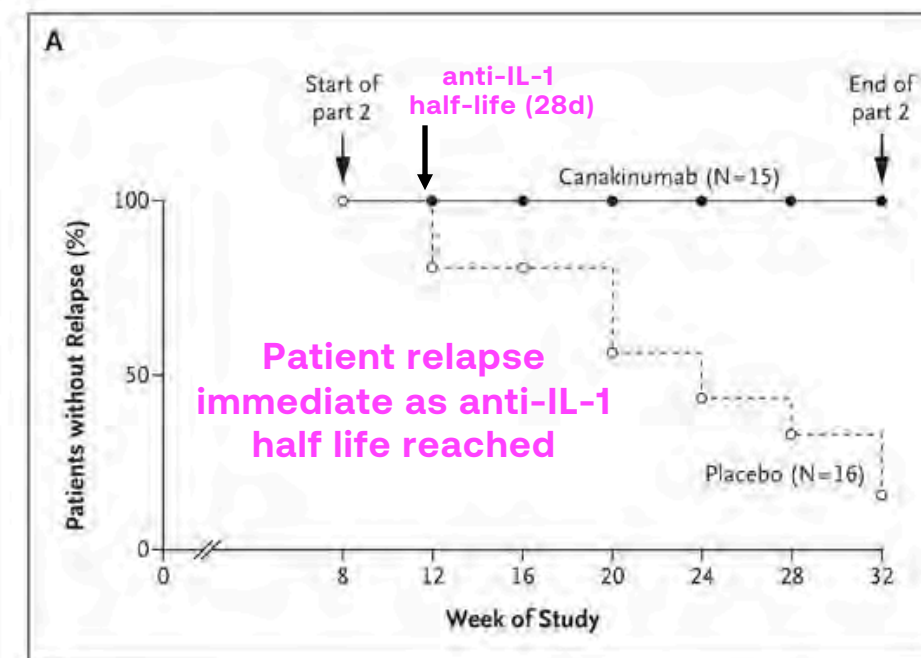
Wang Sci. Trans. Med. [2021](#)

Vision: rapid anti-IL-1 market expansion
20+ inflammatory indications (\$10B+ market, 2030)
(CAPS, SJIA, AOSD, MAS, CRS, etc.)

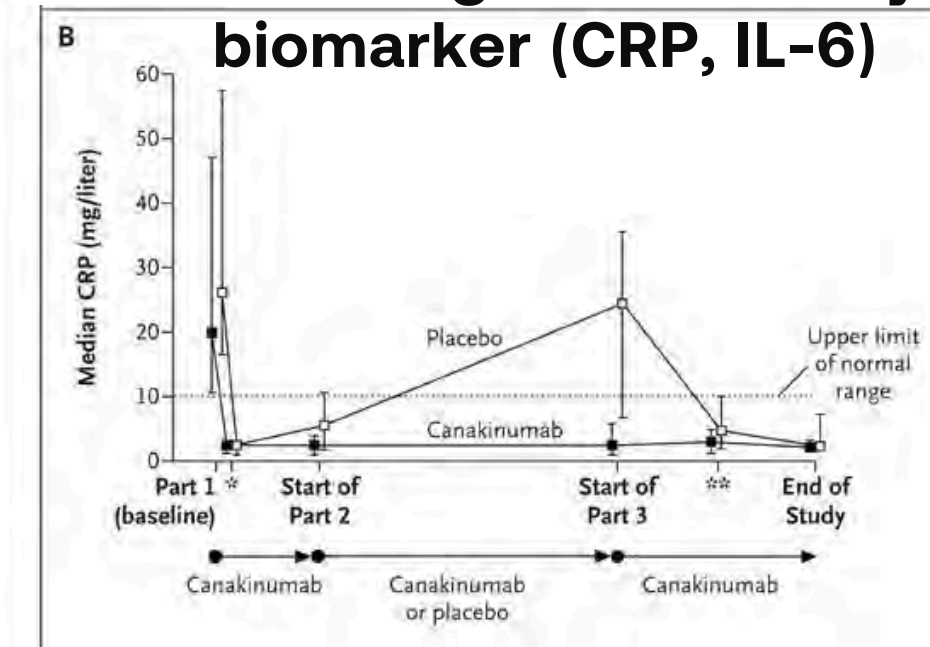
Novartis used **CAPS** to get a rapid 1st approval in small, fast trial for **a now billion-dollar biologic** (Canakinumab, **\$1.9B** revenue 2025)



