
**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): July 26, 2021

CERECOR INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation)

001-37590
(Commission File Number)

45-0705648
(IRS Employer Identification No.)

540 Gaither Road, Suite 400, Rockville, Maryland 20850

(Address of principal executive offices) (Zip Code)

Registrant's Telephone Number, Including Area Code: (410) 522-8707

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 each exchange on which registered
Common Stock, \$0.001 Par Value	CERC	Nasdaq Capital 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 July 26, 2021, Cerecor Inc. (the “Company”) released an updated investor presentation (the “Investor Presentation”). The Investor Presentation will be used from time to time in meetings with investors. A copy of the Investor Presentation is attached hereto as Exhibit 99.1.

Also on July 26, 2021, the Company issued a press release announcing initial results (cohort 1) from a Phase 1b proof-of-concept study evaluating CERC-002, an investigational first-in-class fully human anti-LIGHT (tumor necrosis factor superfamily member 14, TNFSF14) monoclonal antibody, in adult patients with moderate to severe Crohn’s disease. A copy of the press release is attached hereto as Exhibit 99.2.

The information set forth on this Item 7.01 and furnished hereto as Exhibit 99.1 shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and is not incorporated by reference into any of the Company’s filings under the Securities Act of 1933, as amended (the “Securities Act”), or under the Exchange Act, whether made before or after the date hereof, except as shall be expressly set forth by specific reference in any such filing.

Item 8.01 Other Events.

On July 26, 2021, the Company posted on its website an informational presentation regarding the initial results described above. A copy of the informational presentation is attached hereto as Exhibit 99.3, and is incorporated herein by reference.

Forward-Looking Statements

This Current Report on Form 8-K contains “forward-looking” statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. The words “may,” “will,” “could,” “would,” “should,” “expect,” “intend,” “plan,” “anticipate,” “believe,” “estimate,” “predict,” “project,” “potential,” “continue,” “ongoing” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. While the Company believes its plans, intentions and expectations reflected in those forward-looking statements are reasonable, these plans, intentions or expectations may not be achieved. The Company’s actual results, performance or achievements could differ materially from those contemplated, expressed or implied by the forward-looking statements. For information about the factors that could cause such differences, please refer to the Company’s Annual Report on Form 10-K for the year ended December 31, 2020, including the information discussed under the captions “Part I, Item 1A - Risk Factors” and “Part II, Item 7 - Management’s Discussion and Analysis of Financial Condition and Results of Operations,” as well as the Company’s various other filings with the SEC. Given these uncertainties, you should not place undue reliance on these forward-looking statements. The Company assumes no obligation to update any forward-looking statement.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits:

Exhibit No.	Description
99.1	Investor Presentation.
99.2	Press Release.
99.3	Informational Presentation.

SIGNATURE

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.

CERECOR INC.

Date: July 26, 2021

By: /s/ Schond L. Greenway

Schond L. Greenway
Chief Financial Officer



Patient-Inspired Science

Establishing a leading, rare and orphan disease-focused biopharmaceutical company to deliver impactful new medicines to patients

July | 2021



Forward-Looking Statements

This presentation may include forward-looking statements made pursuant to the Private Securities Litigation Reform Act of 1995. Forward-looking statements are statements that are not historical facts. Such forward-looking statements are subject to significant risks and uncertainties that are subject to change based on various factors (many of which are beyond the control of Cerecor Inc. (“Cerecor” or the “Company”), which could cause actual results to differ from the forward-looking statements. Such statements may include, without limitation, statements with respect to Cerecor’s plans, objectives, projections, expectations and intentions and other statements identified by words such as “projects,” “may,” “might,” “will,” “could,” “would,” “should,” “continue,” “seeks,” “aims,” “predicts,” “believes,” “expects,” “anticipates,” “estimates,” “intends,” “plans,” “potential,” or similar expressions (including their use in the negative), or by discussions of future matters such as: its future financial and operational outlook; the development of product candidates or products; potential attributes and benefits of product candidates; strategic alternatives for neurological assets and Millipred; and other statements that are not historical.

These statements are based upon the current beliefs and expectations of Cerecor’s management but are subject to significant risks and uncertainties, including: reliance on and integration of key personnel; drug development costs, timing and other risks, including reliance on investigators and enrollment of patients in clinical trials, which might be slowed by the COVID-19 pandemic; regulatory risks; Cerecor’s cash position and the need for it to raise additional capital; risks related to potential strategic alternatives for its neurology assets and Millipred; and general economic and market risks and uncertainties, including those caused by the COVID-19 pandemic and those other risks detailed in Cerecor’s filings with the Securities and Exchange Commission. Actual results may differ from those set forth in the forward-looking statements. Except as required by applicable law, Cerecor expressly disclaims any obligations or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in Cerecor’s expectations with respect thereto or any change in events, conditions, or circumstances on which any statement is based.



Pipeline Highlights

- Cerecor has a rich pipeline of six novel, first-in-class assets in eight clinical development programs across immunology, oncology, and rare diseases
- All assets have demonstrated mechanistic rationale, biomarkers, or established proof-of-concept (POC) to increase probability of success
- CERC-002 (anti-LIGHT mAb*) demonstrated clinically meaningful endoscopic improvement in 75% (3/4) of subjects in the initial results (Cohort 1) of Phase 1b moderate to severe Crohn's disease clinical trial
- CERC-002 demonstrated statistically significant improvement in the primary endpoint of alive and free of respiratory failure status in Phase 2 COVID-19 ARDS clinical trial
- Anticipated near-term milestones:
 - CERC-002: top-line POC data for moderate to severe Crohn's disease trial (2H 2021)
 - CERC-007: top-line POC data for multiple myeloma (2H 2021) and initial data for AOSD (3Q 2021)
 - CERC-006: initial data for complex lymphatic malformations (3Q 2021)
 - CERC-800s: congenital disorders of glycosylation pivotal data anticipated (1Q 2022) for CERC-801, and (2H 2021) for CERC-802 and CERC-803
- Currently, four assets have been designated ODD* and RPDD* enabling Priority Review Vouchers (would provide non-dilutive financing of the pipeline)

*Orphan Drug Designation, Rare Pediatric Disease Designation; Eligibility for Priority Review Voucher Upon Approval.

3 | mAb, monoclonal antibody.



Clinical-Stage Pipeline

Core Research & Development Areas	Therapeutic Area	Program	Mechanism of Action	Lead Indication	Development Stage				Anticipated Milestone
					Preclin	Phase 1	Phase 2	Pivotal Trial	
Immunology	Inflammation	CERC-002 [‡]	Anti-LIGHT mAb	COVID-19 ARDS					Received FTD*
		CERC-002	Anti-LIGHT mAb	IBD					Top Line Data 2H 2021
		CERC-007	Anti-IL-18 mAb	AOSD					Initial Data 3Q 2021
Oncology	Blood Cancers	CERC-007	Anti-IL-18 mAb	Multiple Myeloma					Top Line Data 2H 2021
Rare Genetic Disorders	Complex Lymphatic Malformations	CERC-006 ⁺	Dual mTOR inhibitor	Complex Lymphatic Malformations					Initial Data 3Q 2021
	Congenital Disorders of Glycosylation	CERC-801 ⁺⁺	D-Galactose replacement	PGM1-CDG					Pivotal Trial Data 1Q 2022
		CERC-802 ⁺⁺	D-Mannose replacement	MPI-CDG					Pivotal Trial Data 2H 2021
		CERC-803 ⁺⁺	L-Fucose replacement	LAD-II (SLC35C1-CDG)					Pivotal Trial Data 2H 2021

+ Orphan Drug Designation, Rare Pediatric Disease Designation; Eligibility for Priority Review Voucher upon approval.

‡ Fast Track Designation.

* The Company remains in dialogue with the FDA and is working through feedback to determine the trial design for a registrational study and accompanying timelines, including the potential expansion to a larger patient population in broader ARDS.

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CERC-002

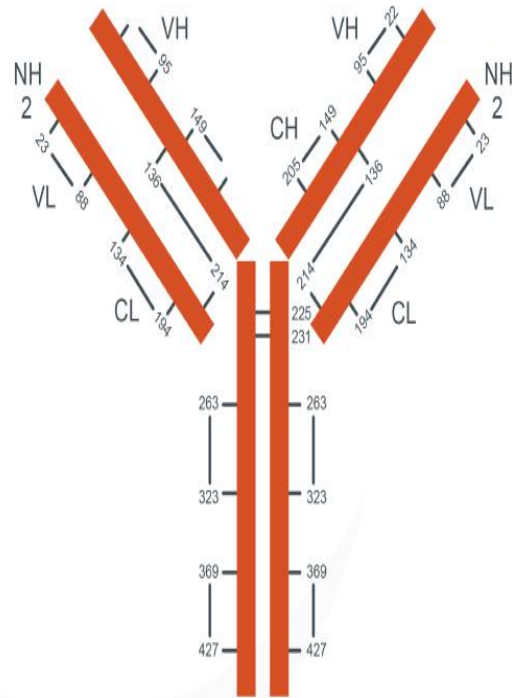
Anti-LIGHT monoclonal antibody in clinical studies for Crohn's disease and COVID-19 ARDS



CERC-002: A Novel First-in-Class Anti-LIGHT (TNFSF14) mAb

In-licensed From Kyowa Kirin Co., Worldwide Exclusive Rights* for All Indications (2021)

- Novel, first-in-class fully human subcutaneous (SQ) monoclonal antibody (mAb)
- Only known fully human anti-LIGHT mAb
- Only known anti-LIGHT mAb in clinical development



CERC-002: Crohn's Disease



Executive Summary: CERC-002 Demonstrates Potential Proof-of-Concept in Initial Low-Dose Cohort

