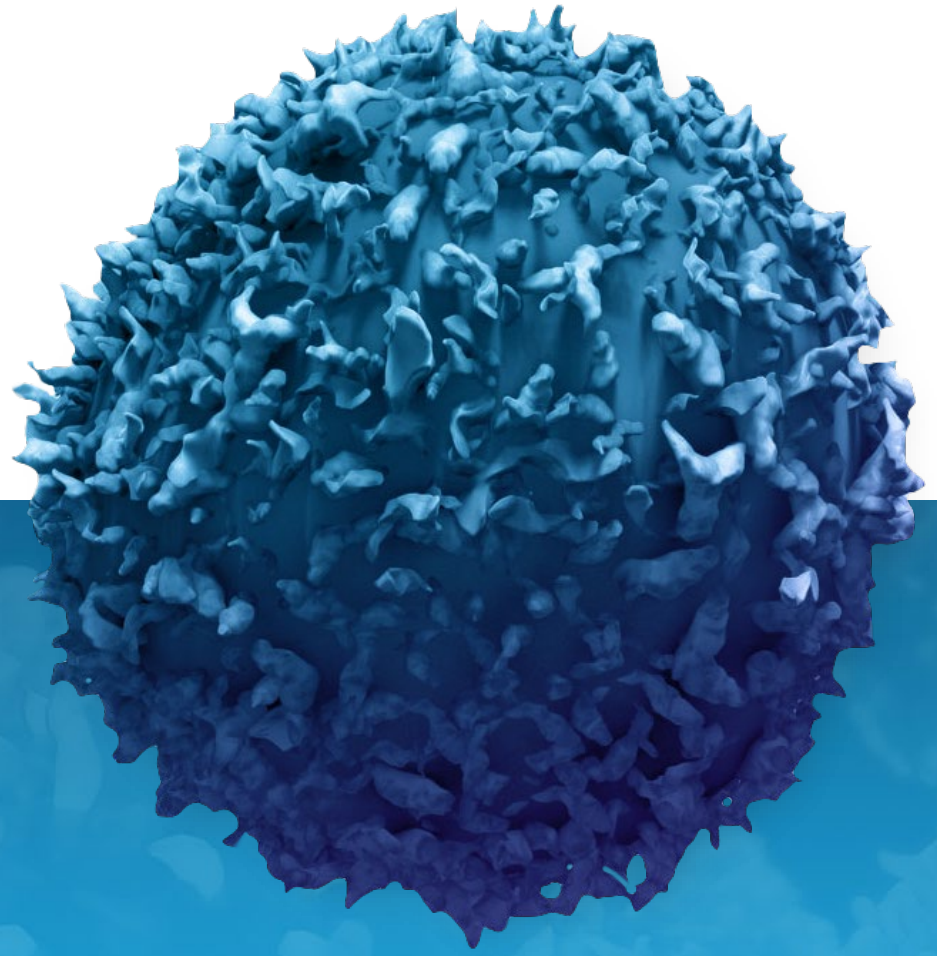


equillium®

Analyst & Investor Day

With Dr. Arash Mostaghimi

October 16, 2023

Forward-Looking Statements

This presentation contains forward-looking statements about Equillium, Inc. (the "Company"). In some cases, you can identify forward-looking statements by the words "will," "expect," "intend," "plan," "objective," "believe," "estimate," "potential," "continue" and "ongoing," or the negative of these terms, or other comparable terminology intended to identify statements about the future. These statements are based on Company management's current beliefs and expectations. These statements include but are not limited to statements regarding the Company's business strategy, the Company's plans to develop and commercialize its product candidates, the safety and efficacy of the Company's product candidates, the Company's plans and expected timing with respect to regulatory filings and approvals, size and growth potential of the markets for the Company's product candidates and cash runway. These statements involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. The Company may not actually achieve the plans, intentions or expectations disclosed in its forward-looking statements, and you should not place undue reliance on the Company's forward-looking statements.

Actual results or events could differ materially from the plans, intentions and expectations disclosed or implied in the forward-looking statements the Company makes due to the risks and uncertainties inherent in the Company's business, including without limitation, the risks described in the Company's filings with the Securities and Exchange Commission ("SEC"). You are cautioned not to place undue reliance on these forward-looking statements, which represent the Company's views as of the date of this presentation. The Company anticipates that subsequent events and developments will cause its views to change. However, while the Company may elect to update these forward-looking statements at some point in the future, the Company has no current intention of doing so except to the extent required by applicable law. These and other risks and uncertainties are described more fully under the caption "Risk Factors" and elsewhere in the Company's filings and reports, which may be accessed for free by visiting EDGAR on the SEC web site at www.sec.gov and on the Company's website under the heading "Investors." All forward-looking statements are qualified in their entirety by this cautionary statement. This caution is made under the "safe harbor" provisions of Section 21E of the Securities Exchange Act of 1934, as amended.

Today's Agenda

Welcome: Pipeline Overview
Bruce Steel, CEO

Powerful Multi-Cytokine Platform
Steve Connelly, CSO

EQ101: A First-in-Class Tri-Specific Inhibitor of IL-2, IL-9 & IL-15
Steve Connelly, CSO

EQ101: Clinical Program Targeting Alopecia Areata
Maple Fung, CMO
Arash Mostaghimi, Harvard University & Brigham and Women's Hospital

Closing Remarks
Bruce Steel, CEO

Q&A

Speakers

Guest Speaker

Arash Mostaghimi, M.D., M.P.A., M.P.H.
Associate Professor of Dermatology
Harvard Medical School
Director, Inpatient Consultation Service, Department of Dermatology
Brigham and Women's Hospital

Equillium Management

Bruce Steel, C.F.A.
Chief Executive Officer

Steve Connelly, Ph.D.
Chief Scientific Officer

Maple Fung, M.D.
Chief Medical Officer

Equillium Snapshot & Investment Highlights

Leaders in immunobiology

Developing high-impact, novel therapeutics to treat autoimmune and inflammatory disorders

Diversified Pipeline of First-In-Class Immunology Assets

Drugs	Indication	Pre-Clinical / Phase 1 / Phase 2 / Phase 3	Partners	Anticipated Milestones
EQ101 IL-2/9/15 inhibitor	**alopecia areata**	PoC data & FDA/EMA Orphan Drug Designations for CTCL	Worldwide rights	**Q4 2023 initial data** **Mid-2024 topline data**
EQ102 IL-15/21 inhibitor	**celiac disease**	Potential expansion into other GI indications	Worldwide rights	**Q4 2023 SAD/MAD data** **2024 celiac disease patient data**
Multi-Cytokine Platform	**opportunities in autoimmunity, inflammation & oncology**		Worldwide rights	
EQ001 itolizumab anti-CD6	**acute graft-versus-host disease**	FDA Fast Track & Orphan Drug Designations	ONO PHARMA & Biocon	**2024 interim review**
	systemic lupus erythematosus (SLE) / lupus nephritis (LN)	FDA Fast Track Designation for LN		**Early 2024 topline data**
	ulcerative colitis	Conducted by Biocon in India		

Anticipated Milestones

EQ101 – Phase 2 Clinical Study	
Alopecia Areata – Initial Data	**Q4 2023**
Alopecia Areata – Topline Data	**Mid-2024**
EQ102 – Phase 1 Clinical Study	
SAD / MAD (healthy volunteers) – Data	**Q4 2023**
Celiac Disease – Data	**2024**
Itolizumab – Phase 1b / Phase 3 Clinical Studies	
Lupus Nephritis EQUALISE Study (Phase 1b) – Topline Data	**Early 2024**
aGVHD EQUATOR Study (Phase 3) – Interim Review	**2024**

Itolizumab
First-in-Class immune-modifying mAb targeting the CD6-ALCAM signaling pathway

Ono Pharmaceutical: High Value Strategic Partnership

Equillium receives upfront payment and full funding of itolizumab R&D
in exchange for Ono exclusive option to purchase Equillium's rights to itolizumab

Closing payments*:	$38.2M
Option exercise payment**:	$35.1M
Milestone payments:	$101.4M

Itolizumab development and funding:

- Equillium to continue conducting all itolizumab R&D
- Ono to fund all R&D expenses from July 1, 2022 through the option period
- R&D budget approximately $8M per quarter

Milestone Payments up to $101.4M:

- Clinical • Regulatory • First sale

ONO PHARMACEUTICAL CO.,LTD.

Option period expires three months following delivery of:

- topline data from the EQUALISE study in lupus nephritis, and
- interim data from the EQUATOR study in acute GVHD

equillium

** Includes upfront payment of $26.4M and R&D expense reimbursement for the period July 1 through December 31, 2022.*
*** ¥5.0B subject to currency exchange rate at the time of payment (USD amount above is based on the exchange rate as of August 8, 2023); milestone payments and R&D reimbursement are based in USD.*

Multi-Cytokine Platform & Therapeutic Candidates

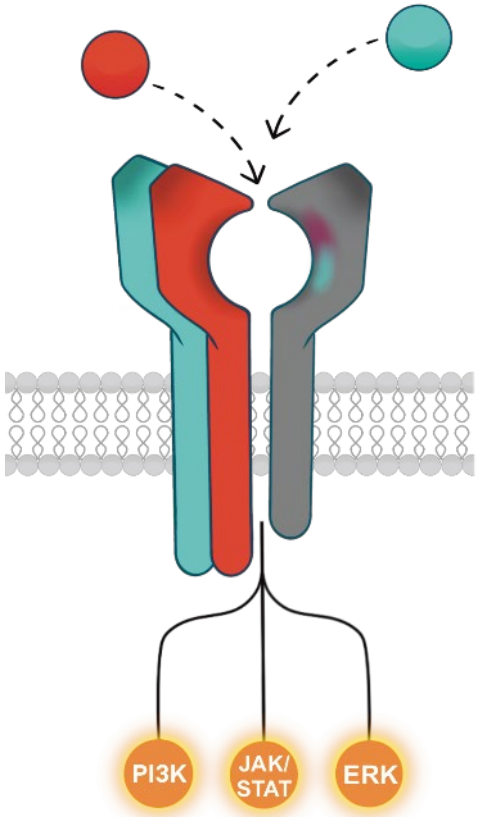
The Multi-Cytokine Problem

Cytokines leverage shared receptors exhibiting **overlapping or synergistic biological activities** which **presents unique drug development challenges** when treating disease

Cytokines often exhibit…

'Overlapping signaling'
overlapping biological activities

'Synergistic signaling'
combine to create biological activities



Cytokines signal via…

Upstream shared receptor signaling hubs

Targets include Dupixent™

Downstream divergent kinase cascades

Targets include JAK inhibitors

Challenges in Targeting Cytokine Signaling

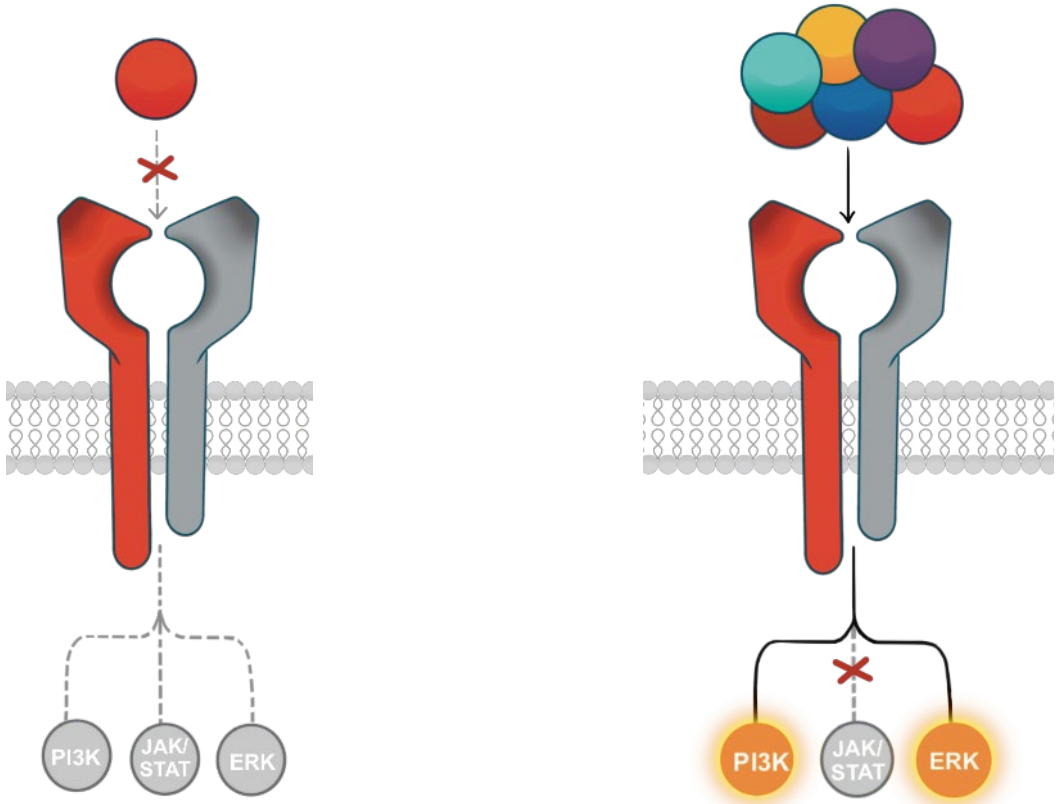
mAb
Inhibits Only One Cytokine

JAK inhibitor
Inhibits 50+ Cytokines

Ideal Therapeutic Approach
Selective inhibition of disease driving cytokines

Upstream signaling

Downstream signaling



Inhibiting the right combination of cytokines is key for optimal therapeutic effect, balancing both potent activity and potential toxicities

