



# Advancing First-in-Class Therapy with Disease- Modifying Potential in Fibro-Inflammatory Diseases

CORPORATE OVERVIEW  
NASDAQ: CMMB

# Forward Looking Statements



This presentation contains forward-looking statements that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this presentation, including statements regarding our future financial condition, results of operations, business strategy and plans, and objectives of management for future operations, as well as statements regarding industry trends, are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “estimate,” “intend,” “may,” “plan,” “potentially” “will” or the negative of these terms or other similar expressions.

We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including, among other things: the clinical development pathway for CM-101; our future operations and our ability to successfully initiate and complete clinical trials and achieve regulatory milestones; the potential benefits of any of our product candidates; the market for our product candidates; our expectations regarding our gross margins, operating income and expenses; our ability to raise additional funds; and the intensity and duration of the current war in Israel, and its impact on our operations in Israel. These risks are not exhaustive. New risk factors emerge from time to time, and it is not possible for our management to predict all risk factors, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in, or implied by, any forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this presentation.

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This presentation shall not constitute an offer to sell or the solicitation of an offer to buy these securities, nor shall there be any sale of these securities in any state or jurisdiction in which such offer, solicitation, or sale would be unlawful prior to registration or qualification under the securities law of any such state or jurisdiction.

# Chemomab Highlights: Major Catalyst Expected Midyear 2024



Novel Mechanism with  
Disease-Modifying Potential

Unique target central to biology of inflammation & fibrosis  
CM-101: disease-modifying potential in multiple fibro-inflammatory diseases

Targeting Diseases with  
Large Commercial Potential

Primary Sclerosing Cholangitis (PSC) is deadly disease with no approved therapies  
Orphan & Fast Track designations; PSC represents more than \$1 billion market opportunity  
Interest from potential partners

De-risked with Extensive  
Preclinical & Early  
Clinical Data

Extensive preclinical validation of mechanism & activity  
CM-101 Phase 2 study confirmed anti-fibrogenic & anti-inflammatory activity  
4 completed clinical trials show safety & consistent positive biomarker responses

2 Upcoming Milestones  
with Major Catalyst  
Midyear 2024

PSC Phase 2 topline data Midyear 2024; Phase 2 Open Label data in late 2024/early 2025  
Cash runway through end Q1 2025  
Long-term holders include well-known investors: Orbimed, Thiel, Apeiron  
No debt; clean capital structure

# Pipeline in a Drug: Targeting Rare Diseases

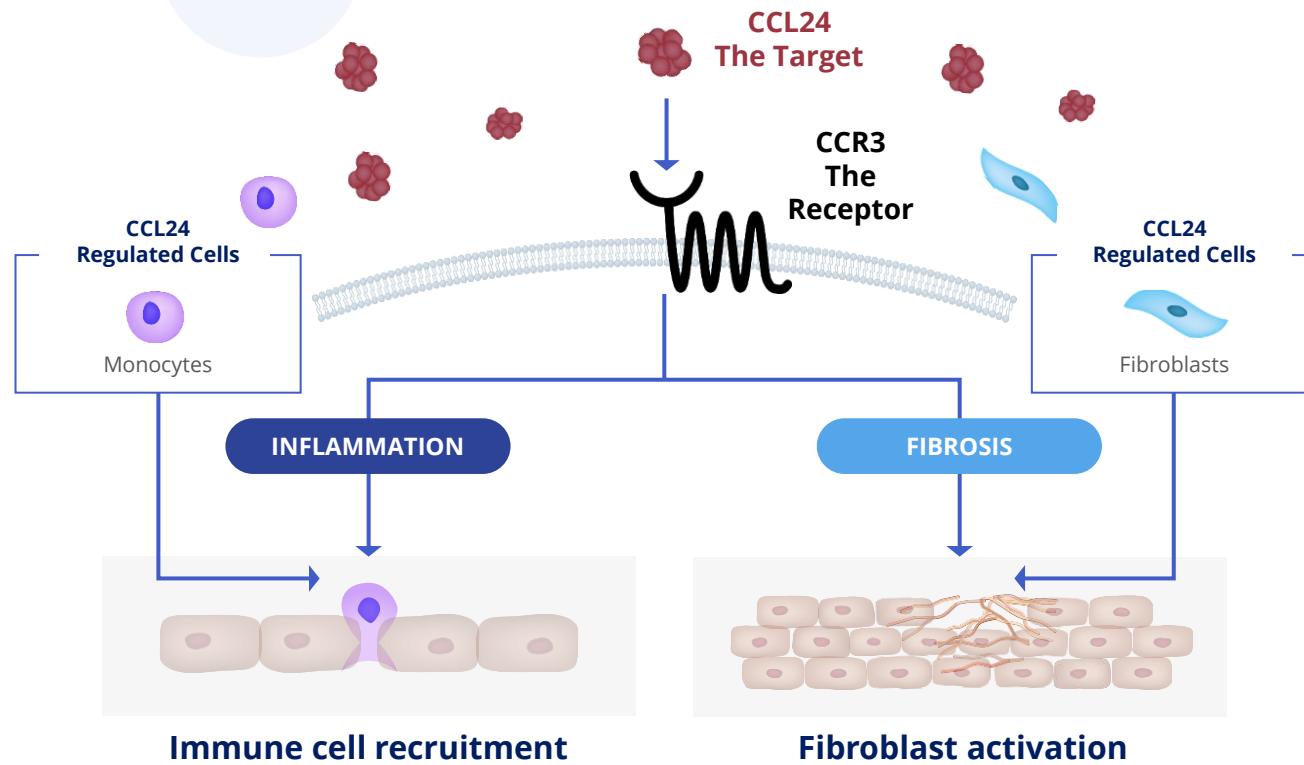


Agent	Indication	Preclinical	Phase 1	Phase 2	Phase 3	Anticipated Milestones	Global Rights
<b>CM-101</b> Anti-CCL24 mAb	Primary Sclerosing Cholangitis (PSC)	Orphan designation from FDA & EMA; FDA Fast Track designation; Patient enrollment completed				Topline 15-Week Data Midyear 2024  Topline Open Label Data Late 2024/ Early 2025	 Chemomab <small>THERAPEUTICS</small>
<b>CM-101</b> Anti-CCL24 mAb	Systemic Sclerosis (SSc)	Orphan designation from FDA & EMA				Phase 2-Ready  Open US IND	 Chemomab <small>THERAPEUTICS</small>

## Four Completed Clinical Studies:

- Phase 2a Liver Fibrosis in NASH patients--Safety, PK & positive biomarker response (2023)
- Lung injury investigator-initiated study--Safety, PK & positive biomarker response (2022)
- Phase 1b in NAFLD patients--Safety, PK & positive biomarker response (2021)
- Phase 1a safety study in healthy volunteers--Safety, PK (2018, 2019)

# CCL24's Dual Role in Inflammation and Fibrosis-related Pathology



## THE POWER OF CCL24

### Dual Role in Promoting Fibrosis & Inflammation

Directly activates fibroblasts  
Enhances local immune cell recruitment

### Differentiated Activity

Data shows **unique role** vs. other chemokines  
Correlates **with** fibrotic biomarkers and disease outcome

### Low in Healthy Tissue; Elevated in Fibrotic Tissue

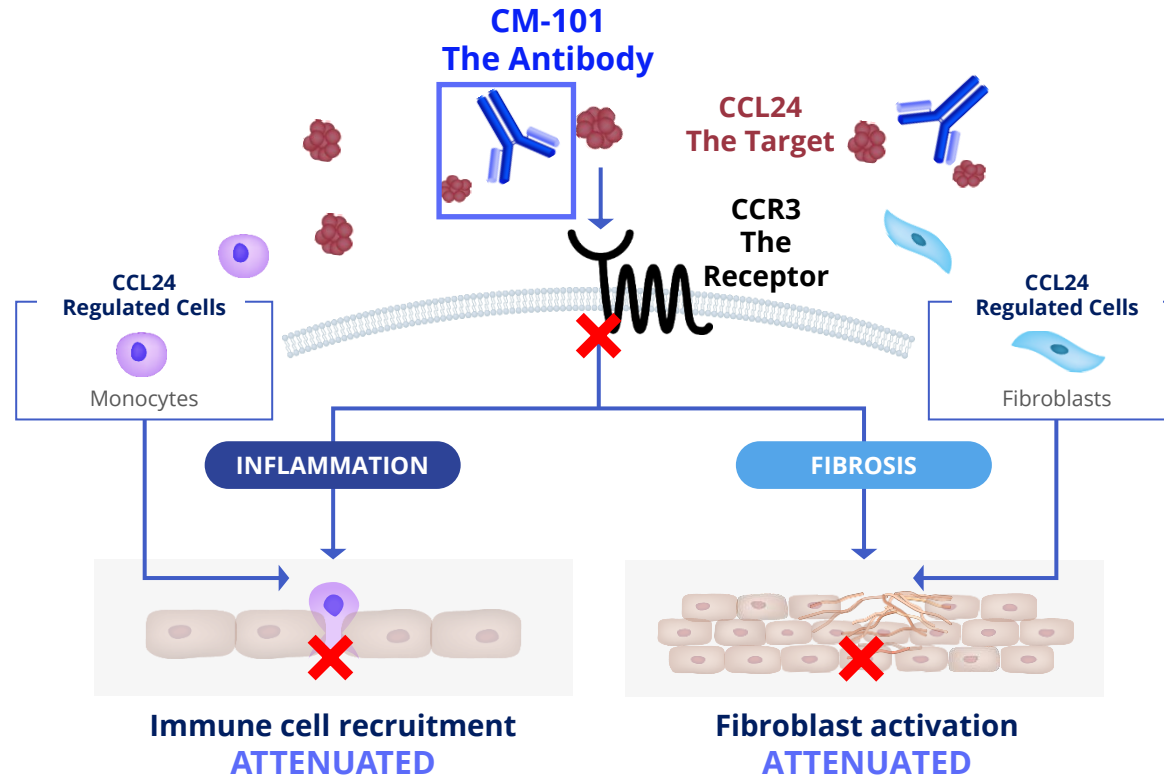
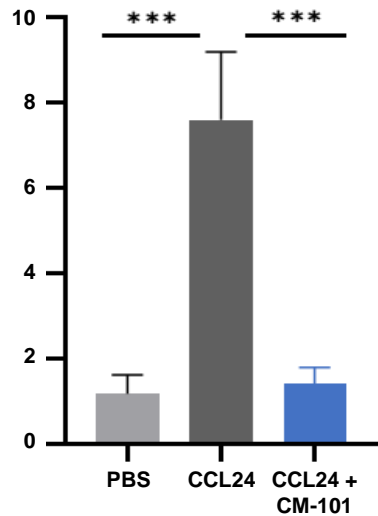
Liver, skin, lung, kidney, others  
Wide therapeutic margin