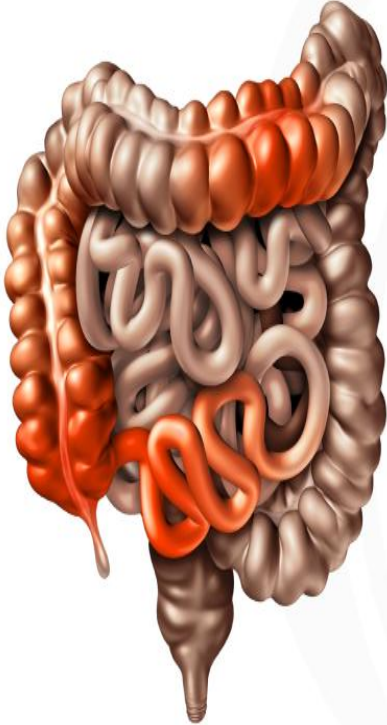
2nd Positive Proof-of-Concept Study With CERC-002 Further Validates the LIGHT MOA in Inflammatory Diseases

- Open-label proof-of-concept study in patients with moderate to severe Crohn's disease who previously failed 3 or more lines of biologic therapies, including anti-TNF α *
- Clinically meaningful mucosal healing, determined by colonoscopy, in 3 of 4 subjects (SES-CD)**
- Rapid response within 8 weeks
- Well-tolerated, no serious adverse events observed
- High-dose cohort fully enrolled with results expected 2H21



Inflammatory Bowel Disease Overview

Significant Unmet Need Exists in Crohn's Disease and Ulcerative Colitis



- Inflammatory bowel disease (IBD) is a broad term indicating chronic inflammation of the gastrointestinal (GI) tract and includes both Crohn's disease (CD) and ulcerative colitis (UC)¹
 - Relapsing and remitting course characterized by intestinal inflammation and epithelial injury, causing lifelong morbidity² that significantly impacts quality of life^{3,4}
- Standard of care relies on treating the inflammatory activity that causes strictures, fistula, and abscesses as well as heightened incidence of colitis-associated neoplasia associated with IBD⁵
- An estimated 1.6-3.1 million US adults (~1.3%) have a diagnosis of IBD^{1,6}
 - Estimated US cases of CD as many as 780K⁷
- Approximately \$16.7B global market opportunity in 2020 with 4.5% compound annual growth rate⁸

1. Centers for Disease Control and Prevention. Inflammatory bowel disease. <https://www.cdc.gov/ibd/features/ibd-more-chronic-diseases.html>. Accessed July 17, 2021.

2. Atreya R et al. *Front Med (Lausanne)*. 2020;7:517.

3. Knowles SR et al. *Inflamm Bowel Dis*. 2018;24(4):742-751.

4. Byron C et al. *J Clin Nurs*. 2020;29(3-4):305-319.

5. GBD 2017 Inflammatory Bowel Disease Collaborators. *Lancet*. 2020;5:17-30.

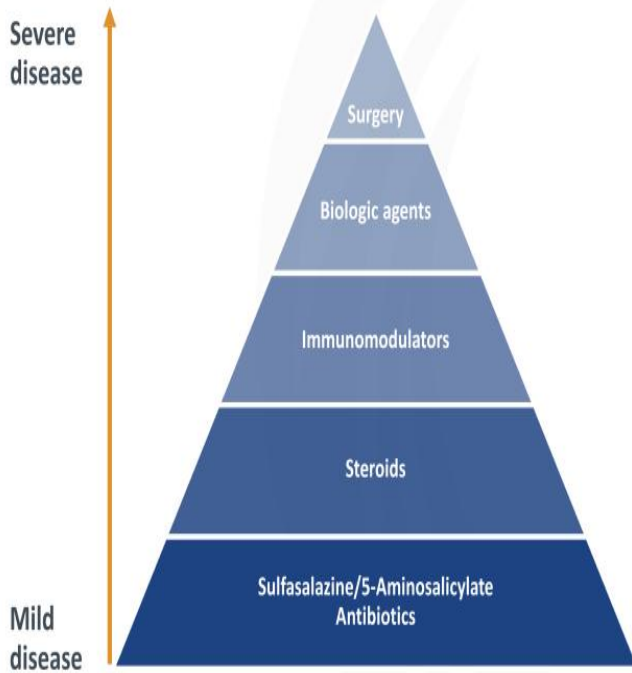
6. Crohn's and Colitis Foundation of America. The facts about inflammatory bowel disease. <https://www.crohnscolitisfoundation.org/sites/default/files/2019-02/Updated%20IBD%20Factbook.pdf>. Accessed July 19, 2021.

7. Shivashankar R et al. *Clin Gastroenterol Hepatol*. 2017;15(6):857-863.

8. EMR Reports. <https://www.expertmarketresearch.com/reports/inflammatory-bowel-disease-treatment-market>. Accessed July 17, 2021.



Substantial Opportunity Remains in the Treatment of IBD



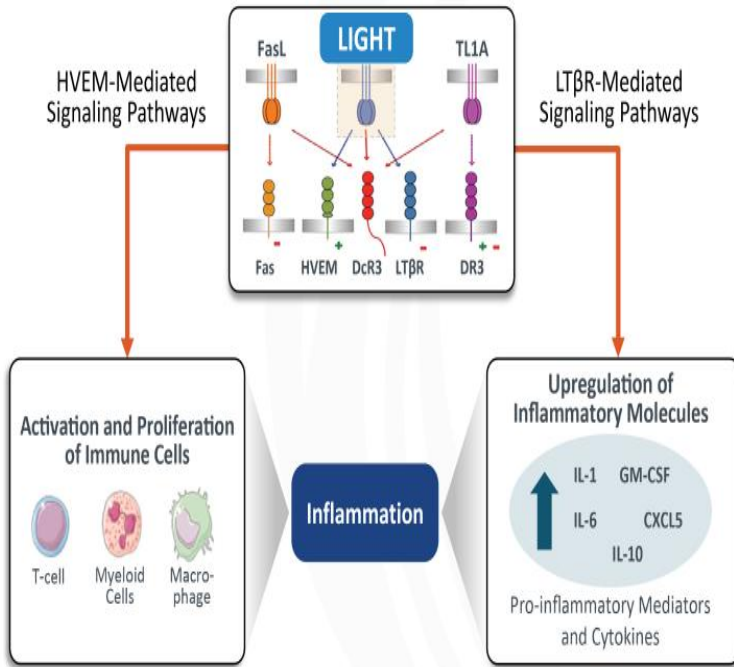
- Majority of patients are designated moderate/severe and treated with pharmacologic intervention
- Almost all patients with moderate to severe IBD will receive biologics over the course of treatment¹
 - Approximately one-third are primary non-responders to anti-TNF therapies
 - 30-50% of initial responders become refractory
- Remission rates for advanced therapies have remained at ~20% (placebo-adjusted) for patients with moderate to severe disease²
- Newly developed therapies such as Janus kinase (JAK) inhibitors carry significant safety concerns
- Significant opportunity remains for new, safe, and effective treatments addressing novel targets

1. Atreya R et al. *Front Med (Lausanne)*. 2020;7:517.

2. Clearview Healthcare Partners. Crohn's disease and ulcerative colitis. Initial disease landscape overview. May 2021.

LIGHT Is a Key Driver of Inflammation

Member of the TNF Superfamily (TNFSF14) of Proteins, Involved in T-Cell Activation and Inflammation



- LIGHT (TNFSF14) is a pro-inflammatory cytokine and a co-stimulator of T cells and Th1 cytokines, including interferon (IFN)- γ ¹
- LIGHT is expressed on activated T cells, natural killer (NK) cells, monocytes, granulocytes, and immature dendritic cells²
- LIGHT is an important immuno-regulator in the barrier tissues: GI tract, skin, lung, and others³⁻⁵

LIGHT, homologous to Lymphotoxin, exhibits Inducible expression and competes with HSV Glycoprotein D for binding to herpesvirus entry mediator (HVEM), a receptor expressed on T lymphocytes.

1. Ware CF. *Annu Rev Immunol.* 2005;23:787-819.

2. Wang J, Fu YX. *Immunol Res.* 2004;30(2):201-214.

3. Herro R et al. *J Invest Dermatol.* 2015;135(8):2109-2118.

4. Herro R et al. *J Allergy Clin Immunol.* 2015;136(3):757-768.

5. Giles DA et al. *Front Immunol.* 2018;9:2585.

Multiple Lines of Evidence Support Importance of LIGHT in IBD

■ Patient data

- Elevated levels of LIGHT in patients with CD¹ and UC²
- High LIGHT mRNA levels detected in human inflamed intestinal tissue compared with normal tissue^{1,3}
- LIGHT gene upregulation is observed in CD and UC⁴

■ Animal models of IBD

- LIGHT overexpression increases intestinal inflammation in rodents⁵
- Anti-LIGHT monoclonal antibody (mAb) treatment ameliorates inflammation in the dextrate sulfate sodium (DSS)–induced colitis model⁶
- Knockout of the LIGHT (or its ligand, HVEM) gene results in reduced intestinal inflammation (in some models)⁷

1. Data on file, Cerecor, Inc.

2. Moraes L et al. *Inflamm Bowel Dis*. 2020;26(6):874-884.

3. Cohavy O et al. *J Immunol*. 2005;174(2):646-653.

12 | 4. Wang J et al. *J Immunol*. 2005;174(12):8173-8182.

5. Shaikh RB et al. *J Immunol*. 2001;167(11):6330-6337.

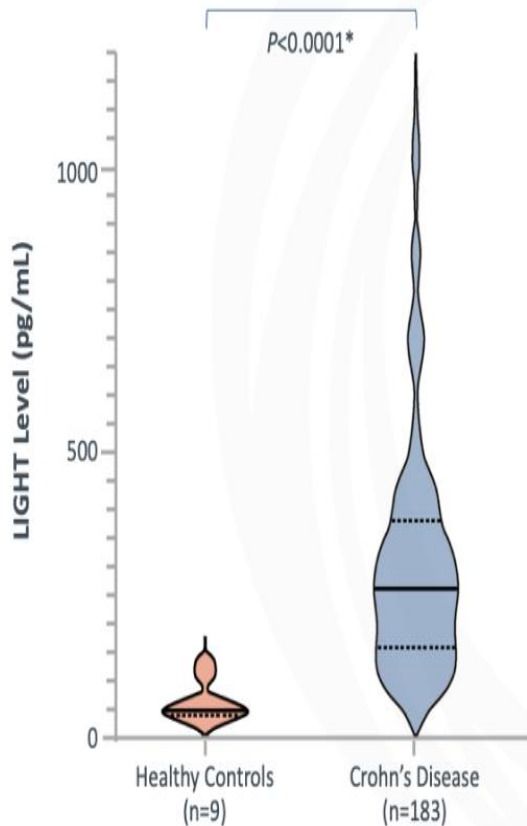
6. Jungbeck M et al. *Immunology*. 2009;128(3):451-458.

