

Toledo

in inflammation

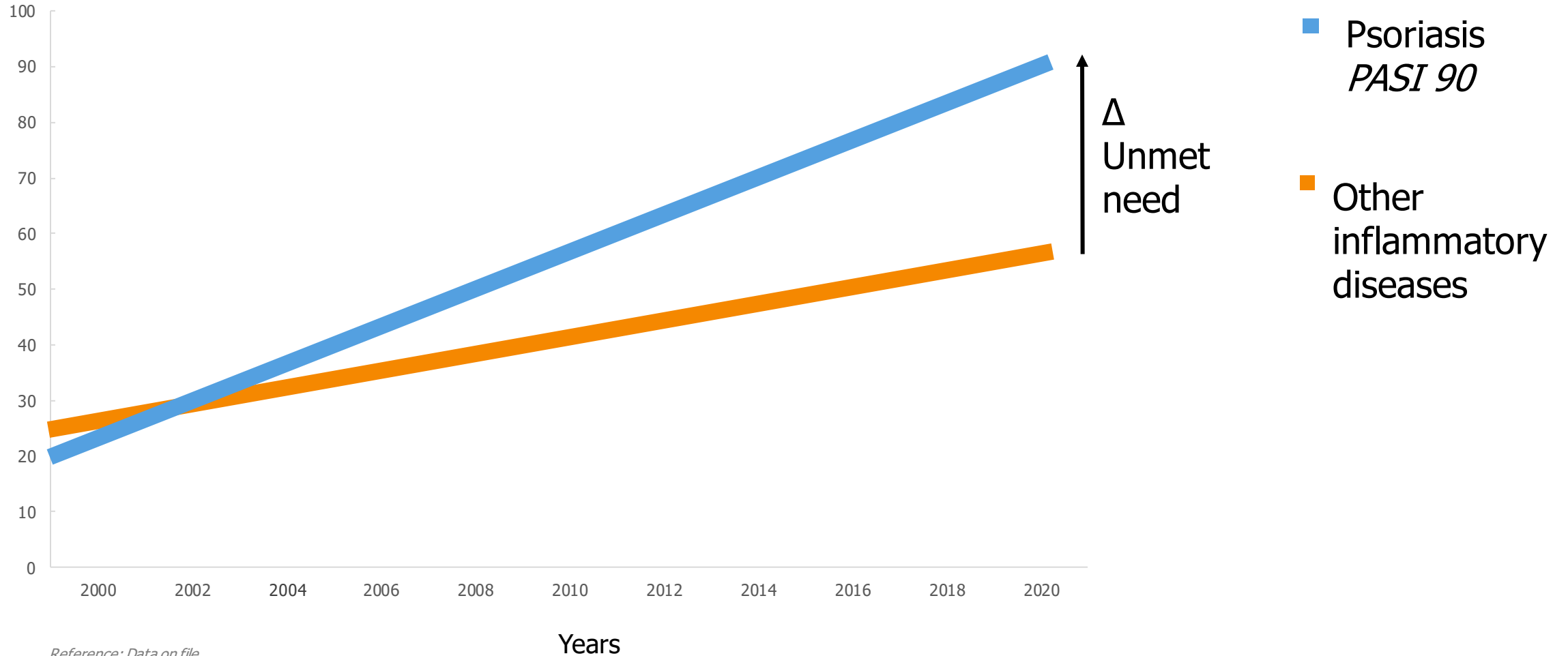
- Novel, SIK target
- Dual action on inflammation
- Preclinical models show strong activity
- GLPG3970 in multiple PoC studies





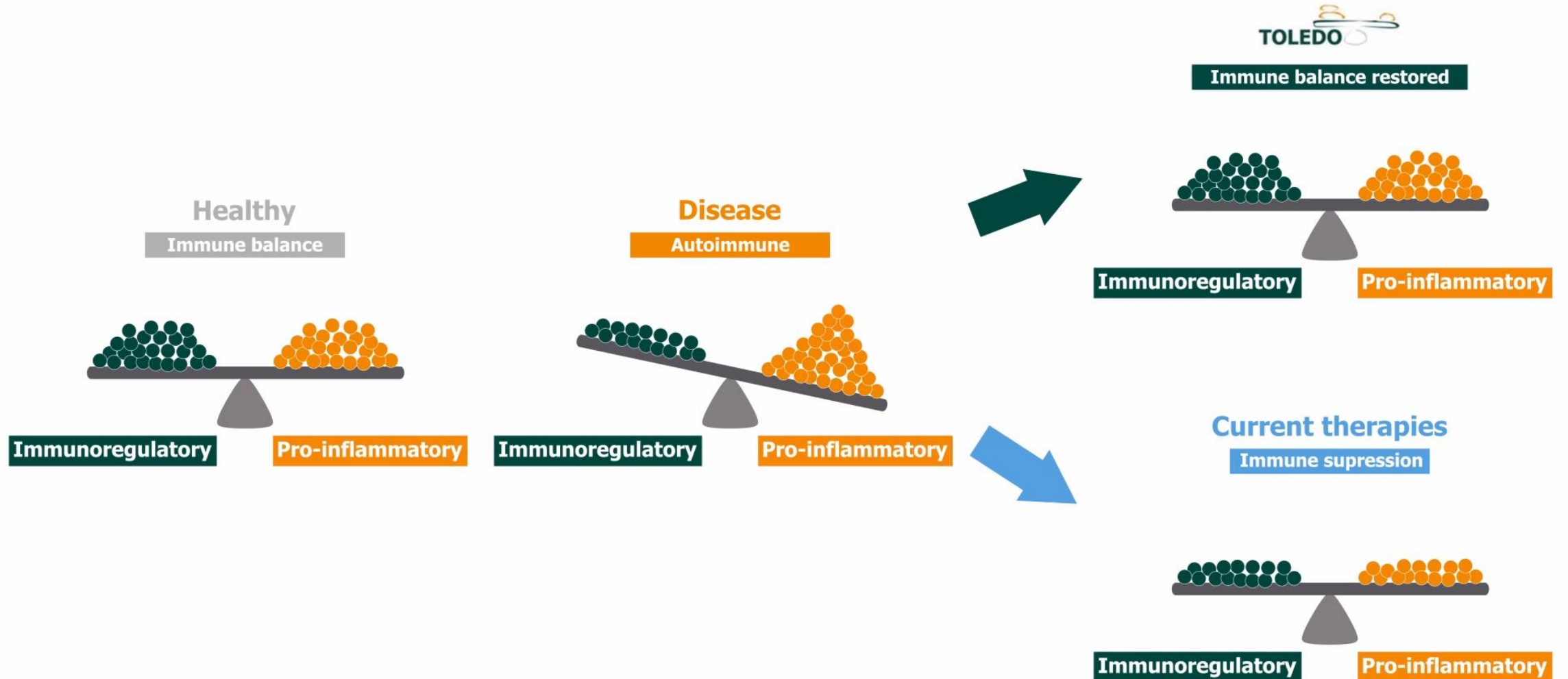
Can we make a difference?