# CM-101 Reduces Inflammation and Fibrosis by Neutralizing CCL24



## CM-101 Reduces In Vivo Monocyte Recruitment

Number of Migrated Monocytes (x1000)

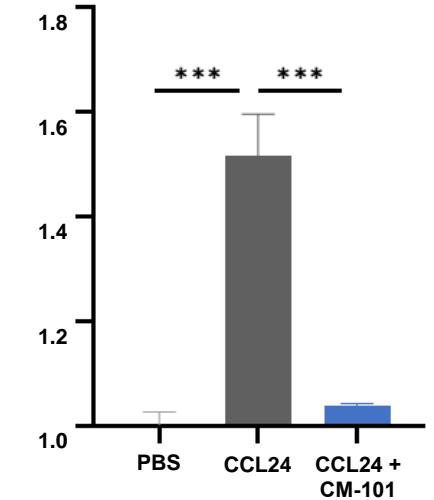


## Neutralizing CCL24 Has Advantages Over Blocking the Receptor

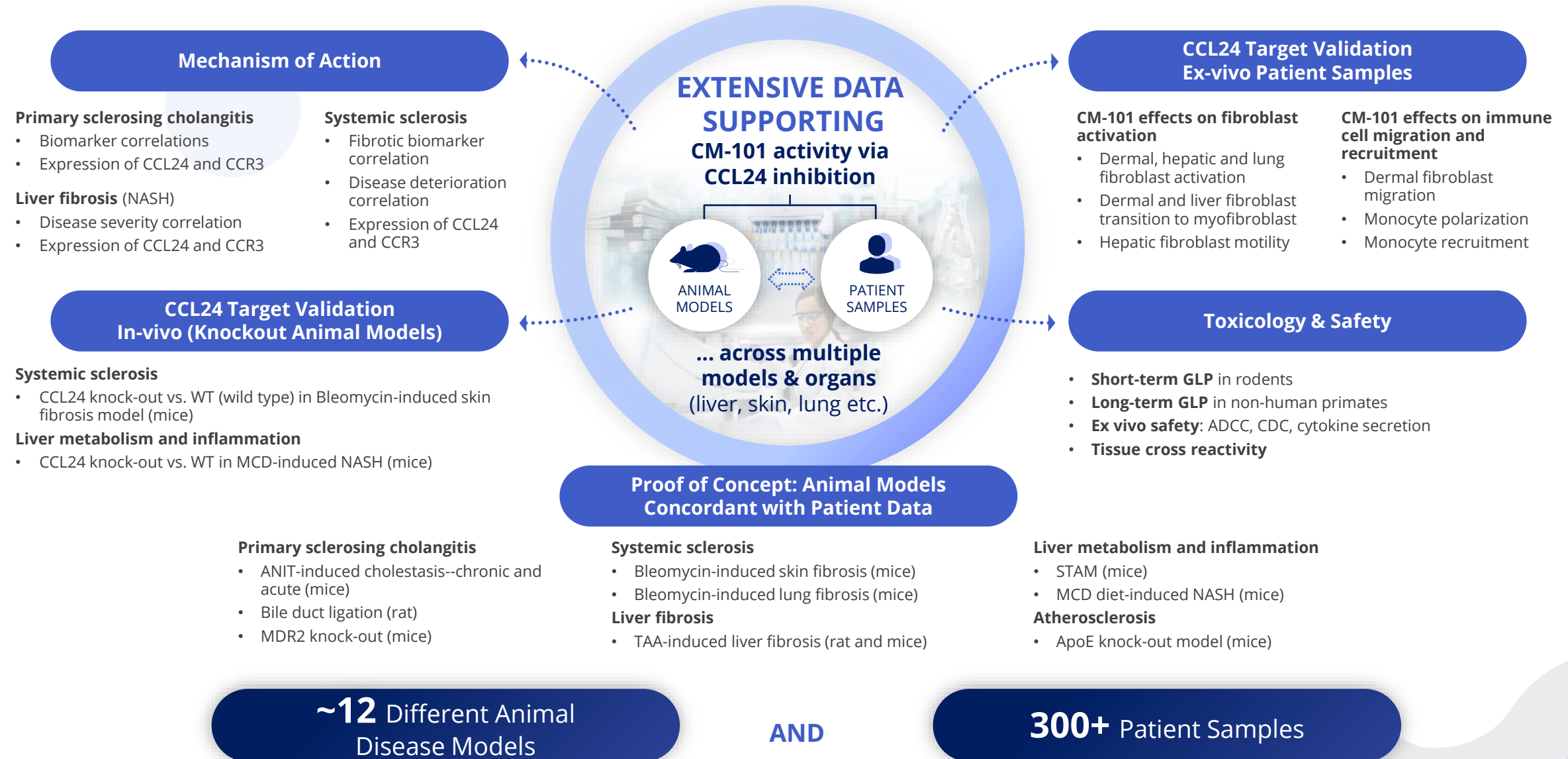
- Avoids context dependence of CCR3 receptor
- Efficacy of direct approach
- Favorable safety profile; retains normal repair functions

## CM-101 Inhibits Primary Fibroblast Activation

Proliferation: Relative Change from Baseline



# Broad & Diverse Preclinical Data De-risks Clinical Development



# Anti-Fibrotic Mechanisms Demonstrated Across Clinical Trials



PATIENTS

## CM-101 APPEARED SAFE IN 4 CLINICAL TRIALS IN HEALTHY VOLUNTEERS & IN PATIENTS

- Safe & well-tolerated in 4 clinical trials
- Adverse Events mostly mild; NO drug-related SAEs
- Consistent PK & target engagement profiles
- No anti-drug antibodies detected

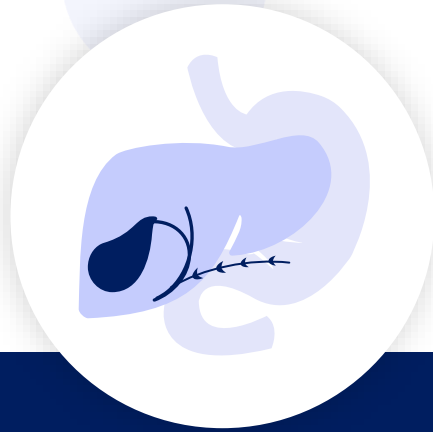
## CM-101 IMPROVED MULTIPLE BIOMARKERS IN 3 CLINICAL TRIALS IN PATIENTS

- Reduced fibrosis-related biomarkers in fatty liver, liver fibrosis, NASH & acute lung inflammation<sup>1</sup>
- Demonstrated anti-inflammatory effects in NASH & acute lung inflammation<sup>1</sup>
- Produced greater response in NASH patients who had greater risk of disease progression
- Improved biomarkers associated with PSC

Clinical trials to date have demonstrated CM-101's safety & its anti-fibrotic & anti-inflammatory effects in varied organs and diseases

<sup>1</sup>-[Treatment with CM-101 Reduced Inflammatory & Fibrotic Biomarkers in Patients with COVID-19-Derived Lung Damage](#), Dr. Adi Mor, Union World Conference on Lung Health, Nov. 9, 2022





## CM-101: Potential Treatment for Primary Sclerosing Cholangitis (PSC)

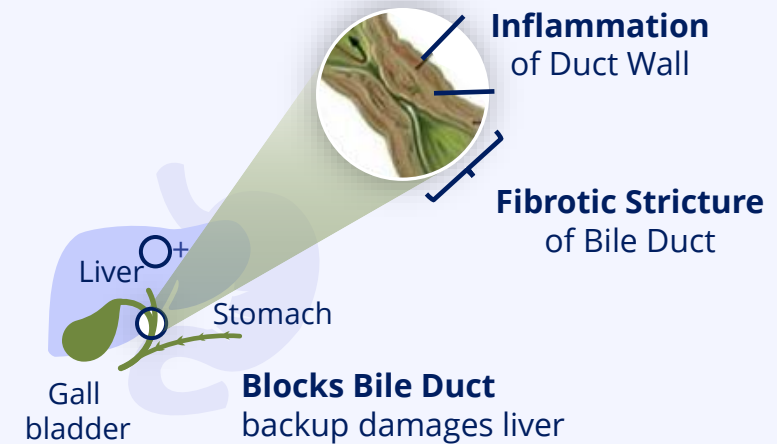
# PSC Has High Unmet Need & Large Commercial Potential