7. Schaer C et al. *PLoS One*. 2011;6(4):e18495.



Elevated LIGHT Levels Detected in Pediatric Crohn's Disease

Plasma LIGHT levels Were Significantly Elevated in Patients With CD vs Healthy Individuals



- Approximately 83% of pediatric patients with CD had significantly elevated LIGHT levels
 - Cross-sectional study of pediatric patients with CD from Center for Applied Genomics at CHOP
 - Studied pediatric patients with CD (n=183) versus healthy age-matched controls (n=9)

Data displayed as box-and-whiskers graph.

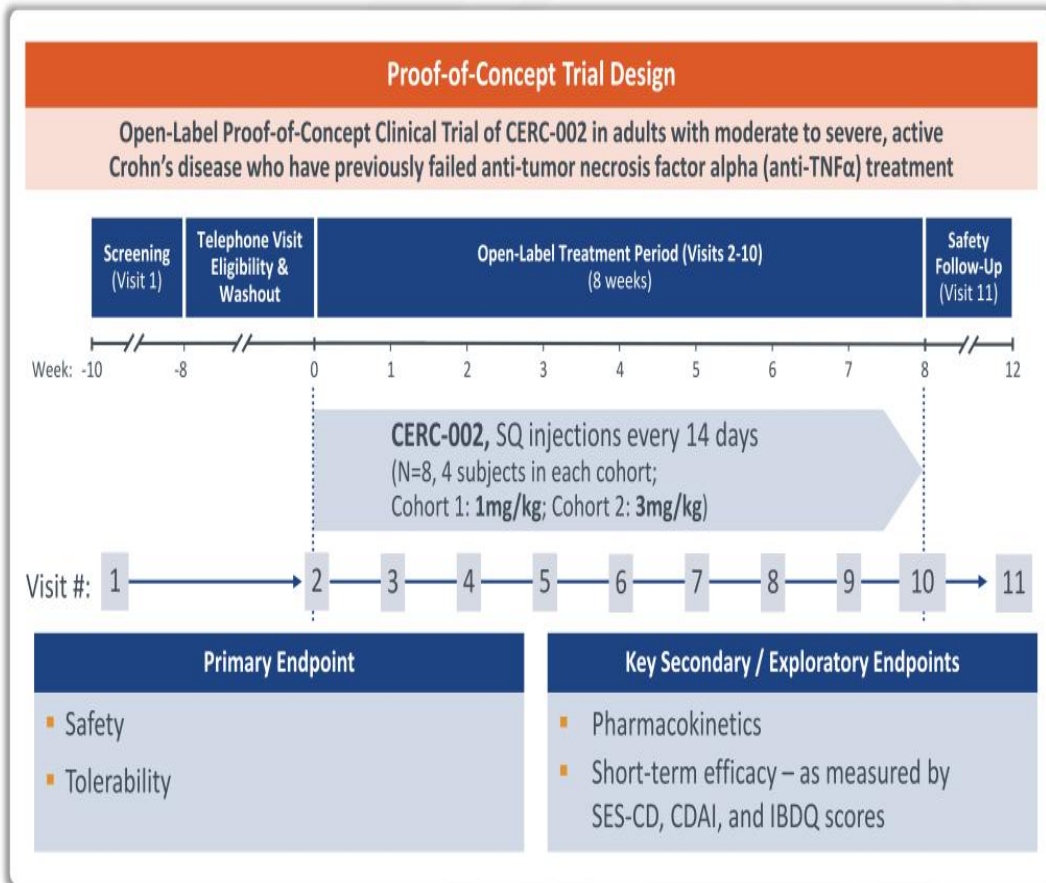
*Determined by Mann-Whitney U test.

Plasma samples from CHOP Biobank; controls are matched for age and gender.

13 | Source: Cardinale C et al. Manuscript in preparation.



CERC-002 Crohn's Disease Proof-of-Concept



- Moderate to severe disease
- Anti-TNF α failure
- Heavily pre-treated patients
- Dose escalation starting at 1mg/kg every 2 weeks
- Short duration (8 weeks)



CERC-002 Crohn's Disease Proof-of-Concept: Phase 1b Initial Data (Cohort 1)

Patient-Level Data

Subject #	Age (yrs)	Prior Therapy / # of Prior Lines	SES-CD		LIGHT (pg/mL)		Response
			Baseline	8 Weeks	Baseline	8 Weeks	
Subject #1	42	Remicade, Entyvio, Stelara	11	4	455	24	Significant mucosal healing: <ul style="list-style-type: none"> 64% reduction in SES-CD score (moderate to mild) Patient relapsed post treatment and needed surgery
Subject #2	63	Remicade, Humira, Entyvio, Stelara	18	19	193	29	No evidence of improvement
Subject #3	28	Remicade, Humira, Stelara, Methotrexate	21	15	75	27	Significant mucosal healing: <ul style="list-style-type: none"> 29% reduction in SES-CD score (severe to moderate) Exploring single-patient IND
Subject #4	49	Remicade, Stelara, Humira, Entyvio, Methotrexate, Mercaptopurine	12	3	162	45	Significant mucosal healing: <ul style="list-style-type: none"> 75% reduction in SES-CD score (moderate to mild) Exploring single-patient IND

Disease severity according to SES-CD score¹:

Remission: 0-2

Mild: 3-6

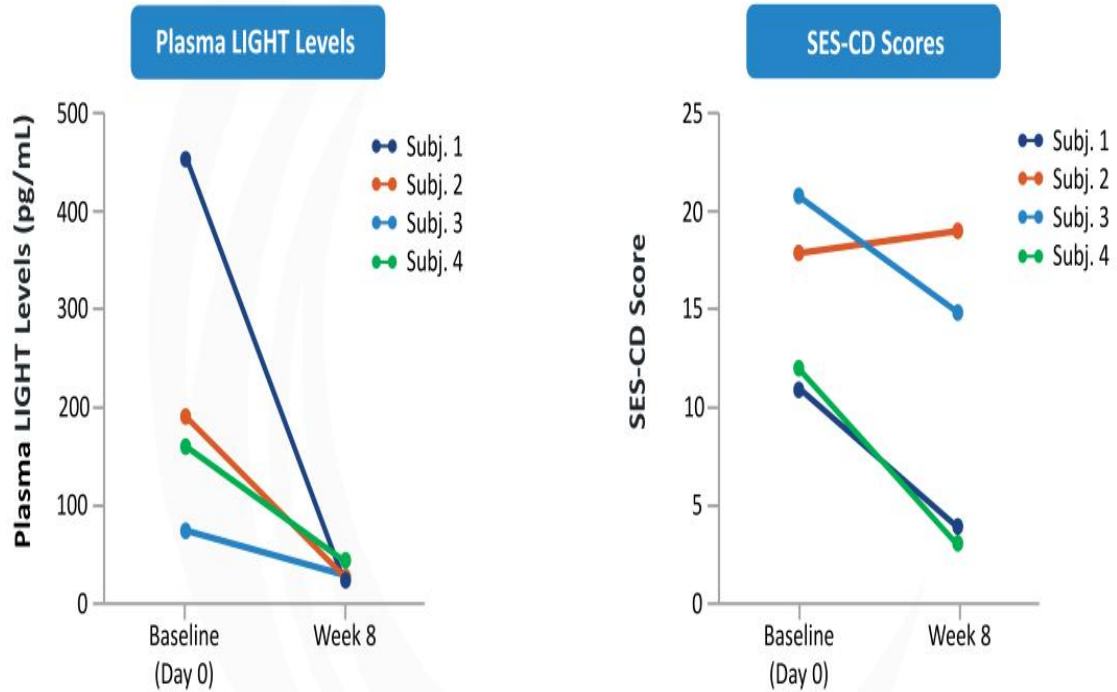
Moderate: 7-15

Severe: >15



CERC-002 Crohn's Disease Proof-of-Concept: Phase 1b Initial Data (Cohort 1)

Preliminary Efficacy Results (Patient-Level Data)



Clinically meaningful mucosal healing, determined by colonoscopy, in 3 of 4 subjects (SES-CD)



CERC-002 Crohn's Disease Proof-of-Concept: Phase 1b Initial Data (Cohort 1)

Independent Preliminary Safety Data Results – CERC-002, SQ Injection (1mg/kg)

- No serious adverse events attributable to study drug
 - Consistent with 83-patient COVID-19 ARDS clinical trial¹
- Adverse events were mild to moderate in nature
 - Most common: GI symptoms consistent with CD
- No evidence of increased infections or adverse events related to immunosuppression
- Recommended by independent safety review committee to continue to next cohort (3mg/kg) without changes to protocol (currently fully enrolled)

1. Perlin DS et al. CERC-002, a human anti-LIGHT mAb reduces respiratory failure and death in hospitalized COVID-19 ARDS patients (<https://medrxiv.org/cgi/content/short/2021.04.03.21254748v1>).