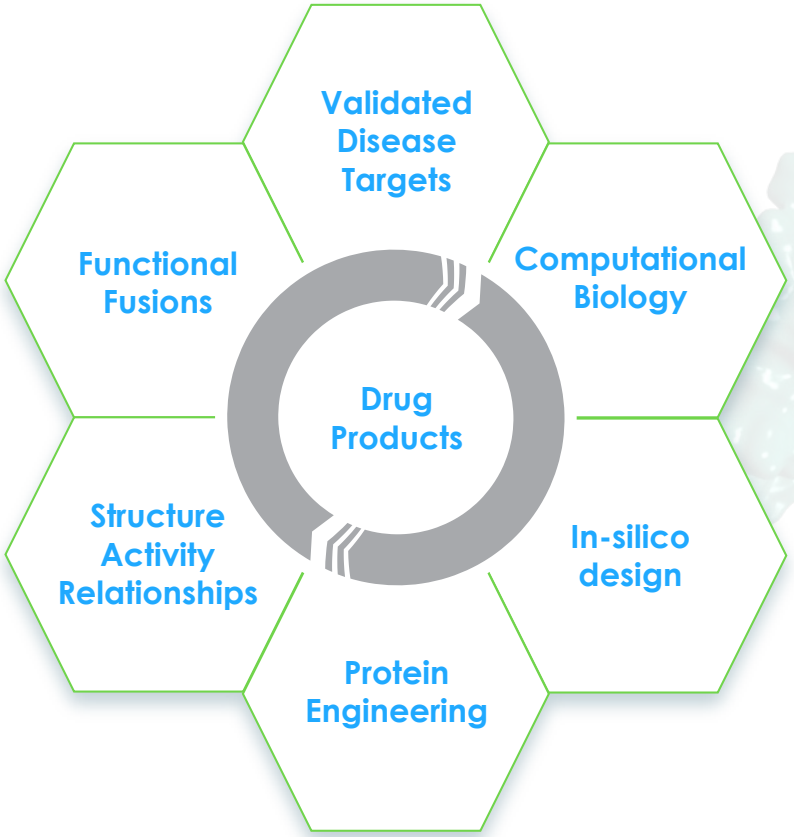
Inhibition too Narrow
Other Cytokines Involved, leads to insufficient activity

Inhibition too Broad
Non-selective cytokine targeting leads to broad immunosuppression and safety risks

Optimal Therapeutic Effect

Multi-Cytokine Platform

Modular platform generates products that **modulate the natural biological redundancy or synergy of cytokines** affording greater therapeutic benefit

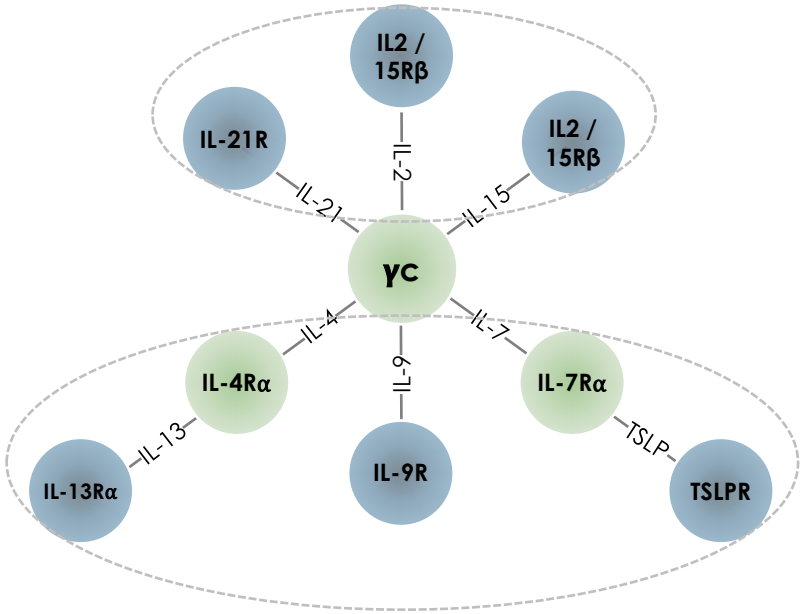


- Technology originating from the National Institutes of Health
- Uniquely targets upstream shared receptors to selectively modulate multiple cytokine pathways in a single novel product
- Intravenous, subcutaneous and oral delivery
- Products can be flexibly modified to optimize therapeutic profile and tissue targeting properties
- Broad IP portfolio covering the platform, methods of treatment and composition of matter

Shared Receptors are Key Signaling Hubs

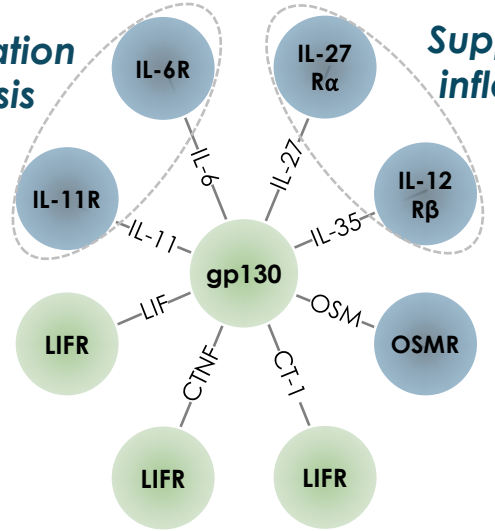
Shared receptors play a **critical role in orchestrating important biological functions**

Auto-immune, inflammatory, and anti-tumor responses



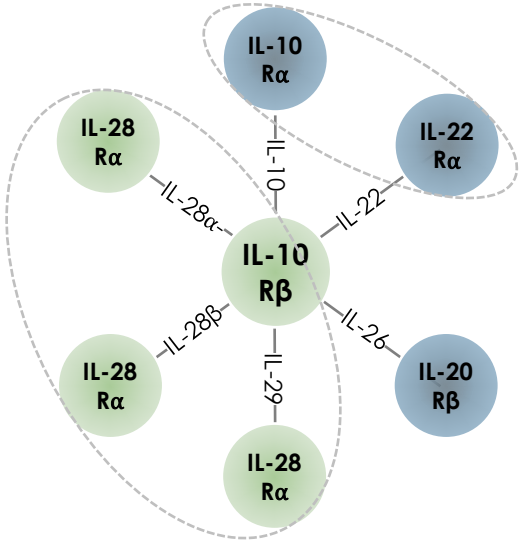
Skin, lung, and gut inflammation and allergy

Inflammation & fibrosis



Suppression of inflammation

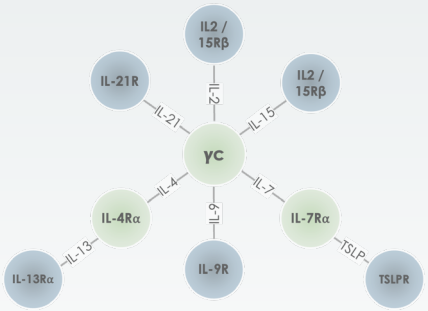
Wound healing & tissue regeneration

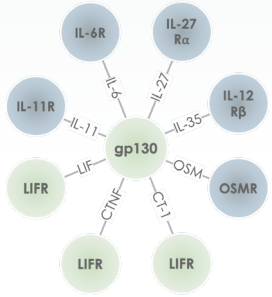


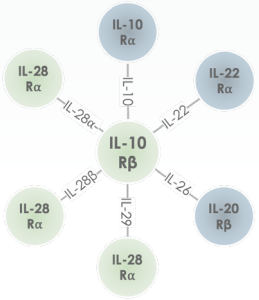
Pathogen and anti-viral responses

Products of the Multi-Cytokine Platform

Shared receptors offer opportunity to more effectively modulate biology







MULTI-CYTOKINE ACTIVATOR (MCa)

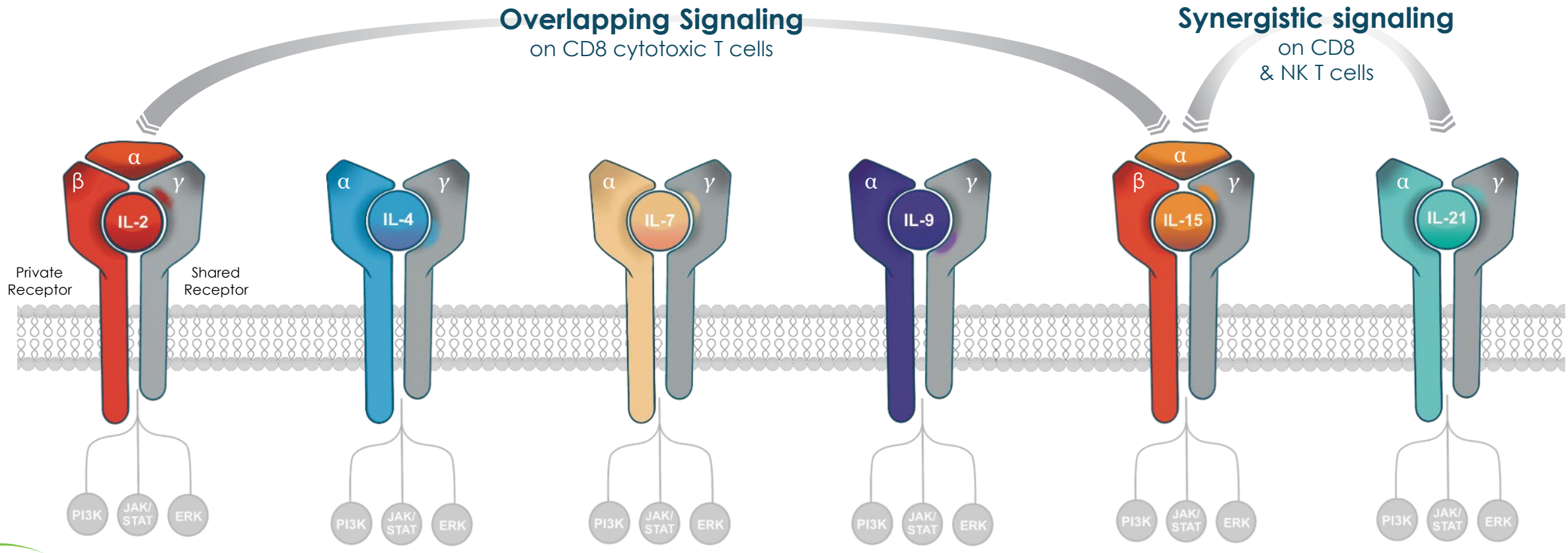
Engineered proteins that engage multiple signaling pathways to modulate biological function

MULTI-CYTOKINE INHIBITOR (MCi)

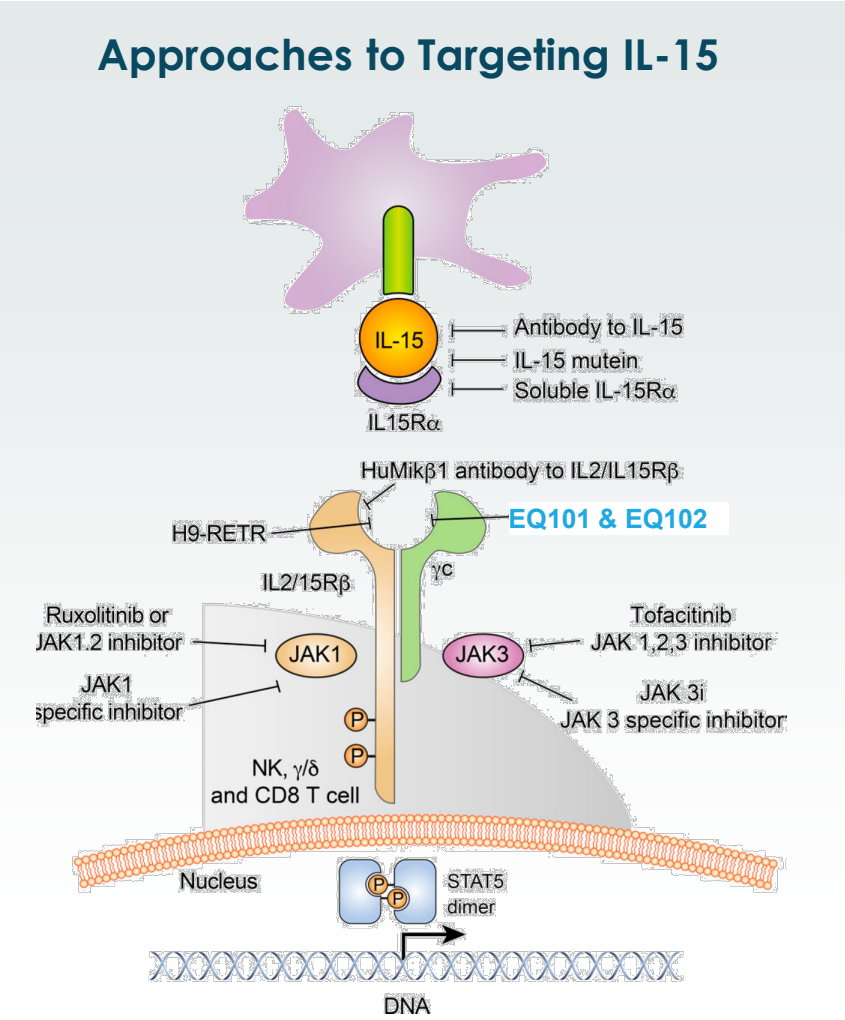
Engineered peptides or proteins that block multiple signaling pathways to modulate biological function

