

Disrupting the vicious cycles of chronic inflammation



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AQILION

Our **passion** and focus

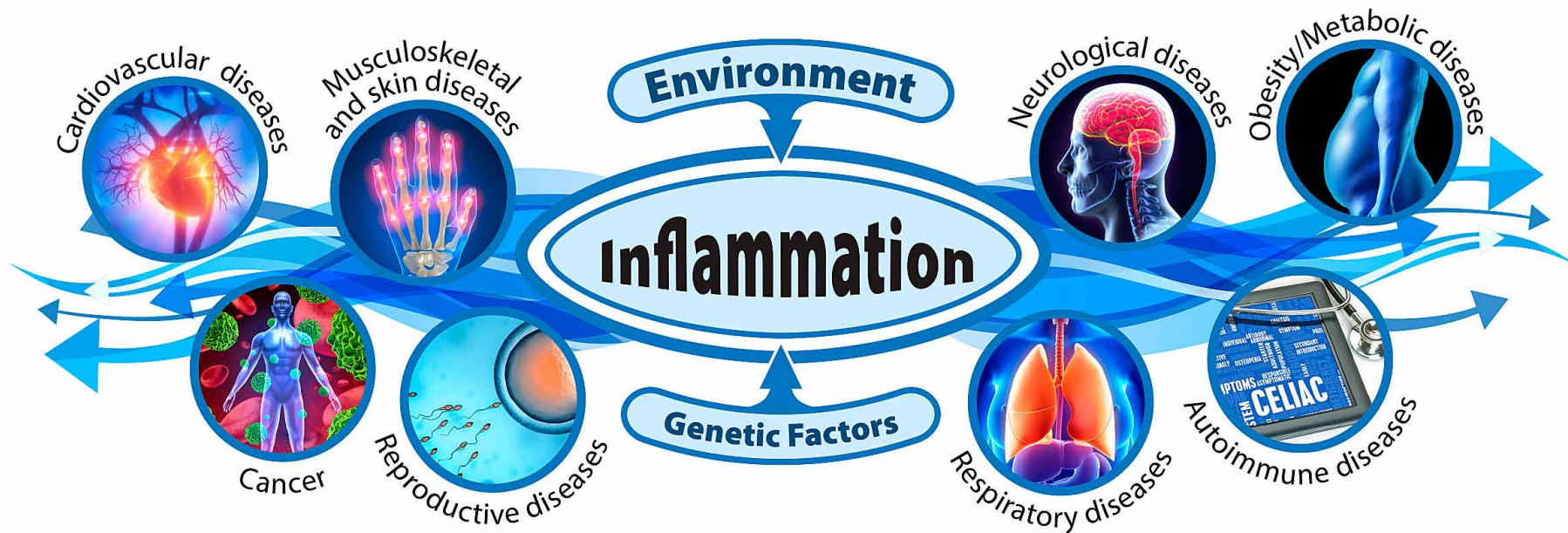


Image courtesy of NIEHS

ABOUT AQILION

- Biotech company developing new innovative treatments for diseases caused by chronic inflammation and dysfunctional immune reactions
- Active in early phases of drug discovery, from idea to early clinical development



Aqilion's team combines big pharma experience with an entrepreneurial mindset and drive



Projects are driven internally in close collaboration with a network of highly experienced service providers and consultants possessing specialized cutting-edge knowledge and technologies



Headquartered in Helsingborg
Sweden

VALUE CREATION

AQ pipeline:

Regulus:

AQ280 – a super selective JAK1 inhibitor
Phase 1 started August 2022
Chronic inflammation in esophagus driven by eosinophilic infiltration as first indication.