CERC-002: COVID-19 ARDS



Executive Summary: Final Data Analysis

Phase 2 Clinical Trial Met Primary Endpoint in Patients Hospitalized with COVID-19 ARDS

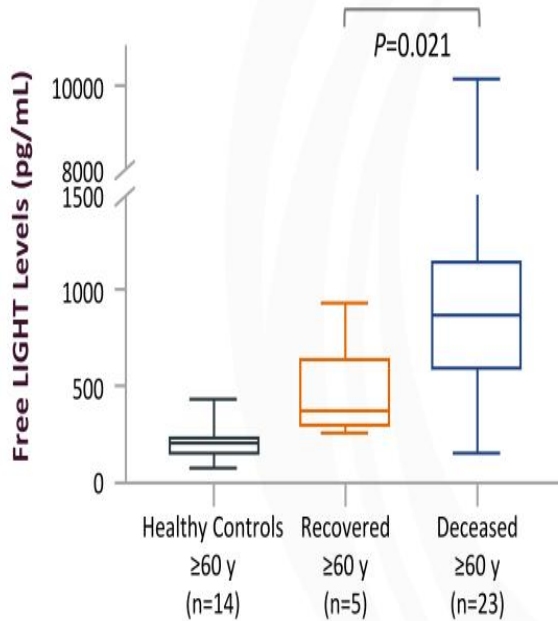
- CERC-002 significantly reduced respiratory failure and mortality in Phase 2 clinical trial in patients hospitalized with COVID-19 acute respiratory distress syndrome (ARDS)
 - This analysis updates the preliminary top-line data reported on January 5, 2021, and is inclusive of 60-day safety data
 - Hospitalized COVID-19 patients treated with a single dose of CERC-002 demonstrated statistically significant improvement in the primary endpoint (proportion of patients alive and free of respiratory failure over the 28-day study period) compared with placebo (n=62, $P=0.044$)
 - Efficacy was highest in a prespecified subpopulation of patients aged ≥ 60 years (n=34, $P=0.042$), the population most vulnerable to severe complications and death with COVID-19 infection
 - At both the 28-day and the 60-day final timepoints, an approximately 50% trend in mortality reduction (22.5% vs 10.8%) was observed
 - CERC-002 showed statistically significant efficacy on top of corticosteroids and standard of care in COVID-19 ARDS (~88% of patients in the trial received corticosteroids and ~58% received remdesivir)
- CERC-002 was well tolerated, with no appreciable differences in immunosuppression or other serious adverse events between CERC-002 and placebo
- CERC-002 dramatically and rapidly reduced serum free LIGHT levels
 - ~85% reduction in free LIGHT achieved in 1 day
- CERC-002 recently granted Fast Track designation for the treatment of hospitalized patients with COVID-19
- Additionally, the company is exploring the applicability of CERC-002 in non-COVID-19 ARDS



LIGHT Is a Central Driver of COVID-19–Related Cytokine Storm

Clinical Trial Initiated After Compelling Biomarker Study Completed June 2020

Association Between Elevated LIGHT and Mortality Strongest in Patients ≥ 60 Years



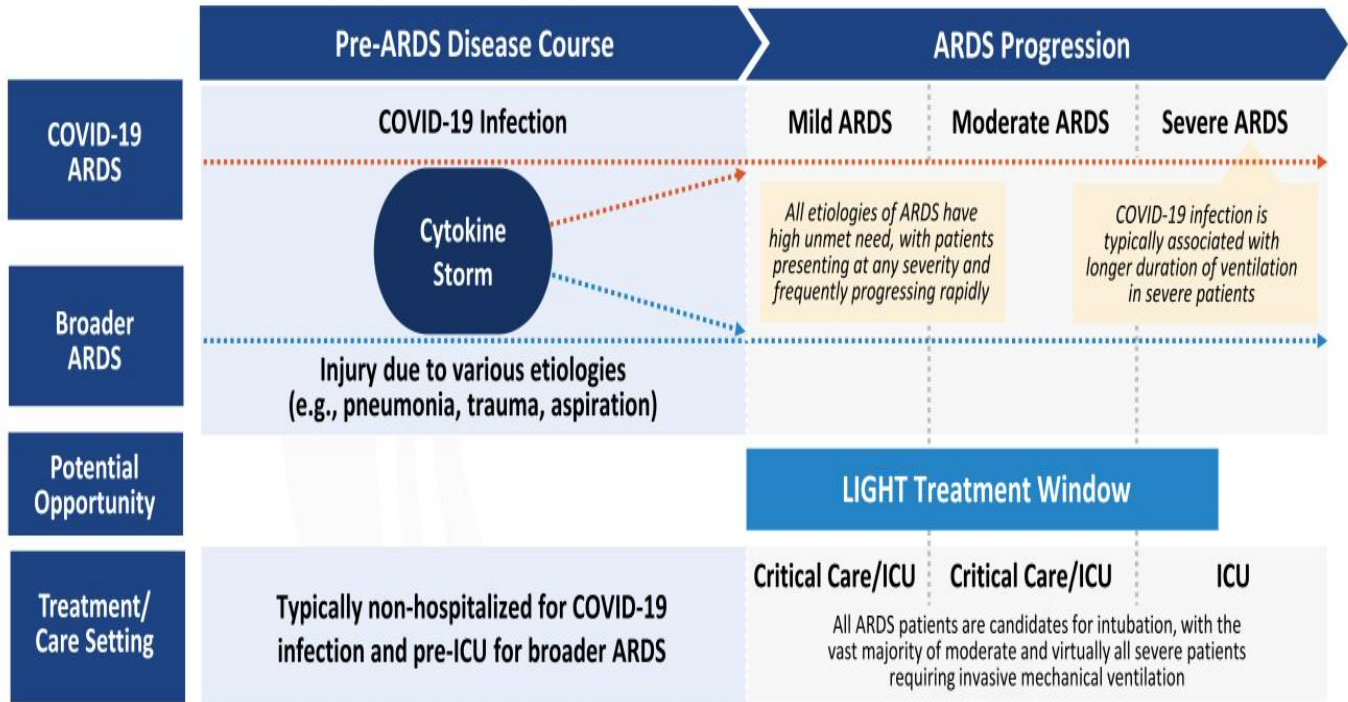
Key Implications

- In patients ≥ 60 years, LIGHT levels were significantly higher in those that eventually died than in those patients that recovered ($P=0.021$)
- Observed mortality rate was higher for patients ≥ 60 years of age (82%) compared with patients < 60 years (32%)

Elevated LIGHT levels in hospitalized COVID-19 patients were most strongly associated with mortality in patients ≥ 60 years

Cytokine Storm Drives ARDS Across Etiologies

Patients May Progress Rapidly and Often Require Invasive Mechanical Ventilation



Reducing LIGHT levels may limit the proportion of patients requiring invasive mechanical ventilation, which drives high cost of treatment and low quality of life in ARDS



CERC-002 Treatment of Cytokine Storm-Induced COVID-19 ARDS

Primary Endpoint: Respiratory Failure and Mortality Over 28 Days

Proof-of-Concept Trial Design

Randomized, Double-Blind, Placebo-Controlled, Multicenter, Proof-of-Concept Clinical Trial of CERC-002 in adults with COVID-19 ARDS

Inclusion Criteria

Hospitalized patients with documented COVID-19 infection and clinical evidence of pneumonia with mild to moderate ARDS

Enrollment (N=83)

1:1
Randomization

CERC-002 (16 mg/kg [max. 1200 mg]) on Day 1 by SQ injection + Standard of Care at the site

Placebo-matched SQ injection + Standard of Care at the site

Primary Endpoint

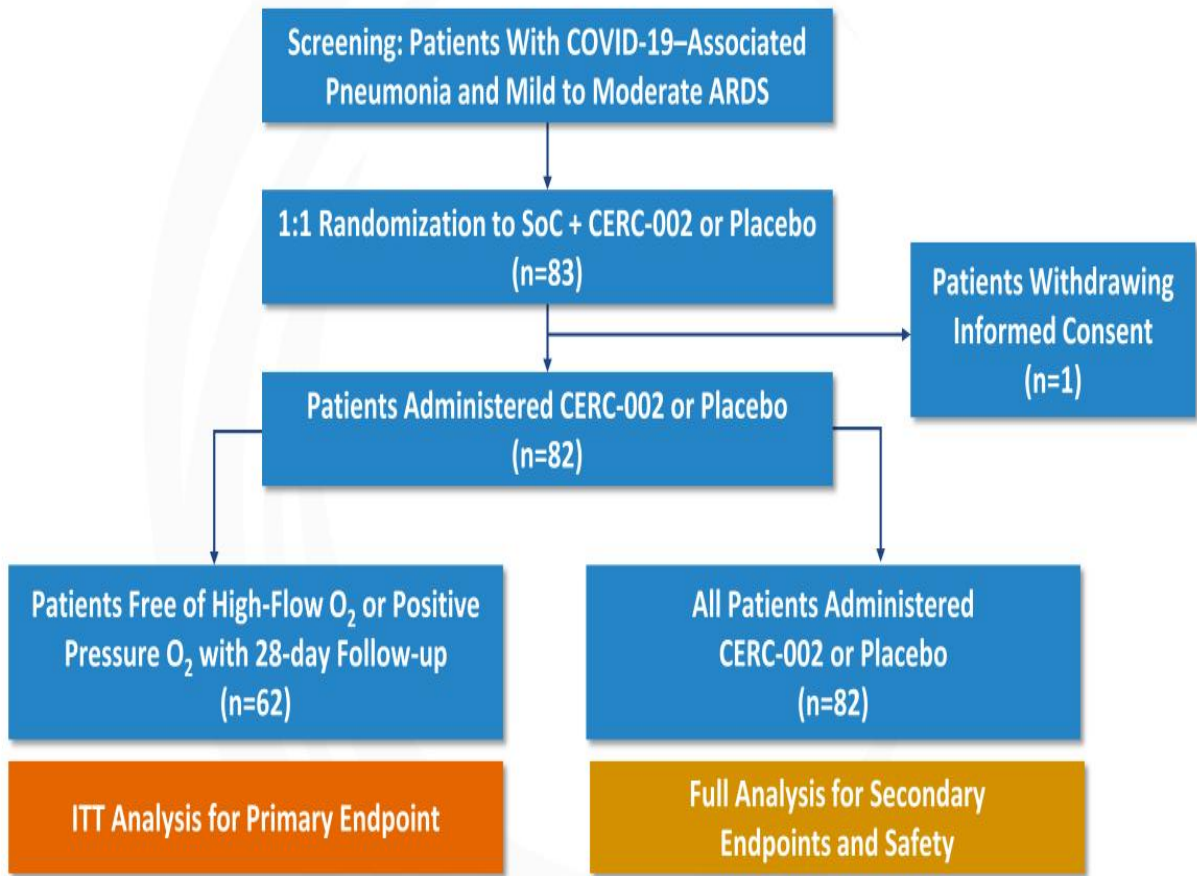
- Proportion of patients treated with CERC-002 compared with placebo in addition to standard of care at site, alive and free of respiratory failure over 28 days
- 80% power to show absolute difference of 25% between cohorts

Key Secondary / Exploratory Endpoints

- 1-month mortality
- Change in PaO₂/FiO₂ ratio
- Time to and duration of invasive ventilation
- LIGHT levels and other biomarkers of inflammation
- Viral load



Patient Disposition



ITT, intent-to-treat; SoC, standard of care.