CAPS clinician disease score



Circulating inflammatory biomarker (CRP, IL-6)

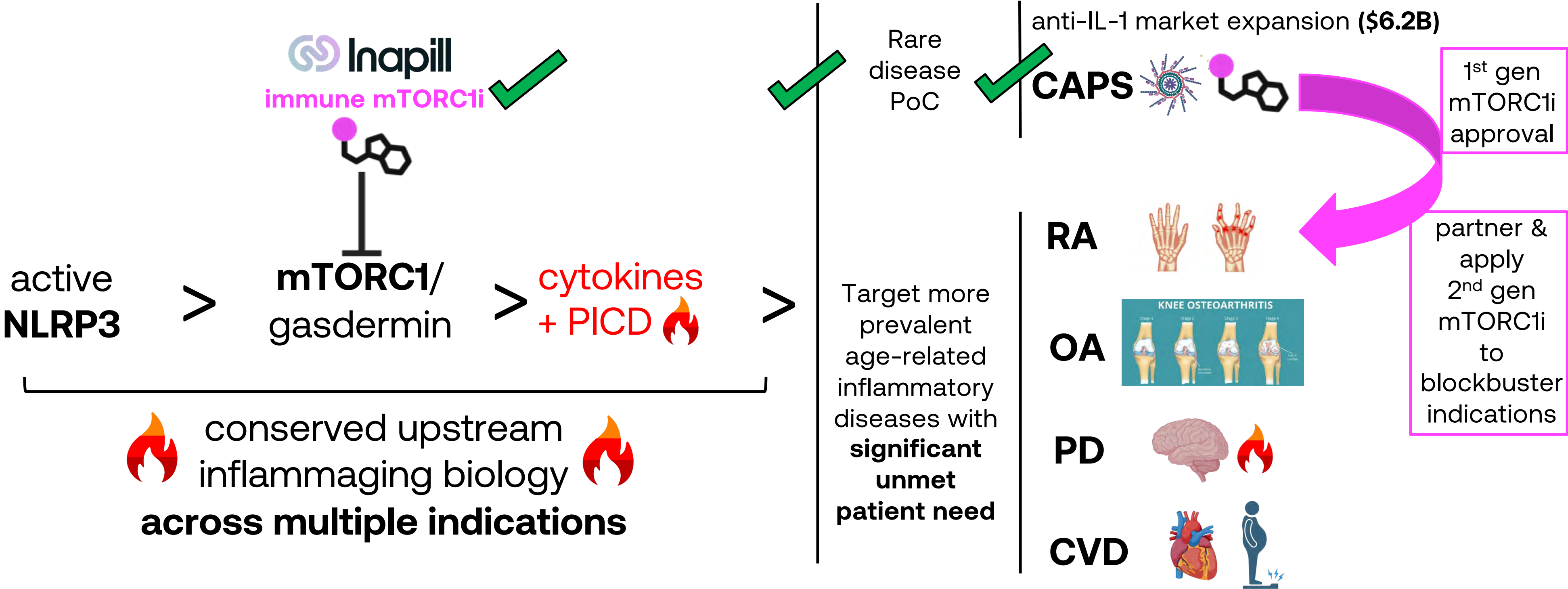


Simple trial design: recruit current anti-IL-1 responders, stop tx & give placebo or mTORC1i, track disease score + inflammatory blood biomarkers

Interim Ph 2 efficacy data **in weeks!** Fast entry to **10B+ anti-IL-1 market** w/no oral tx