## Debilitating orphan liver disorder with no FDA-approved therapies

- Primarily affects men in their 40's
- Symptoms include fatigue, pruritis, abdominal pain and jaundice
- Diagnosed via serum liver enzyme abnormalities, cholangiography
- Unknown cause; associated with IBD in ~70% of patients
- **50% of patients require liver transplantation;** PSC re-occurs in ~20% of recipients
- **Leads to end-stage liver disease and cancer, which causes half of all deaths**
- Median transplant-free survival is 10-20 years

## Progressive disease characterized by inflammation and fibrosis



## Sizeable Market Opportunity, Orphan & Fast Track Incentives

- ~80,000 PSC patients in 7 major markets: U.S., Europe and Japan
- **Commercial opportunity worldwide estimated at ~\$1 billion**

# CM-101's Unique Dual Activity Has Disease-Modifying Potential



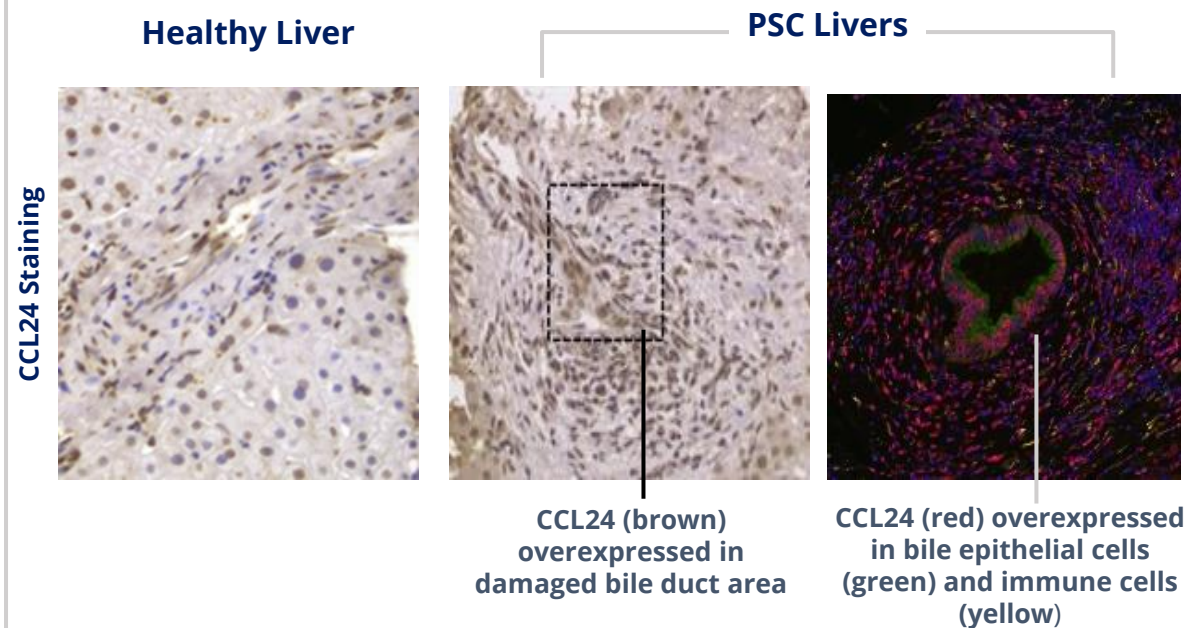
CM-101 is the only therapeutic candidate targeting both inflammation and fibrosis

Company	Candidate	Mechanism	Disease Modifying Potential	Stage
<b>Chemomab</b>	CM-101	Anti-CCL24; Inhibits key inflammatory AND fibrotic processes	✓✓	<b>Phase 2</b> <i>Recruitment completed. Midyear 2024 readout</i>
<b>Pliant</b>	PLN-74809 Bexotegrast	Fibrosis-focused selective integrin inhibitor	✓	<b>Phase 2</b> <i>Safety; activity; No dose response. High dose 24-wk data mid-2024</i>
<b>NGM Bio</b>	Aldafermin	FGF19 analog-regulates bile acid synthesis & metabolic components	✓	<b>Phase 2</b> <i>Completed. Safety &amp; dose-dependent response in ELF. In discussions with FDA for Phase 3 design</i>
<b>Dr Falk</b>	norUDCA	UDCA homologue--metabolic bile acid mechanism	—	<b>Phase 3</b> <i>Enrollment completed. 2-yr trial with no interim data. Only in Europe</i>
<b>Mirum</b>	Volixibat	Ileal bile acid inhibitor Targeting pruritis	—	<b>Phase 2</b> <i>Interim readout 1H2024</i>
<b>Ipsen/(Albireo)</b>	Ritvixibat	Ileal bile acid inhibitor Targeting pruritis	—	<b>Phase 2</b> <i>Recruiting. open-label</i>
<b>Ipsen/Genfit</b>	Elafibranor	PPAR dual agonist Metabolic focus	—	<b>Phase 2</b> <i>Recruiting. Topline data end 2024</i>

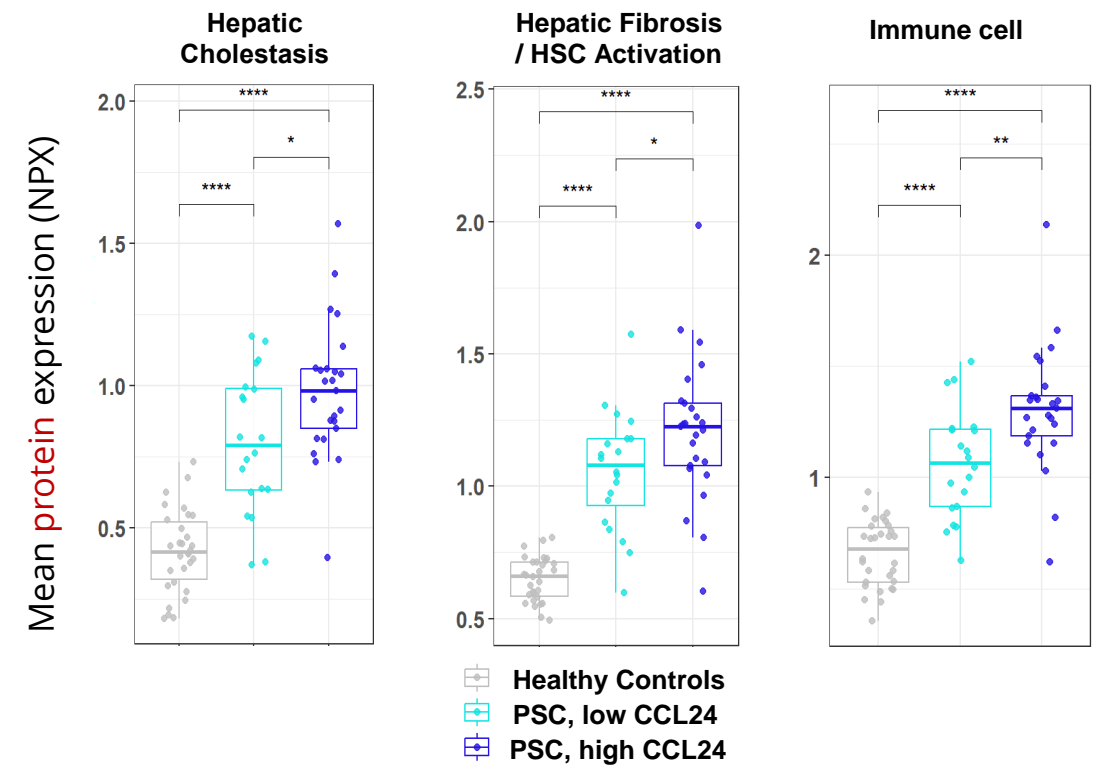
# CCL24 Levels Are Elevated in PSC Patients and Associated with Protein Expression in Key PSC Pathways



## CCL24 LEVELS IN HEALTHY VS PSC PATIENT LIVER TISSUE



## CCL24 LEVELS ARE ASSOCIATED WITH KEY PSC PATHWAYS



**CCL24 expression is significantly & selectively elevated in PSC livers**  
**Elevated serum CCL24 levels in patients are associated with key PSC pathways**

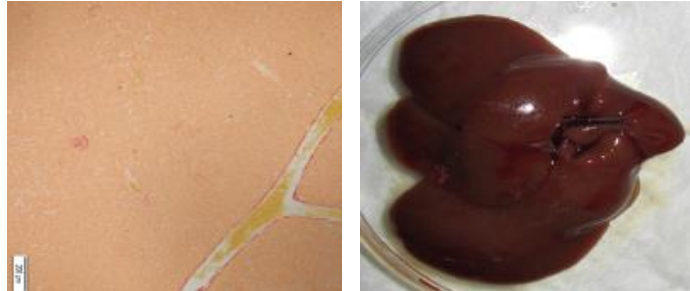
# CM-101 Reduces Liver Fibrosis by >80% Preclinically