% of responders



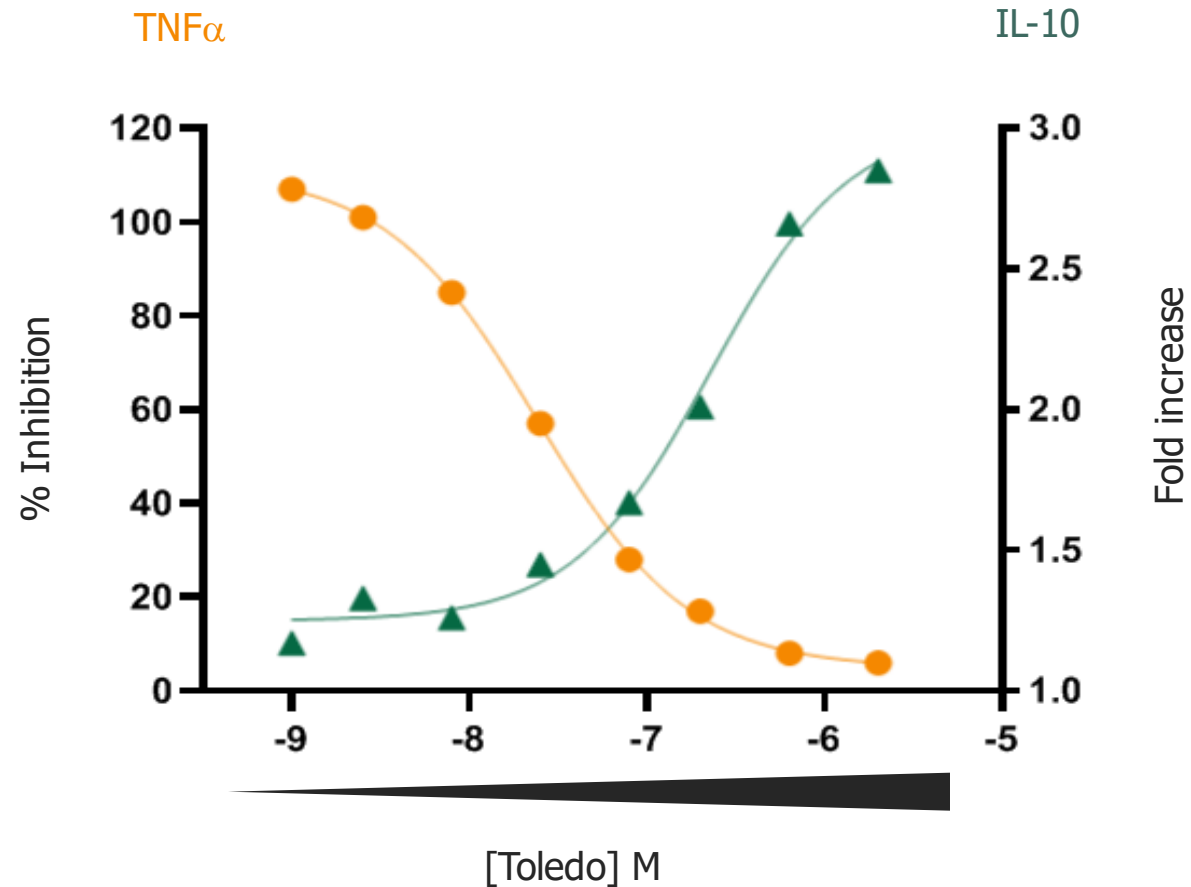


Restoring the immune balance



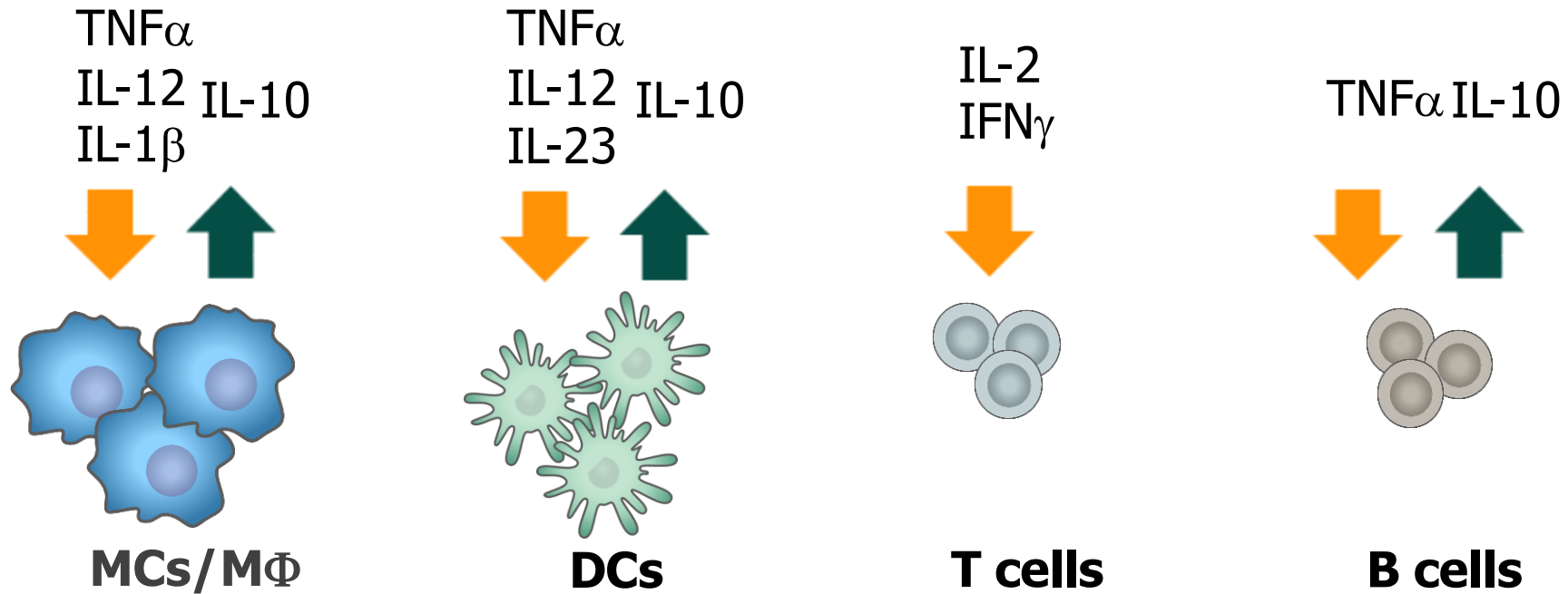
Dual activity confirmed

In both macrophages & dendritic cells





Potential broad application in inflammation



Innate

Adaptive

Broad cellular activity with Toledo