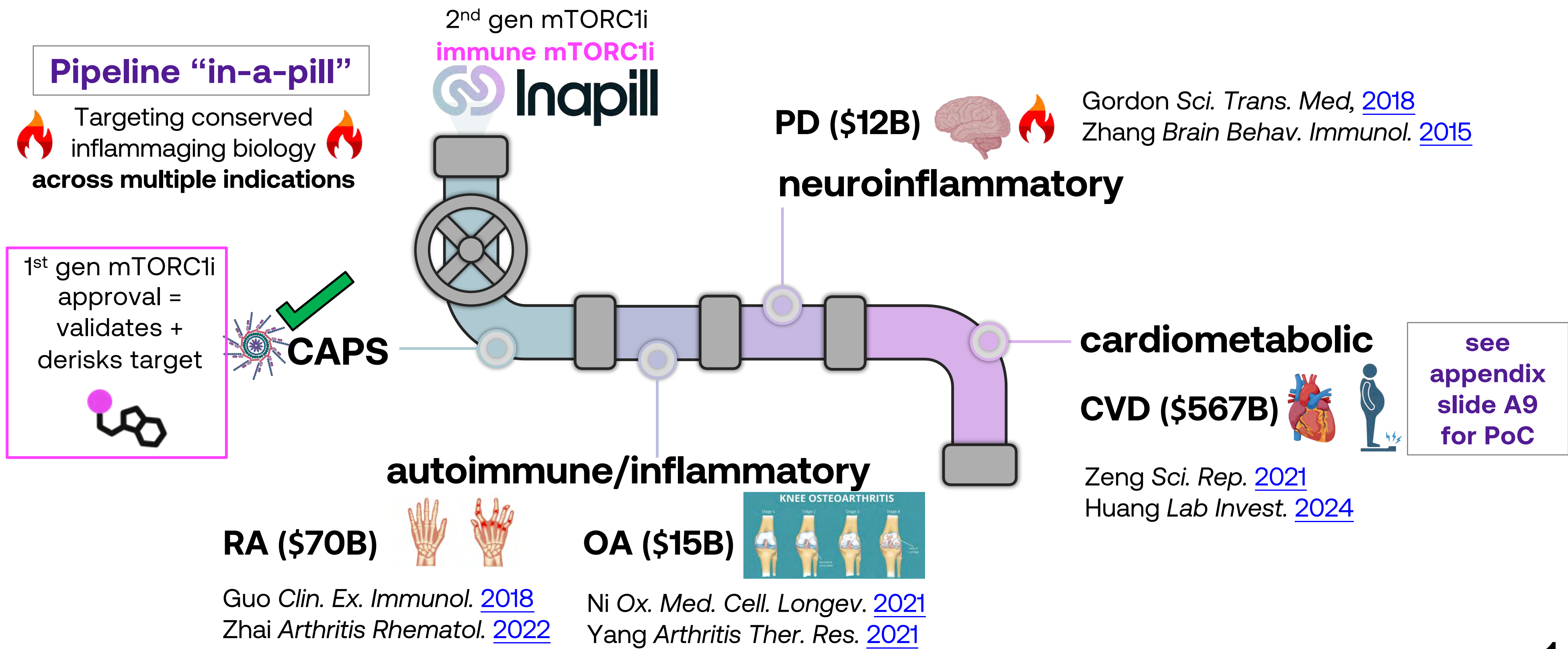


After CAPS clinical PoC, Inapill will secure partnerships to treat age-related inflammatory diseases driven **by the same upstream biology as CAPS**