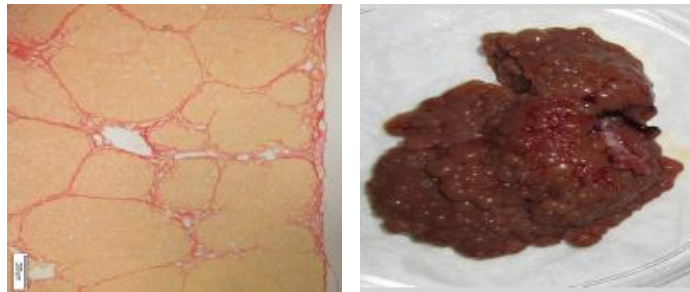
## RAT MODEL LIVERS

### SIRIUS RED (COLLAGEN)

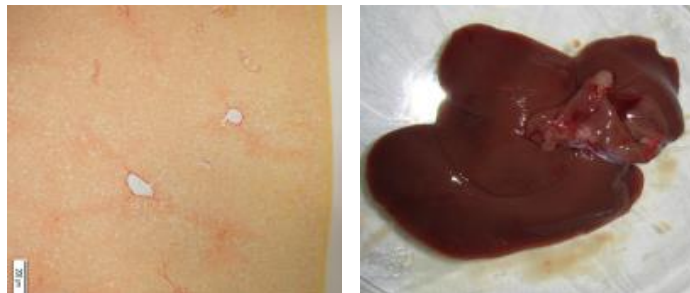
Healthy



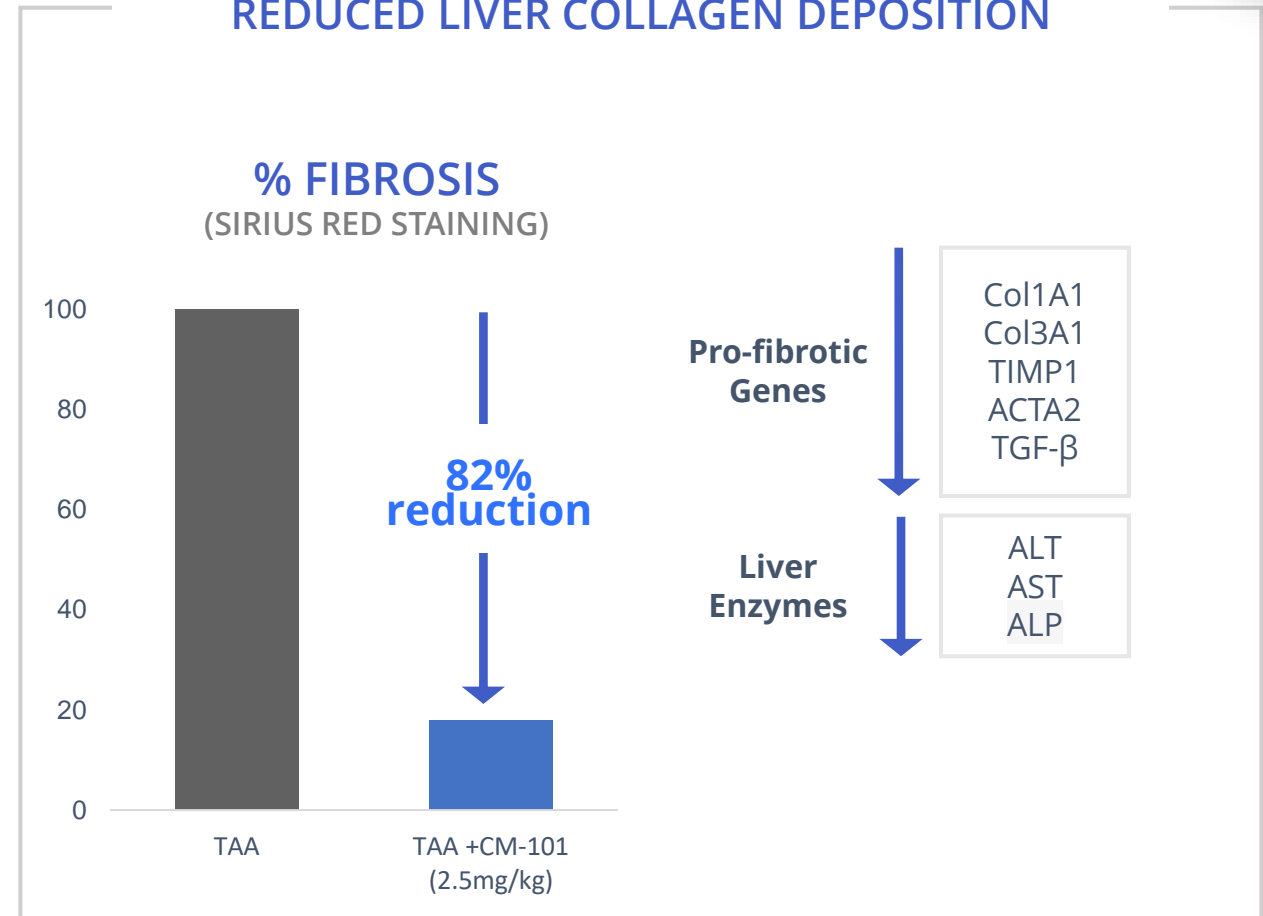
TAA Fibrosis



TAA+ CM-101



## REDUCED LIVER COLLAGEN DEPOSITION



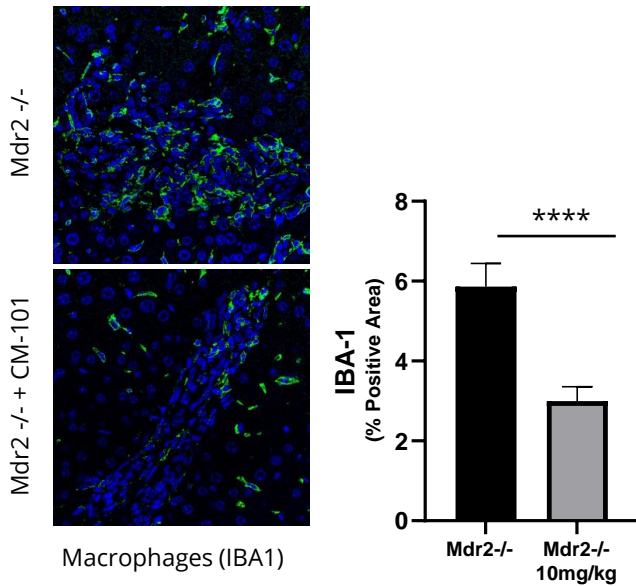
Dramatically reduced liver collagen using therapeutic design (treatment starts after fibrosis is established)