on both innate and adaptive immune cells



Innovative chemistry

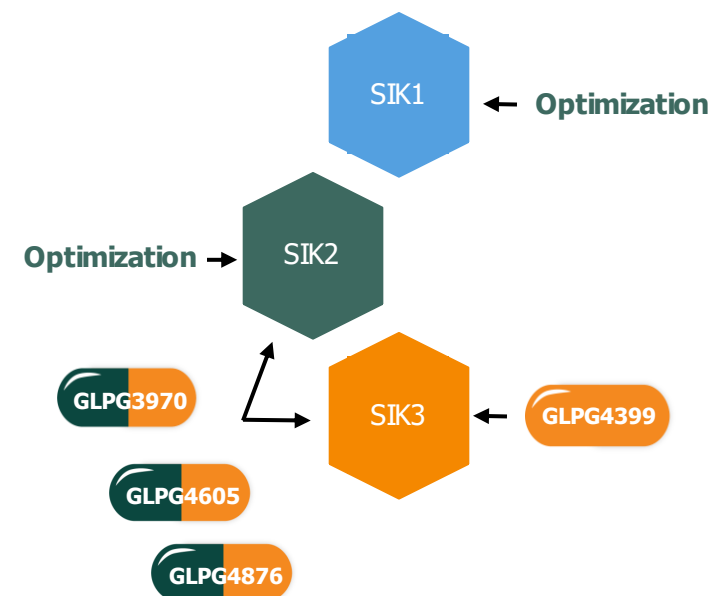
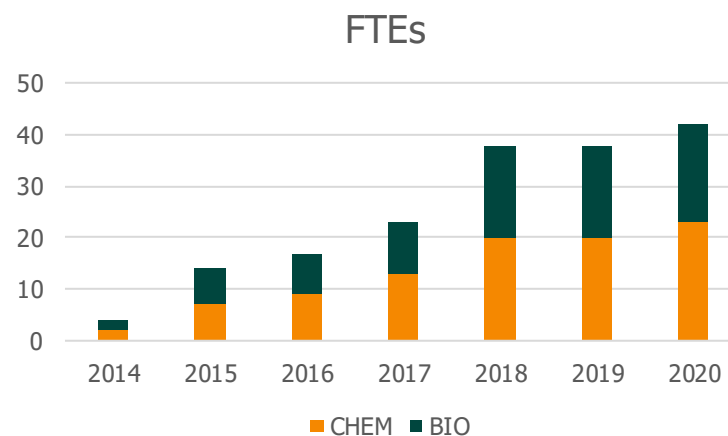
>3,000 molecules synthesized

10 chemical series investigated

Multiple selectivity profiles

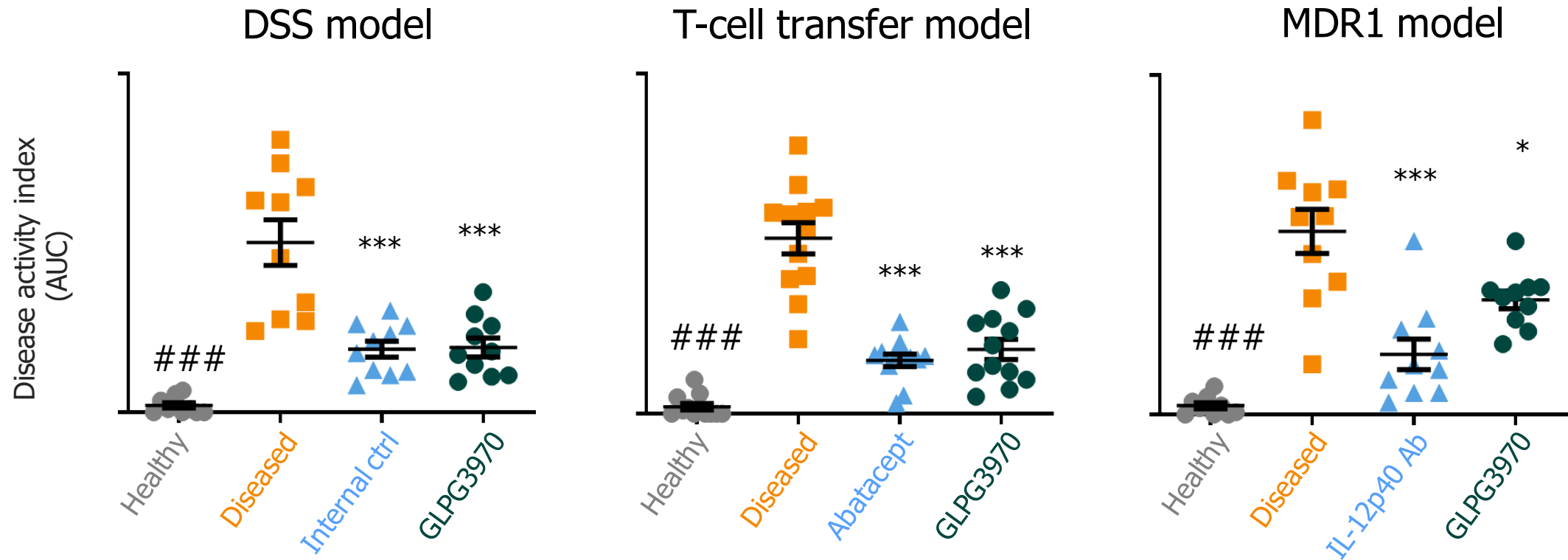
4 patents filed, exemplifying **~ 1,000** compounds