γC Receptor: A Key Shared Cytokine Signaling Hub

Cytokines of the γC receptor are critical regulators of immune responses
thus, making it an **attractive drug target** for modulating T, NK and B cells



IL-15 at the Apex of Tissue Specific Immuno-inflammation



REVIEW

Cytokines Focus

JEM Journal of Experimental Medicine

Interleukin-15 (dys)regulation of lymphoid homeostasis: Implications for therapy of autoimmunity and cancer

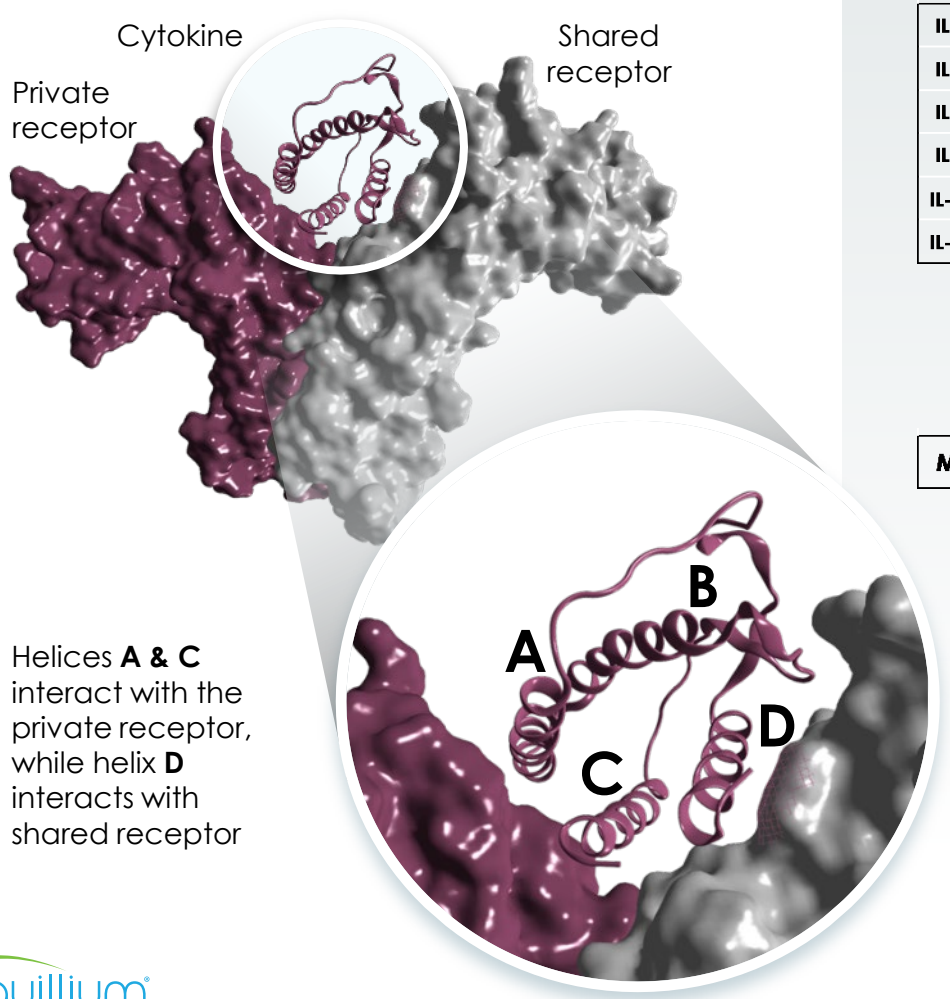
Thomas A. Waldmann, Milos D. Miljkovic, and Kevin C. Conlon

- Initiates proinflammatory cascade preceding expression of TNFα and other key cytokines
- IL-15 play pathogenic roles in diverse organ-specific autoimmune disorders
- IL-15 stimulates generation of NK, NK-T, γδ, ILC1, and memory CD8 T cells
- Diverse approaches in development to block IL-15

Waldmann et al., JEM., 2019

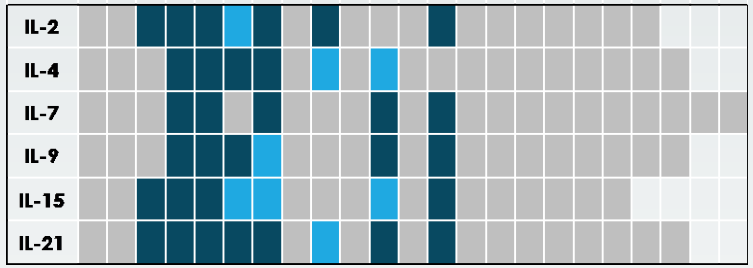
Generation of Selective Multi-Cytokine Inhibitors (MCi)

CYTOKINE-RECEPTOR COMPLEX



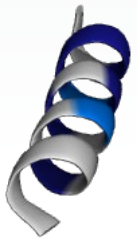
Helices **A & C** interact with the private receptor, while helix **D** interacts with shared receptor

CYTOKINE D-HELICES



native sequences

proprietary composite sequence



engineered multi-cytokine inhibitor

FUNCTIONAL FUSIONS

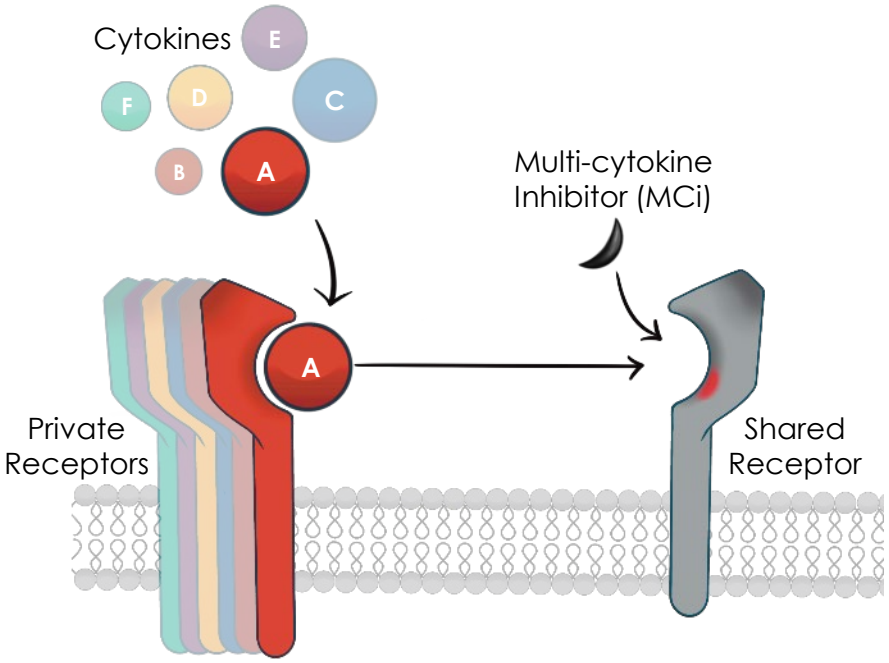
PK extension strategies
PEGylation
Lipidation
FC-fused peptibodies

Oral delivery
Peptide Stapling

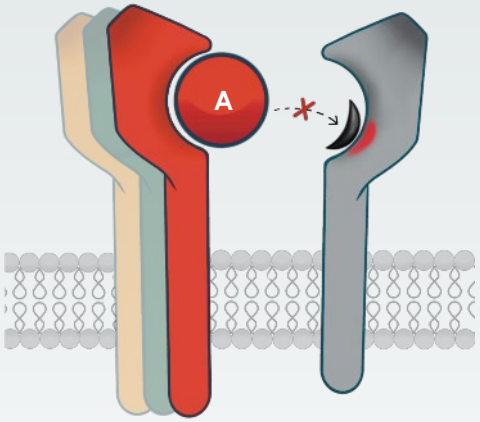
Multi-specific molecules
Fc-fusions – peptibodies
mAb-fusions – bi/tri-specific

OPTIMIZED MCi THERAPEUTIC

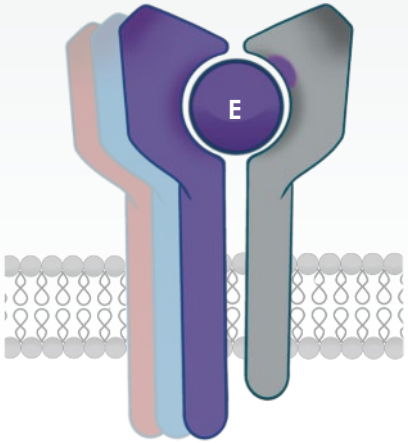
MCi MoA: Disrupting Assembly of the Receptor Complex



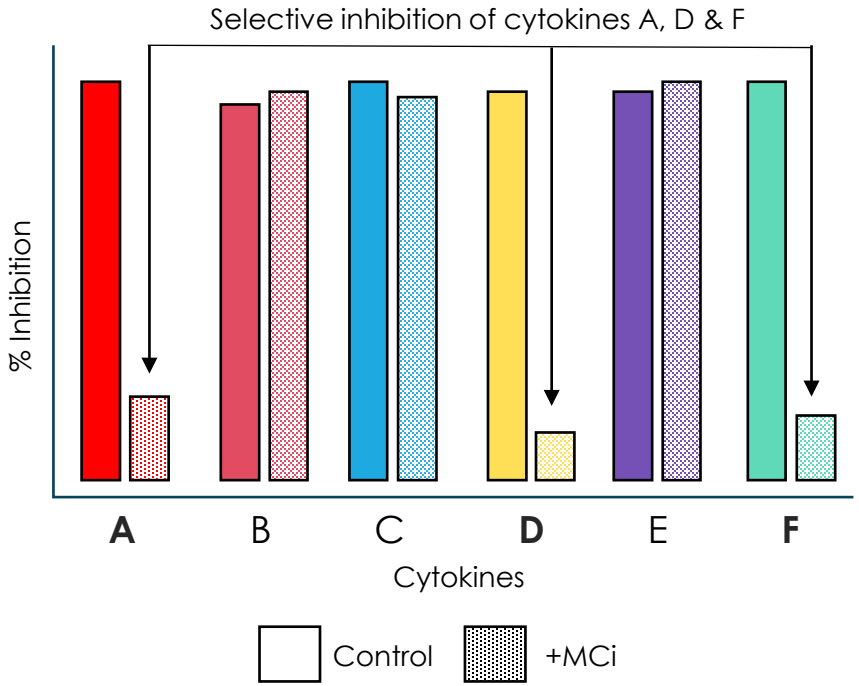
Cytokines first bind to private receptor with high affinity, then transiently dimerize with the γc shared receptor at lower affinity that leads to signaling



No Signaling



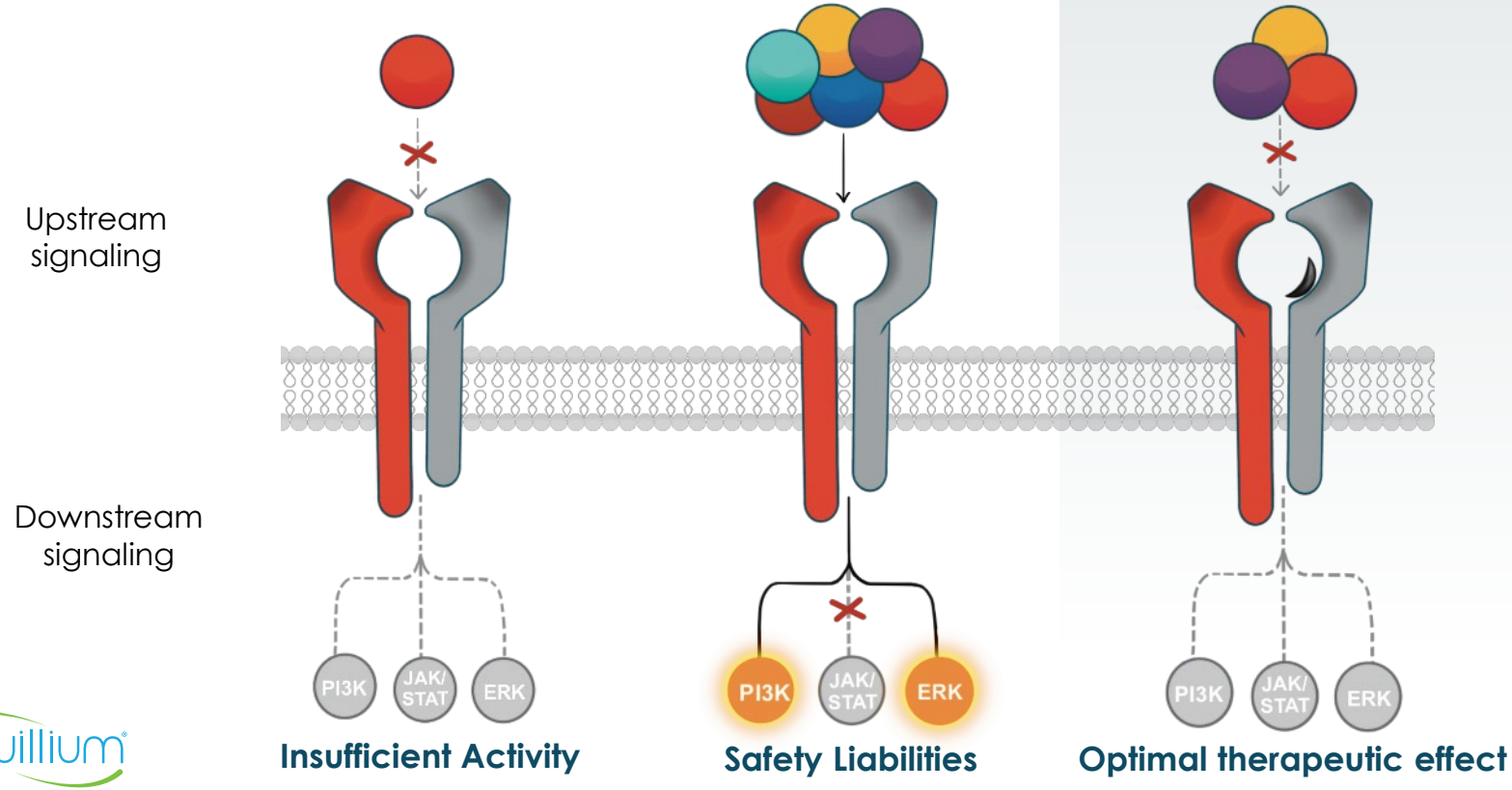
Signaling



MCi binds to γc receptor and selectively blocks signaling of only selected cytokines e.g., A, D & F