23 | Source: Data on file, Cerecor, Inc.



Patient Demographics

Characteristic	CERC-002 (n=41)	Placebo (n=42)
Age (yrs), mean (SD)	59.2 (14.5)	58.1 (14.2)
Age Group		
<60 yrs, n (%)	20 (48.8)	21 (50.0)
≥60 yrs, n (%)	21 (51.2)	21 (50.0)
Gender, n (%)		
Male	25 (61)	32 (76.2)
Female	16 (39)	10 (23.8)
Race, n (%)		
White	31 (75.1)	37 (88.1)
Black or African American	7 (17.1)	3 (7.1)
Asian	2 (4.9)	0 (0)
Other	1 (2.4)	2 (4.8)
Free LIGHT Level at Baseline (pg/mL), mean (range)	329 (22–1050)	276 (37–843)
Concomitant Medication Use at Baseline*, n (%)		
Systemic corticosteroids	37 (90.2)	36 (85.7)
Remdesivir	21 (51.2)	27 (64.3)

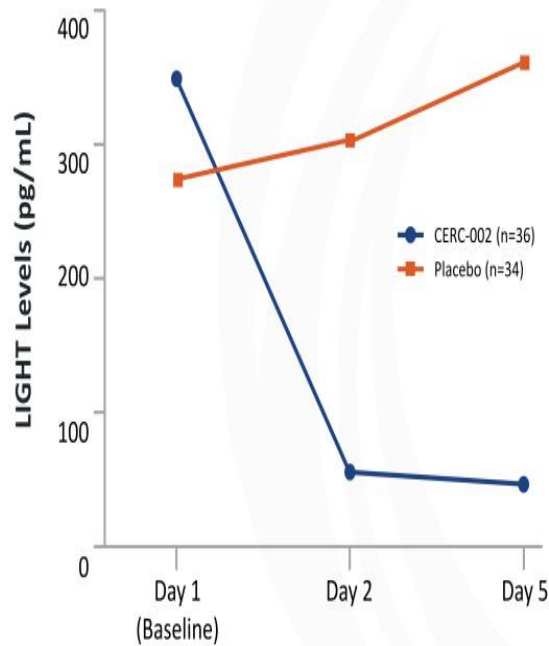
*Calculated from patients dosed (n=40 for CERC-002, n=42 for placebo).

24 | Source: Data on file, Cerecor, Inc.; Publication under review.



A Single Dose of CERC-002 Reduced LIGHT Levels Dramatically and Rapidly

LIGHT Levels (pg/mL) Over Treatment Period



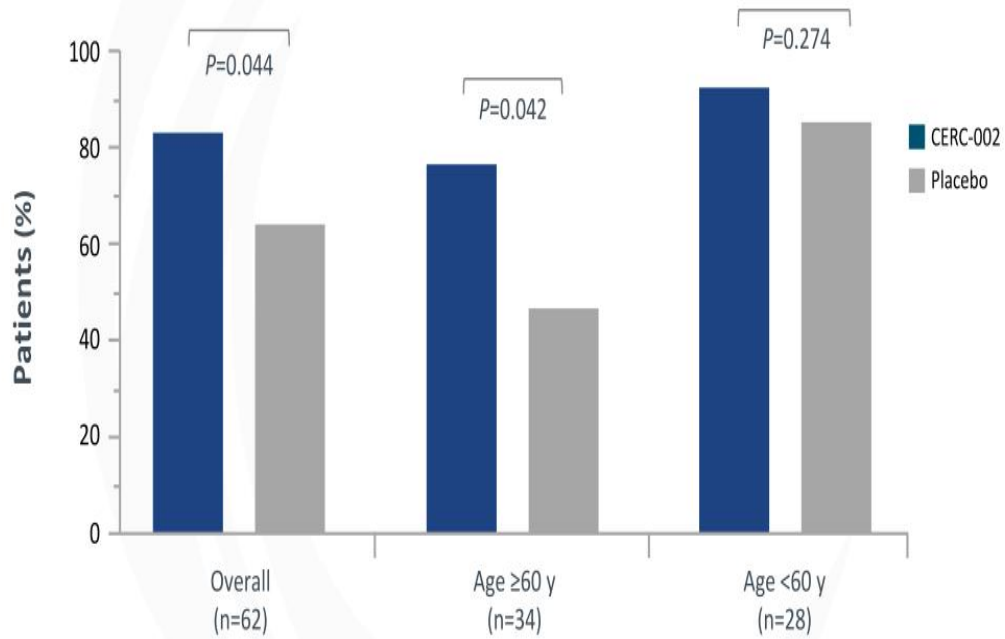
- Mean LIGHT levels were comparable at baseline across cohorts
- Mean LIGHT levels were ~100 pg/mL higher in patients aged ≥ 60 years
- LIGHT levels declined rapidly in the active cohort and increased in the placebo cohort
- Pharmacodynamic effect was in addition to standard of care
 - Approximately 90% of patients received systemic corticosteroids

Rapid and significant reduction in LIGHT levels after a single SQ dose (16 mg/kg)

Source: Perlin DS et al. CERC-002, a human anti-LIGHT mAb reduces respiratory failure and death in hospitalized COVID-19 ARDS patients (<https://medrxiv.org/cgi/content/short/2021.04.03.21254748v1>).

CERC-002 Significantly Reduced Respiratory Failure and Mortality

Primary Endpoint: Percentage of Patients Alive and Free of Respiratory Failure at Day 28



Efficacy was highest in patients aged ≥60* years (n=34, P=0.042), the population most vulnerable to severe complications and death with COVID-19 infection

*Prespecified analysis.

26 | Source: Data on file, Cerecor, Inc.



A Single Dose of CERC-002 Reduced Mortality by ~50%

	CERC-002	Placebo
28-day Mortality	7.7%	14.3%
60-day Mortality	10.8%	22.5%

- A trend in ~50% reduction in mortality was observed at both the 28-day and 60-day timepoints
- Efficacy observed is on top of corticosteroids and standard of care
 - ~88% of patients in the trial received corticosteroids and ~58% received remdesivir



Safety and Tolerability

- CERC-002 was well-tolerated at a single dose of 16 mg/kg
- No serious adverse events (SAEs) attributable to CERC-002
- Majority of adverse events (AEs) judged to be mild or moderate
- No evidence of increased infections or AEs related to immunosuppression

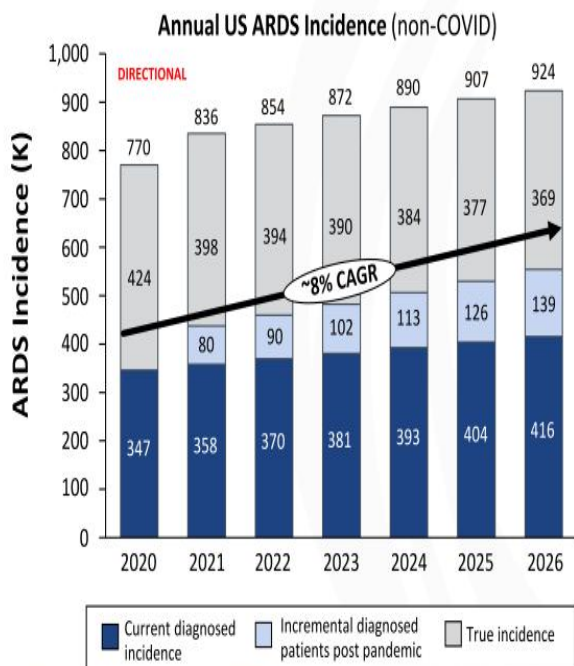
	CERC-002 (n=40)	Placebo (n=42)
Subjects with ≥1 AE, n (%)	16 (40)	21 (50)
Subjects with ≥1 drug-related AE, n (%)	8 (20)	6 (14.3)
AEs >5%, n (%)		
Leukocytosis	6 (15)	4 (9.5)
Anemia	4 (10)	3 (7.1)
Hepatic enzyme increase	4 (10)	2 (4.8)
Acute kidney injury	3 (7.5)	2 (4.8)
Respiratory failure	3 (7.5)	3 (7.1)



Broader ARDS Target Populations

COVID-19 ARDS Provides Potential Path to Treat a Larger Patient Population in Broader ARDS

Incidence of Non-COVID-19 ARDS



CAGR, compound annual growth rate.

Historically, ARDS has been underdiagnosed due to lack of physician awareness of the wide range of underlying causes – particularly for mild to moderate disease

Prior to the pandemic, it is estimated that the number of diagnosed ARDS cases may have only represented about half of the true incidence due to limited physician experience triaging patients with acute respiratory failure

Looking forward, the COVID-19 pandemic experience will likely significantly increase physician awareness and ability to accurately diagnosis less severe forms of ARDS

There is a high unmet need for effective therapy in cytokine storm–induced ARDS beyond COVID-19



Sources: Eworuke E et al. *J Crit Care*. 2018;47:192-197; Bellani G et al. *JAMA*. 2016;315(8):788-800; Rubenfeld GD et al. *N Engl J Med*. 2005;353(16):1685-1693; UpToDate; Physician Interviews; ClearView Analysis.