>200 dedicated FTE years since 2014





Robust activity *in vivo* in 3 IBD models

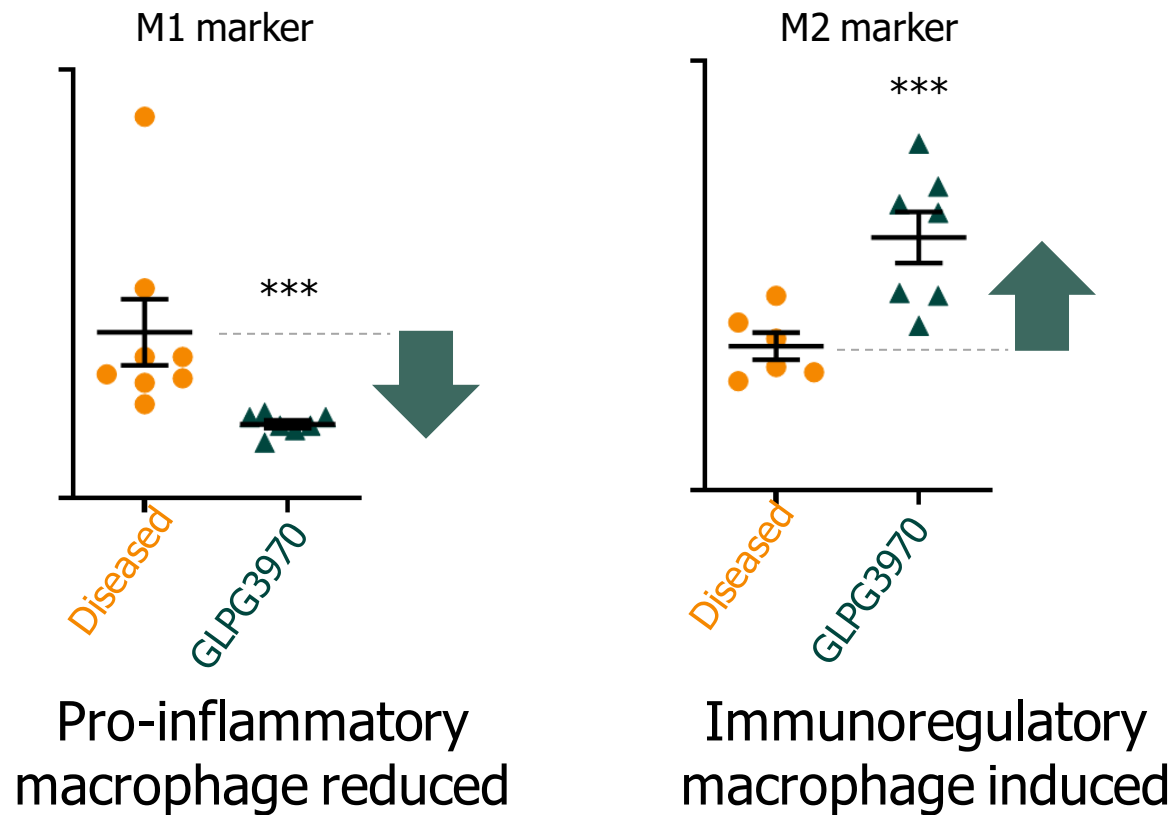


$p < 0.001$
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (vs diseased)
AUC: area under the curve



Impacting both sides of the balance *in vivo*

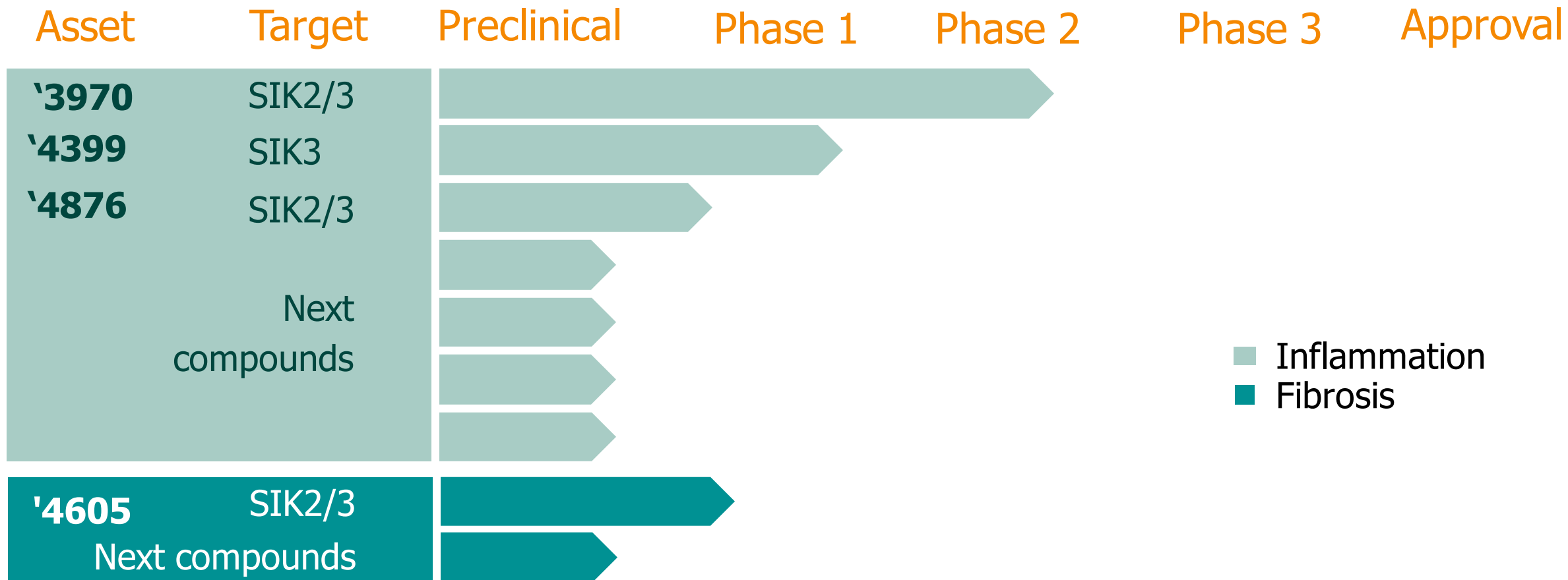
Macrophage phenotypes in IBD colon tissue
(T-cell transfer model)