The Multi-Cytokine Inhibitor Advantage

Addressing limitations of single-target biologics and broadly immunosuppressive kinase inhibitors by **selectively inhibiting only those cytokines driving disease**



Improved Therapeutic Profile

- ✓ Targets undruggable sites not possible with mAb or small molecules
- ✓ Optimized targeting – not too narrow / not too broad
- ✓ Increased selectivity over JAKi can afford improved safety profile
- ✓ Greater potency by inhibiting downstream signaling of targeted cytokines

Differentiated Pipeline of First-in-Class Multi-cytokine Agents

EQ101
Phase 2/3

PEGylated peptide inhibits:

IL-2 + IL-9 + IL-15

Cutaneous T Cell Lymphoma

Alopecia Areata

Vitiligo

Rheumatoid Arthritis

Myositis

Interstitial Lung Disease

IV injection with sub-Q delivery in development

EQ102
In Phase 1

PEGylated peptide inhibits:

IL-15 + IL-21

Celiac Disease

Inflammatory Bowel Disease

Type 1 Diabetes

SLE

Hepatic disease

Administered by sub-Q injection

EQ302
Pre-clinical

Stabilized peptide inhibits:

IL-15 + IL-21

Celiac Disease

Inflammatory Bowel Disease

Orally-delivered, locally-acting peptide

EQ400 Series
Pre-clinical

Protein activates:

IL-X + IL-Y

Oncology

Vaccine Adjuvants

Potential use in combination with checkpoint inhibitors, ADC or cell therapy approaches both in-vivo and ex-vivo

IV injection and sub-Q

SLE = systemic lupus erythematosus; ADC = antibody drug conjugate

EQ101
First-in-Class Tri-specific Inhibitor of IL-2/IL-9/IL-15

EQ101: A First-in-Class Tri-Specific Cytokine Inhibitor

Inhibition of the key cytokines IL-2, IL-9 and IL-15 by **EQ101 translates from preclinical models into humans**

- IL-2 & IL-15 are important to CD8 and NK cell biology, IL-9 **contributes to inflammation in the skin**
- Important to inhibit both IL-2 and IL-15 due to **redundancy in signaling on cytotoxic CD8 T cells**

- PEGylated peptide (based on the D-helix) selectively inhibiting IL-2, IL-9 & IL-15 signaling[1]
- Administered as a low volume intravenous push, with a sub-cutaneous formulation in development

- As effective as ruxolitinib in inhibiting multiple lymphoproliferative or leukemic T-cell lines[2,3]
- **More effective than ruxolitinib in mouse model** of immune-mediated hair loss / alopecia areata[4]

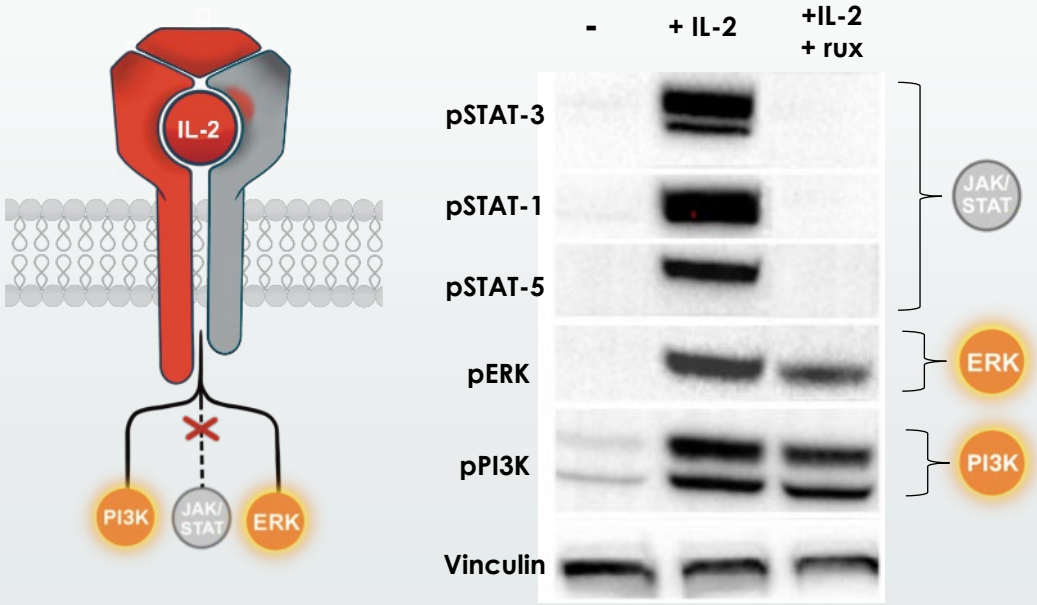
- Significant clinical **experience in >100 subjects**, demonstrated favorable safety and tolerability[5,6]
- **Positive proof-of-concept achieved** in cutaneous T cell lymphoma patients[6]

1) Nata et al., J. Biol. Chem., 2015; 2) Massoud et al., PNAS, 2015; 3) Wang et al., Leukemia, 2018; 4) Azimi et al., AHRS, Orlando, Florida, 20185) Frohna et al., J. Clin. Pharm., 2019 6) Querfeld et al., Blood, 2019

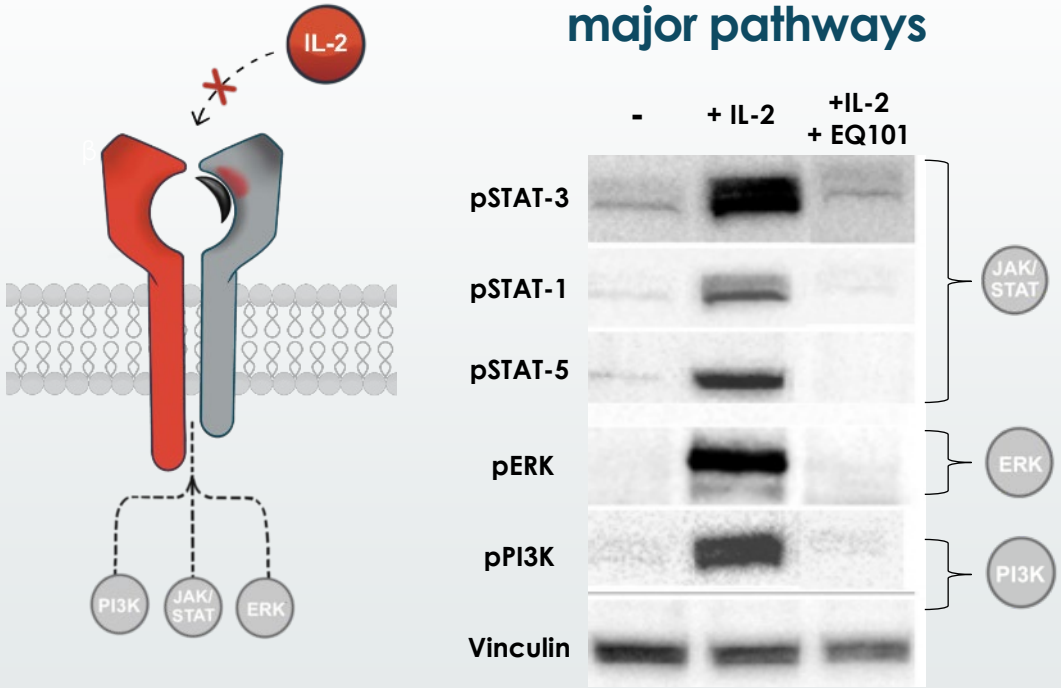
EQ101: More Complete Downstream Signal Inhibition Versus JAKi

JAKi suppression of cytokine signaling is incomplete, while **EQ101 inhibits the multiple downstream pathways for complete suppression of cytokine signaling**

Ruxolitinib blocks JAK/STAT pathway only



EQ101 blocks all major pathways



In-house data and Frohna et al., Alopecia Areata Research Summit, New York, New York, 2018

EQ101 Performs Similarly to JAK Inhibition in IL-15 Driven ATL Model

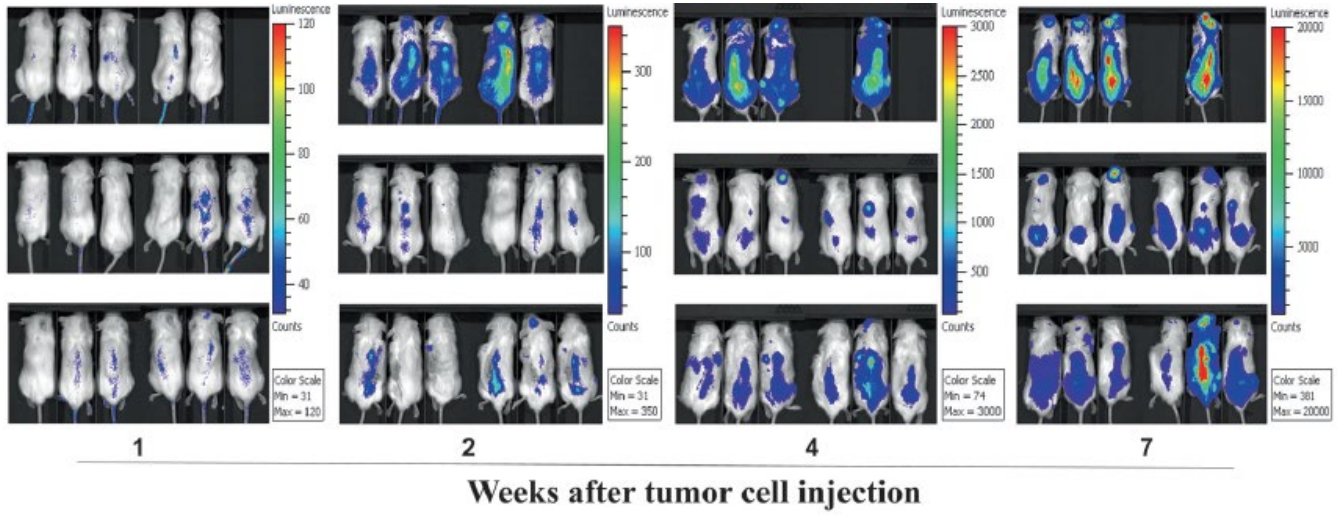
IL-2, IL-9 & IL-15 are overexpressed in adult T cell leukemia (ATL) and cutaneous T cell lymphoma (CTCL) where they drive cancer cell proliferation and increased inflammation in the skin[1,2,3,4,5]

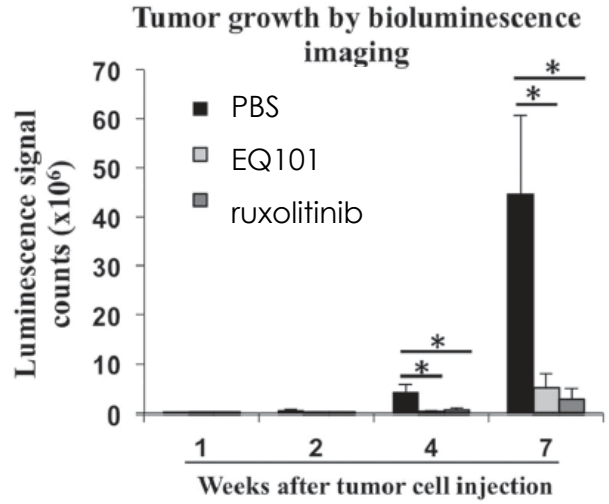
Blocking IL-2 or IL-15 alone was ineffective in treating large granular lymphocytic leukemia (LGLL)[6] and ATL[7]

control

EQ101
40mg/kg, IV, BIW, 4 weeks

ruxolitinib
continuous administration, 50mg/kg/d





1) Dobbeling et al., Blood, 1998; 2) Mishra et al., Clin. Cancer Res., 2014; 3) Qin et al., 2001; 4) Garcia et al., 2016; 5) Waldmann et al., 1993; 6) Waldmann et al., 2013; 7) Berkowitz et al., 2014; 8) Wang et al., 2018