CERC-002 Clinical Program

Next Steps

■ Crohn's Disease

- Further evaluation of cohort data, including tissue LIGHT levels
- Cohort 2 (3 mg/kg dose) fully enrolled; complete data anticipated in 2H21

■ Ulcerative Colitis

- Expand clinical study to patients with moderate to severe UC refractory to anti-TNF α *

■ ARDS Program

- Continuing dialogue with FDA to determine registration trial design and timing, including potential expansion to broader ARDS patient population

■ Exploring additional indications for which LIGHT is a driver of inflammation



CERC-007

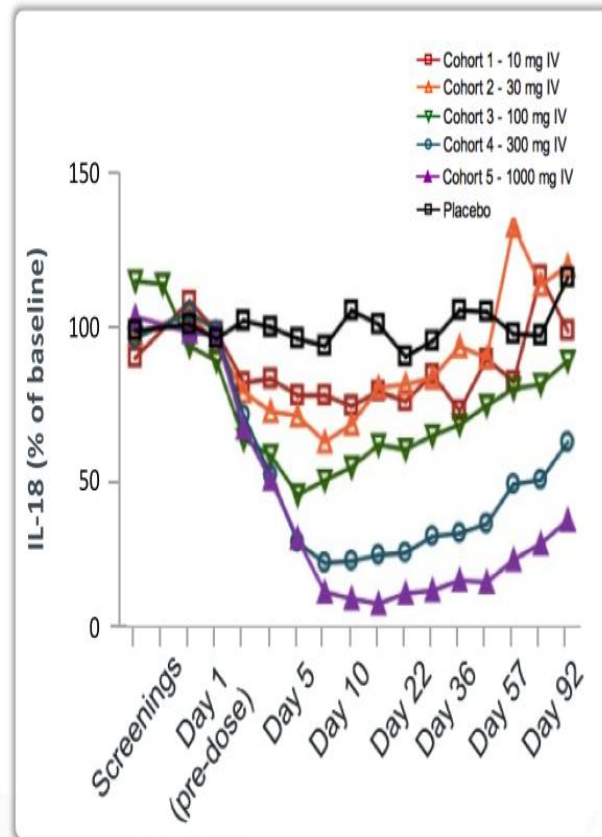
Phase 1b anti-IL-18 monoclonal antibody for Multiple Myeloma and Still's Disease (AOSD and sJIA)



First-in-Class Anti-IL-18 High-Affinity Monoclonal Antibody

Data From Phase 1 Study Demonstrated Favorable PK and Safety Profile

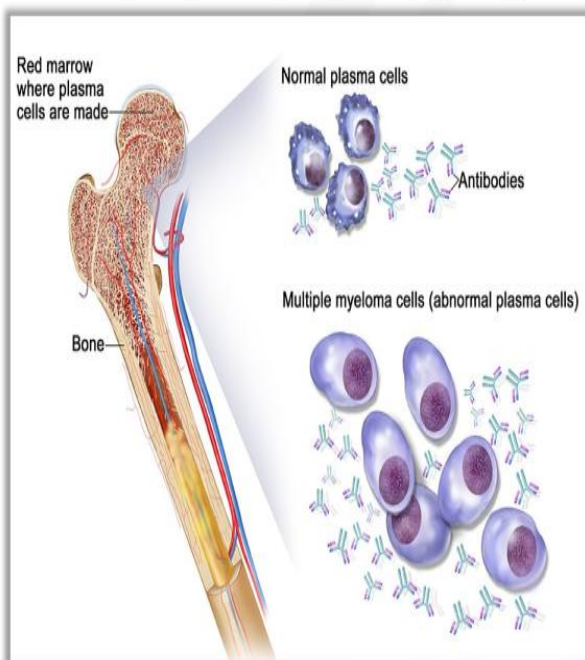
- In-licensed from Medimmune/AstraZeneca
- Potent and durable IL-18 inhibition
 - Evaluated in Phase 1 SAD* for COPD* (n = 31)
 - IV* doses of 10, 30, 100, 300 or 1000 mg
 - Well tolerated
- Phase 1b asset
 - 13-week monkey toxicity study completed
 - Frozen, unformulated bulk material available to support clinical proof-of-concept in patients and nonclinical 6-month chronic toxicity studies



Multiple Myeloma: Second Most Common Blood Cancer Globally

Characterized by Neoplastic Proliferation of Plasma Cells With Overproduction of Monoclonal Proteins (M-proteins)

Multiple Myeloma (MM) Pathophysiology



Progressive disease with both cell-autonomous genetic abnormalities and microenvironmental changes contributing to growth of the malignant neoplasm²

Disease Overview

Patient Population

- Prevalence in US ~140,000¹
- Occurs in older people (median age at diagnosis: 69)¹
- 35% of patients are younger than 65¹

Signs and Symptoms

- Majority may present with anemia, bone pain, or elevated creatinine, while fatigue, hypercalcemia, and weight loss observed in a minority of patients²

Treatment Approach

- Treated with at least one of three main classes of agents, utilized in combination across all lines of therapy³:
 - Immunomodulators – Revlimid®, Pomalyst®
 - Protease inhibitors – Velcade®, Kyprolis®
 - Anti-CD38 – Darzalex®, Sarclisa®

Prognosis

- Estimated 5-year survival is ~50% in the US, though specific genetic deletions such as 17p may be associated with shorter survival¹



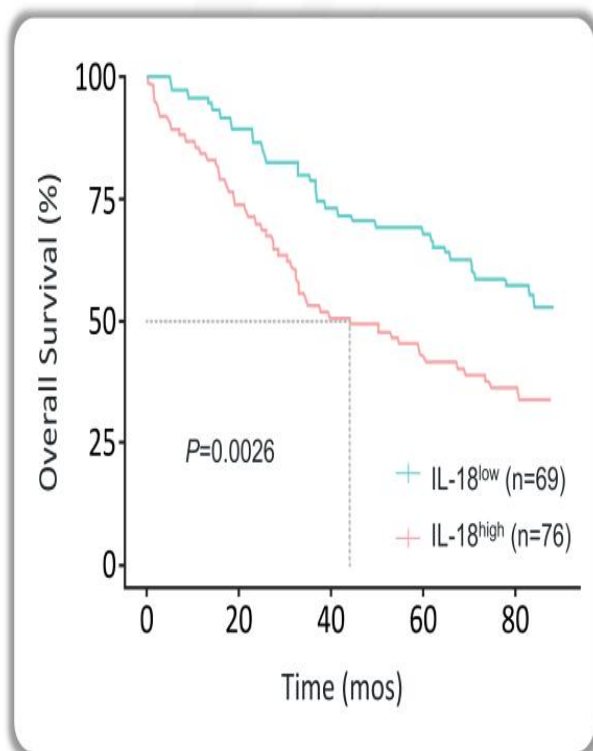
1. NCI SEER. Cancer stat facts: myeloma. <https://seer.cancer.gov/statfacts/html/mulmy.html>. Accessed July 22, 2021.

2. Palumbo A et al. *N Engl J Med*. 2011;364(11):1046-1060.

3. ClearView Analysis 2020.

Strong Potential in Multiple Myeloma

IL-18 Levels Are Elevated in Many Multiple Myeloma Patients and Correlate With Poor Survival



- Patients with high IL-18 have significantly worse median survival (42 mo vs >84 mo; $P=0.0026$; HR*, 1.84)
- Reducing IL-18** levels prolongs survival in rodent models of multiple myeloma

*HR, hazard ratio; **IL-18, interleukin 18.

CERC-007 Treatment of Resistant and Refractory Multiple Myeloma

Initiating Trial in Multiple Myeloma as a Single Agent With Plans for Combination

Dose Escalation and Expansion Trial Design

Multicenter, Open-Label, Dose-Escalation Phase 1b Study of CERC-007 in Subjects with Relapsed or Refractory Multiple Myeloma

Inclusion Criteria

Treatment-resistant and refractory multiple myeloma with exposures to IMiDs*, proteasome inhibitors, and anti-CD38 mAb
No more than 4-6 lines of therapy

CERC-007: Dose Escalation Phase
3 + 3 Design

CERC-007: Expansion Phase at RP2D
N = 14

Estimated Enrollment

Dose Escalation Phase ~14
Expansion Phase = 14

Primary Endpoint

- Establishment of RP2D** in Dose Escalation Phase
- Response rate by International Myeloma Working Group criteria at 8 weeks in Expansion Phase

Key Secondary / Exploratory Endpoints

- Change in SPEP*** from baseline
- Safety and tolerability
- Change in IL-18**** levels in blood and bone marrow
- Change in myeloid-derived suppressor cells in bone marrow from baseline to 8 weeks

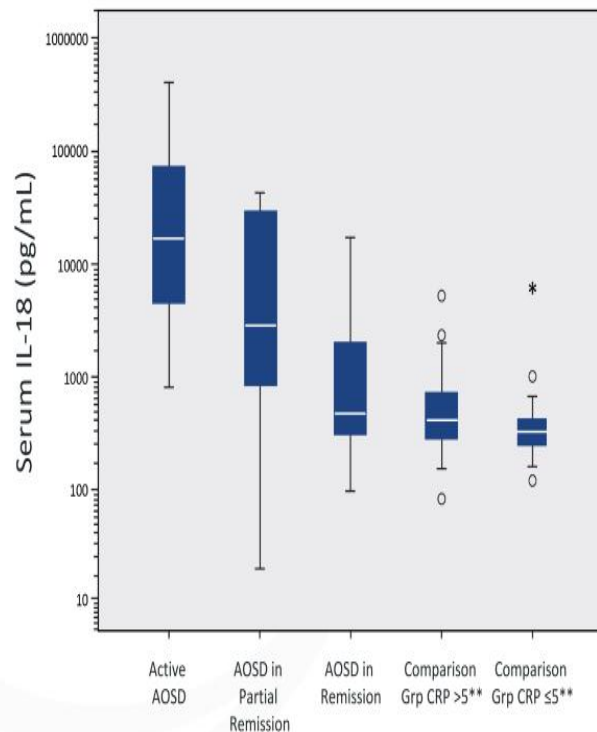
Initial cohort successfully completed 1Q 2021
Proof-of-concept top line data anticipated 2H 2021



Adult-Onset Still's Disease (AOSD) Overview

- Rare disease with estimated US diagnosed prevalence of 3500 to 7000¹
- Symptoms include fever, rash, pharyngitis, arthritis, liver disease, increased ferritin
- No definitive genetic or infectious cause
- ~40% have severe chronic disease²
- Treatment: NSAIDs^{***}, steroids, immunosuppressants and anti-IL-1

Serum IL-18* Levels Significantly Elevated in AOSD Patients³



*IL-18, interleukin 18; **CRP, C-reactive protein; ***NSAID, nonsteroidal anti-inflammatory drug.