# CM-101 Reduces Liver Injury & Fibrosis in Multiple PSC Models



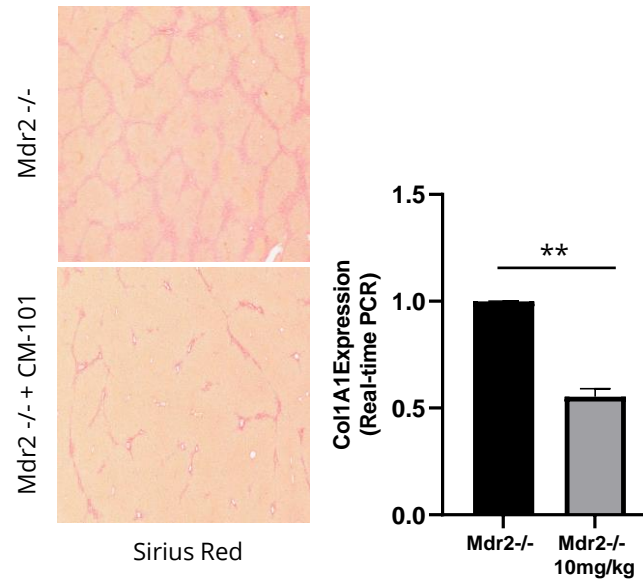
CM-101 DEMONSTRATED SIZEABLE REDUCTIONS IN PSC-RELATED PATHOLOGY\*

## REDUCED MACROPHAGES



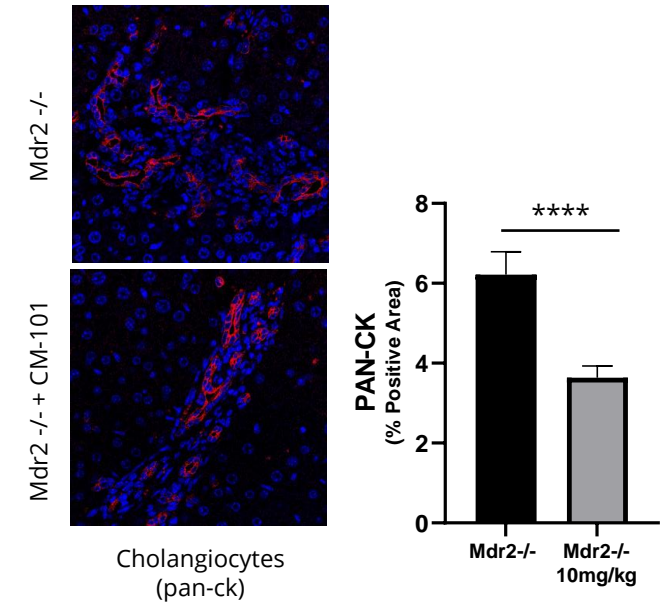
Reduction in  
**INFLAMMATION**

## ATTENUATED LIVER COLLAGEN DEPOSITION



Reduction in  
**FIBROSIS**

## REDUCED BILE EPITHELIAL PROLIFERATION



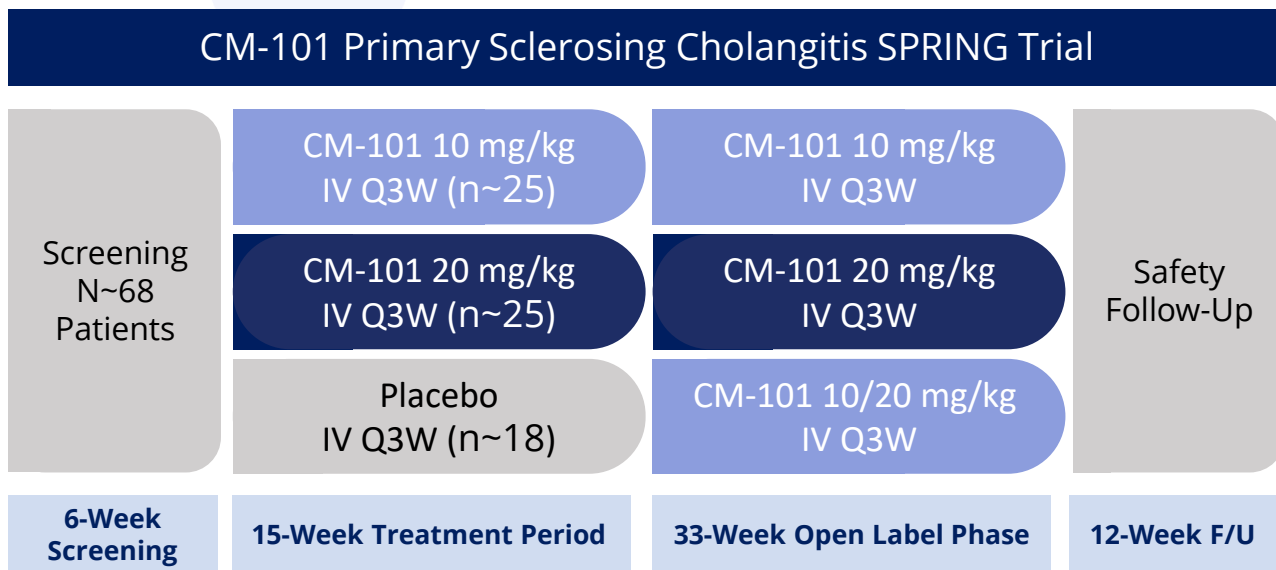
Reduction in main driver of  
**DISEASE PATHOLOGY**

CM-101 interferes with the 3 major pathways that drive PSC pathology

# Patient Enrollment Completed in CM-101 Phase 2 PSC Trial



RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED--INCLUDES DOSE-FINDING & OPEN LABEL EXTENSION



## Key Enrollment Criteria

- PSC patients with large duct disease of >24 weeks duration
- ALP > 1.5 ULN
  - Stable IBD allowed
  - Stable UDCA treatment allowed

## Outcome Measures

- Primary** - Safety and tolerability  
**Secondary** - Change from baseline to Week15 in:
- Serum alkaline phosphatase
  - ELF score
  - FibroScan®
  - Fibrotic biomarkers/liver enzymes (e.g., AST, ALT, Pro-C3, Pro-C5)
  - Pharmacokinetics
  - Pharmacodynamic parameters

- **Territories:** US, UK, Germany, Spain, Israel
- Orphan Drug designations in US & EU
- Fast Track designation in US

Targeting 15-Week topline data readout Midyear 2024 & Open Label topline data readout late 2024/early 2025



# CM-101: Potential Treatment for Systemic Sclerosis (SSc)

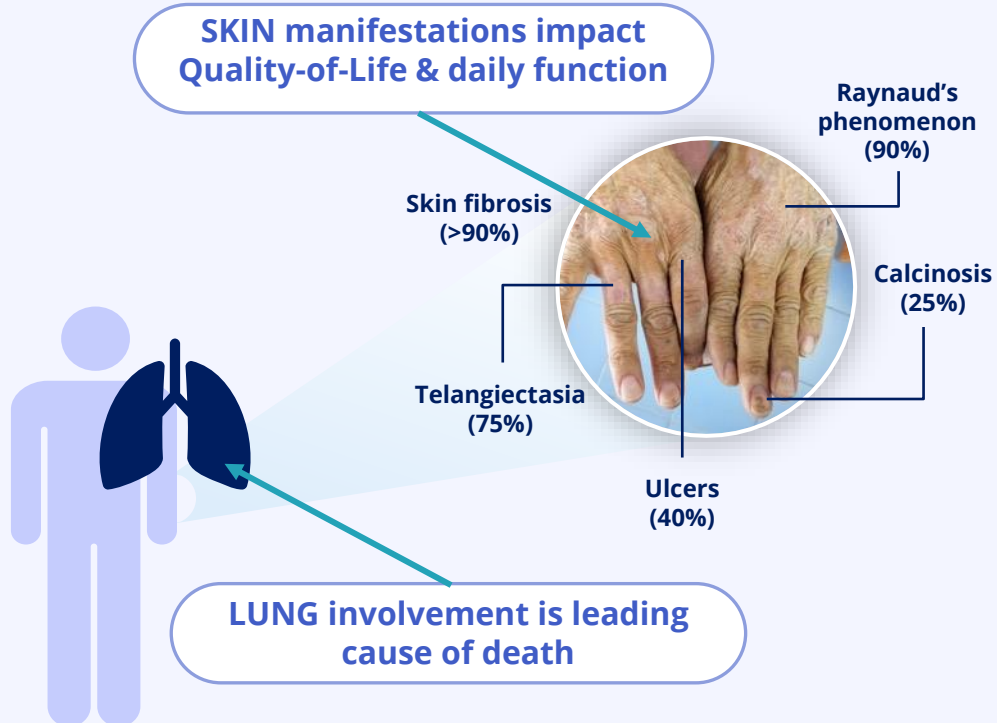
*Phase 2-Ready*



# Systemic Sclerosis (SSc): Most Lethal Systemic Rheumatic Disease



DEVASTATING ORPHAN DISEASE CAUSED BY INFLAMMATION, FIBROSIS & VASCULOPATHY



RARE AUTOIMMUNE RHEUMATIC DISEASE  
NO DISEASE MODIFYING THERAPY

Median Survival: 10 years

Diagnosis: between 30-50 years

Population: 3:1 female/male

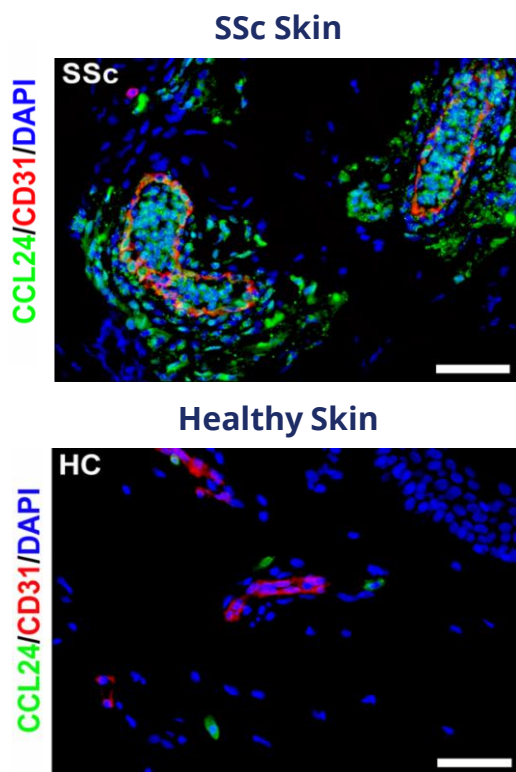
Current Rx: nintedanib & tocilizumab FDA-approved but only treat pulmonary symptoms;  
**NOT** disease modifying

**~170K patients**  
in 7 major markets  
**>\$1.5B**  
est. commercial opportunity

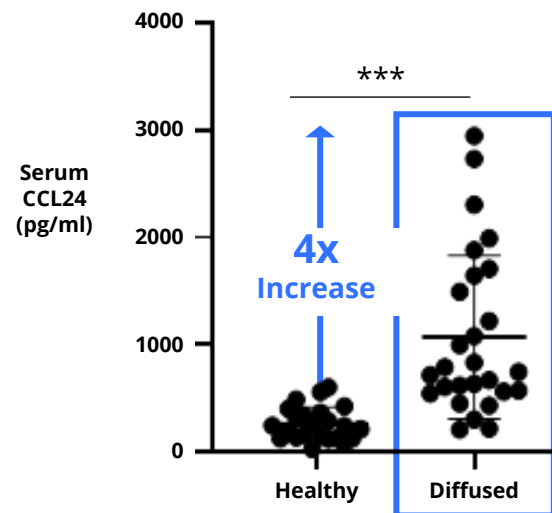
CM-101 SSc program is Phase 2-ready, with an open US IND

# CCL24: A Critical Target in Systemic Sclerosis

## CCL24 Elevated in SSc Skin

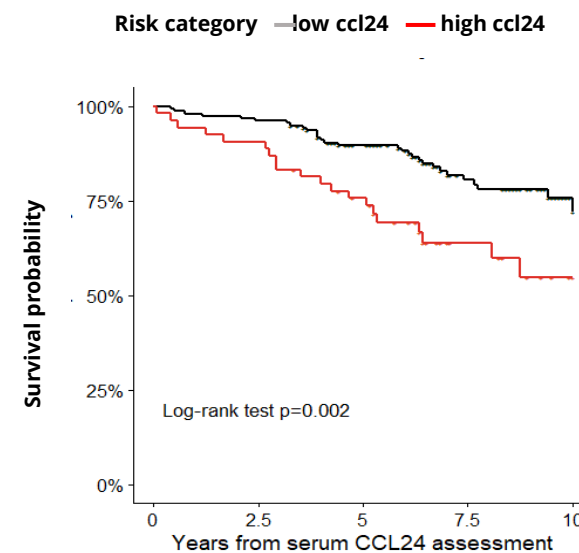


## CCL24 Overexpressed in SSc Serum



CCL24 overexpressed in serum of dSSc patients compared to healthy

## High CCL24 in SSc Serum Predicts Mortality



High CCL24 serum levels predict 5-year SSc-related mortality

Extensive animal model & patient sample data support potential therapeutic utility of CM-101 in Systemic Sclerosis