EQ101: Summary of Historical Studies to Date

Study BNZ-CT-101, Phase 1 Study in Healthy Volunteers (n=18)

First-in-Human study to investigate the safety, tolerability and PK of single ascending doses of BNZ132-1-40

- 3 subjects per treatment group
- Single IV dose of 0.2 mg/kg, 0.4 mg/kg, 0.8 mg/kg, 1.6 mg/kg, 3.2 mg/kg, 6.4 mg/kg

Study BNZ-CT-102, Phase 1 Study in Healthy Volunteers (n = 25, treated)

Single center, randomized, single-blind, placebo controlled, multiple-dose study to characterize the safety, tolerability & PK/PD of IV BNZ132-1-40

- Subjects dosed weekly (QW) for 4 doses, or once every other week (QOW) for 3 doses
- 3 QW cohorts of 0.5 mg/kg, 1.0 mg/kg and 1.5 mg/kg
- 2 QOW cohorts of 2 mg/kg and 3.0 mg/kg

Study BNZ1-CT-201, Phase 1/2 Dose Ranging Study in Patients with LGLL or CTCL (n = 50)

Open-label, multi-center study to characterize the safety, tolerability, preliminary efficacy, and PK/PD of up to four dose levels of BNZ-1 administered QW by IV infusion

- Treatment on Days 1, 8, 15, and 22 followed by 3-month treatment extension period, during which subjects received up to 13 doses administered QW for a maximum of 17 weekly doses of BNZ-1
- 4 cohorts dosed between 0.5 mg/kg and 4 mg/kg

Froha et al., Journal of Clinical Pharmacology 2020; Querfeld et al., presentation at ASH 2020; Brammer et al Blood 2023
BNZ-1 = EQ101, PK = pharmacokinetic, PD = pharmacodynamic, IV = intravenous, LGLL = Large Granular Lymphocytic Leukemia, CTCL = Cutaneous T Cell Lymphoma

EQ101: Summary of Experience in Normal Healthy Volunteers

Observed to be safe and well tolerated, no DLT and no clinically significant lab abnormalities

No AE >= Grade 3, most common AE

- SAD: mild headache in 3 of 18 subjects (17%)
- MAD: sore throat and headache in 4 of 24 subjects (16%)

Dose proportional PK with single dose half-life in approximately 5 days

Dose-dependent changes in IL-2/IL-15 dependent cells

Multiple doses of EQ101 ≥1.5mg/kg led to prolonged PD effects >7 days suggesting QW to QOW dosing

No detectable anti-drug antibodies

equillium

Froha et al., Journal of Clinical Pharmacology 2020
QW = Weekly Dosing QOW = Every Other Week Dosing

EQ101: Phase 1/2 Proof-of-Concept Study in CTCL

Clinical validation and favorable safety profile positions EQ101 for further study

Phase 1/2 MAD study in Cutaneous T Cell Lymphoma patients (n=30)[1]

- Heavily pre-treated population (median of 5 prior systemic treatments)
- Dose-dependent PK/PD relationship in key cellular markers
- Observed to be safe and well-tolerated with no drug related SAEs, no DLTs and no clinically significant laboratory abnormalities
- Dose-dependent reductions of IL-2 & IL-15 dependent cells and improvements in mSWAT
- 2mg/kg chosen for dose expansion

(1) Querfeld et al., ASH 2020; * study closed to prepare for EOP2 meeting

EQ101: Ready for Late-Stage Advancement in CTCL

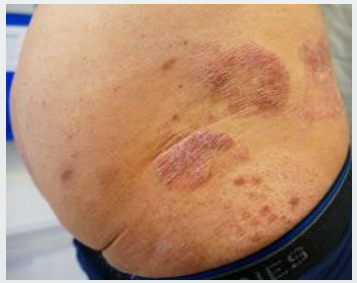
EQ101 reduces IL-2 & IL-15 dependent cells and inflammation with improvements in skin lesions and ORR comparing favorably with benchmark drugs

MAVORIC Phase 3 trial evaluating mogamulizumab and vorinostat provides the most recent and reliable estimates for benchmarking EQ-101[1]

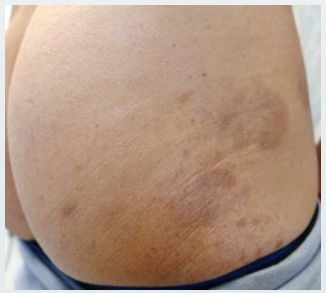
	CTCL disease stage IB/II		
	Mogamulizumab (n=68)	Vorinostat (n=72)	**EQ101 (n=19)**
Response Rate (mSWAT, CR + PR)	27.9%	19.4%	**42.1%[2]**

EQ101, 2mg/kg

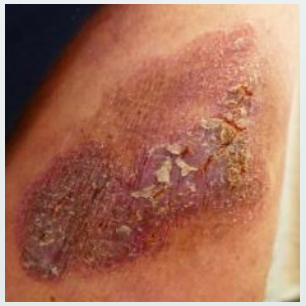
Baseline



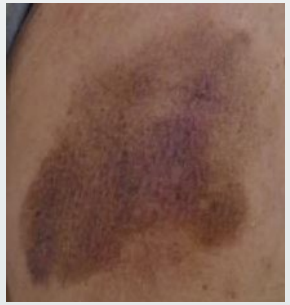
Week 16



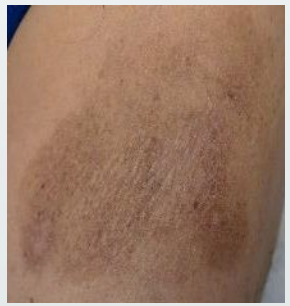
Baseline



Week 16



Week 31



1) Kim et al. 2018. 2) Two additional patients achieved PR but are not included since they did not reach 4 weeks of response due to termination of the study. Including those patients response rate =52.6%
3) Patients shown were entered into the long-term extension portion of BNZ1-CT-201 and continued to be dosed for over 70 weeks. mSWAT = modified severity-weighted assessment tool

EQ101: Positive Proof-of-Concept Opens Up Indication Expansion

>100 subjects dosed, demonstrated **favorable safety and tolerability**

Compelling clinical activity observed in cutaneous T cell lymphoma (CTCL) patients

Attractive target product profile for the treatment of CTCL patients

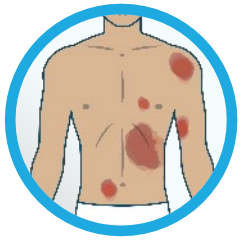
IND open and **Phase 2/3 ready** in CTCL

Use of JAKi in medical dermatology opens up **opportunity for indication expansion**

Now in ongoing **proof-of-concept study in alopecia areata**

EQ101: Valuable Medical Dermatology Franchise

Multi-Billion dollar market opportunity for EQ101 in medical dermatology
Large need exists for safe and effective therapies



24,000 adult US Patients[1]

Cutaneous T cell Lymphoma

PoC Achieved
Phase 2/3 Ready
Open IND

- Unmet need for safe and effective therapies

250,000 US moderate-severe Patients[2]

Alopecia Areata

Phase 2 Study ongoing

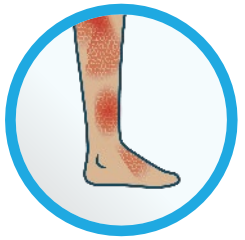
- Only two FDA approvals: JAKi
- Late-stage Industry pipeline predominantly JAKi

1.5M+ US Patients[3]

Vitiligo

Future Opportunity

- Only one FDA approval: JAKi
- Late-stage Industry pipeline predominantly JAKi



6.6M US moderate-severe Patients[4]

Atopic Dermatitis

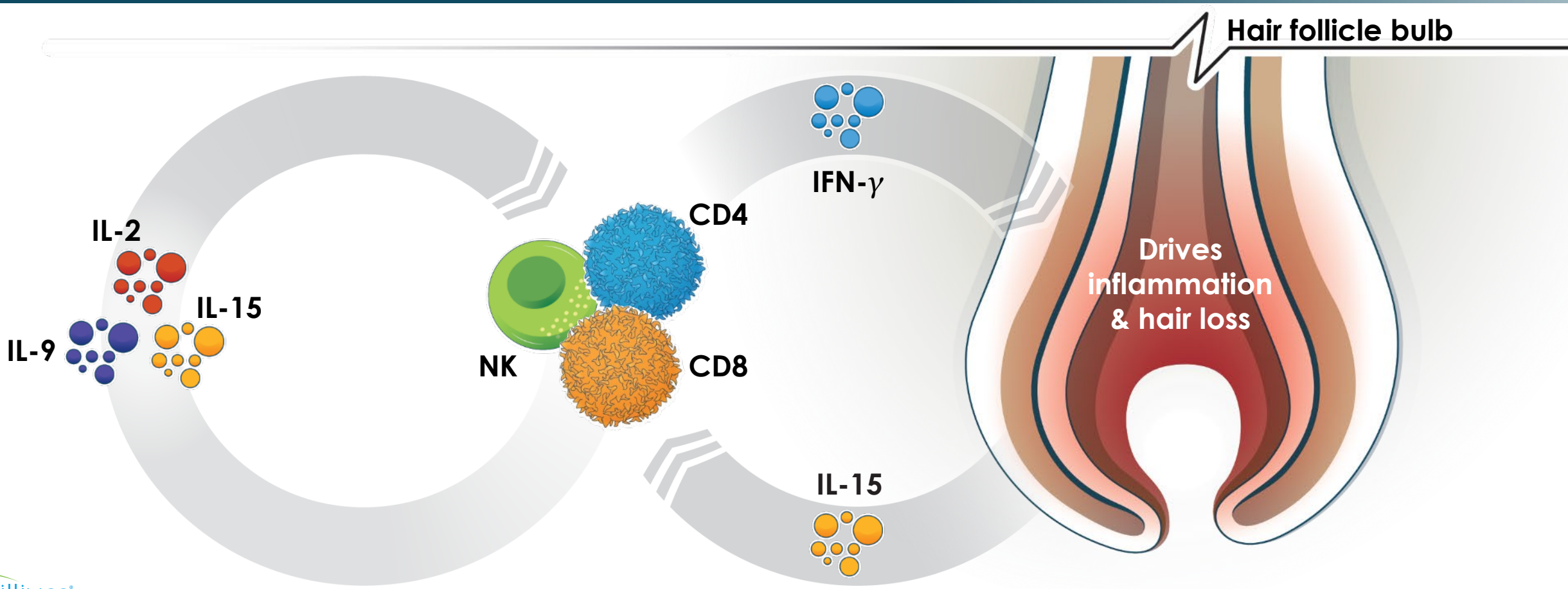
Future Opportunity

- 3 FDA approved JAKi
- Large refractory population in need of safe treatment alternatives

1) Kx Advisors 2) Benigno, Clin Cosmet Investig Dermatol, 2020 3) Bergqvist C, Ezzedine K. Vitiligo: A Review. Dermatology. 2020
4) Chiesa Fuxench ZC, J Invest Dermatol. 2019

EQ101: Targeted Treatment Approach for Alopecia Areata

IL-2, IL-9 and IL-15 are key drivers of disease in alopecia areata, promoting a cycle of increased IFN-γ production and immune cell attack of the hair follicle



Xing et al., Nat. Med., 2014; Bertolini et al., PLOS, 2014; Suarez-Farinas et al., J Allergy Clin Immunol, 2015; Dai et al., JCI Insight, 2021

EQ101 Reverses Immune-Mediated Hair Loss in a Mouse Model

EQ101 is more effective than ruxolitinib at hair regrowth and suppression of cytotoxic CD8+ T cells in humanized alopecia model