1. ClearView Healthcare Partners Analysis, May 2017.

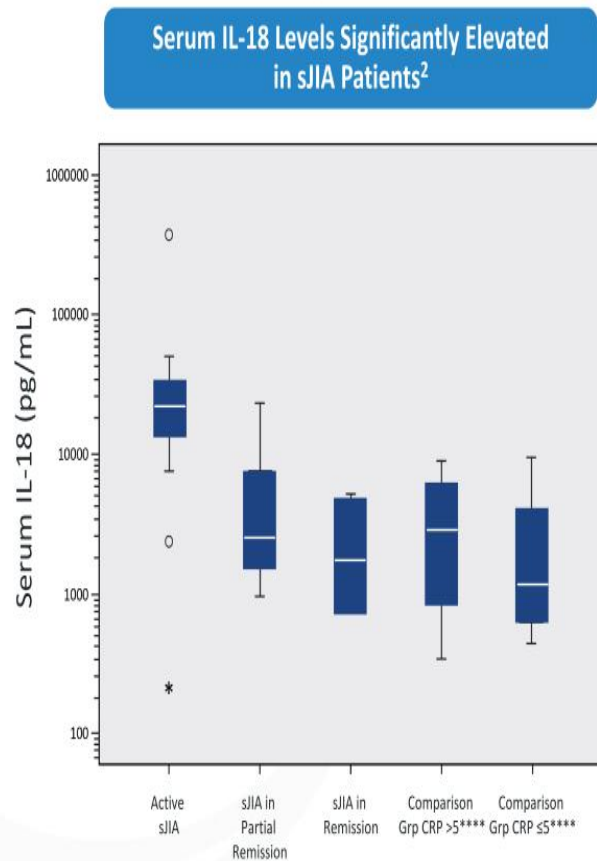
2. Gerfaud-Valentin M et al. *Autoimmun Rev.* 2014;13(7):708-722.

36 | 3. Kudela H et al. *BMC Rheumatol.* 2019;3:4.



Systemic Juvenile Idiopathic Arthritis (sJIA) Overview

- Rare childhood-onset disease with estimated US diagnosed prevalence of 4500 to 6500¹
- Intermittent fever, rash, and arthritis; often splenomegaly, lymph nodes
- Autoinflammatory disease – not autoimmune
 - *IL-1, IL-6, IL-18 other cytokines important in the pathogenesis
- Treatment: NSAIDs**, DMARDs***, and targeted therapies (anti-IL-1 and anti-IL-6)
 - Significant number of refractory patients



*IL, interleukin; **NSAID, nonsteroidal anti-inflammatory drug; ***DMARD, disease-modifying anti-rheumatic drug; ****CRP, C-reactive protein.

1. ClearView Healthcare Partners Analysis, May 2017.

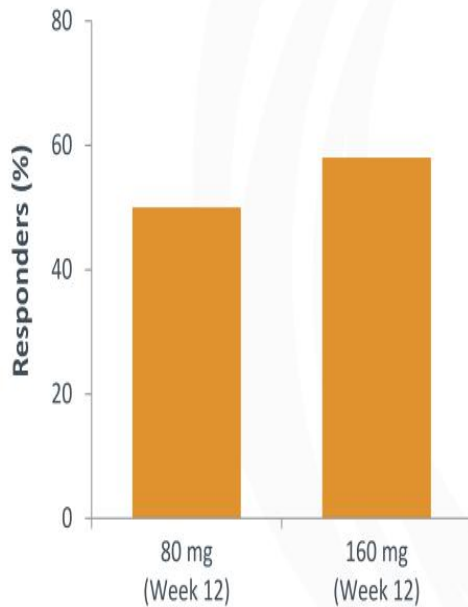
37 | 2. Kudela H et al. *BMC Rheumatol.* 2019;3:4.



Proof-of-Concept Clinical Data

IL-18* Binding Protein Demonstrates Response in over 50% treated Patients with AOSD

IL-18 Binding Protein Response Rates



- AB2 Bio clinical proof-of-concept study in AOSD (n=23) using IL-18 binding protein ($t_{1/2}^{**} = 40$ h)
 - >50% of AOSD patients treated with IL-18 binding protein achieved response
- Serum IL-18 correlates with disease severity
 - 4/4 patients with undetectable serum IL-18 had a clinical response

Subcutaneous administration of 80 mg or 160 mg 3 times weekly.

Response defined as an improvement of joint count (both Swollen Joint Count [SJC] and Tender Joint Count [TJC] according to a 44-joint assessment) by $\geq 20\%$ from baseline values, and a 70% decrease of CRP levels compared with baseline values (or reduction to normal levels) or normalization of ferritin.

*IL-18 interleukin 18; ** $t_{1/2}$ elimination half-life.



CERC-007 Treatment of Adult-Onset Still's Disease

Potential Best-in-Class and First-in-Class Anti-IL-18* mAb

Proof-of-Concept Trial Design

Multicenter, Phase 1b Study of CERC-007 in patients with active adult-onset Still's disease

Inclusion Criteria

- Active AOSD as measured by high fever, elevated CRP and ferritin
- Failed on NSAIDs and corticosteroids

Estimated Enrollment: N=12

Primary Endpoint

- Reduction in CRP** by ≥50% and elimination of fever for >48 hours

12 weeks

CERC-007 7 mg/kg (max 500 mg) q4wks
(n=6)

12 weeks

CERC-007 14 mg/kg (max 500 mg) q4wks
(n=6)

Key Secondary / Exploratory Endpoints

- Change from baseline DAS*** score, modified Pouchet score, and DAS-CRP
- Change in CRP, ferritin, and ESR****
- Change in IL-18 levels
- Safety and tolerability

AOSD initial data anticipated 3Q 2021



CERC-006

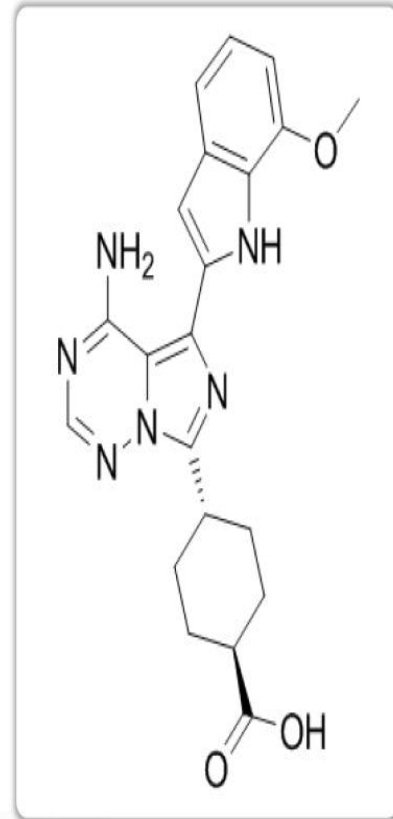
Phase 2-ready, dual mTORC 1/2 small molecule inhibitor for Complex Lymphatic Malformations



High-Potency, Second-Generation, Dual Inhibitor of mTORC1/2

Potential for Improved Efficacy and Tolerability

- In-licensed from Astellas
- Phase 2-ready asset
 - 4-week nonclinical tox studies completed
 - Previously studied in Phase 1 MAD* (n=128)
 - Development discontinued upon determination that target efficacious doses were above MTD** (30mg QD)¹
 - Significantly lower doses than MTD likely required to treat complex lymphatic malformations
- Dual mTOR*** inhibitor maximizes impact of mTOR blockade, as mTORC2 is insensitive to rapalogs
 - Orally available, ATP-competitive kinase inhibitor****
 - IC₅₀***** = 22 nM and 65 nM for mTORC1 and mTORC2, respectively²



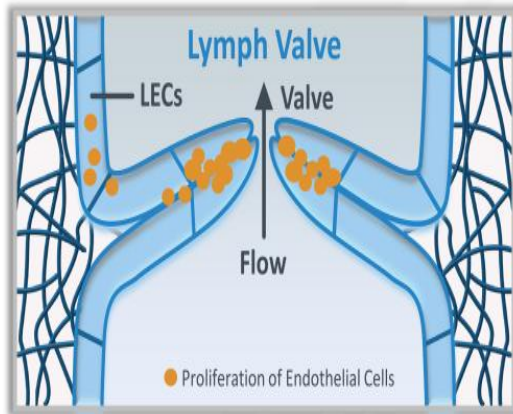
*MAD, multiple ascending dose; **MTD, maximum tolerated dose; ***mTOR, mammalian target of rapamycin; ****ATP, adenosine triphosphate; *****IC, half maximal inhibitory concentration.

1. Mateo J et al. *Br J Cancer*. 2016;114(8):889-896.

41 | 2. Bhagwat SV et al. *Mol Cancer Ther*. 2011; 10(8):1394-1406.



Complex Lymphatic Malformations: Family of Potentially Life-Threatening Congenital Diseases



- Neoplastic lesions caused by mutations in PI3K/AKT/mTOR pathway
- Leads to local proliferation of lymphatic endothelial cells and perturbation of lymph flow



- Fluid accumulation in limbs, abdomen, and chest which can lead to major disability and death
- Complex lymphatic malformations are not readily treatable by sclerosing agents or surgery many times due to their complexity and location



Off-Label Use of mTOR Inhibitor Sirolimus in Lymphatic Malformations

Open-Label Clinical Studies Support Efficacy; Use Is Limited by Tolerability Issues and Lack of FDA Approval

- Phase 2 trial enrolled patients with complicated vascular anomalies
 - Enrolled patients with different subtypes of lymphatic malformations not controlled by previous medication, sclerotherapy, and/or surgery
 - Sirolimus was administered orally for 12 courses of 28 days each
 - 57 patients were evaluable for efficacy at the end of course 6, and 53 were evaluable at the end of course 12
- Safety and tolerability profile leads to low compliance, requires frequent monitoring
 - Physicians reported that sirolimus caused high rates of stomatitis (~60%)
 - Sirolimus bears black box warning for immunosuppression and malignancies

Overall Response	6-month (n=57)	12-month (n=53)	Grade 2 or >AEs
Complete response	0	0	<ul style="list-style-type: none">Blood/bone marrow (50%)Gastrointestinal (55%)Metabolic/laboratory (20%)Infection (15%)
Partial response	47 (83%)	45 (85%)	
Progressive disease	7 (12%)	8 (15%)	
Stable disease	3 (5%)	0	