Alnitak:

Best in class TAK1 inhibitor program with promising features in several indications. Verified external interest in asset. CD selection in H2:2022

Girtab:

Launched May 9, 2022

Polaris:

Dx program with focus on inflammasome biology

AQ Dx – new target nominations → future programs

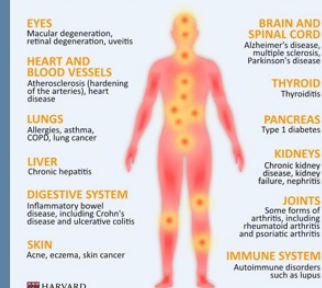
PIPELINE

Program	Target	Drug Candidate	Target Discovery	Development of candidate drug	IND enabling preclinical development	Phase 1	Phase 2
Regulus	JAK1	AQ280					
Girtab	Ahr	AQ312					
Alnitak	TAK1	Not disclosed					
Alnitak	TAK1 CNS penetrant	Not disclosed					
Polaris	Not disclosed	Not disclosed					

CLEAR FOCUS

Diseases linked to Chronic Inflammation

When you have chronic inflammation, your body is in a constant state of high alert. The release of inflammatory chemicals can affect many different systems in your body and be a cause or consequence of multiple diseases.



HISTORY & LEGACY

2018-2019: New CEO, team, BoDs and strategy. MSEK 200 to finance the new direction

2019: New name - AQILION

2022: Biotech with internal pipeline of 3 programs



Aqilion's experienced team and BoDs
have successfully shepherded drugs all the way from discovery to market



A genuine track record from medical science and drug development combined with entrepreneurial drive is the core of the Aqilion team



Sarah Fredriksson
Chief executive officer



Johan Lund
Chief Scientific Officer



Jan Törnell
Chief Medical Scientist



Fredrik Lindgren
Chief Business Officer



Martin Johansson
Senior Director Medicinal Chemistry



Anneli Tinnerholm
Senior Director Clinical Operations



Torgeir Vaage
Chief Financial Officer



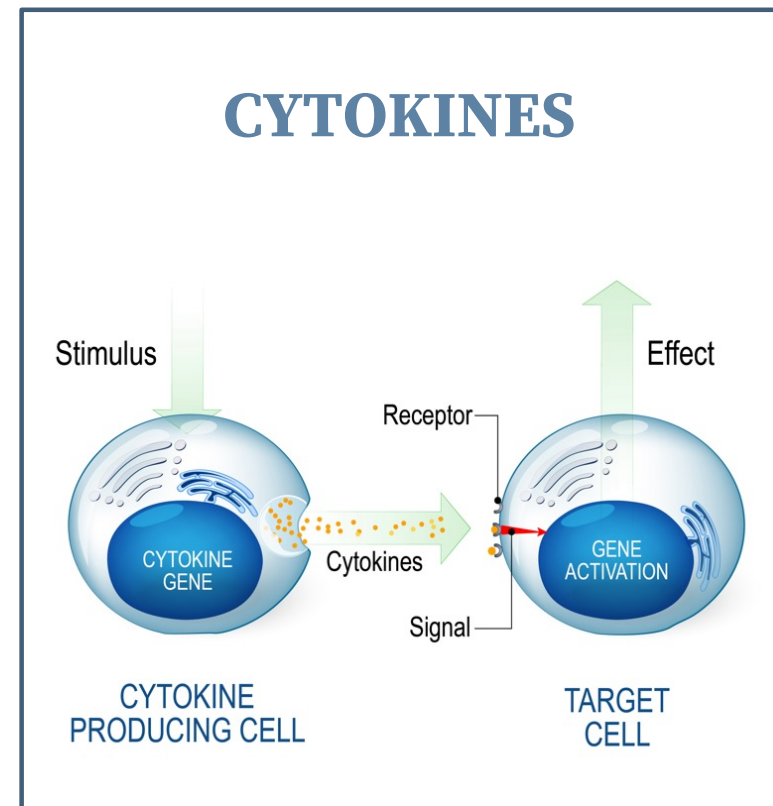
Anneli Hällgren
Senior Director Preclinical Development



Carina Eldh
Chief Controlling Officer

Key objective is to block the messengers and pro-inflammatory mediators

- An inflammatory cytokine is a signalling molecule that is secreted from immune cells and certain other cell types that promotes inflammation
- If the cytokines are hindered the message of inflammation boost is lost
- Diseases can be grouped according to cytokine profiles