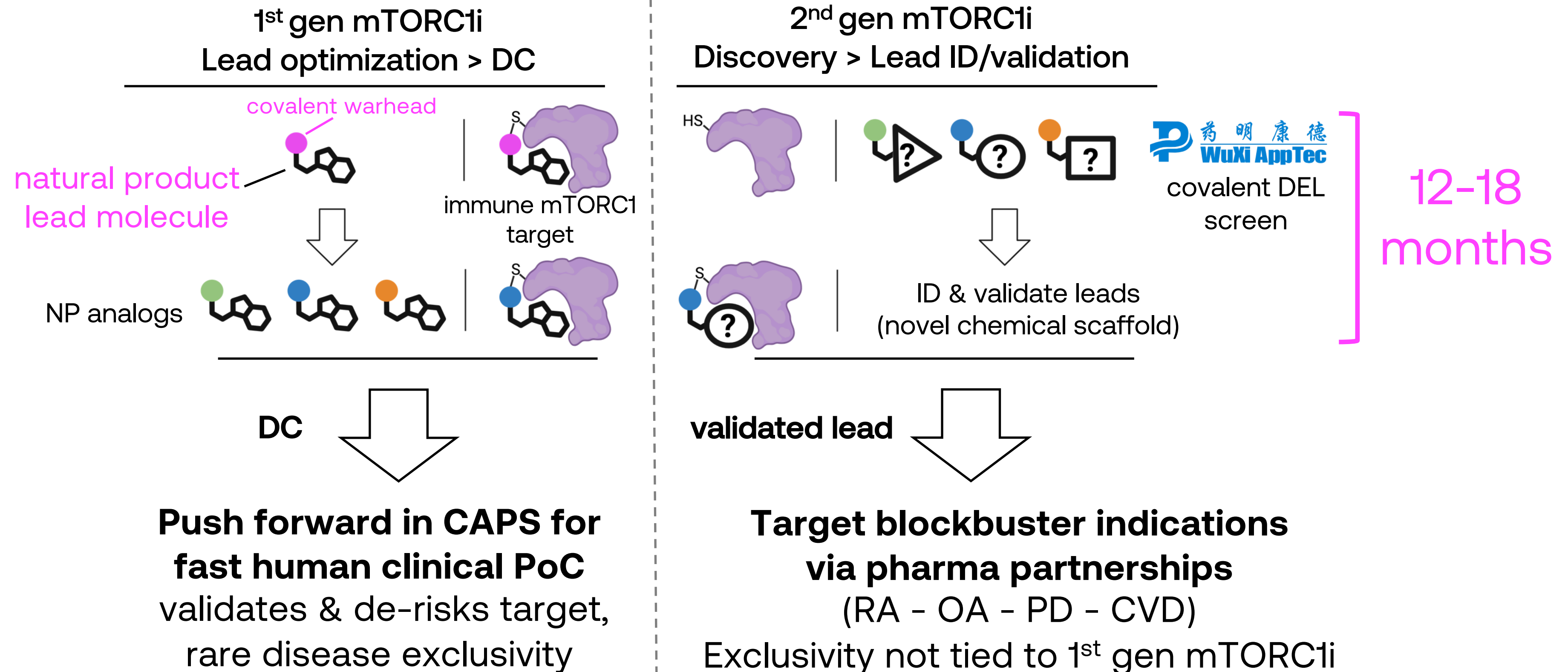




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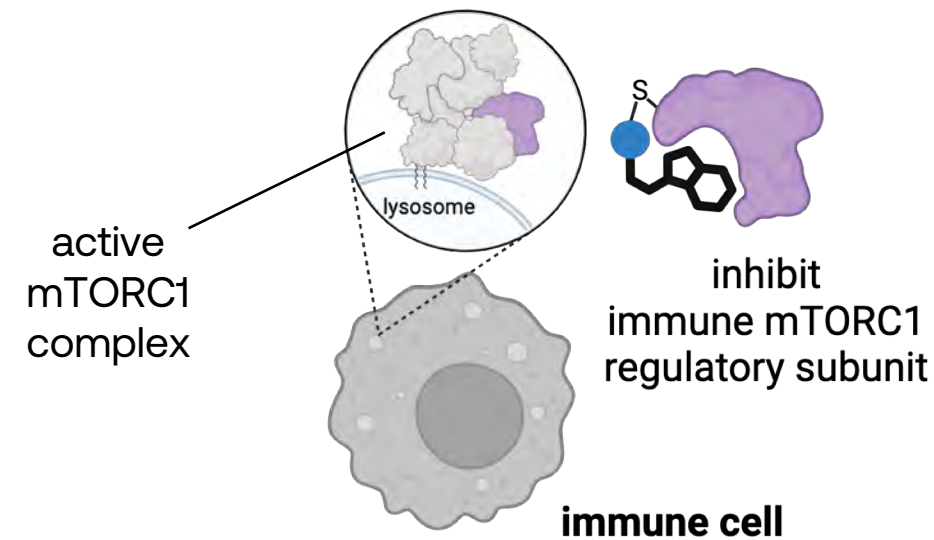
\$3M will advance Inapill's **1st** and **2nd gen** immune mTORC1i programs, enable ID of our first DC, and build out Inapill's IP moat around MoA



