

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 8-K

**CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934**

**Date of Report (Date of earliest event reported):
June 29, 2022**

Ventyx Biosciences, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-40928
(Commission
File Number)

83-2996852
(IRS Employer
Identification No.)

662 Encinitas Blvd., Suite 250
Encinitas, CA 92024
(Address of principal executive offices, including zip code)

(760) 593-4832
(Registrant's telephone number, including area code)

Not Applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of exchange on which registered
Common Stock, \$0.0001 par value per share	VTYX	The Nasdaq Global Select Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 7.01 Regulation FD Disclosure.

On June 29, 2022, Ventyx Biosciences, Inc. (“Ventyx”) issued a press release announcing topline Phase 1 data for its peripheral NLRP3 Inhibitor VTX2735. The press release is attached hereto as Exhibit 99.1 to this Current Report on Form 8-K and incorporated herein solely for purposes of this Item 7.01 disclosure.

Also on June 29, 2022, Ventyx published an updated corporate presentation which is attached as Exhibit 99.2 to this Current Report on Form 8-K and incorporated herein solely for purposes of this Item 7.01 disclosure.

In accordance with General Instruction B.2. of Form 8-K, all of the information furnished in this Item 7.01 and Item 9.01 (including Exhibit 99.1 and Exhibit 99.2) shall not be deemed to be “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and shall not be incorporated by reference in any filing under the Securities Act of 1933, as amended, or in any filing under the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press Release dated June 29, 2022.
99.2	Corporate Presentation dated June 29, 2022.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

VENTYX BIOSCIENCES, INC.

By: /s/ Raju Mohan
Raju Mohan, Ph.D.
Chief Executive Officer

Date: June 29, 2022



Ventyx Biosciences Announces Positive Topline Phase 1 Data for its Peripheral NLRP3 Inhibitor VTX2735

Excellent safety, tolerability and pharmacokinetic profile

Robust dose-dependent target engagement as measured by ex vivo IL-1b release assay

Phase 2 trial planned in CAPS patients to efficiently establish clinical proof of concept

Clinical update in Q3 from Phase 1 trial of VTX958, our oral, selective allosteric TYK2 inhibitor

ENCINITAS, Calif., June 29, 2022 (GLOBE NEWSWIRE) – Ventyx Biosciences, Inc. (Nasdaq: VTYX) (“Ventyx”), a multi-asset, clinical-stage biopharmaceutical company focused on advancing novel oral therapies that address a range of inflammatory diseases with significant unmet medical need, today announced positive data from the company’s Phase 1 single ascending dose (SAD) and multiple ascending dose (MAD) trial of VTX2735, a peripheral NLRP3 inhibitor, and the first of two product candidates from its NLRP3 portfolio.

“The Phase 1 study demonstrated an excellent exposure and safety profile and evidence of dose-dependent target engagement and pharmacodynamic activity,” said Bill Sandborn, MD, President and Chief Medical Officer. “Inhibition of the NLRP3 inflammasome is emerging as a potent anti-inflammatory mechanism with therapeutic potential in a broad range of indications with high unmet medical need. We look forward to sharing additional details from this trial and a broader discussion of the clinical opportunities available with VTX2735 at an investor event later this year.”

The VTX2735 Phase 1 SAD/MAD clinical trial was a two-part, randomized, double-blind, placebo controlled, dose-escalation study designed to evaluate the safety, tolerability and pharmacokinetics of single and multiple ascending doses. The study enrolled 72 adult healthy volunteers in SAD cohorts up to 200 mg and MAD cohorts up to 200 mg daily for 14 days. VTX2735 was well-tolerated across all dose cohorts and all subjects completed the trial.

Drug exposures in both SAD and MAD cohorts increased linearly with dose. All drug-related adverse events (AEs) were considered mild, with no LFT abnormalities and no dose-related trend in the frequency of treatment-emergent AEs was observed. Drug exposures also correlated with markers of target engagement as evidenced by strong pharmacodynamic (PD) activity in *ex vivo* LPS- plus ATP-mediated IL-1b release assays from subject-derived plasma samples from both the SAD and MAD parts of the trial. VTX2735 demonstrated robust dose-related suppression of the induced pro-inflammatory cytokine IL-1b release relative to placebo. VTX2735 also demonstrated reduction from baseline in high sensitivity C-reactive protein (hsCRP) concentrations. Full PD analyses from the Phase 1 trial are ongoing.

The Phase 1 results support progression of VTX2735 into Phase 2 clinical trials. The initial Phase 2 trial is being planned in cryopyrin-associated periodic syndrome (CAPS), a rare autoinflammatory condition characterized by IL-1b-mediated inflammation. This trial is intended to establish that VTX2735 can inhibit IL-1b in a similar fashion as IL-1b-targeted antibody therapy and other related IL-1b-antagonists, which have established clinical efficacy in CAPS and other inflammatory diseases, while further characterizing the profile of VTX2735 and its impact on IL-1b and IL-18, along with pyroptosis. It is expected that this trial will initiate in the fourth quarter of 2022. The profile of VTX2735 offers the opportunity to exploit the full therapeutic potential of systemic NLRP3 inhibition across a number of chronic inflammatory conditions, including atherosclerosis and cardiometabolic diseases.

VTX2735 is the first of Ventyx's two NLRP3 development candidates to enter the clinic. The second candidate, VTX3232, is an orally bioavailable, CNS-penetrant NLRP3 inhibitor and belongs to a structurally distinct chemical series than VTX2735. VTX3232 is currently in IND-enabling studies and is expected to start Phase 1 trials in the first quarter of 2023. True CNS-penetrant NLRP3 inhibitors, such as VTX3232, offer potential therapeutic utility in a broad range of neurodegenerative diseases, including Parkinson's disease.

"I am very excited about the progress the Ventyx team has made on our NLRP3 inhibitor portfolio and the emerging clinical profile of VTX2735," said Raju Mohan, PhD, Chief Executive Officer. "Today's update marks the first of two clinical updates expected this summer as we continue to advance our differentiated portfolio of clinical candidates across multiple immune-mediated diseases. We look forward to sharing data from the Phase 1 trial of VTX958, our oral, selective TYK2 inhibitor, in the third quarter."

About the NLRP3 Inflammasome

Activated NLRP3 acts as a 'danger sensor' in the body to release the pro-inflammatory cytokines IL-1b, IL-18 and induce uncontrolled, lytic cell death (pyroptosis). These processes lead to chronic inflammation, and as such, NLRP3 has been implicated in a large number of diseases.