EQ101 Improves Hair Regrowth

EQ101
2 mg/kg
IV 2x/week

Day 0

Day 14

Day 21

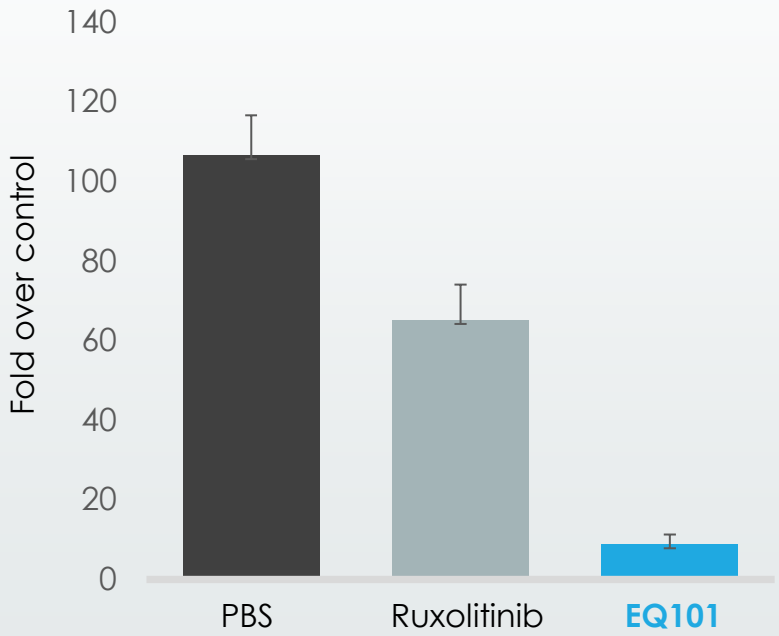
Ruxolitinib
30 mg/kg
2x/day

Day 0

Day 14

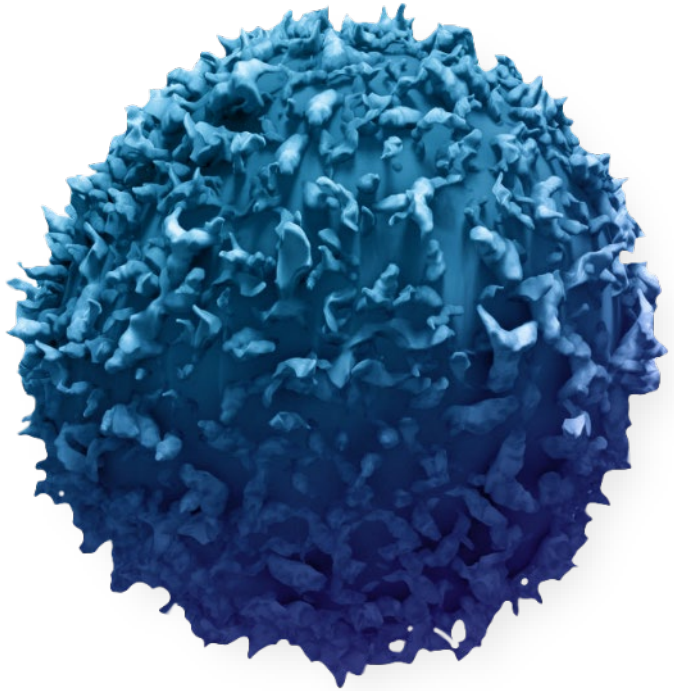
Day 21

EQ101 Reduces CD8+ Cytotoxic T-cell Activation Marker NKG2D



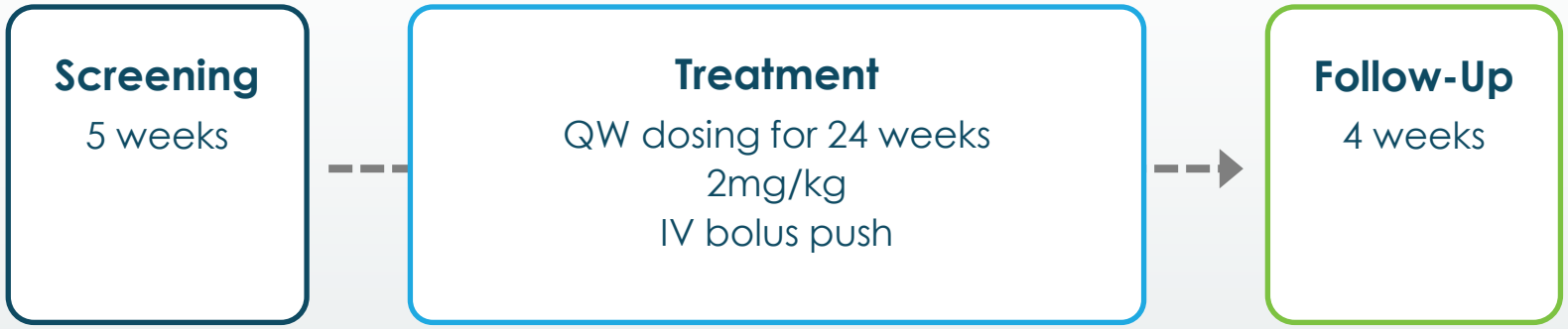
In-house data and Azimi et al., AHRS, Orlando, Florida 2018; Frohna, et al., Alopecia Areata Research Summit, New York, New York, 2018

EQ101:
Alopecia Areata
Clinical Review



EQ101 in Adults With Moderate to Severe AA

Phase 2 Open Label Study Design



Population N~30

At least 35% scalp hair loss, as defined by a SALT score ≥35

Current episode of hair loss lasting >6 months to <7 years

Study Objectives

Safety & tolerability, Efficacy, PK/PD and biomarkers

Establish biologic activity and safety profile of EQ101

Next step: dose selection study

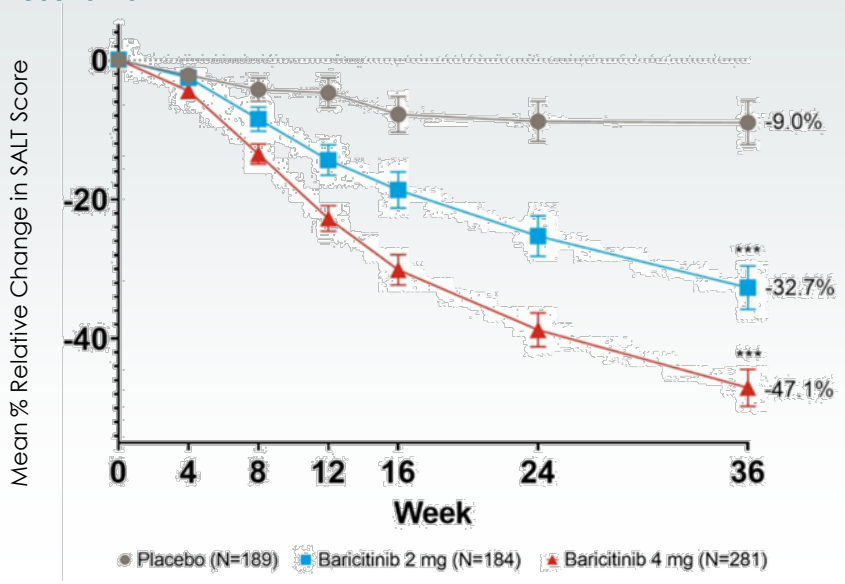
SALT = Severity of Alopecia Tool

Alopecia Areata Trials Illustrate Efficacy Bar & Low Placebo Rates

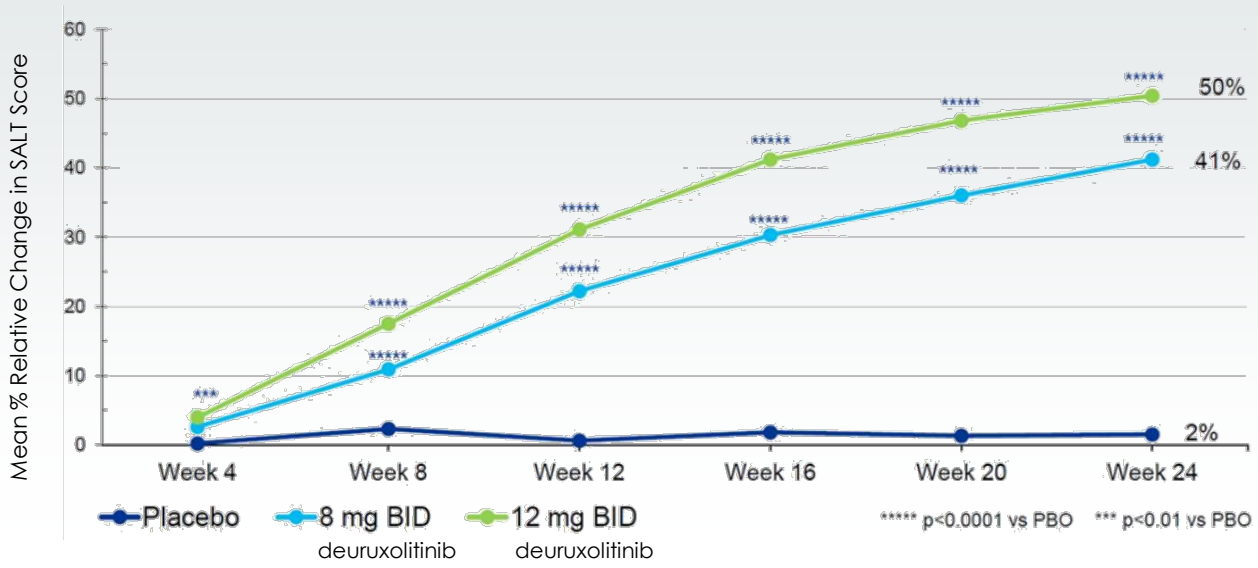
Ritlecitinib results from Ph 2 and ALLEGRO-2b/3 studies:
reduction in SALT scores in placebo subjects at 24 weeks was less than 6%

Percent change from baseline in SALT Score

baricitinib
Results from BRAVE AA1



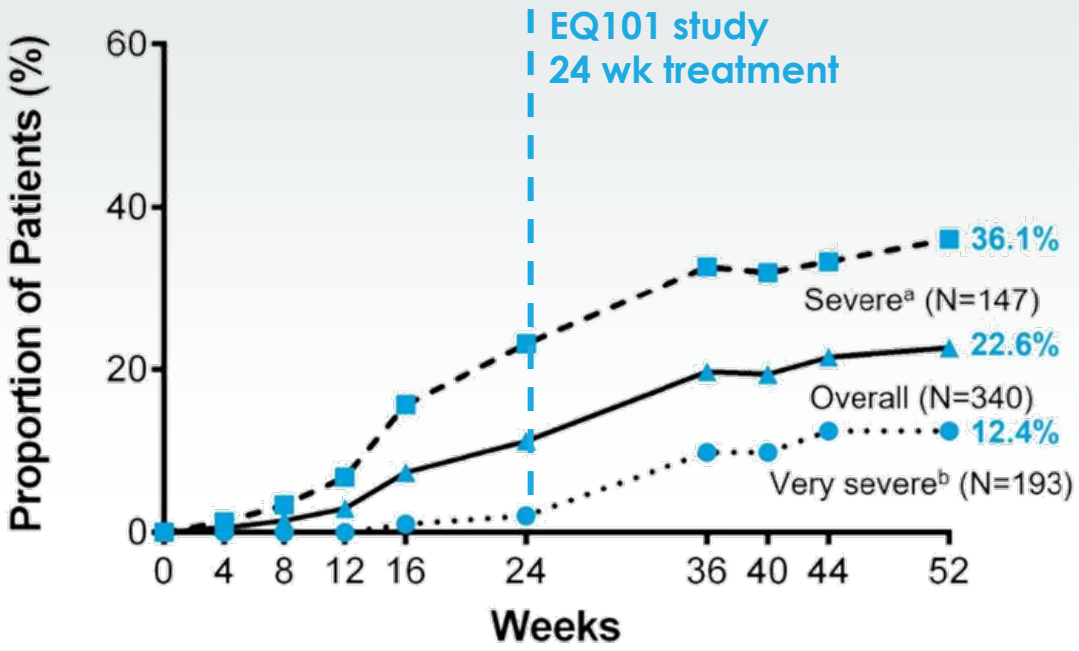
deuruxolitinib
Results from THRIVE AA1



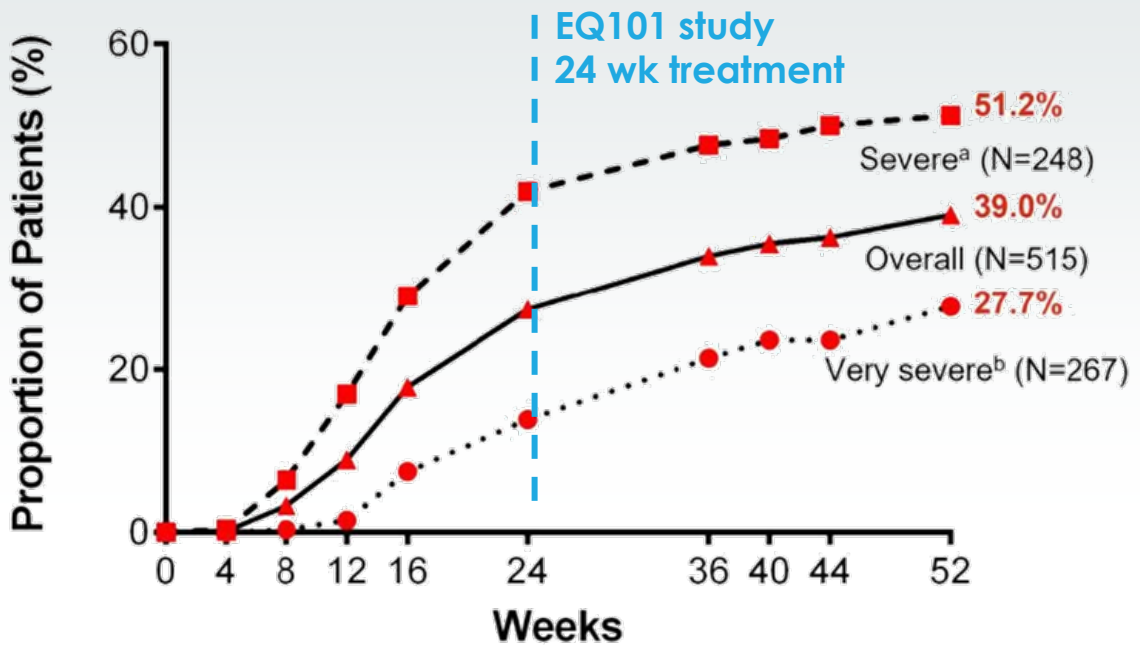
SALT = Severity of Alopecia Tool
Efficacy and Safety of Baricitinib in Patients with Severe Alopecia Areata
Source: Eli Lilly & Concert Pharmaceuticals and Pfizer
King et al J Am Acad Dermatol 2021; King et al Lancet 2023