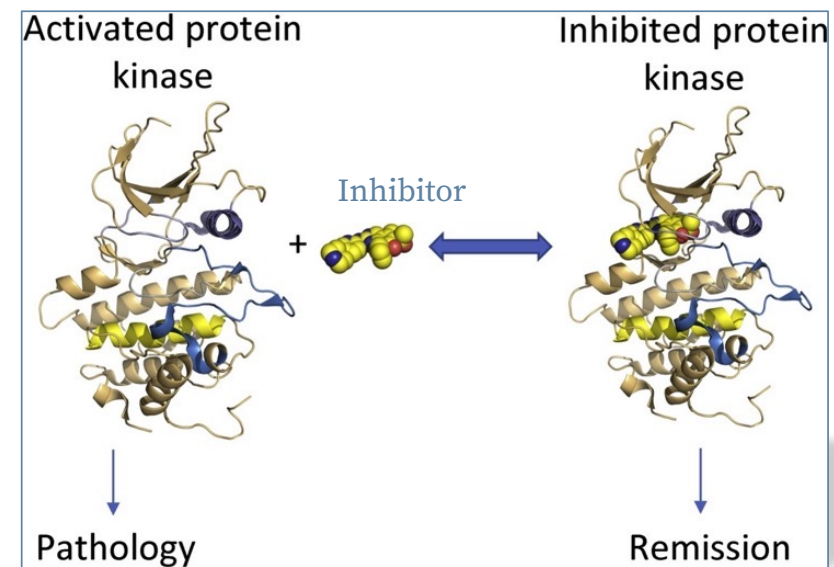
Biologics have validated cytokines as clinically relevant mediators and shown **limitations with mono-target** therapeutics

- Biologics have been very successful (commercially and clinically)
- Biologics (e.g. antibodies) target single inflammatory signaling molecules (cytokines) thus validating the clinical relevance of different cytokines
- Disadvantages using biologics
 - many non-responders
 - resistance can develop over time
 - the relative importance of different cytokines in different inflammatory disorders vary

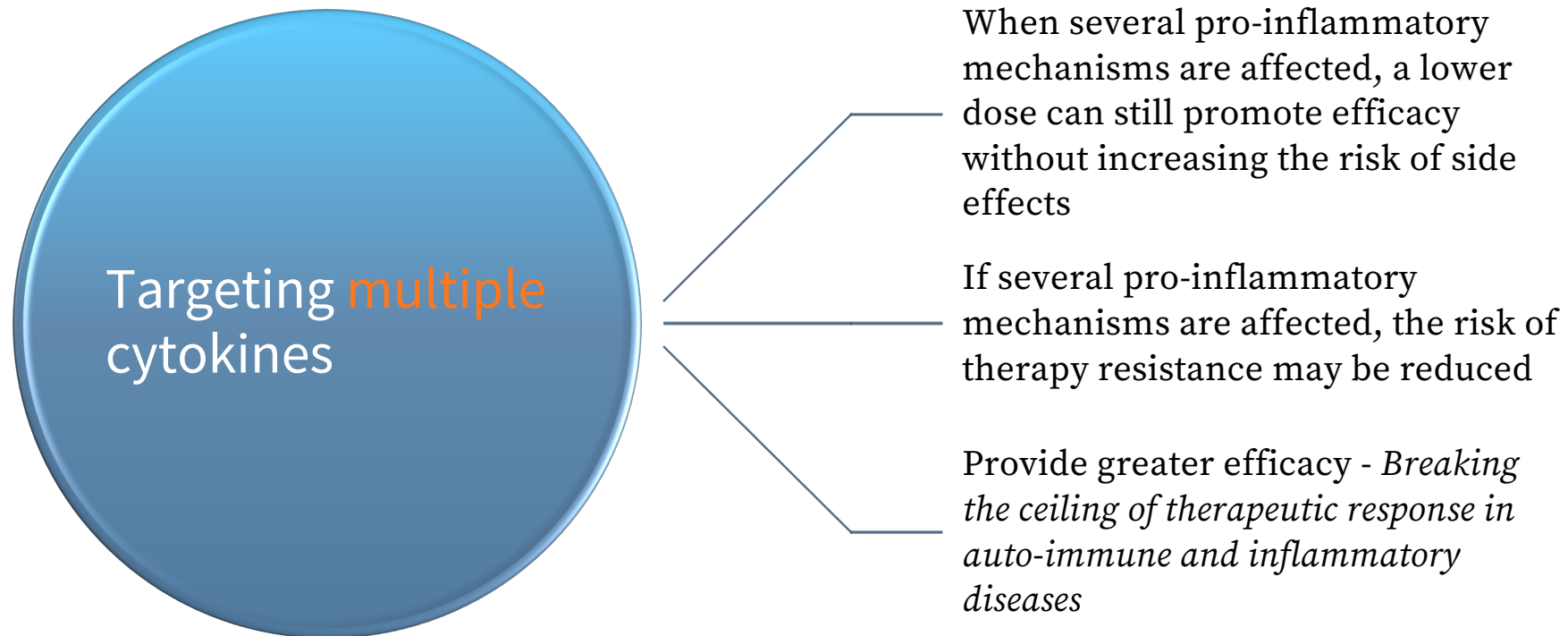
Drug	2020 sales (bUSD)
Humira (a-TNF)	20
Dupixent (a-IL4/13)	8
Stelara (a-IL12/23)	8
Enbrel (a-TNF)	5
Cosentyx (a-IL17)	4
Remicade (a-TNF)	4
Actemra (a-IL6)	3
Ilaris (a-IL1b)	1