*** $p < 0.001$ (vs diseased)



Toledo portfolio





Promising and broad *in vivo* activity

		Immune-mediated inflammation models					Fibrosis models		
		IBD	Pso	PsA	RA	SLE	OA	SSc	IPF
SIK2/3	GLPG3970	Activity demonstrated	Activity demonstrated	Activity demonstrated	Activity demonstrated	Activity demonstrated	No activity	Activity demonstrated	Activity demonstrated
	SIK3	No activity	Activity demonstrated	Activity demonstrated	Activity demonstrated	Activity demonstrated	No activity	2021	No activity
	SIK2/3		2021					2021	Activity demonstrated
	SIK2/3	Activity demonstrated	2021						
	Next SIK compounds	2021 - 2022							

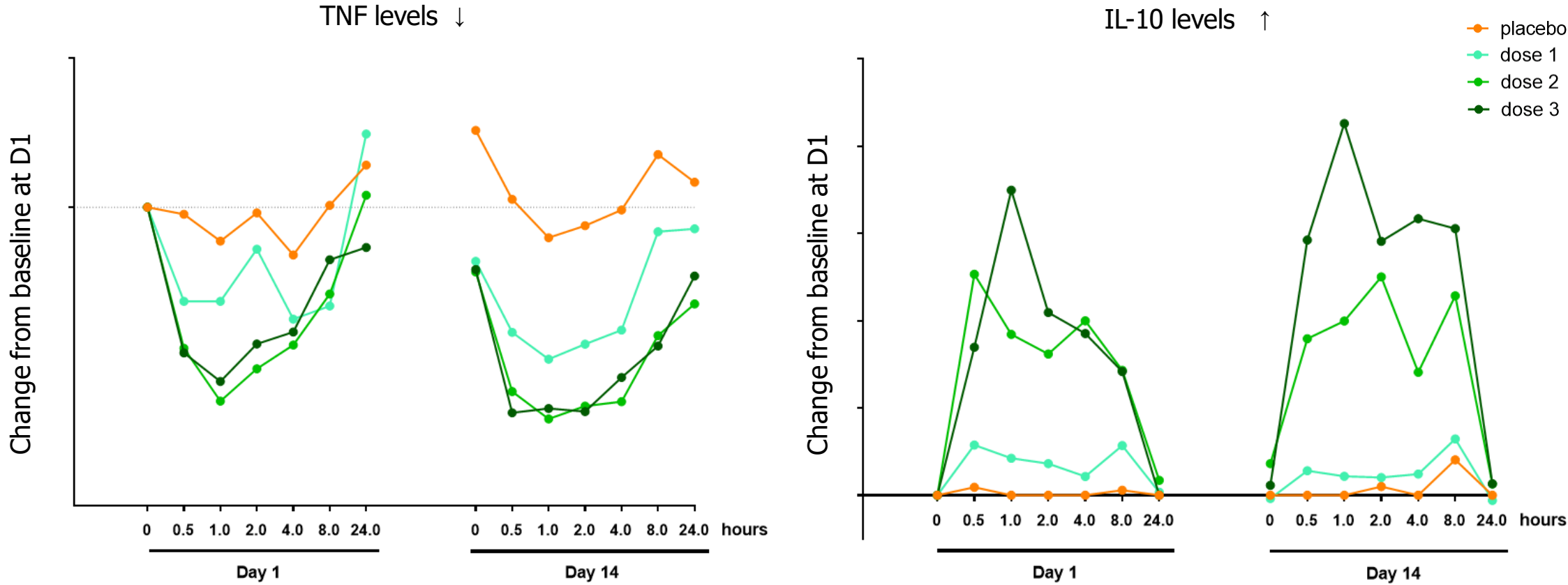
 Activity demonstrated
 No activity



Dual activity confirmed *ex vivo*

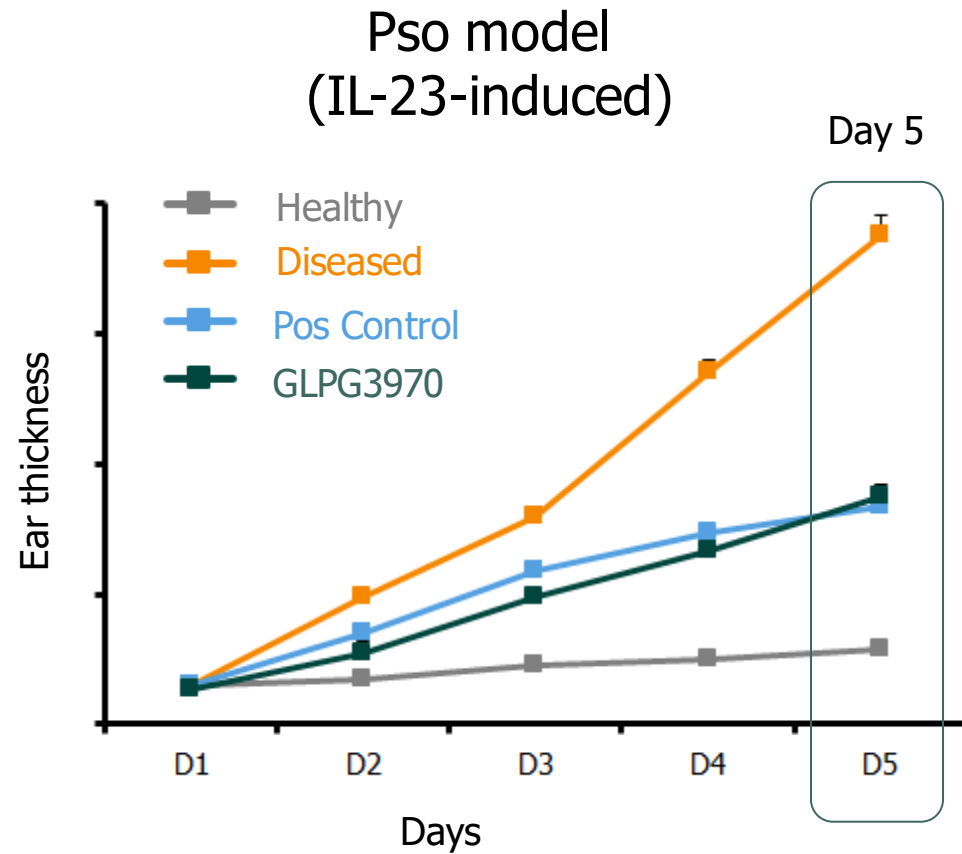
Phase 1 **GLPG3970**

Ex vivo analysis in whole blood, mean per treatment

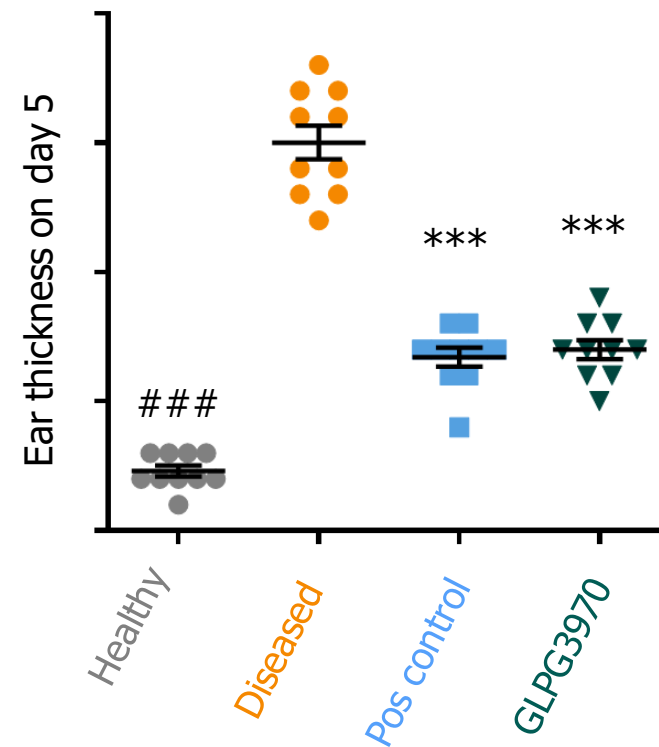




GLPG3970 activity in psoriasis model



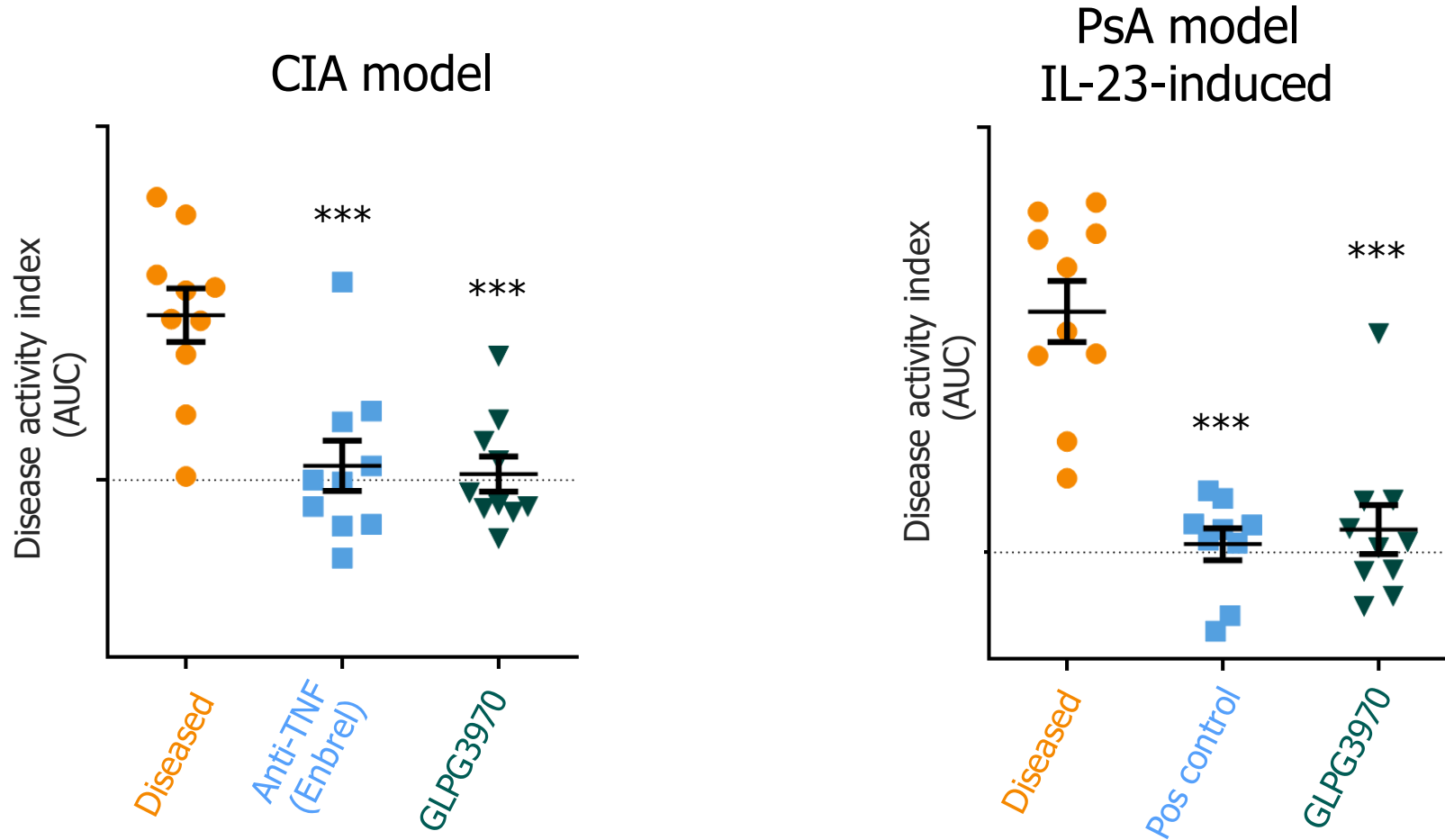