About Cryopyrin-Associated Periodic Syndromes

Cryopyrin-associated periodic syndromes (CAPS), also called cryopyrin-associated autoinflammatory syndromes, are three diseases related to a defect in the NLRP3 gene. CAPS encompasses neonatal onset multisystem inflammatory disease (NOMID), Muckle-Wells syndrome (MWS) and familial cold autoinflammatory syndrome (FCAS). The differences in these diseases lie in their severity and the organs involved.

About Ventyx Biosciences

Ventyx is a clinical-stage biopharmaceutical company focused on developing innovative oral medicines for patients living with autoimmune and inflammatory disorders. We believe our ability to efficiently discover and develop differentiated drug candidates will allow us to address important unmet medical need with novel oral therapies that can shift immunology markets from injectable to oral drugs. Our current pipeline includes three clinical-stage programs targeting TYK2, S1P1R and NLRP3, positioning us to become a leader in the development of oral immunology therapies. Ventyx is headquartered in Encinitas, California. For more information about Ventyx, please visit www.ventyxbio.com.

Forward-Looking Statements

Ventyx cautions you that statements contained in this press release regarding matters that are not historical facts are forward-looking statements. These statements are based on Ventyx's current beliefs and expectations. Such forward-looking statements include, but are not limited to, statements regarding: the anticipated timing of commencement, enrollment and completion of clinical trials for Ventyx's product candidates; the anticipated timing of releasing data from the Phase 1 trial of VTX958; the potential of Ventyx's product candidates to address a broad range of immune-mediated diseases; the therapeutic potential of inhibition of the NLRP3 inflammasome; plans for advancing VTX2735 into a Phase 2 trial and the anticipated timing for starting such a trial; the therapeutic utility of CNS-penetrant NLRP3 inhibitors, such as VTX3232; and the anticipated timing for starting a Phase 1 trial for VTX3232. The inclusion of forward-looking statements should not be regarded as a representation by Ventyx that any of its plans will be achieved. Actual results may differ from those set forth in this press release due to the risks and uncertainties inherent in Ventyx's business, including, without limitation: potential delays in the commencement, enrollment and completion of clinical trials; disruption to our operations from the ongoing global outbreak of the COVID-19 pandemic, or from the ongoing military conflict in Ukraine, including clinical trial delays; Ventyx's dependence on third parties in connection with product manufacturing, research and preclinical and clinical testing; the results of preclinical studies and early clinical trials are not necessarily predictive of future results; the success of Ventyx's clinical trials and preclinical studies for its product candidates; interim results not necessarily being predictive of final results; the potential of one or more outcomes to materially change as the trial continues and more patient data becomes available and following more comprehensive audit and verification procedures; regulatory developments in the United States and foreign countries; unexpected adverse side effects or inadequate efficacy of our product candidates that may limit their development, regulatory approval and/or commercialization, or may result in recalls or product liability claims; Ventyx's ability to obtain and maintain intellectual property protection for its product candidates; the use of capital resources by Ventyx sooner than expected; and other risks described in Ventyx's prior press releases and Ventyx's filings with the Securities and Exchange Commission (SEC), including in Part II, Item 1A (Risk Factors) of Ventyx's Quarterly Report on Form 10-Q, filed on May 12, 2022, and any subsequent filings with the SEC. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof, and Ventyx undertakes no obligation to update such statements to reflect events that occur or circumstances that exist after the date hereof. All forward-looking statements are qualified in their entirety by this cautionary statement, which is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

Investor Relations Contact

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CORPORATE PRESENTATION

June 29, 2022

Forward Looking Statements

Ventyx cautions you that statements contained in this presentation regarding matters that are not historical facts are forward-looking statements. These statements are based on the Company's current beliefs and expectations. Such forward-looking statements include, but are not limited to, statements regarding: clinical development plans and related timing for Ventyx's product candidates; anticipated timing of data announcements; anticipated efficacy, safety, dosing and clinical differentiation of Ventyx's product candidates; potential indications for Ventyx's product candidates; market opportunities; the anticipated timing of IND submission for VTX3232; projected catalysts relating to Ventyx's product candidate pipeline; and anticipated cash runway. The inclusion of forward-looking statements should not be regarded as a representation by Ventyx that any of its plans will be achieved. Actual results may differ from those set forth in this presentation due to the risks and uncertainties inherent in Ventyx's business, including, without limitation: potential delays in the commencement, enrollment and completion of clinical trials; disruption to our operations from the ongoing global outbreak of the COVID-19 pandemic, including clinical trial delays; the Company's dependence on third parties in connection with product manufacturing, research and preclinical and clinical testing; the results of preclinical studies and early clinical trials are not necessarily predictive of future results; supply chain constraints; the success of Ventyx's clinical trials and preclinical studies for its product candidates; interim results do not necessarily predict final results and one or more of the outcomes may materially change as the trial continues and more patient data become available and following more comprehensive audit and verification procedures; regulatory developments in the United States and foreign countries; unexpected adverse side effects or inadequate efficacy of our product candidates that may limit their development, regulatory approval and/or commercialization, or may result in recalls or product liability claims; Ventyx's ability to obtain and maintain intellectual property protection for its product candidates; Ventyx may use its capital resources sooner than it expects; and other risks described in the Company's prior communications and the Company's filings with the Securities and Exchange Commission (SEC), including under the heading "Risk Factors" in the Company's Quarterly Report on Form 10-Q files on May 12, 2022, and any subsequent filings with the SEC. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof, and Ventyx undertakes no obligation to update such statements to reflect events that occur or circumstances that exist after the date hereof. All forward-looking statements are qualified in their entirety by this cautionary statement, which is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

This presentation includes statistical and other industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties as well as our own estimates of potential market opportunities. Industry publications and third-party research, surveys and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. Our estimates of the potential market opportunities for our products include several key assumptions based on our industry knowledge, industry publications, third-party research and other surveys, which may be based on a small sample size and may fail to accurately reflect market opportunities. While we believe that our internal assumptions are reliable, such assumptions have not been verified by any third party. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of important factors that could cause results to differ materially from those expressed in the estimates made by third parties and by us.

Trademarks in this presentation are the property of their respective owners and used for informational and education purposes only.