Kinases are our prioritized drug targets

- Highly successful drug target class
- Inhibitors approved in many indications including oncology and inflammatory diseases
- Regulate multiple cytokines – act as inflammatory nodes and regulators
- Amendable to structure-based drug design (SBDD)



Aqilion's approach: affect multiple mechanisms using small molecules



Aqilion envisions a treatment strategy based on cytokine network profiles and their regulation in diseases

Modulate signalling of multiple cytokines
(cytokine networks)

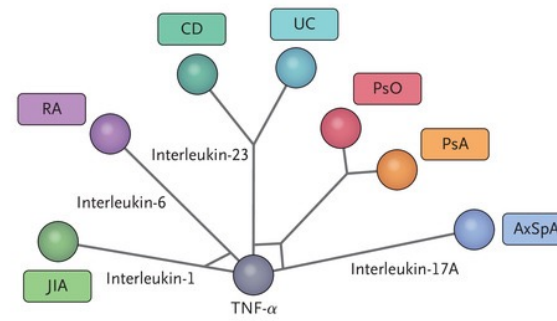


Match cytokine inhibition profile to cytokine
dysregulation profiles in disease
(precision medicine)



Increased response and efficacy – better patient outcomes

Signature Cytokine-Based Concept



	TNF- α	Interleukin-6	Interleukin-23	Interleukin-17A	Interleukin-1
RA					
PsA					
JIA					
AxSpA					
CD					
UC					
PsO					

Image from NEJM

The image features a dark blue night sky with a faint Milky Way visible. In the foreground, there is a black silhouette of a horizon line. On the right side of the sky, a constellation is depicted with white stars of varying sizes connected by thin white lines. The text 'AQILION - Program Alnitak' is written in white on the left side of the sky.