Ear thickness model



$p < 0.001$
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (vs diseased)
Pso: psoriasis



Robust activity across arthritis models

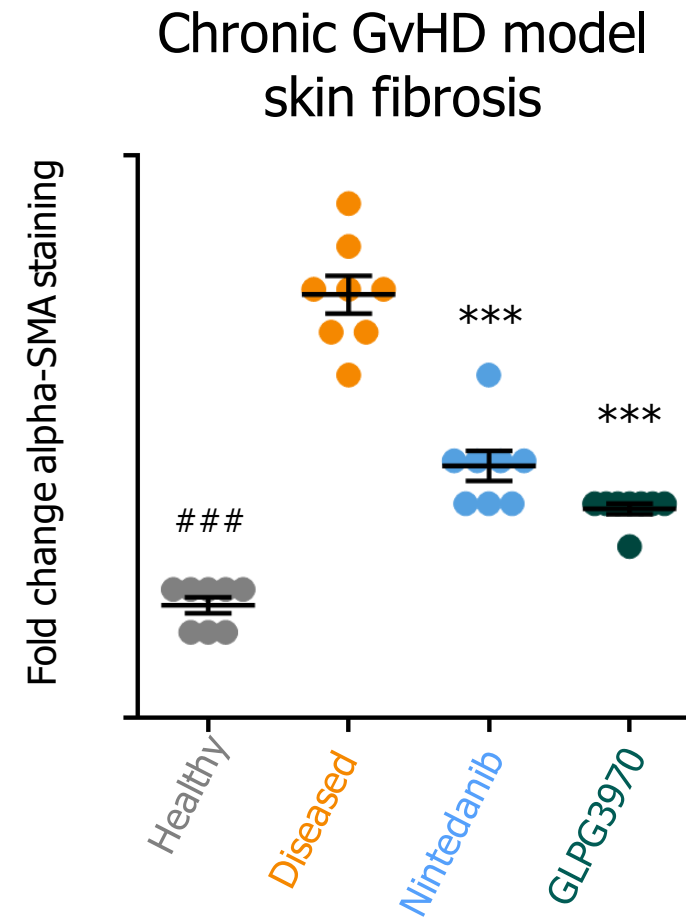
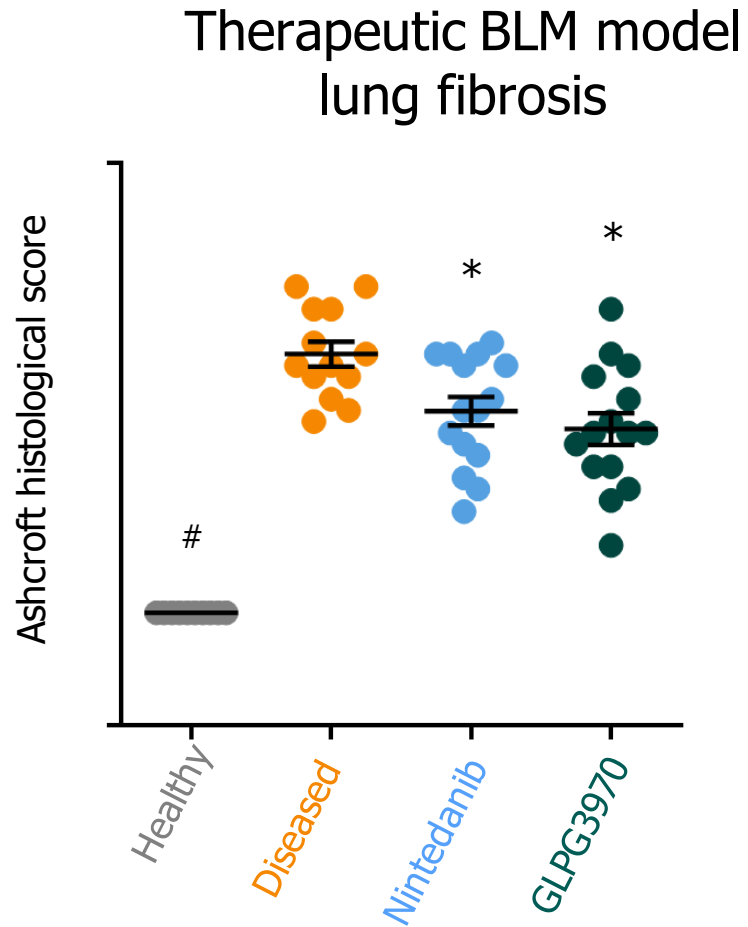


*** $p < 0.001$ (vs. diseased)

CIA: collagen induced arthritis; PsA: psoriatic arthritis
AUC: area under the curve



Robust fibrosis activity *in vivo*



$p < 0.001$
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (vs diseased)