Inapill will use **\$3M** to **build platform** around of an **new class** of mTORC1i against lysosomal targets with **cell type-/tissue-specific expression**

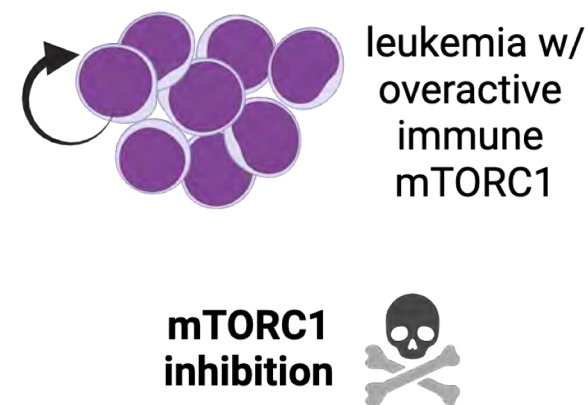
Inapill modality:

immune mTORC1i



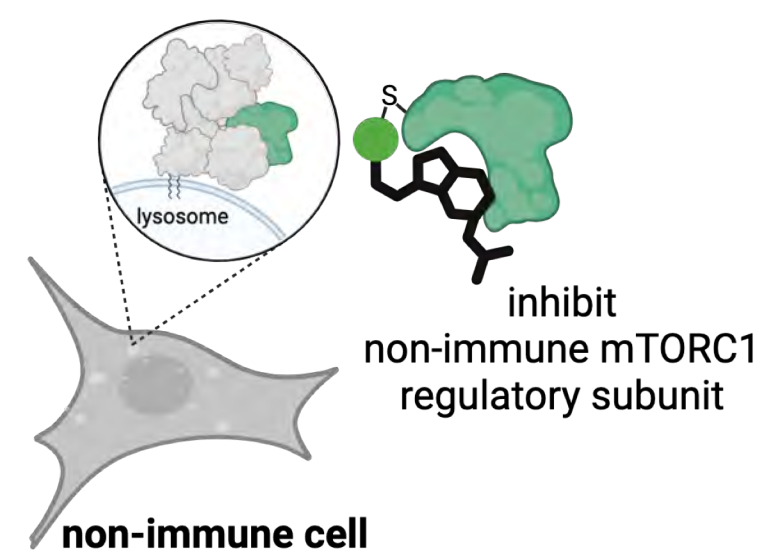
indications:

oncology
(blood cancers)

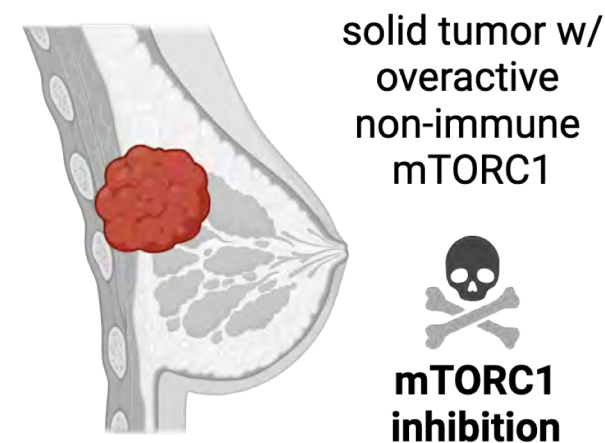


Okosun *Nat. Gene.* [2015](#)