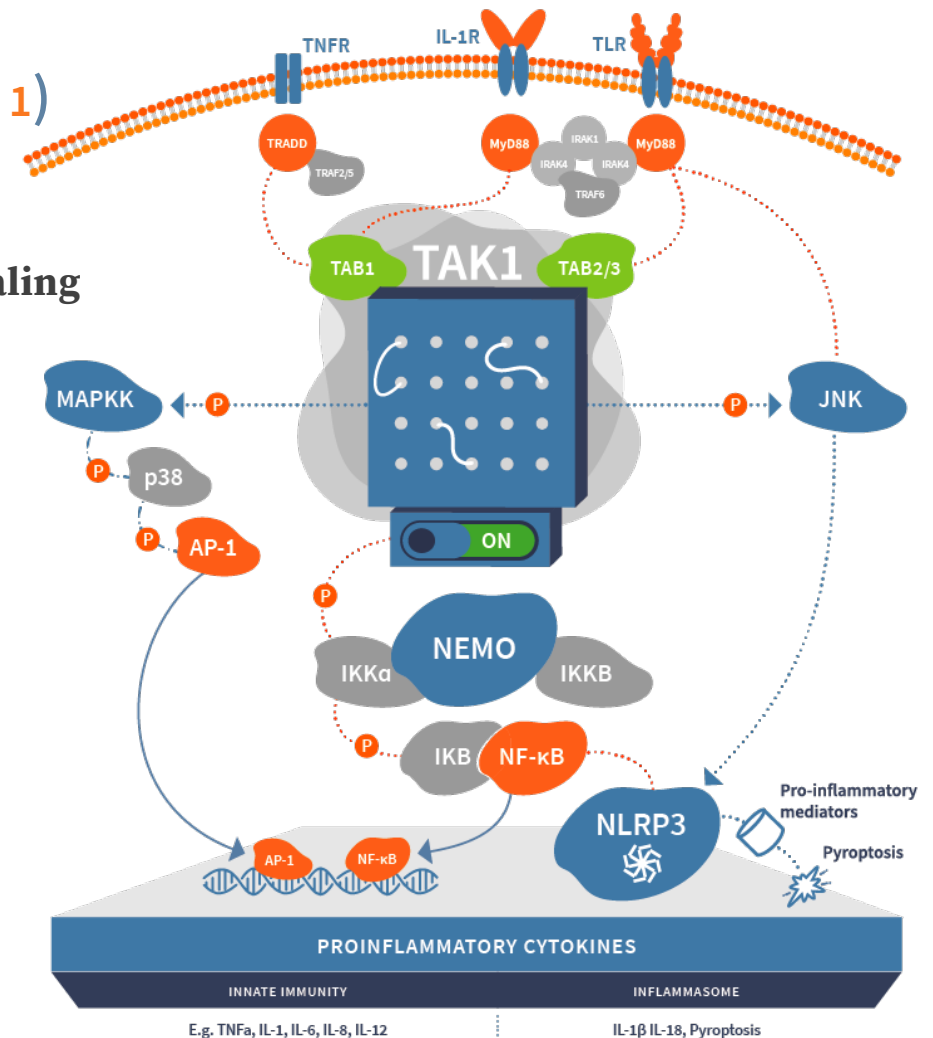
AQILION - Program Alnitak

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TAK1 (Transforming growth factor- β -activated kinase 1)

TAK1 is a "master regulator" of both NF- κ B and JNK signaling

- **Un-drugged node**
Key node in signalling pathways that integrates innate immune signalling and inflammasome activation
- **Validated Biology**
TNF α , IL-1 β , LPS/TLR are clinically validated pathways/mediators in several disease areas



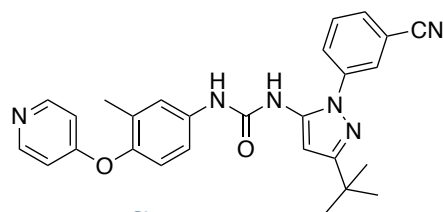
TAK1 inhibitors

Background

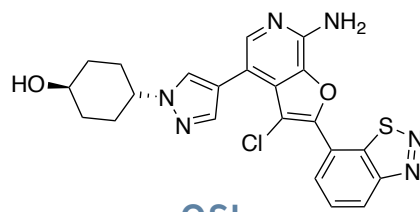
Several TAK1 inhibitor programs have existed with different approaches

Limitations of all known series have included; poor kinase selectivity, poor PK or limited cellular efficacy