INTRODUCTION & PIPELINE

VTX958 | TYK2 Inhibitor | Phase 1

VTX002 | S1P1R Modulator | Phase 2

VTX2735 | Peripheral NLRP3 Inhibitor | Phase 1 Complete

VTX3232 | CNS-penetrant NLRP3 Inhibitor | Pre-clinical

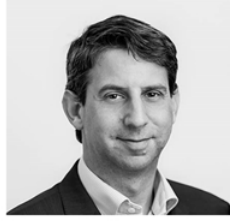
Summary | Milestones & highlights

Our Leadership Team

MANAGEMENT



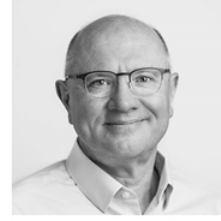
Raju Mohan, PhD
CHIEF EXECUTIVE OFFICER,
FOUNDER



Martin Auster, MD
CHIEF FINANCIAL OFFICER



Chris Krueger, JD
CHIEF BUSINESS OFFICER



John Nuss, PhD
CHIEF SCIENTIFIC OFFICER



William Sandborn, MD
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THERAPEUTICS

Raju Mohan, PhD
CHIEF EXECUTIVE OFFICER, VENTYX

Our Mission: To become a Leading Immunology Company

Underpinned by Strong Drug Discovery and Development Capabilities

WITH THREE, DIFFERENTIATED, CLINICAL-STAGE CANDIDATES

and a deep pipeline of preclinical programs that target immune-mediated and inflammatory disease indications

OUR INTERNALLY-DISCOVERED SMALL MOLECULE DRUGS

allow us to own 100% commercial rights to our entire portfolio with long patent lives for all product candidates

OUR EXPERIENCED TEAM AND OUR INTERNAL R&D ENGINE

continue to generate candidates with potential to address diseases with high unmet need

Broad Pipeline of Candidates With Multiple Near-Term Catalysts

Addressing Established Inflammatory and Immunology Markets with a Wholly Owned Product Portfolio

TARGET	PROGRAM	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3	NEXT ANTICIPATED MILESTONES
TYK2	VTX958	<p>Potential indications include psoriasis, psoriatic arthritis, Crohn's disease and others</p>				Report topline Phase 1 data Q3 2022 Initiate Phase 2 POC trials H2 2022
S1P1R	VTX002	<p>Ulcerative Colitis</p>				Report topline Phase 2 data 2023
NLRP3 <i>Peripheral</i>	VTX2735	<p>Potential indications include cardiovascular, hepatic, renal, and rheumatologic diseases</p>				Initiate POC trial in CAPS Q4 2022
NLRP3 <i>CNS-penetrant</i>	VTX3232	<p>Neuroinflammatory diseases</p>				File IND Q4 2022 Initiate Phase 1 trial Q1 2023

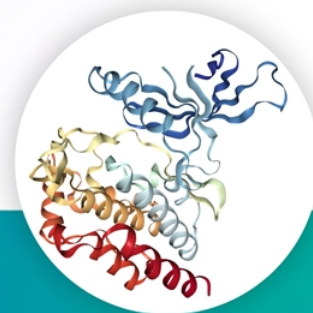
Pipeline Targeting Large Well-Established Markets

INDICATION*	PATIENTS IN THE U.S.	GLOBAL DRUG REVENUE* (2020)	TARGET POPULATION
Psoriasis <i>Dermatology</i>	~8M	~\$20B	25-30% MODERATE-TO-SEVERE
Crohn's disease <i>IBD</i>	~700K	~\$13B	30-40% MODERATE-TO-SEVERE
Ulcerative colitis <i>IBD</i>	~1M	~\$7B	30-40% MODERATE-TO-SEVERE
Psoriatic arthritis <i>Rheumatology</i>	~1M	~\$4B	40-60% MODERATE-TO-SEVERE
SLE <i>Rheumatology</i>	Up to 500K	~\$1B	

Sources: Evaluate Pharma, Company Estimates, Wall Street Research
*Global drug revenue refers to the total market across all severity levels

Notes: SLE = systemic lupus erythematosus; *Group of indications based on current mid/late-stage trials for BMS's allosteric TYK2 inhibitor deucravacitinib; global commercial sales totaled \$10.65B for biologics targeting IL-12/23 and IL-23 in 2020

**ORALLY BIOAVAILABLE
selective allosteric
inhibitor of TYK2**



VTX958 Program Summary

Allosteric, Selective TYK2 Inhibitor

Potentially Differentiated TYK2 Inhibitor

- Selective, **allosteric** TYK2 inhibitor
- TYK2 functional selectivity can potentially differentiate clinical profile vs. less selective TYK2 inhibitors

Clinically Validated Target

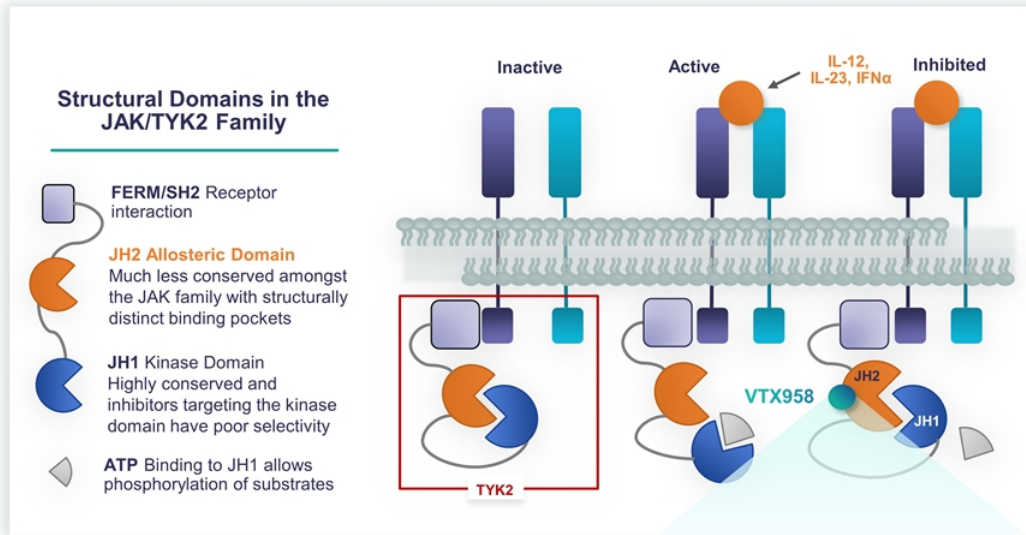
- Well established clinical efficacy in psoriasis, IBD and psoriatic arthritis with biologics targeting IL-12/IL-23 and IL-23* pathways
- These pathways also the target of allosteric TYK2 inhibitors
- Phase 3 PoC in psoriasis has been demonstrated** by BMS' allosteric TYK2 inhibitor deucravacitinib

Deucravacitinib in Phase 2/3 for Crohn's disease, psoriatic arthritis, lupus

Large Addressable Markets

- Multiple autoimmune disorders in dermatology, IBD, renal and rheumatology total \$45B WW sales*