non-immune mTORC1i

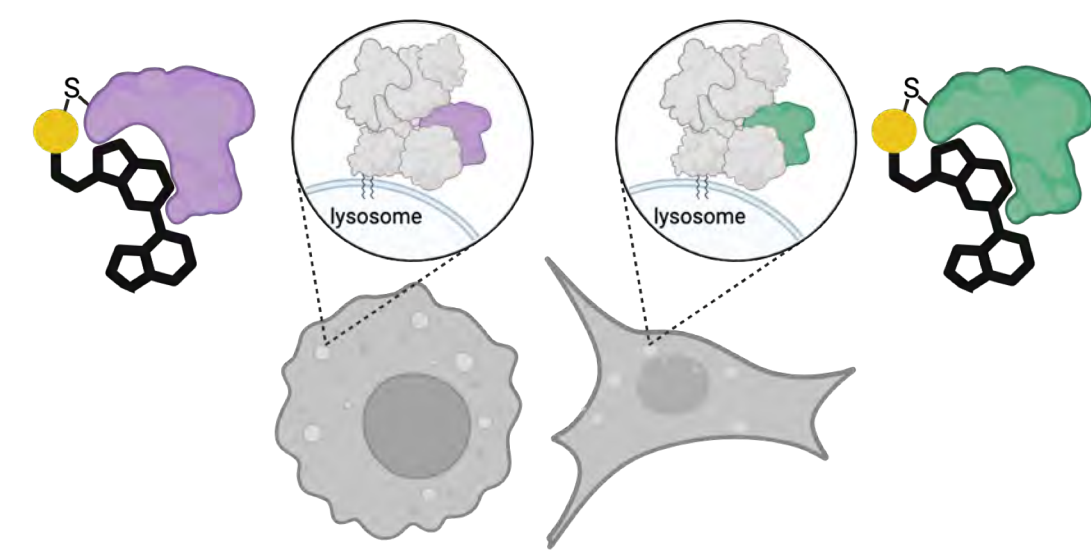


oncology
(solid tumors)

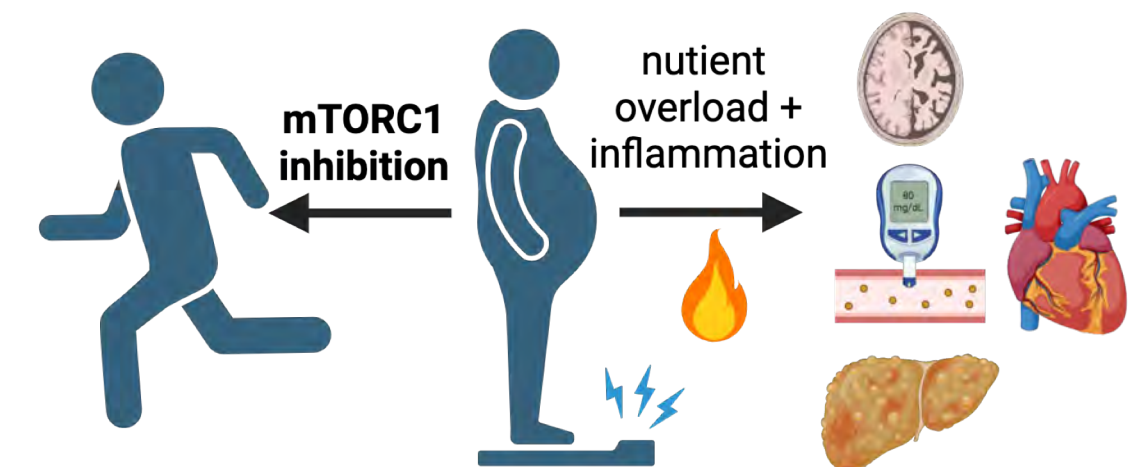


Di Malta *Science* [2017](#)