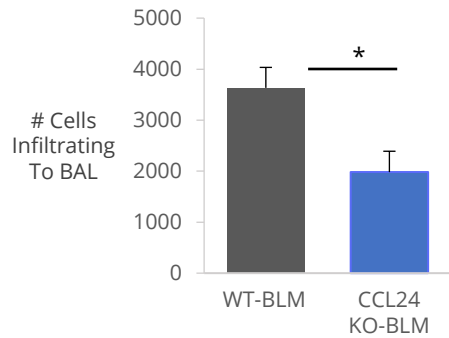
# CCL24 Blockade or Knockout Ameliorates SSc in Mouse Model

## CCL24 BLOCKADE REDUCES SSc-LIKE INFLAMMATION & FIBROSIS IN LUNG & SKIN

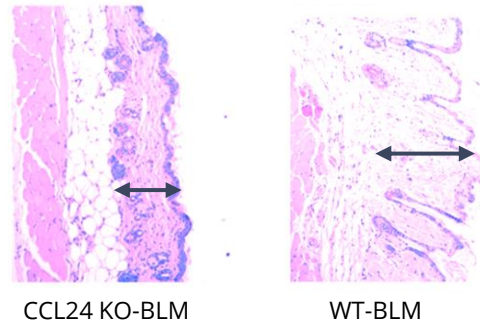


### CCL24 knockout mice

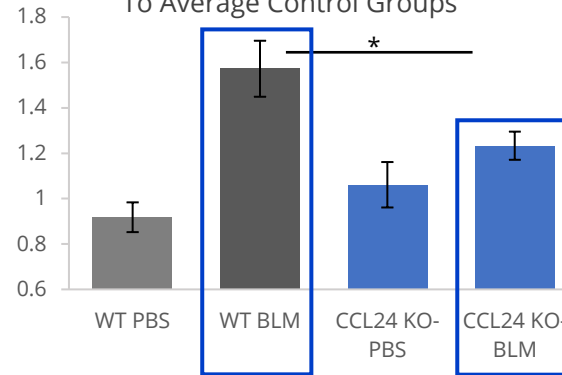
#### Immune Cell Lung Infiltration



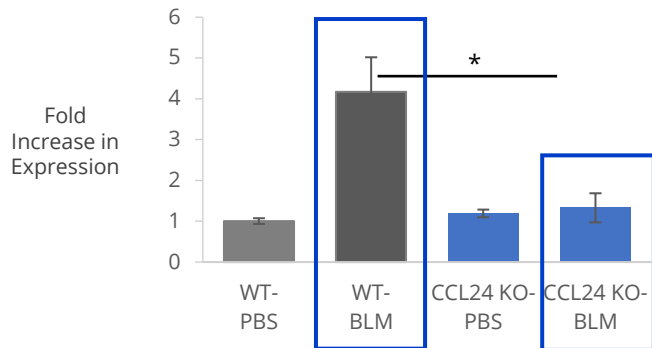
#### Dermal Thickness<sup>++</sup>



#### Dermal Thickness Compared To Average Control Groups

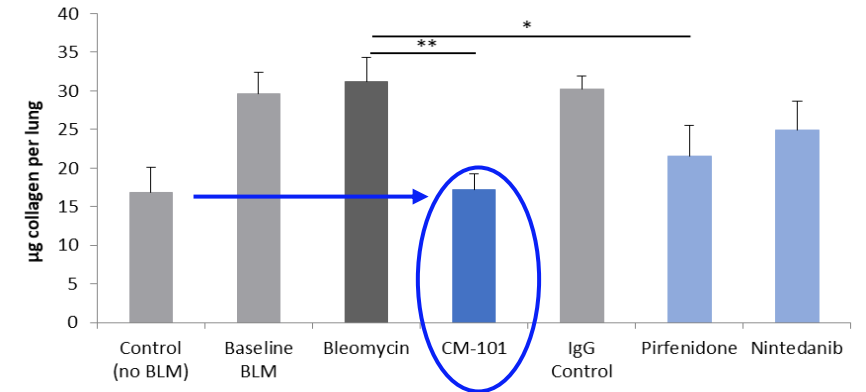


#### α SMA Expression in Skin Lesions

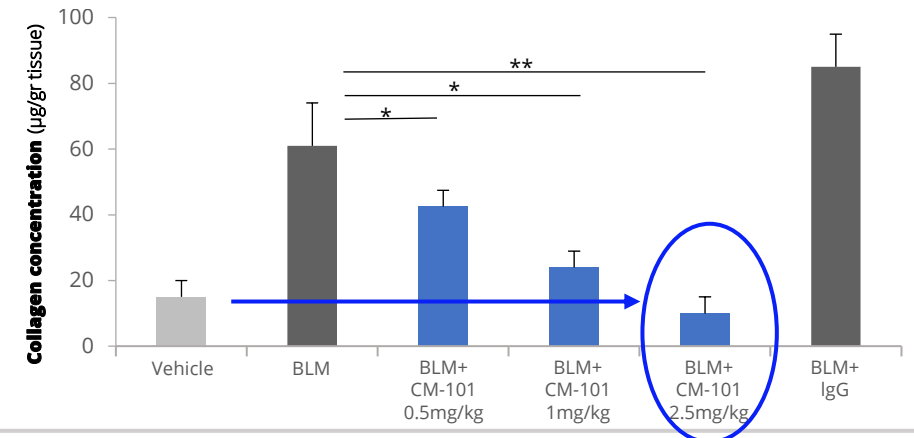


### CM-101 treated mice

#### BLEOMYCIN (IT)-INDUCED LUNG FIBROSIS



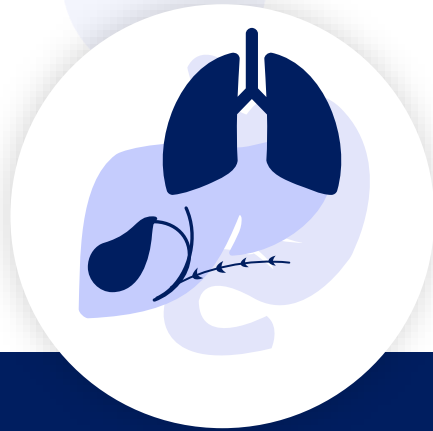
#### BLEOMYCIN (SC)-INDUCED DERMAL FIBROSIS



Mor A et al., Annals of Rheumatic Diseases, 2019; BLM-bleomycin; WT-wild type; KO-knock-out, BAL-bronchoalveolar lavage, PBS-phosphate-buffered saline; IT-intrathecal; SC-subcutaneous

\*p < 0.05; \*\*p < 0.01

++ Thickness measures taken at multiple locations on samples. Arrows on graphic are for illustrative purposes only

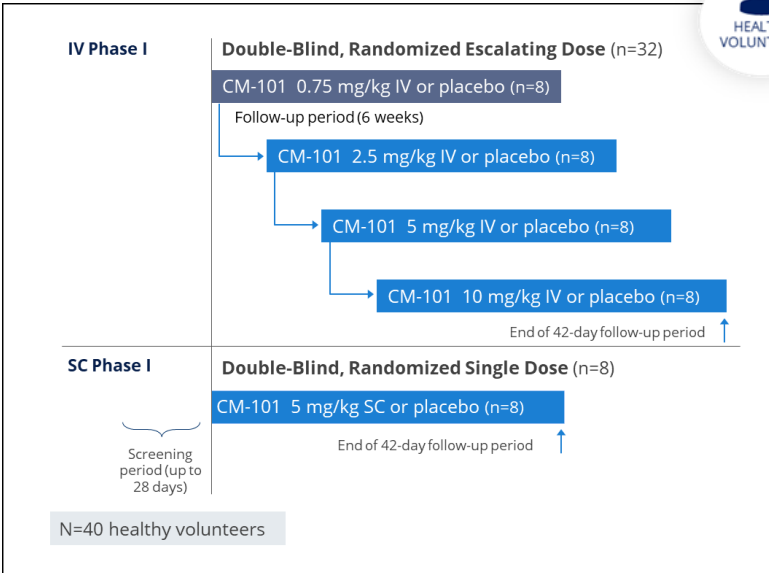


## CM-101: Clinical Trial Data

# CM-101 Appeared Safe & Active in Phase 1 Trials



## PHASE 1a SINGLE ASCENDING DOSE STUDY



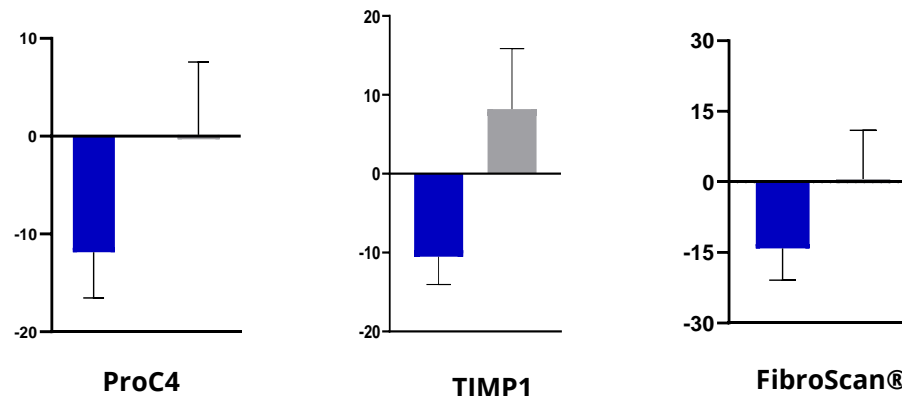
## PHASE 1b STUDY IN NAFLD PATIENTS

- Multiple ascending doses (IV and SC) appeared safe and well tolerated
- Adverse Events were mild with no drug-related SAEs
- Dose-dependent target engagement for SC and IV formulations
- PK and half-life support 2-4-week dosing