Allosteric Inhibitor VTX958 Binds Selectively to the TYK2 JH2 Domain



Features of VTX958 JH2 Allosteric Inhibition

Selectivity for TYK2 JH2 vs. JAK1 JH2 domain (>4,000 X)

No binding to JAK2/3 JH2 domains

No binding to TYK2 kinase JH1 and

No kinase enzyme inhibition of any JAK family member

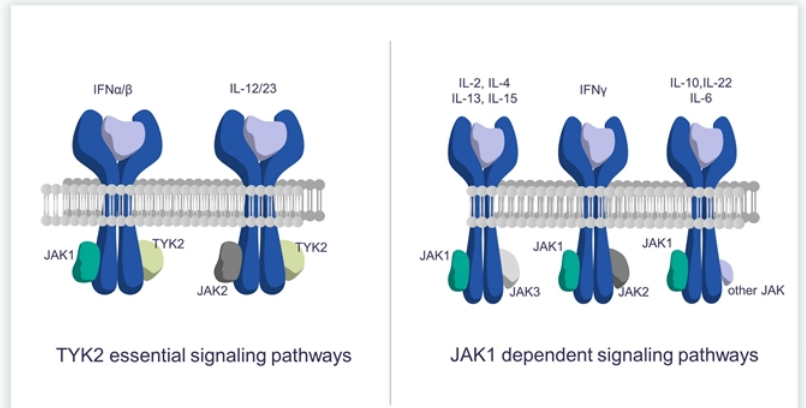
Selective TYK2 Inhibitor

Targeting the **JH2 (allosteric) domain** of TYK2 affords TYK2 inhibitors with selectivity against other JAK isoforms

VTX958 More Selective than Deucravacitinib for TYK2 JH2 Domain

Inhibits TYK2 Pathways (IL-12, IL-23, IFN α) while Avoiding the JAK1/2/3 Pathways

	DEUCRAVACITINIB	VTX958
TYK2-JH2 Binding K_d	0.009 nM	0.058 nM
JAK1-JH2 Binding K_d	0.43 nM	240 nM
Selectivity (fold)	48	>4,000



VTX958 Selectively Targets IL-12, IL-23 and IFN α

VTX958 Potently Inhibits TYK2 Pathways

Selective and potent inhibition of IL-12/23 and Type I interferon axis allows targeting pathways driving immune-mediated diseases

PROINFLAMMATORY INNATE & TH1/TH17 CYTOKINES			
Psoriasis Patient PBMC			
DRUG	IL-12 IC ₅₀ (nM)	IL-23 IC ₅₀ (nM)	IFN α IC ₅₀ (nM)
VTX958	35	5	12
deucravacitinib	10	10	5

VTX958 Has No Measurable Inhibition of JAK1-Mediated Pathways

Lack of inhibition of IL-6, IL-10 and other protective cytokines may avoid potential AEs associated with less selective inhibitors

PLEIOTROPIC CYTOKINES WITH PROTECTIVE FUNCTIONS					
DRUG	IL-22 IC ₅₀ (nM)	IL-10 IC ₅₀ (nM)	IFN γ IC ₅₀ (nM)	IL-4 IC ₅₀ (nM)	IL-6 IC ₅₀ (nM)
VTX958	>10,000	>10,000	>10,000	>10,000	>10,000
deucravacitinib	114	20	350	249	464

KEY TAKEAWAYS

- Potent activity against IL-23, a key cytokine implicated in psoriasis and other indications
- Broad therapeutic window with VTX958 may allow for higher exposures in Phase 2/Phase 3 studies

VTX958 Phase 1 SAD Results Support Clinical Advancement

Safety

Well-tolerated across all cohorts; all AEs observed were mild and not dose- or time-of-dose dependent

Pharmacokinetics

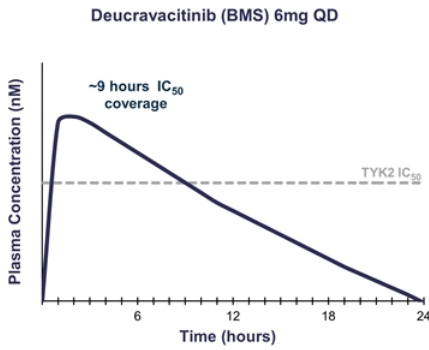
No dose-saturation observed; PK and absorption profiles suggest continued absorption throughout GI tract

Pharmacodynamics

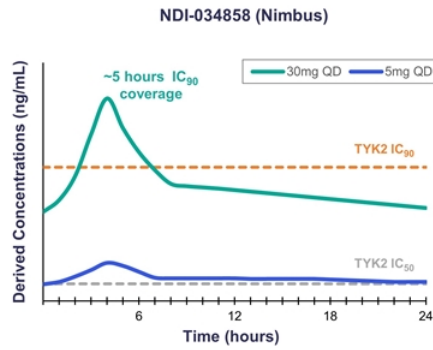
Dose-dependent VTX958-mediated effect on TYK2 signaling observed in both *in vivo* gene expression studies and *ex vivo* stimulation assays

Targeting a Best-in-Class Exposure Profile With VTX958

Allosteric TYK2 Inhibitors – Target Coverage



Source: Adapted from Chimalakonda et al., 2021.

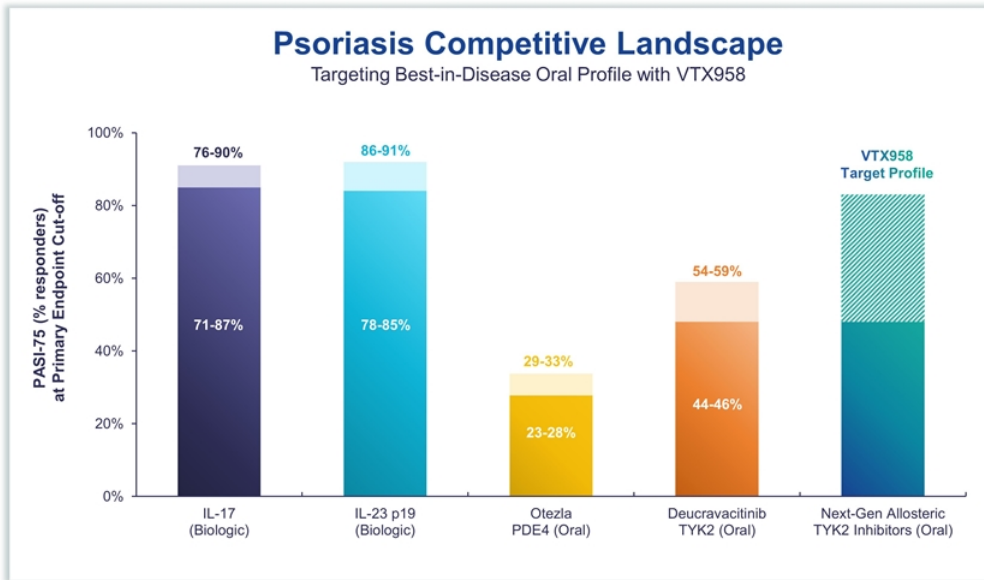


Source: Adapted from Nimbus 2022 JPM conference presentation.