pan-mTORC1i

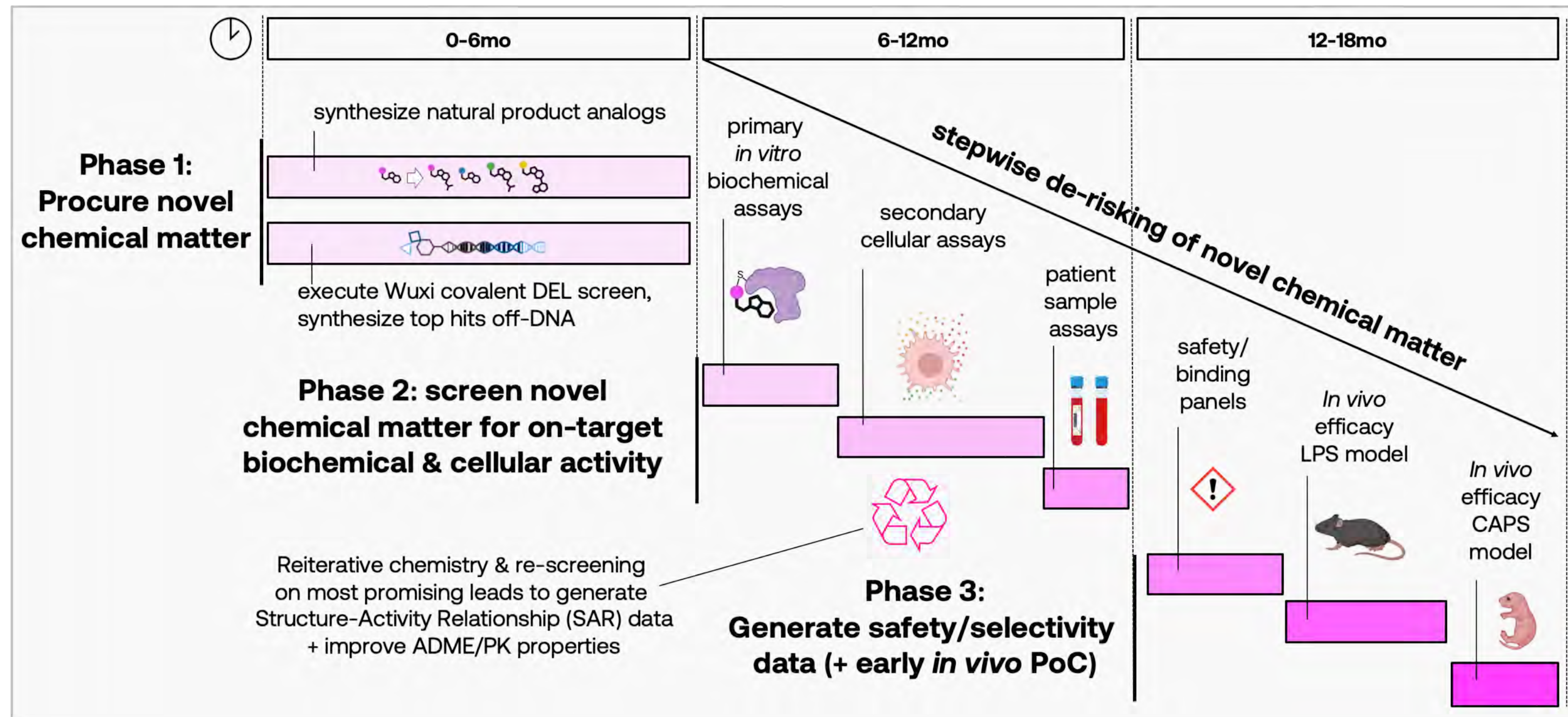


cardiometabolic
disease



Um *Nature* [2004](#)