## IMPROVED FIBROSIS BIOMARKERS & LIVER STIFFNESS IN NAFLD PATIENTS

Relative Change from Baseline (%)

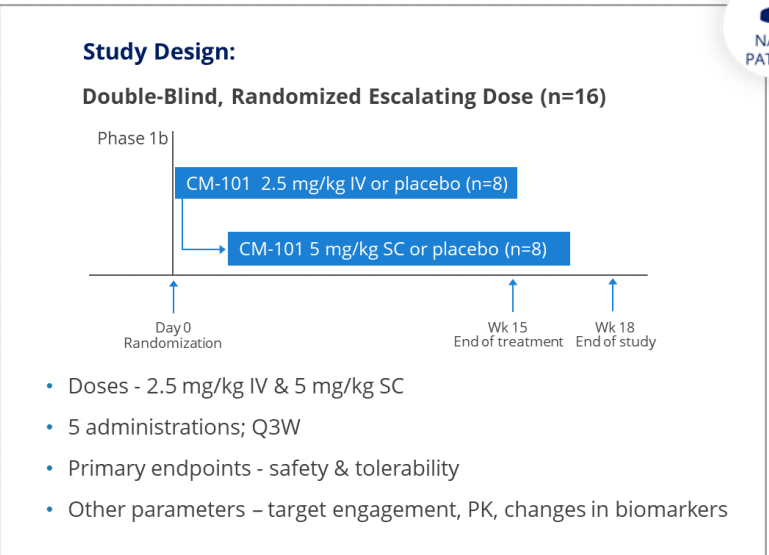


Concordant results across six additional fibrotic markers

Reduced liver stiffness

■ CM-101  
 ■ Placebo

## PHASE 1b MULTIPLE ASCENDING DOSE STUDY



N=10 active, 3 placebo. Pooled from both dosing cohorts  
 \*ProC4-procollagen 4; TIMP1-tissue inhibitor of metalloproteinase

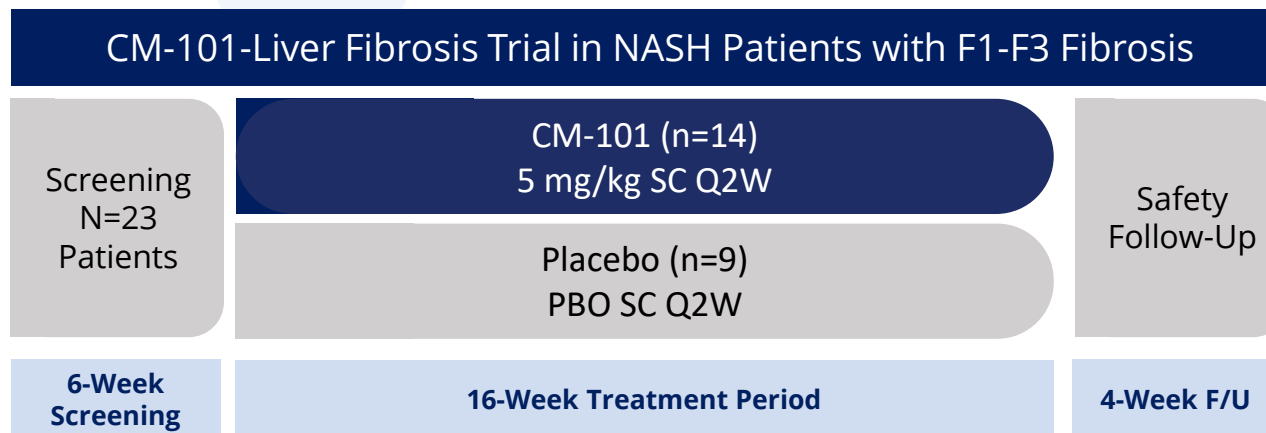
\*Subjects with baseline transient elastography ≥ 4 kPa  
 N=10 active, 3 placebo. Pooled from both dosing cohorts CHEMOMAB THERAPEUTICS

# Phase 2a Liver Fibrosis Trial Supports CM-101 Mechanism of Action



PATIENTS

## POSITIVE SAFETY AND TOLERABILITY PROFILE & IMPROVED BIOMARKERS IN NASH PATIENTS



- Double-blinded, randomized placebo-controlled trial in 23 non-cirrhotic NASH patients with biopsy-confirmed F1c-F3 fibrosis
- 5mg/kg SC injection
- 8 administrations per subject; Q2W

### Primary objective:

- Determine safety & tolerability of subcutaneous CM-101 in NASH patients

### Secondary objectives:

- Assess PK & PD profiles & drug exposure
- Measure liver fibrosis biomarkers & imaging
- Monitor Anti-Drug Antibodies (ADAs)

### Safety Results:

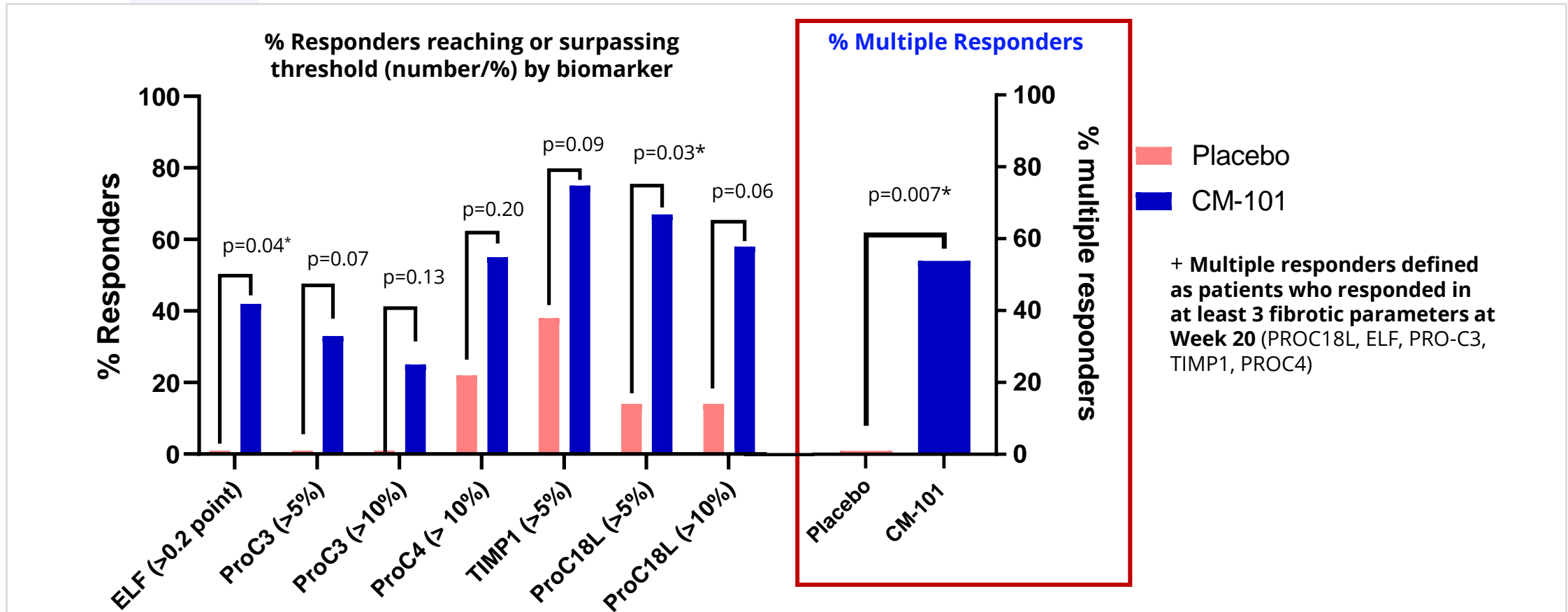
- Multiple doses appeared safe
- Most AEs were mild with one unrelated SAE
- No significant injection site reactions
- No ADAs

**CM-101-treated patients demonstrated improvements across a range of biomarkers associated with inflammation and fibrogenesis**

# CM-101 Produced More Biomarker Responders & Multiple Responders+



CM-101 NASH PATIENTS DEMONSTRATED A GREATER RESPONSE ACROSS INFLAMMATION & FIBROSIS BIOMARKERS COMPARED TO PLACEBO; ~60% WERE MULTIPLE RESPONDERS COMPARED TO 0% IN PLACEBO GROUP



CM-101-treated patients demonstrated consistent pattern of positive responses across biomarkers

N=12 active, 8 placebo per protocol population analysis; p=p value (T test)