VTX958 Target Profile

- Maximize TYK2 pathway suppression (IC_{50} and IC_{90})
- Wide safety margin enabling higher doses and exposures:
 - Potential for improved efficacy in PsO + PsA with greater TYK2 inhibition
 - Higher exposures may be necessary to achieve efficacy in Crohn's disease

VTX958 Profile Expected to Drive Clinical Differentiation



KEY TAKEAWAYS

- Current oral options in PsO are substantially less efficacious than biologics
- Greater TYK2 suppression may produce **improved efficacy** compared to other oral agents, with potential to approach leading biologics
- Significant opportunity for a best-in-disease oral agent in psoriasis, a **>\$20B global market**

Unlocking the Opportunity in Crohn's Disease

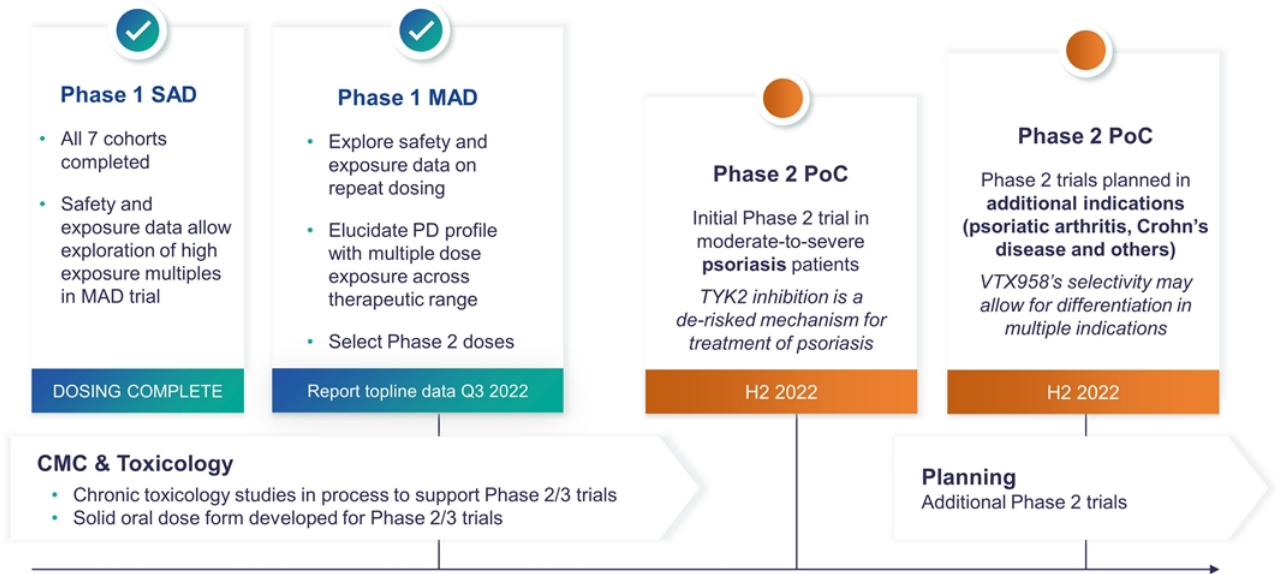
Several-fold Higher Doses Required in Crohn's*

Agent	PsO Dose	Crohn's Dose
Skyrizi (IL-23)	150mg Q12W Subcutaneous	600mg IV Q4W (induction) 360mg SC (maintenance)
Tremfya (IL-23)	100mg Q8W Subcutaneous	200mg / 600mg / 1200mg** IV Q4W induction
Stelara (IL-12/23)	40mg / 90mg Q12W Subcutaneous	260mg / 390mg / 520mg IV induction dose
Humira (TNF α)	80mg (SC induction) 40mg Q2W maintenance	160mg (SC induction) 40mg Q2W maintenance

Greater Exposures Needed for TYK2 Inhibitor Efficacy in Crohn's

- Biologics data suggest **substantially higher exposures** are required for efficacy in Crohn's vs. PsO
- Maximizing TYK2 target coverage expected to differentiate VTX958 from other TYK2 inhibitors
- Selectivity, safety and tolerability considerations may limit the Crohn's opportunity for other TYK2 inhibitors
- Optimized profile of VTX958 may unlock a major market opportunity in Crohn's, a **>\$13B global market**

VTX958 Clinical Development Plan



**PERIPHERALLY RESTRICTED
S1P1R MODULATOR**
with potential for treatment
of ulcerative colitis



VTX002 Program Summary

Phase 2 S1P1R Modulator for Ulcerative Colitis

Potentially Differentiated S1P1R Modulator

- Selective S1P1R modulator
- Differentiated on key parameters
- Demonstrated pharmacodynamic activity in Phase 1 trial
- Pursuing clinical development plan in both treatment-naïve and biologic-experienced patients

Clinically Validated Target

- S1P1R modulators approved for MS and UC with clinical trials ongoing in other indications
- BMS' ozanimod approved for UC in May 2021

Large Addressable Markets

- Ulcerative colitis is lead indication totaling up to \$7B in worldwide revenue

VTX002 Differentiates on Multiple Key Parameters vs. Competitors

Potential for Differentiated Clinical Profile in UC Patients

Sustained lymphocyte reduction up to 65% across multiple doses in MAD trial

Safety Profile

No SAEs, elevated LFTs, abnormal PFTs or macular edema

No Drug-Drug Interactions

No CYP inhibition; no food effect; favorable profile for patients with co-morbidities

Fast Onset of Action Faster Lymphocyte Recovery

No long-acting circulating metabolites
Optimal half life (t~20h)