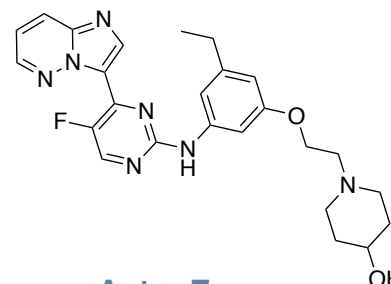
No TAK1 inhibitor program has entered clinical trials



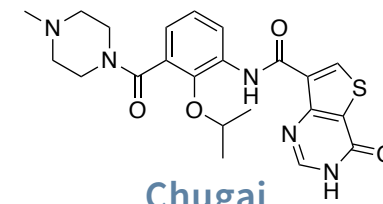
Pfizer



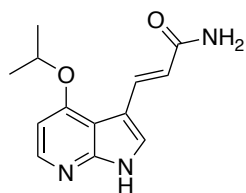
OSI



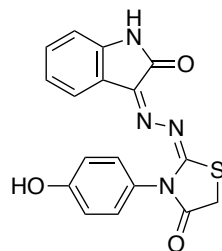
AstraZeneca



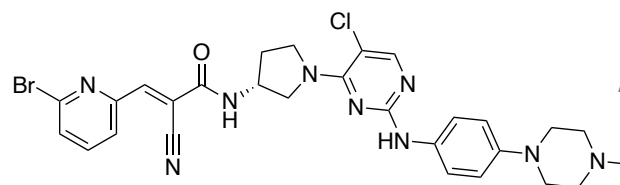
Chugai



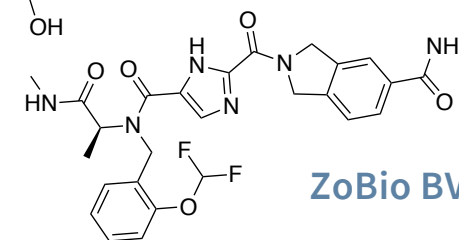
Confluence



Myrexis



Hanmi



ZoBio BV

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TAK1

Aqilion's reason to believe

Aqilion believes that TAK1 is a druggable target that will **provide differentiated clinical efficacy** for the treatment of autoimmune and inflammatory diseases

Based on a strong hypothesis regarding the design of druglike and selective kinase inhibitors, Aqilion initiated a TAK1 inhibitor program (Alnitak) in 2019

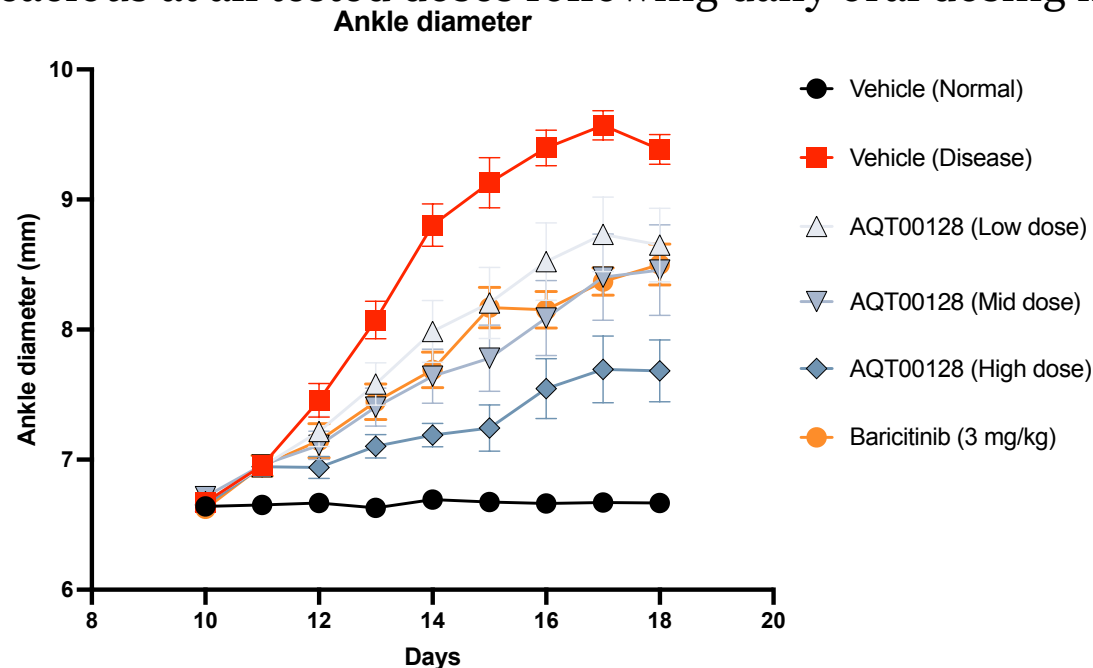
In less than 3 years Aqilion has discovered high quality proprietary TAK1 inhibitors that display excellent druglike properties and kinase selectivity