SALT Response Based on Baseline Severity in Baricitinib Studies

SALT Score ≤20 Response Rate
baricitinib 2-mg



SALT Score ≤20 Response Rate
baricitinib 4-mg



Placebo response rates are very low for alopecia areata patients: at 36 weeks of treatment <1% for patients with very severe disease and ~7% for patients with severe disease

Severe[a]: baseline SALT score of 50-94;
Very severe[b]: baseline SALT Score ≥95

Taylor et al. 2022 JAAD, presented at AAD, P35766

Alopecia Areata Pipeline: Late-Stage Assets

	OLUMIANT® LY3009104 baricitinib	LITFULO® PF-06651600 ritlecitinib	CTP-543 deuruxolitinib	jaktinib	SHR0302 ivarmacitinib	SOTYKTU® BMS-986165 deucravacitinib	etrasimod	ASLAN003 farudostat	ADX-914 bempikibart	HXN-7734 daxdilimab
Key Dates	Approved June 2022	Approved July 2023	NDA: H1 2023	P3 Data: 2024	P3 Data: 2024	P2 Data: Q3 2024	P2 Data: Q4 2023	P2 Data: Q1 2024	P2 Data: 2024	P2 Data: Q3 2023
MoA	JAK1/2	JAK3/TEC	JAK1/2	JAK1/2	JAK1	TYK2	S1P antagonist	DHODH	Anti-IL7Ra mAb	Anti-ILT7 mAb
Status	**MARKETED**	**MARKETED**	Phase 3 completed	Phase 3 (China only)	Phase 3 (China only)	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2
US Approvals	AA, RA, COVID	AA	NONE	NONE	NONE	Psoriasis	NONE	NONE	NONE	NONE
Trials/Size	P2/3 (n=764, 2yr 4 mo, 75 sites) P3 (=546, 1yr 6mo, 98 sites)	P2b/3 (n=718) P3 LT ongoing	P3 (n=706, 1yr 5mo, 72 sites) P3 (n=517, 1yr 1 mo, 63 sites)	P3 (n=420)	P3 (n=330)	P2 (n=90)	P2 (n=80)	P2 (n=60)	P2 (n=40)	P2 (n=30)
Patients	SALT ≥ 50 placebo	SALT ≥ 50 placebo	SALT ≥ 50 placebo	SALT ≥ 50 placebo	SALT ≥ 50 placebo	SALT ≥ 50 placebo	SALT ≥ 25 to < 95 open label	SALT ≥ 50 placebo	SALT ≥ 50 placebo	SALT ≥ 50 to ≤ 95 open label
Alopecia type	AU: 45-47%	AT: 15% AU: 27% for 200 mg +50 mg	AA: 42-43% AT: 16-22% AU: 27-37%	pending	pending	pending	pending	pending	pending	pending
Endpoints	SALT ≤ 20 at 36 wks	SALT ≤ 20 at 24 wks	SALT ≤ 20 at 24 wks	SALT ≤ 20 at 24 wks	SALT ≤ 20 at 24 wks	% change SALT at 24 wks	% change SALT at 24 wks	% change SALT at 24 wks	% change SALT at 24 wks	% change SALT at 24 wks
Outcome	**BRAVE-AA1**: 4 mg: 35%; 41% 52 w 2 mg: 22%; 21% 52 w; pbo: 3.3% **BRAVE-AA2**: 4mg: 32%; 37% 52w 2mg: 17%; 24% 52w; pbo: 6.2%	**Allegro 2b/3** 200 mg LD +50 mg: 31% +30 mg: 22% 50 mg LD: 24% 30 mg LD:14.5% 10 mg LD: ---	**THRIVE-AA1**: 12 mg 42% 8 mg 30% ; pbo 1% **THRIVE-AA2**: 12 mg 38% 8 mg 33.0%; pbo 1%	No Results Available	No Results Available	No Results Available	No Results Available	No Results Available	No Results Available	No Results Available
Dosing	2 mg or 4 mg Oral QD	50 mg Oral QD	Oral BID	Oral BID	Oral QD	Oral QD	Oral QD	Oral BID	SC Q2W	2 SC at 3.5 wks

OLUMIANT (baricitinib) List price: $2,497.20 for 30-day supply of 2mg, and $4,994.40 for 30-day supply of 4mg (lillypricinginfo.com)

Current Concerns in the Alopecia Areata Treatment Landscape

EQ101 is well positioned to be a **better-tolerated and effective alternative to JAK inhibitors**

Currently approved and late-stage pipeline drugs are all JAK inhibitors

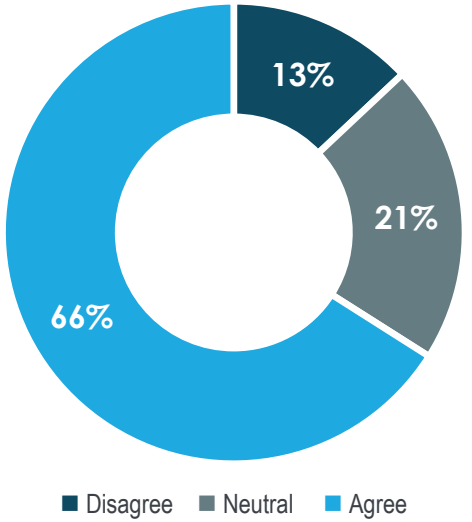
There remains a chronic need, without a safe chronic treatment

Dermatologists indicate safety concerns are the primary barriers to JAKi use in AA patients

79% of physicians surveyed, believe there is an extremely high unmet medical need*

"I am concerned about the safety of oral JAK inhibitors for my AA patients"*

% of respondents, n = 101



Blackbox warning**

WARNING: SERIOUS INFECTIONS, MORTALITY, MALIGNANCY, MAJOR ADVERSE CARDIOVASCULAR EVENTS (MACE), and THROMBOSIS

See full prescribing information for complete boxed warning.

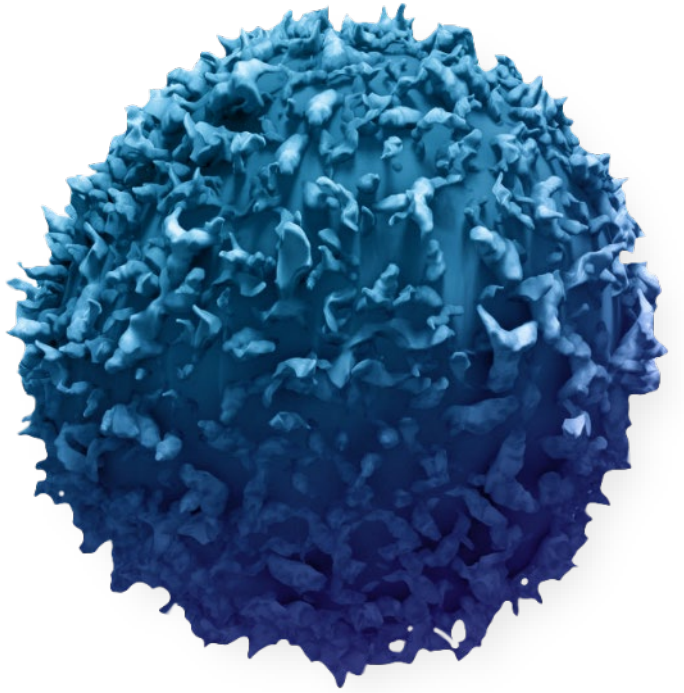
- **Increased risk of serious bacterial, fungal, viral and opportunistic infections leading to hospitalization or death, including tuberculosis (TB). Interrupt treatment with OLUMIANT if serious infection occurs until the infection is controlled. OLUMIANT should not be given to patients with active tuberculosis. Test for latent TB before and during therapy, except for COVID-19; treat latent TB prior to use. Monitor all patients for active TB during treatment, even patients with initial negative, latent TB test. (5.1)**
- **Higher rate of all-cause mortality, including sudden cardiovascular death with another Janus kinase inhibitor (JAK) vs. TNF blockers in rheumatoid arthritis (RA) patients. (5.2)**
- **Malignancies have occurred in patients treated with OLUMIANT. Higher rate of lymphomas and lung cancers with another JAK inhibitor vs. TNF blockers in RA patients. (5.3)**
- **Higher rate of MACE (defined as cardiovascular death, myocardial infarction, and stroke) with another JAK inhibitor vs. TNF blockers in RA patients. (5.4)**
- **Thrombosis has occurred in patients treated with OLUMIANT. Increased incidence of pulmonary embolism, venous and arterial thrombosis with another JAK inhibitor vs. TNF blockers. (5.5)**

equillium

** Spherix Global Insights; ** Olumiant Package Insert*

Dr. Arash Mostaghimi

Alopecia Areata Fireside Chat



Arash Mostaghimi, M.D., M.P.A., M.P.H.
Associate Professor of Dermatology
Harvard Medical School
Director, Inpatient Consultation Service, Department of Dermatology
Brigham and Women's Hospital

Question 1

How are you treating patients with alopecia areata of different severities (SALT scores), particularly given the approval of the JAKi for AA this past year?

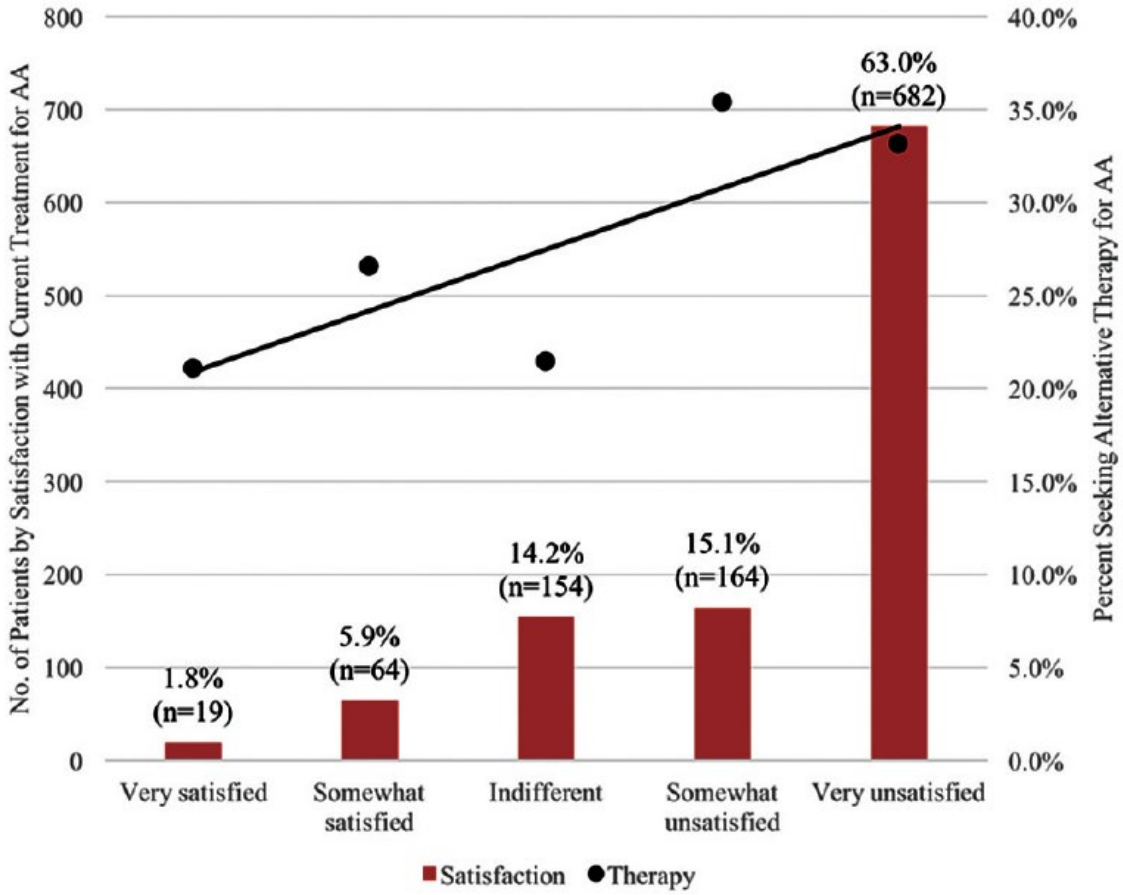
What treatments do patients prefer?