Ability to Dose Titrate

Potential to avoid first-dose cardiac monitoring in label

Peripherally Restricted

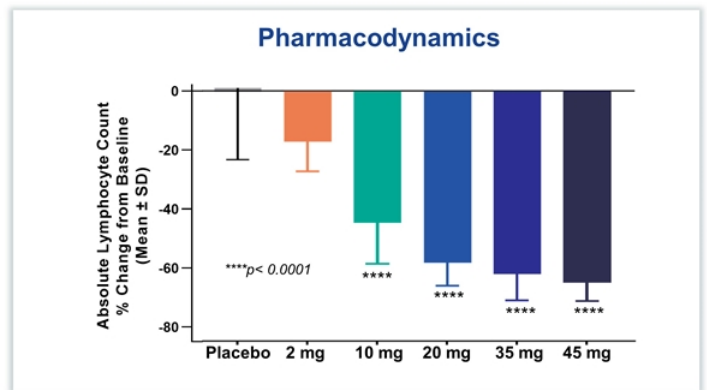
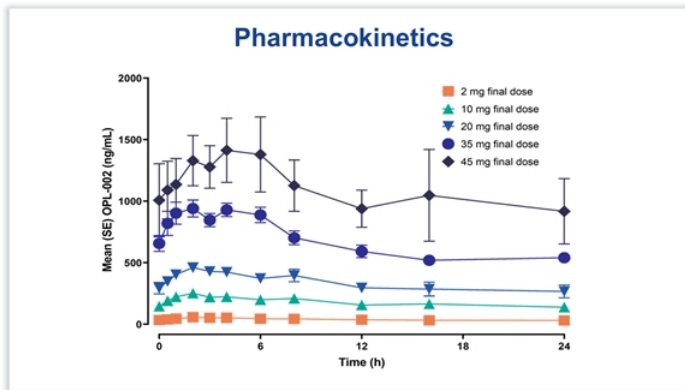
Very low CNS penetration; not a repurposed MS drug; potential to avoid macular edema

VTX002 Differentiates on Multiple Key Parameters vs. Competitors

Differentiating Parameter	Ozanimod	Etrasimod	VTX002
Receptor Selectivity	S1P 1,5	S1P 1,4,5	S1P 1,5
Lymphocyte Suppression in Healthy Volunteers	1 mg, ~60%	2 mg, 69%	40 mg, ~65%
Lymphocyte Suppression in UC Patients	1 mg, 49%	2 mg, 40%	TBD
CYP450 Interactions	Yes	No	No
Liver Enzyme Elevations	Yes	No	No
Active Metabolites	Yes	No	No
Half-life	19 h, Met 10-13 d	33 h	~20 h
Fast Lymphocyte Recovery Time	No	Yes	Yes
First Dose Heart Rate Reduction	Yes	Yes	Yes
Dose Titration	Yes	No	Yes
First Dose Monitoring	No	TBD	TBD

Phase 1 MAD Results: Dose-Dependent Exposure and Lymphocyte Reduction

Absolute Lymphocyte Count (ALC) Reductions of 40-50% Correlated with Clinical Efficacy Observed in UC*

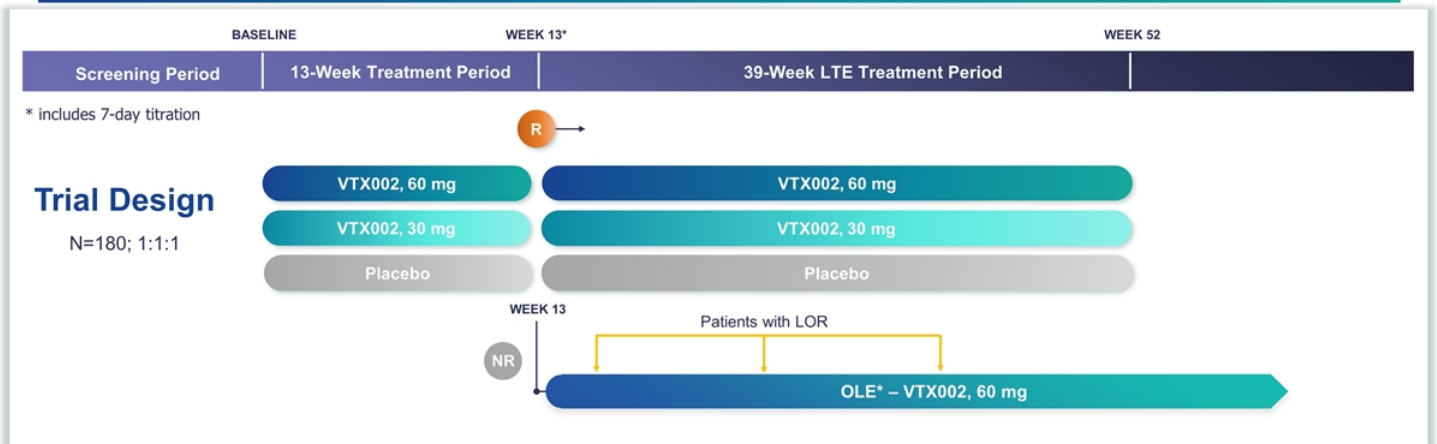


- $T_{1/2}$ of ~20 hours
- Dose-proportionate exposure after single and multiple doses of VTX002 with steady-state reached after 4 to 7 days of target-dose exposure
- Demonstrated consistent, sustained reduction of lymphocytes up to 65% across multiple dose groups

Phase 2 Induction Trial in Moderate-to-Severe Ulcerative Colitis

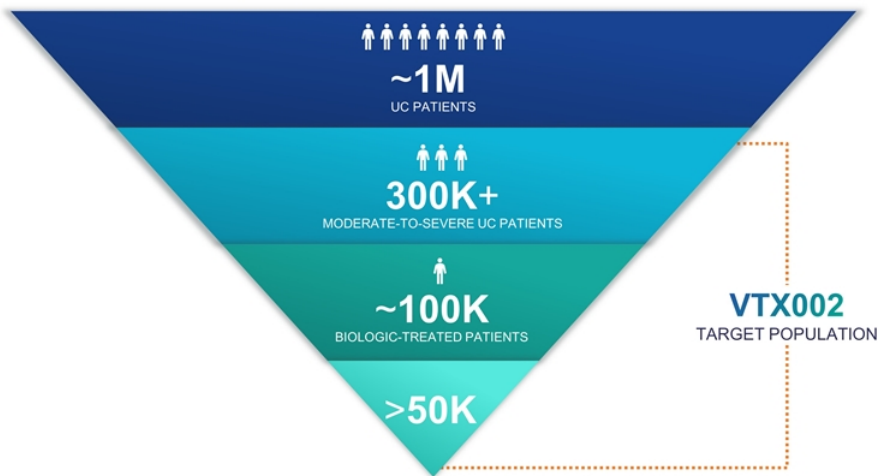
KEY TAKEAWAYS

- Powered for primary endpoint of clinical remission
- Trial may serve as the first of two pivotal trials required for registration