BLM: bleomycin; GvHD: graft versus host disease



Ambitious, informed development strategy

Psoriasis study generates rapid clinical data

Accelerated path taken in PsA based on biology

Rapid progression into Ph2 dose rangers, based on Ph1 PD fingerprints & cross-learnings

Robust program in line with novel pharmacology, investment size, and development stage

Programmatic approach for acceleration to patients



Clinical path

- Pso
- UC
- RA
- SLE
- pSS



Validating

- PsA
- RA
- UC
- CD
- AS
-



**Dose-range finding,
indication expansion**

- Phase 2b dose-range finding
- Phase 2 PoC new indication

- Phase 3 inflammatory diseases
- Fibrosis



Phase 3 + fibrosis

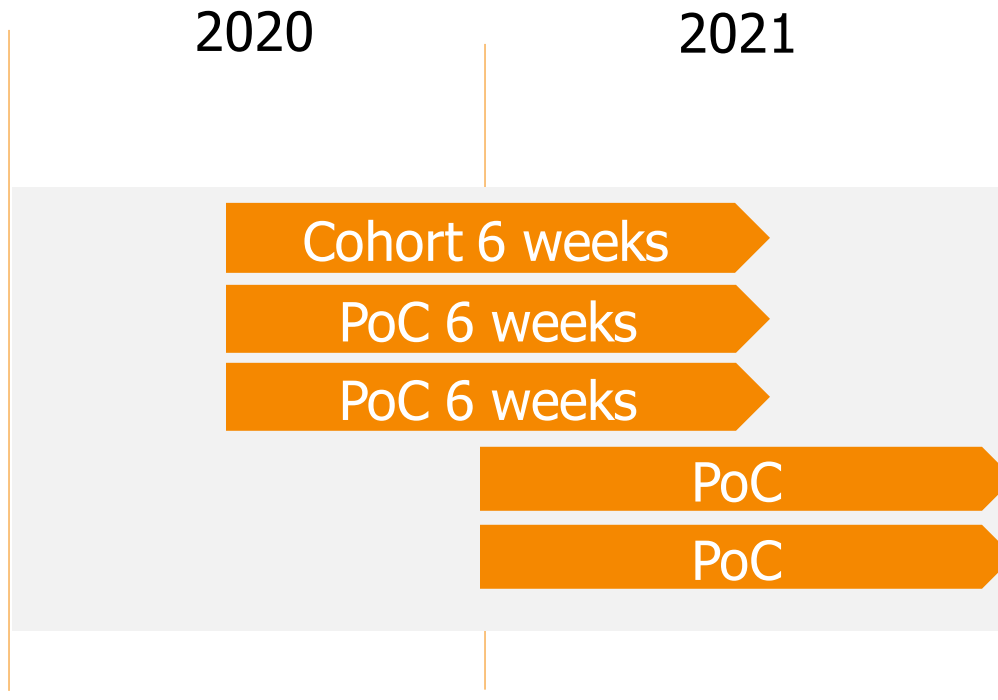


Parallel Proof of Concept studies



Disease area

- Psoriasis
- Ulcerative colitis
- Rheumatoid arthritis
- Systemic lupus erythematosus
- Primary Sjögren's syndrome



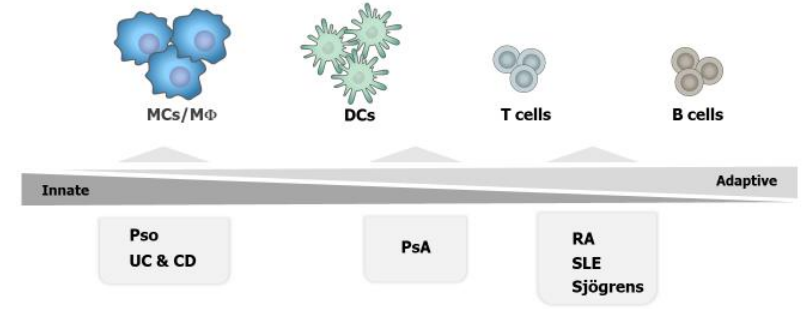
- CALOSOMA
- SEA TURTLE
- LADYBUG
- TAPINOMA
- GLIDER

5 PoCs to investigate mode of action
 Toplines as of mid 2021*

* Timelines subject to delays due to global COVID-19 pandemic



Fast tracking psoriatic arthritis with '3970



Shortens timelines by 18-24 months

DRF = Dose-range finding



CALOSOMA Phase 1b in psoriasis



Up to 21 days

Screening

6 weeks

GLPG3970, target active dose, oral (n=15)

placebo (n=10)

Up to 2 weeks

Follow-up

- Adults with moderate/severe psoriasis (baseline PASI ≥ 12 , BSA $\geq 10\%$)
- Evaluate safety/tolerability & efficacy GLPG3970 in psoriasis



SEA TURTLE Phase 2 in ulcerative colitis



Up to 21 days

Screening

6 weeks

GLPG3970, target active dose, oral (n=20)

placebo (n=10)

Up to 2 weeks

Follow-up

- Adults with moderate/severe active UC (treatment experienced)
- Key outcomes: Mayo clinical score, safety/tolerability, PK & PD efficacy markers



LADYBUG Phase 2 in rheumatoid arthritis



Up to 21 days

Screening

6 weeks

GLPG3970, target active dose, oral (n=15)

placebo (n=10)

Up to 2 weeks

Follow-up

- Patients with moderately/severely active RA & inadequate response to MTX
- Evaluate effect on signs & symptoms of RA, safety & tolerability, PK & PD efficacy markers



Toledo data package convinces



✓ **Target identification data**

✓ **Literature evidence**

✓ **Preclinical data**

✓ **Phase 1 data**

Confirmed dual mode of action
Safety package for clinical
development



Promising assets



Potential master switch for inflammation

Strong, broad IP protection

Phase 1 confirms mode of action

Safety package supports clinical plans

Smart path in clinical development

Head start on competition



Key newsflow Toledo



2021

2022

Readout Ph1 GLPG4399

Readout first 3 PoCs GLPG3970

Readout last 2 PoCs GLPG3970

Readout first Ph2b

Additional Ph1 readouts

Aim to bring our innovation to patients as fast as possible