ALOPECIA AREATA TREATMENT

- Major problem: safe, effective, consistent drug delivery
- Limited disease (95% of patients)
  - No treatment
  - Topical therapies (very limited efficacy)
  - **Injectable steroids**
- Extensive disease
  - Systemic immunosuppressive agents (antimetabolites, prednisone)
  - Potential role for some biologic agents (dupilumab)
  - JAK inhibitors (**baricitinib**, ritlecitinib, deuruxolitinib)

Slides from Dr. Arash Mostaghimi, Associate Professor, Harvard Medical School

PROFOUND DISSATISFACTION WITH CURRENT THERAPIES



DOI: 10.4103/ijt.ijt_53_17

Slides from Dr. Arash Mostaghimi, Associate Professor, Harvard Medical School

PATIENT IMPACT

- Variable, but often profound impact on quality of life
- Higher rates of depression, anxiety, emotional behaviors, acute stress
- Impacts performance in school, work, and relationships
- Traumatic, unpredictable disease with 1/3 meeting PTSD criteria

Source: DOI: 10.1007/s13555-021-00512-0

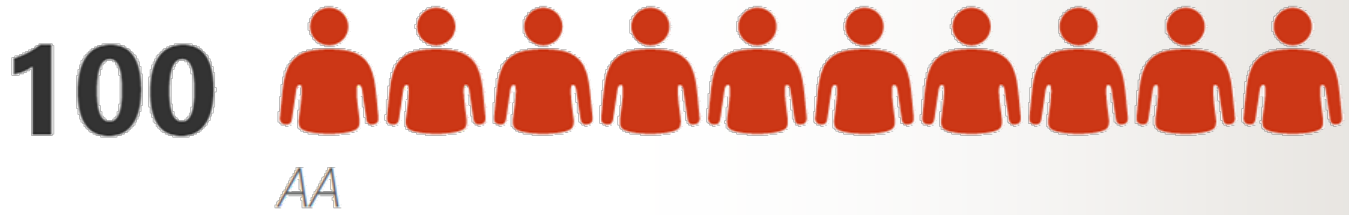
Slides from Dr. Arash Mostaghimi, Associate Professor, Harvard Medical School

Question 2

Does there remain an unmet need in the treatment of alopecia areata with the approval of JAKi?

Are there concerns about long term use of JAKi?

WHERE WE ARE TODAY



Slides from Dr. Arash Mostaghimi, Associate Professor, Harvard Medical School

NEXT STEP: TARGETED THERAPIES

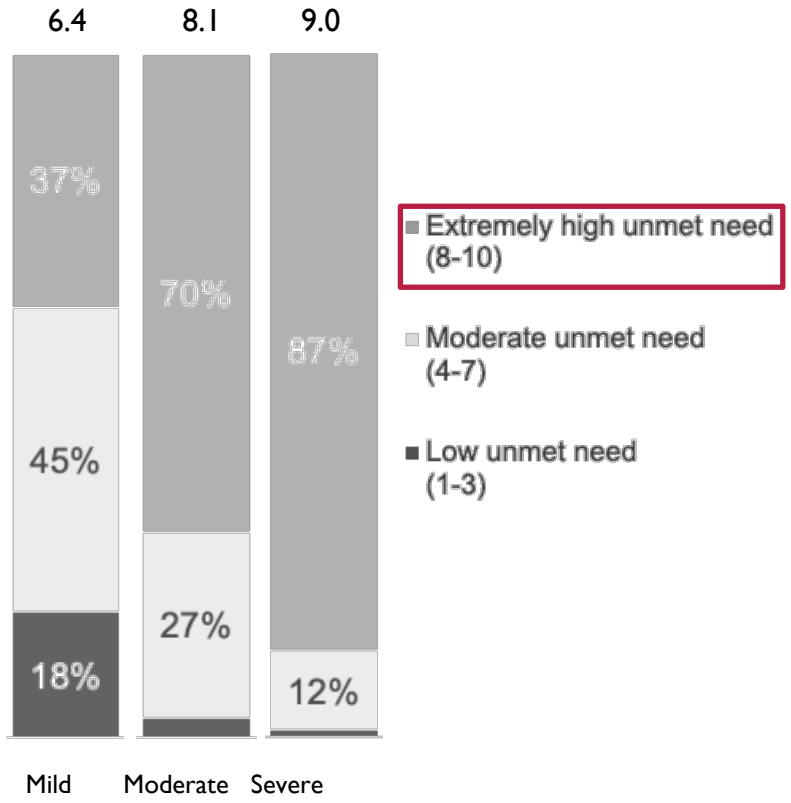
- JAK inhibitors are a huge advance, but not enough
- Targeted therapy designed for AA is critical
  - Better outcomes
  - Improve risk/benefit of treatment
- Localized therapy is an unsolved problem!
  - Addresses need of 95% of those who do not have an FDA approved treatment
  - May be used as an adjunct therapy
  - Even better risk/benefit

Slides from Dr. Arash Mostaghimi, Associate Professor, Harvard Medical School

DERMATOLOGISTS ARE LOOKING FOR SAFER ALTERNATIVES TO JAKI FOR AA

Unmet Needs for New Treatment Options

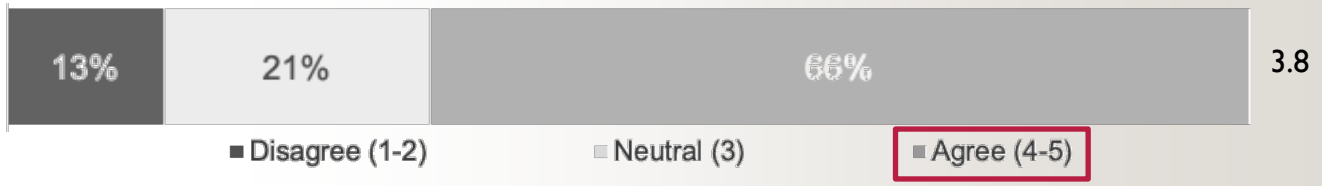
% of respondents (n=103)



Statement Agreement:

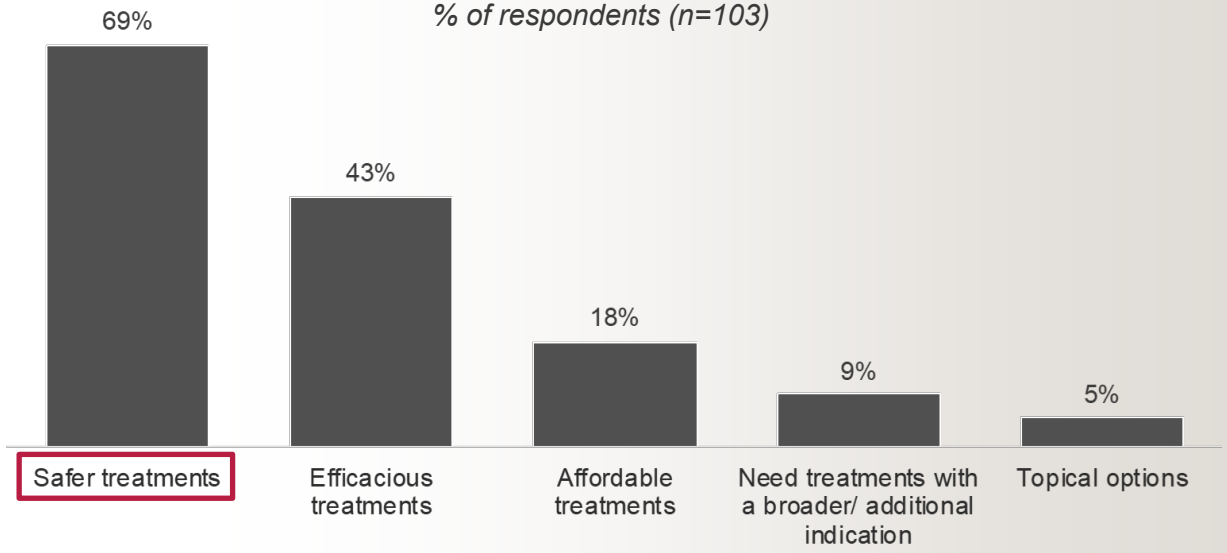
I am concerned about the safety of oral JAK inhibitors for my AA patients

% of respondents (n=101)



Remaining Unmet Needs for AA Treatment Options

% of respondents (n=103)



Spherix Global Insights, Market Dynamix Alopecia Areata (US) 2022

Question 3

Can you share your thoughts on EQ101's MOA and the potential use in AA patients?

What are you, as a clinician, hoping to observe in this study?

HOW SHOULD WE MEASURE SUCCESS?

- For a proof of concept study, would like to see early activity and then follow on studies to optimize dosing and administration
- Not worried about taking an injectable treatment, but able to grow hair consistently and feel confident
- Speed might be less important
- We want patients to live full and happy lives

Slides from Dr. Arash Mostaghimi, Associate Professor, Harvard Medical School

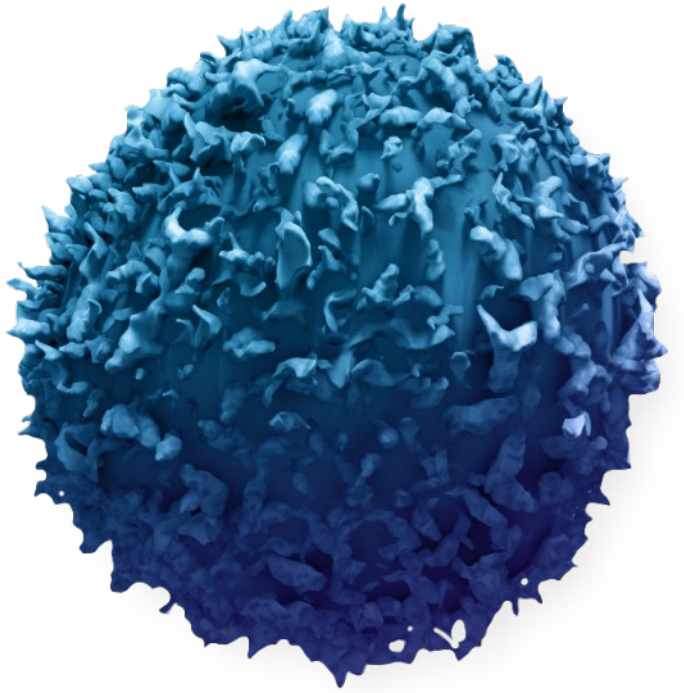
FINAL THOUGHTS

- AA has unique properties as a disease—we cannot treat it the same way as psoriasis and atopic dermatitis
- Need a safe chronic long term treatment, physicians and patients are looking beyond JAKI
- Systemic treatment is in the early innings—please innovate in this space

Slides from Dr. Arash Mostaghimi, Associate Professor, Harvard Medical School

THANK YOU DR. MOSTAGHIMI

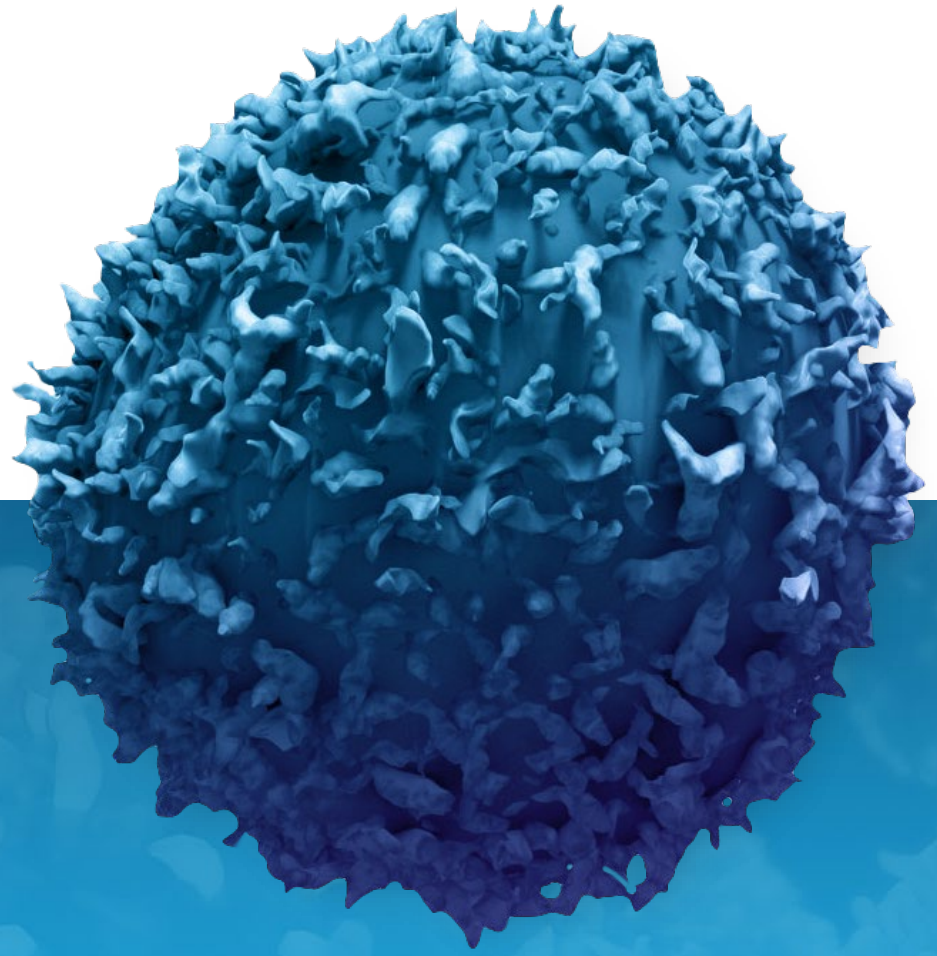
AVAILABLE FOR Q&A



Arash Mostaghimi, M.D., M.P.A., M.P.H.
Associate Professor of Dermatology
Harvard Medical School
Director, Inpatient Consultation Service, Department of Dermatology
Brigham and Women's Hospital

Equillium: Short Term Forecast

1. EQ101 initial data from alopecia areata study expected before end of year, followed by topline data expected mid-2024
2. EQ102 SAD/MAD data expected before end of year
3. Itolizumab:
   - lupus nephritis data from EQUALISE study to be presented at ASN & ACR in November, followed by topline data expected early next year
   - Interim review of aGVHD data from EQUATOR study expected in 2024
   - Ono exercise decision and potential option payment



equillium®

Thank you

www.equilliumbio.com