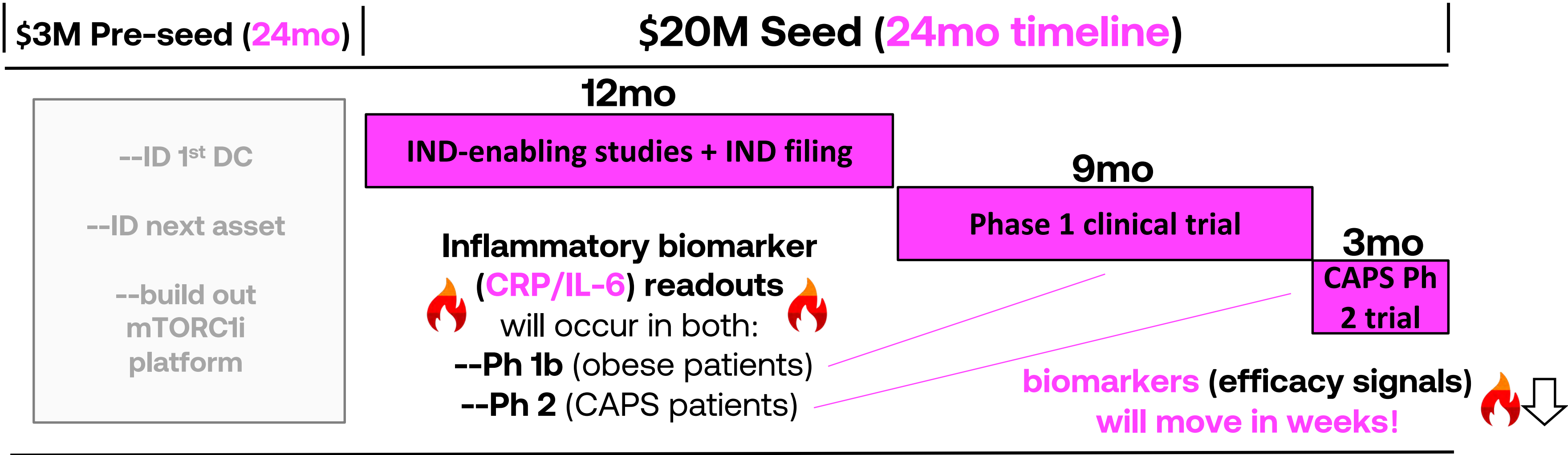
\$3M will advance Inapill's **1st** and **2nd gen** immune mTORC1i programs, enable ID of our first DC, and build out Inapill's IP moat around MoA



Milestones enabling next investment: **1st gen mTORC1i = DC** | **both w/*in vivo* validation in CAPS**
2nd gen mTORC1i = advanced lead



Inapill’s plan for **fast human clinical PoC** enables rapid acquisition of 1st asset (or entire platform) in **<5 years for <\$30M total investment**



company	asset stage	deal (year)
IFM Tre	(preclinical NLRP3i)	\$310M upfront, \$1.5B total milestones by Novartis (2019)
Inflazome	(preclinical NLRP3i)	\$449M upfront by Roche (2020)
TransThera	(preclinical NLRP3i)	\$881M total milestones by Neurocrine (2025)
Ventyx	(Ph 1 NLRP3i)	\$1.5B total milestones by Eli Lilly (2026)
RayThera	(preclinical TNFi)	\$1B total milestones, Biogen (2026)

Executing on drug discovery, business development, and clinical/translational goals



Greg Timblin, Ph.D.
 Inapill CEO &
 co-founder



*Chemistry and immunology expertise has led Inapill
 drug discovery efforts from the academic bench*



Eric Noel, Ph.D.
 Head of Operations
 Protein Biochemist



*Protein production expertise enables Inapill
 screening efforts & lead molecule validation*



Kathleen Pestal, Ph.D.
 Head of Research
 Immunologist



*Inflammation, autoimmunity, and rare disease expert –
 extensive immunological assay knowledge*

Executing on drug discovery, business development, and clinical/translational goals



Steve Krawczyk, Ph.D. JD MBA
Head of Intellectual
Property Strategy



*Medicinal chemist by training, IP strategy advisor,
Ex-Head of Patent Informatics at Gilead*



Paul Humphries, Ph.D.
Head of
Medicinal Chemistry



*Has brought 8 drugs to the clinic, including most recently
in the inflammation space (NLRP3 inhibitor, BioAge)*



Gregory Opitek, Ph.D.
Advisor, Translational
& Clinical development



*Extensive translational experience in immunology
& oncology across large and small pharma companies*



Margaux Bennett, Ph.D.
Advisor, Strategy &
Business Development



*Ex-VP Corporate Development, Kronos Bio. Extensive
fundraising and clinical trial design experience*



Inapill Scientific Advisory Board

World-class team of academic experts from top institutions tailored to support our goals



Nir London, Ph.D.



Leading academic expert in covalent inhibitor design.



David Sabatini, Ph.D.



World's foremost expert in mTORC1 biology.



Jon Kagan, Ph.D.



Immunologist, connected immune mTORC1 to inflammation.



Deborah Clegg, Ph.D. MBA



Sex hormone, inflammation, & cardiometabolic disease expert.



Hal Hoffman, M.D.



Clinician-scientist and autoimmune disease expert



Join Inapill in creating new, impactful therapies for age-related inflammatory & autoimmune disease

Contact

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