Aqilion believes that these “best-in-class” inhibitors are highly suitable for clinical development as a novel treatment for inflammatory and autoimmune diseases

TAK1 inhibitor: Σ oral anti-TNF α , anti-IL-1, anti-IL-6 treatment

Highly efficacious *in vivo* in autoimmune disease model

- Collagen induced arthritis (CIA) in rats
- AQT00128 is efficacious at all tested doses following daily oral dosing in a therapeutic setting



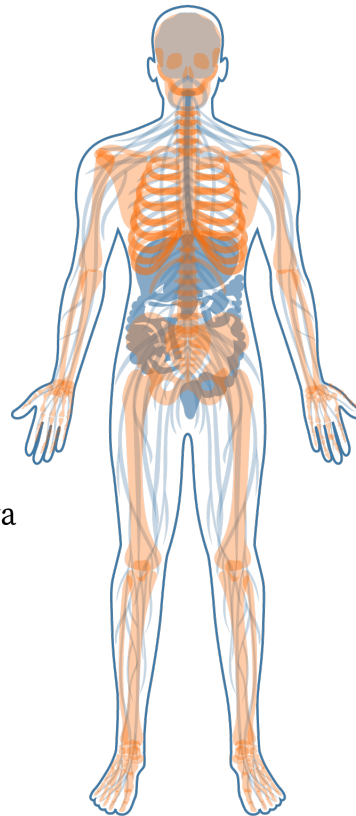
Inhibition of TAK1 has the potential to affect a range of inflammatory and autoimmune diseases

Systemic

- Rheumatoid arthritis
- Osteoarthritis
- Fibrosis
- SLE
- Sjögren's syndrome

Skin

- Hidradenitis Suppurativa



CNS

- Multiple sclerosis
- Stroke
- Alzheimer's disease
- Parkinson's disease

Gastrointestinal

- Ulcerative colitis
- Crohn's disease

Aqilion TAK1 inhibitor program overview

Profile		Lead cmpd properties	AQT00128
Value proposition	<ul style="list-style-type: none"> Best-in-class TAK1 medicinal chemistry 	Biochemical TAK1 assay IC50	3 nM
	<ul style="list-style-type: none"> TAK1 is a target for the treatment of inflammatory and auto-immune diseases 	logD	2.20
	<ul style="list-style-type: none"> Aqilion has discovered highly selective and potent TAK1 inhibitors with excellent drug-like properties within a unique chemical space 	Molecular weight	< 450
	<ul style="list-style-type: none"> Orally bioavailable 	Solubility	>95 µM
	<ul style="list-style-type: none"> Demonstrated <i>in vivo</i> efficacy 	<i>In vitro</i> Hep clearance (h/r)	Low/Low
	<ul style="list-style-type: none"> Inflammasome related target - TAK1 inhibition blocks NLRP3 signaling 	%F	>60%
	<ul style="list-style-type: none"> Lead optimization ongoing 	Kinase selectivity score	0.024
	<ul style="list-style-type: none"> BD activities: Extended data package available under CDA 		
	<ul style="list-style-type: none"> Clinical candidate to be selected Q4 2022 		

Milestones – looking forward



THANK YOU!

www.aqillion.com