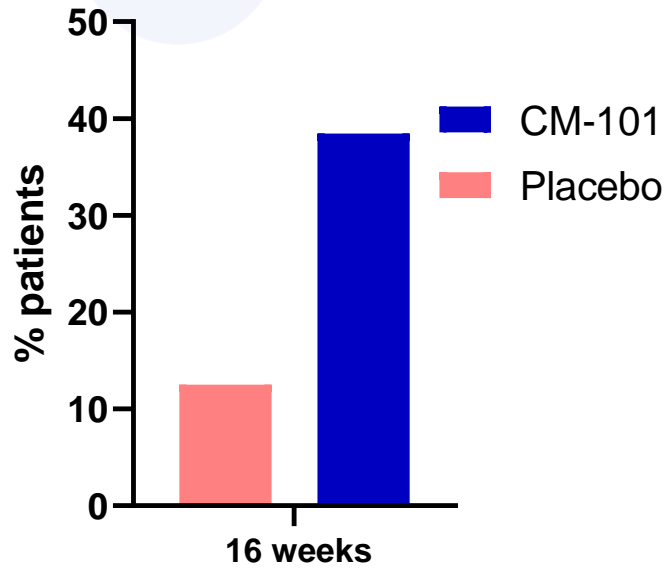
# Liver Stiffness & Fibrogenesis Improved in CM-101-treated Patients



## CM-101 PATIENTS HAD REDUCED LIVER STIFFNESS & PROC-3 LEVELS vs PLACEBO

### Liver Stiffness Reduction (FibroScan)

(≥ 1 Grade--% patients showing reduction of at least 1 grade in FibroScan)

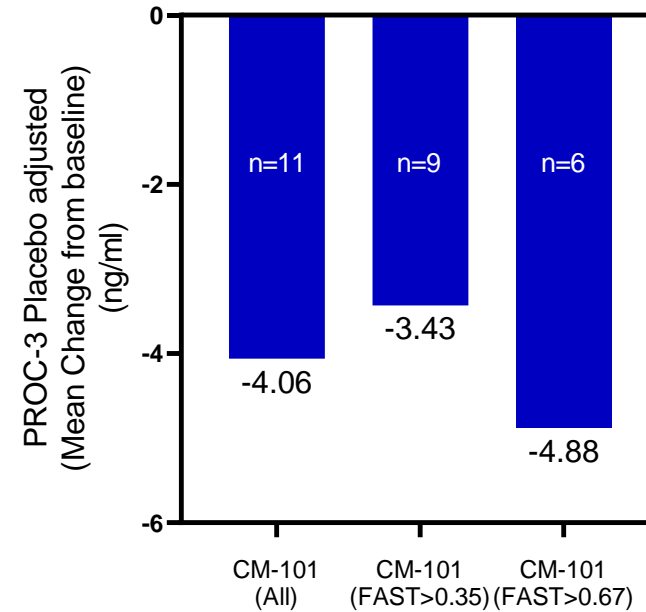


F0-F1	F2	F3	F4	Fibrosis Grading by FibroScan (kPa)
2 - 8.5	8.5 - 9.5	9.5 - 13.5	>13.5	

Placebo n=8; CM-101 n=13

### Fibrogenesis Improvement (Pro-C3)

(≥ 0.67 FAST score represents patients with high risk of progression)



Higher proportion of CM-101-treated patients showed improvement in Liver Stiffness

CM-101-treated patients with higher FAST\* scores showed the greatest improvements in fibro-inflammatory biomarkers

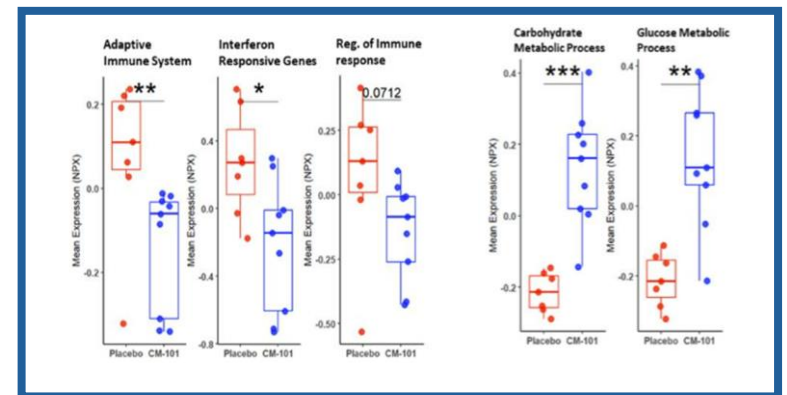
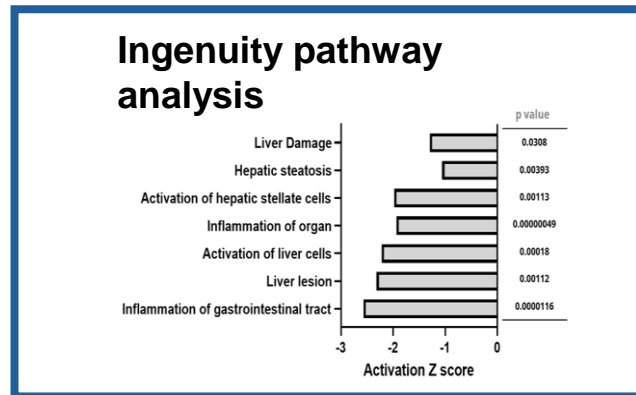
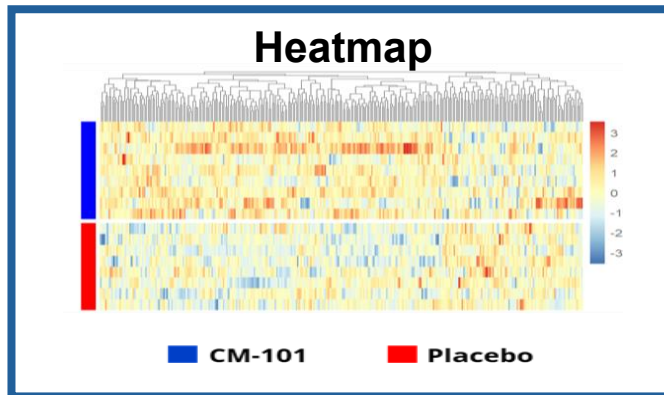
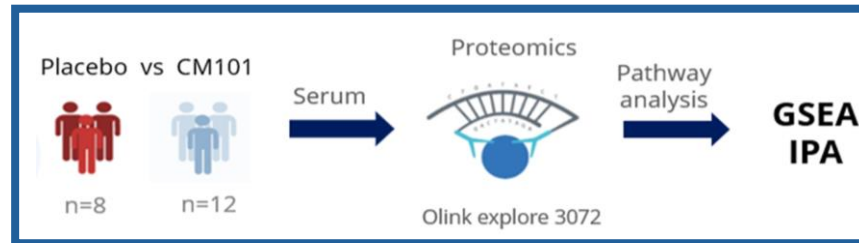
\*FAST Combines FibroScan (LSM by VCTE™ & CAP™) & AST levels; Low-risk (FAST ≤ 0.35); Indeterminate risk (0.35 < FAST score < 0.67); High-risk (FAST ≥ 0.67); FAST is a well-validated non-invasive score for assessing NAFLD/NASH status & categorizing the risk of progression



# Proteomic Analysis of CM-101 Phase 2 Liver Fibrosis Study Showed Improvements in Fibrotic, Inflammatory and Metabolic Pathways



Proteome Profiling Analysis of 3000 Proteins Differentiates between CM-101 and Placebo Groups in NASH Patients with Liver Fibrosis



**CM-101 attenuates multiple fibrotic and inflammatory pathways while improving metabolic pathways – all are essential in mitigating the pathology associated with progressive fibrotic liver diseases**


\*Heatmap of significant (p<0.05, by linear mixed model) proteins altered in the treatment group compared to placebo. Values are centered and scaled.

\*\*Boxplots of key pathways showing mean fold change (NPX values) across all proteins in a given pathway, for each treatment group (p<0.05: \*, <0.01: \*\*, <0.001: \*\*\*).

\*\*\*Ingenuity pathway analysis (IPA)- Diseases & Bio Functions and Toxicity Functions, filtered for liver & hepatic related pathways & their corresponding activation z-score & p values.

# Experienced Management with Extensive Biopharma Experience



 <p><b>Adi Mor, PhD</b> Co-founder, Chief Executive Officer &amp; Chief Scientific Officer</p>		 <p><b>Matthew Frankel, MD</b> Chief Medical Officer &amp; Vice President, Drug Development</p>	
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## DEEP EXPERIENCE

Capital efficient

Translational science & global clinical development

Focused on delivering value to stakeholders

# CM-101 is Potential Breakthrough in Fibro-Inflammatory Diseases



## DUAL MECHANISM OF ACTION

Disease-modifying potential  
with unique target



**FOCUSED ON HIGH UNMET NEED,  
LARGE POTENTIAL RARE DISEASES**

With substantial partnering interest

## PRECISION TARGETING

Selective mAb enhances  
potential safety & efficacy



**SAFE AND WELL-TOLERATED**

In multiple clinical studies to date

## INDICATION EXPANSION

Into other diseases



UPCOMING CATALYSTS—Phase 2 PSC topline data Midyear 2024 & PSC Open Label data  
Late 2024/Early 2025, with Cash Runway through End Q1 2025



Advancing CM-101: Novel Target with Disease-Modifying Potential for Fibro-Inflammatory Diseases

Thank you!