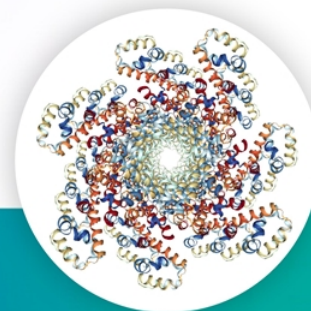
Underpenetrated Market for Biologic Refractory Patients

Addressable UC Patient Population in US



- Existing agents leave room for new treatments
- Novel oral agents may expand penetrance of treated moderate-to-severe UC population beyond current ~25-30%
- S1P well positioned to emerge as leading oral therapeutic class based on its attractive class efficacy/safety profile

**SELECTIVE NLRP3
INFLAMMASOME INHIBITORS**
for systemic and
CNS indications



Rationale for Targeting the NLRP3 Inflammasome

NLRP3 Inflammasome Inhibitors Target IL-1 β , a Key Driver of Inflammatory Disease

In vivo Evidence

- The NLRP3 inflammasome can become overactive in the presence of persistent tissue damage or crystal deposits
- Inflammasome activation results in release of IL-1 β & IL-18 recruiting neutrophils and driving Th17 response
- This leads to pyroptosis and further tissue damage

Genetic Evidence

- Gain-of-function mutations in the NLRP3 gene, associated with certain severe orphan inflammatory diseases, are classified as cryopyrin-associated periodic syndromes (CAPS)

Clinical Validation of Downstream Target

- IL-1 β signaling, downstream of inflammasome activation, is a clinically-validated, anti-inflammatory target with biologics
- Ilaris® (\$873M sales in 2020) approved for CAPS and other orphan periodic fever syndromes

NLRP3 Inhibitor Program Summary

Peripheral NLRP3 Inhibitor: VTX2735

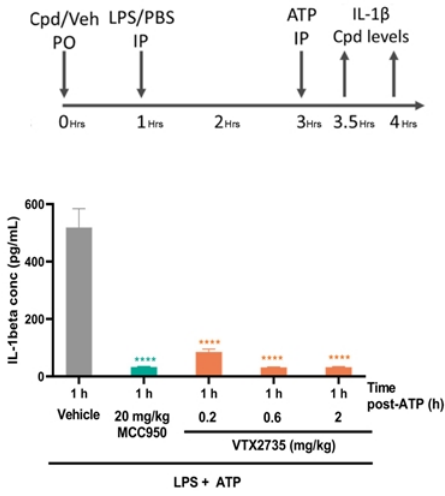
- Selective NLRP3 inhibitor
- Well tolerated in GLP safety and tox assessment
- Phase 1 completed with attractive safety/tolerability profile and evidence of pharmacodynamic activity
- Phase 2 trial in CAPS planned Q4 2022; additional indications are being evaluated

CNS NLRP3 Inhibitor: VTX3232

- Selective compounds generated with high CNS bioavailability
- Novel and proprietary lead series
- Plan to file IND in Q4 2022
- Potential to be first, truly CNS-directed NLRP3 inhibitor to enter clinic

VTX2735 is a Selective & Orally Bioavailable NLRP3 Inhibitor

Mouse Pharmacodynamic Assay

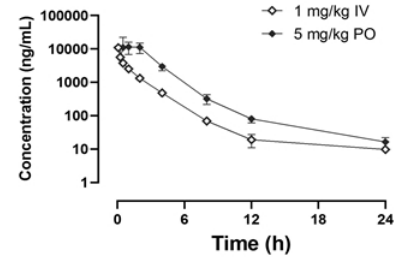


In Vitro Potency & Selectivity

		IL-1β IC ₅₀ (nM)
On Target	human monocytes	2
	human whole blood	75
Off Target	AIM2	>10000
	NLRC4	>10000
	NF-kb	>10000

Non-Human Primate PK

IV Clearance: 1.6 mL/min/kg; Oral Bioavailability: 80%



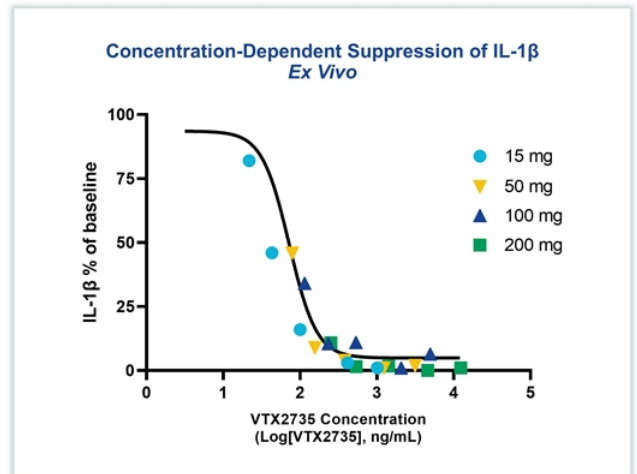
KEY TAKEAWAYS

- Well-tolerated preclinically in IND-enabling GLP studies
- Oral bioavailability (80%) in NHP and dose-proportional exposure that predicts potential for wide safety margins based on PK/PD modeling

Summary of VTX2735 Phase 1 Results

Excellent Safety and Pharmacodynamic Activity

Safety	<ul style="list-style-type: none">All AEs considered mildNo LFT abnormalitiesNo dose-related increase in frequency of AEs observed	<input checked="" type="checkbox"/>
PK	<ul style="list-style-type: none">Dose-proportionate increases in exposure (C_{max} and AUC)	<input checked="" type="checkbox"/>
PD	<ul style="list-style-type: none">Robust dose and concentration-dependent suppression of IL-1β <i>ex vivo</i>	<input checked="" type="checkbox"/>
Target Coverage	<ul style="list-style-type: none">Ability to cover IL-1β IC_{50}, IC_{90}Potential wide therapeutic window (safe across wide exposure range)	<input checked="" type="checkbox"/>



Data from Day 10 of Phase 1 MAD, 1 to 8h post-dose
Ex vivo LPS plus ATP-mediated IL-1 β release assay

VTX2735 Has Broad Activity Against Multiple NLRP3 Mutations

Potential for Differentiation in CAPS Setting*

What is CAPS?

An ultra-orphan auto-inflammatory disease caused by various mutations in NLRP3 and characterized by inappropriate release of IL-1 β and symptoms of recurrent systemic inflammation

KEY TAKEAWAY

VTX2735 blood assay data from CAPS patients suggest inhibitory activity across several mutations: FCAS, MWS and NOMID subset of CAPS patients.

IC₅₀ in Blood Monocyte Assay (nM)

CPD	CHALLENGE	FCAS1 L353P	FCAS2 (L353P)	FCAS3 (L353P)	FCAS4 A439V/G564R	FCAS.MWS E525K/V198M	NOMID F309Y
VTX2735	LPS	117	56	166	14	24	17
MCC950	LPS	>10K	>10K	>10K	1,264	>10K	>10K

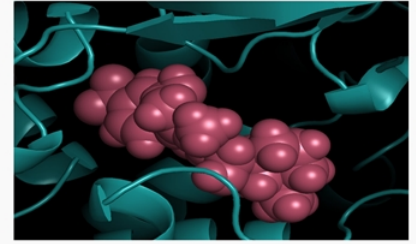
75%
of all CAPS patients
In North America

**MOST
SEVERE**

CNS-Penetrant NLRP3 Inhibitor VTX3232

KEY TAKEAWAYS

- Novel, potent, brain-penetrant inhibitor of NLRP3
- **13 nM IC₅₀ in human whole blood IL-1 β release assay**
- Unique structural chemotype vs. peripheral NLRP3 inhibitors
- Provisional application filed June 2021
- IND filing in Q4 2022; Phase 1 start in Q1 2023

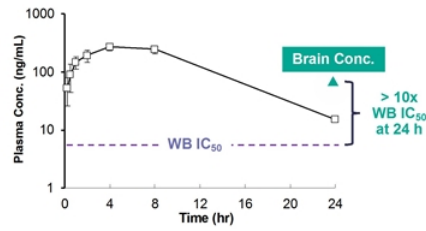


In Vitro Potency & Selectivity

		IL-1 β IC ₅₀ (nM)
NLRP3	huWB	13
AIM2		>10000
NLRC4	BMDM	>10000
NF-kb		>10000

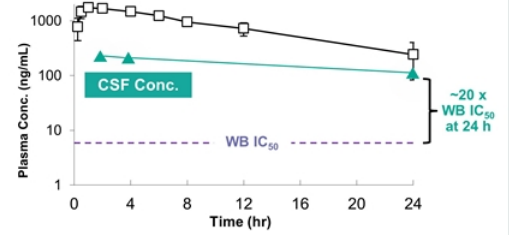
Rat PK (PO, 5mg/kg)

T_{1/2} = 4.4 h; Oral Bioavailability = 75%



Dog PK (PO, 5mg/kg)

T_{1/2} = 8 h; Oral Bioavailability = 100%

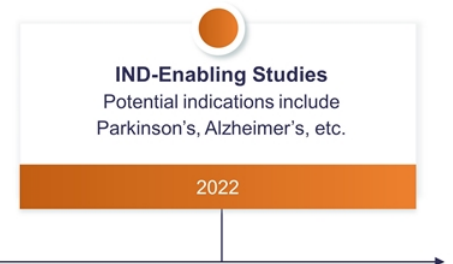


NLRP3 Program Clinical Development Plan

VTX2735
PERIPHERALLY-RESTRICTED



VTX3232
CNS-PENETRANT INHIBITOR



Our Comprehensive NLRP3 Portfolio Targets a Broad Range of Major Inflammatory Diseases

NLRP3

Systemic Diseases

Peripheral NLRP3 inhibitors are designed to treat cardiovascular, rheumatic, fibrotic and rare genetic diseases



- Cardiovascular
- Rheumatic
- Fibrotic Diseases
- Rare Genetic Diseases

Our solution: VTX2735

Neuroinflammatory Diseases

CNS-directed NLRP3 inhibitors are designed to treat a range of neurodegenerative disorders, such as Alzheimer's and Parkinson's disease



- Alzheimer's Disease
- Parkinson's Disease
- ALS
- Multiple Sclerosis

Our solution: VTX3232

PROJECTED PIPELINE CATALYSTS AND SUMMARY

Projected Catalysts Over Next 24 Months

PROGRAMS	H1'2021	H2'2021	H1'2022	H2'2022	2023
 <p>VTX958 Allosteric TYK2 inhibitor addressing a broad range of autoimmune disorders</p>			Phase 1 SAD	Phase 1 MAD	Phase 2 in Multiple Indications*
 <p>VTX002 Selective S1P1R modulator targeting UC and other immune disorders</p>				Phase 2 Ulcerative Colitis 13-Week Induction	
 <p>VTX2735 Peripheral NLRP3 inflammasome inhibitor for multiple inflammatory and immune conditions</p>			IND-enabling	Phase 1 SAD/MAD	Phase 2 CAPS Initiation
 <p>VTX3232 CNS-directed NLRP3 inflammasome inhibitor for neurodegenerative diseases</p>			Candidate Selection	IND-enabling	Phase 1 SAD/MAD**



*Following completion of our Phase 1 trial, we intend to initiate Phase 2 trials in psoriasis, psoriatic arthritis, Crohn's disease and potentially other indications
 ** Following regulatory acceptance of planned Q4 2022 IND filing, we intend to initiate and conduct a Phase 1 SAD/MAD trial in healthy volunteers in Q1 2023

Investment Highlights

EFFICIENT & PRODUCTIVE IMMUNOLOGY PLATFORM

- **Internal R&D engine** designed to generate candidates to address autoimmune and inflammatory diseases with high unmet need
- **100% commercial rights** to entire portfolio; long patent life for all product candidates

POTENTIALLY DIFFERENTIATED MEDICINES

- **Multiple selective, oral, small molecule product candidate portfolio:**
 - **VTX958:** allosteric TYK2 inhibitor for multiple autoimmune indications
 - **VTX002:** peripherally-restricted S1P1R modulator for ulcerative colitis
 - **VTX2735:** peripheral NLRP3 inhibitor for multiple autoimmune indications
 - **VTX3232:** CNS-targeted NLRP3 inhibitor for multiple neurodegenerative indications

TARGET MAJOR INFLAMMATORY & IMMUNOLOGY DISEASE MARKETS

- **Our portfolio can address I&I markets**, such as psoriasis, IBD, and other indications
- Opportunity to disrupt existing markets dominated by biologics with varying degrees of efficacy and safety in order to:
 - ✓ Capture refractory patients
 - ✓ Expand market share of moderate-to-severe patient populations with patient-friendly oral therapy

CAPITAL-EFFICIENT BUSINESS MODEL

- **Over \$339 million raised** from dedicated biotech investors
- **Cash & equivalents and marketable securities balance** of \$273.1M as of March 31, 2022; Runway into H1 2024



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