CERC-006 Treatment of Complex Lymphatic Malformations

Dual mTOR Inhibitor to Modulate PI3K* and AKT** Activity

Proposed Phase 1b Study

Multicenter, Phase 1b Study of CERC-006 in patients with complex lymphatic malformations

Inclusion Criteria

Adults 18-31 years with moderate to severe complex lymphatic malformations

Estimated Enrollment: 10

CERC-006 two dose groups:
0.5 mg and 1mg twice daily
4-week treatment

Primary Endpoint

- Safety and tolerability of CERC-006

Key Secondary / Exploratory Endpoints

- PK and PD characteristics of CERC-006
- Evidence of clinical signals utilizing quality of life and radiologic evaluation
- Clinical and laboratory safety assessments
- Selected biomarkers

Initial data anticipated 3Q 2021



CERC-800s

Monosaccharide therapy for Congenital Disorders of Glycosylation (CDGs)



Congenital Disorders of Glycosylation (CDGs): Life-Threatening, Ultra-Rare, Inborn Errors of Metabolism (IEMs)

Impaired Glycoprotein Production and Function Can Simply Be Restored With Substrate Supplementation Therapy

- Glycosylation is essential for protein structure & function, particularly for circulating proteins and enzymes such as hormones and coagulation factors
- Currently approximately 150 CDGs identified
- Due to a genetic mutation, CDG patients lack the ability to synthesize functioning glycoproteins
- Life-threatening multi-system diseases: failure to thrive, developmental delay, hypotonia, neurologic abnormalities, hepatic disease, and coagulopathy
- Administration of therapeutic doses of specific monosaccharides targeted to specific CDGs can partially restore impaired glycoprotein production resulting in a meaningful clinical benefit
 - PGM1-CDG: D-galactose supplementation¹
 - MPI-CDG: D-mannose supplementation²
 - LAD-II (SLC35C1-CDG): L-fucose supplementation³

1. Wong et al. *Genet Med.* 2017;19(11):1226-1235.

2. Harms et al. *Acta Paediatr.* 2002;91(10):1065-1072.

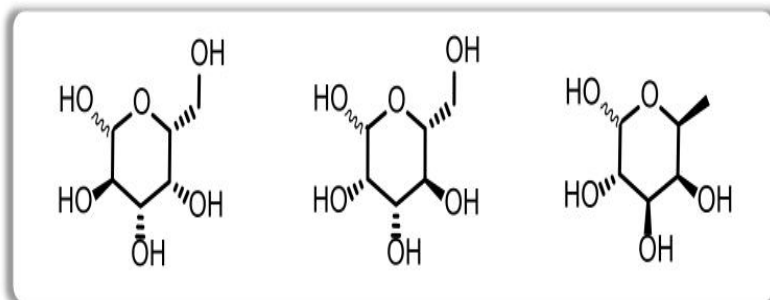
46 | 3. Marquardt et al. *Blood.* 1991;94(12):3976-3985.



Pharmaceutical Grade Treatments for CDGs

Opportunity to Be the First FDA-Approved Drugs for CDGs

- Established therapeutic proof-of concept
- GMP*** manufacturing and FDA approval will ensure quality and consistency
- Potential for reimbursement



● D-Galactose

● D-Mannose

◀ L-Fucose

	CERC-801	CERC-802	CERC-803
Accelerated pathway	✓	✓	✓
FDA ODD**	✓	✓	✓
Priority Review Voucher*	✓	✓	✓
Pivotal data anticipated	1Q 2022	2H 2021	2H 2021

*All three CERC-800 compounds granted Rare Pediatric Disease Designation prior to September 30, 2024; eligible for Priority Review Voucher upon approval.

**Designation makes CERC-800 compound's respective CDG indication eligible for 7-year orphan exclusivity upon approval.

47 | ***GMP, Good Manufacturing Practices; ODD, Orphan Drug Designation.



Key Financial Information



Financial & Investor Information

Key Financial Highlights

NASDAQ: CERC

The following data is as of March 31, 2021

- Outstanding common shares – 89.1M
- Fully diluted shares – 114.2M
- Average daily trading volume – 1M
- Cash – \$38.3M



Select Management Team Members

Proven Track Record in Drug Development and Commercialization



Michael Cola
Chief Executive Officer

- Former President of Specialty Pharmaceuticals, Shire plc
- Senior management, AstraMerck and AstraZeneca plc



Garry Neil, MD
Chief Scientific Officer

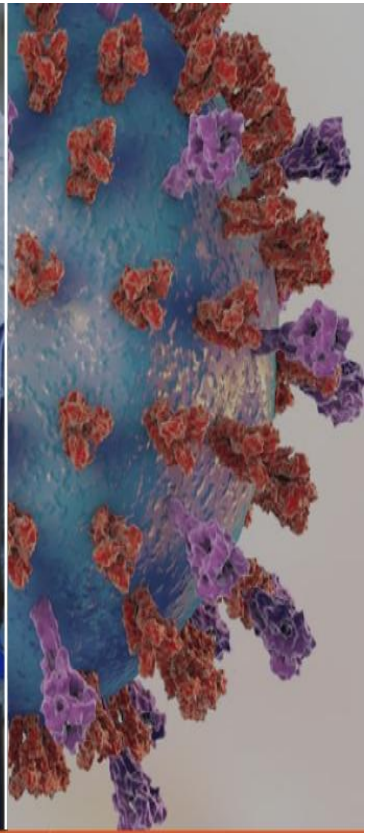
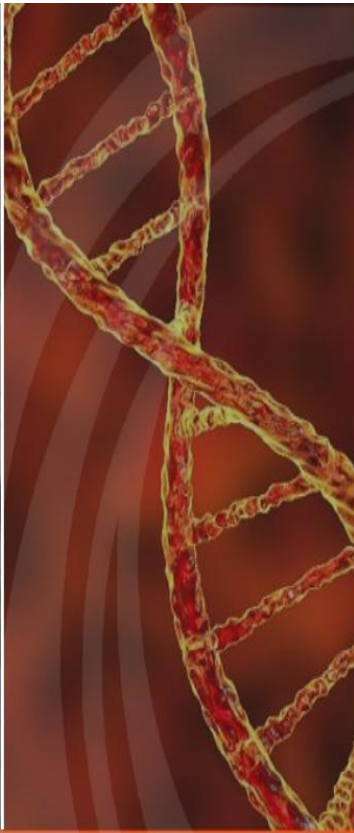
- Former Corporate VP of Science & Technology, Johnson & Johnson
- Former Group President, Johnson & Johnson Pharmaceutical Research and Development
- Former VP of Clinical Research, AstraZeneca plc and Merck KGaA



H. Jeffrey Wilkins, MD
Chief Medical Officer

- Former VP, Worldwide Clinical Research, Inflammation/Oncology at Cephalon and SVP of Clinical Development with Ception Therapeutics
- Former VP of Discovery Medicine for GSK's Center of Excellence in External Drug Discovery





NASDAQ: CERC

www.cerecor.com





Cerecor Announces Positive Initial Phase 1b Results for CERC-002 in Moderate to Severe Crohn's Disease Patients

- **Positive results for low-dose cohort of CERC-002 (1.0 mg/kg) in moderate to severe Crohn's disease patients who had previously failed three or more lines of biologic therapies, including anti-TNF alpha treatments**
- **Mean reduction in LIGHT levels of approximately 80% compared to baseline signify a dramatic and rapid reduction of LIGHT levels correlating to the pharmacodynamic effect of CERC-002**
- **Clinically meaningful endoscopic improvement in 75% (3/4) of subjects, as determined by colonoscopy (SES-CD score)**
- **CERC-002 was well tolerated with no drug related severe adverse events**
- **Cohort 2 (3.0 mg/kg dose) fully enrolled; complete data anticipated in 2H21**
- **Promising initial results support expansion to patients with moderate to severe ulcerative colitis refractory to anti-TNF alpha therapies**
- **The Company believes this second positive proof-of-concept study with CERC-002 further validates the LIGHT mechanism of action in inflammatory diseases**

ROCKVILLE, Md. and CHESTERBROOK, Pa., July 26, 2021 -- Cerecor Inc. (NASDAQ: CERC), a biopharmaceutical company focused on becoming a leader in the development and commercialization of treatments for immunologic, immuno-oncologic and rare genetic disorders, today announced positive initial results from a Phase 1b proof-of-concept study evaluating CERC-002, an investigational first-in-class fully human anti-LIGHT (tumor necrosis factor superfamily member 14 (TNFSF14)) monoclonal antibody, in adult patients with moderate to severe Crohn's disease (CD). Crohn's disease is a disorder affecting as many as 780,000 people in the United States.

Initial Phase 1b Proof-of-Concept Clinical Trial Results

This is a Phase 1b, open-label, dose-escalation, signal-finding, multi-center study. The ongoing study is evaluating the safety, tolerability, pharmacokinetics, and short-term efficacy of CERC-002 in adults with moderate to severe, active Crohn's disease who have previously failed anti-tumor necrosis factor alpha (anti-TNF α) treatment. The study is a pilot study using a dose-escalation design to characterize the safety and tolerability of two different doses of CERC-002 (1.0 mg/kg and 3.0 mg/kg). All subjects receive a total of four doses of CERC-002 by subcutaneous (SQ) injection at 14-day intervals. The trial is designed to initially evaluate two doses of CERC-002 – 1 mg/kg SQ every two weeks and 3 mg/kg SQ every two weeks. The treatment period of the study is eight weeks – when enrolled subjects are evaluated for safety throughout and colonoscopies are performed at baseline and then again at eight weeks. Subjects enrolled in the study must have moderate to severe disease based on simple endoscopic score for Crohn's disease (SES-CD) of at least seven and must have failed at least one anti-TNF alpha therapy.

Following eight weeks of treatment, the key preliminary efficacy and safety findings from CERC-002 subjects in the first cohort (n=4) include the following:

Subject #	Age	Prior Therapy / # of Prior Lines	SES-CD		LIGHT pg/mL		Response
			Baseline	8 Weeks	Baseline	8 Weeks	
Subject #1	42	Remicade, Entyvio, Stelara	11	4	455	24	Significant mucosal healing: <ul style="list-style-type: none"> • 64% reduction in SES-CD score (moderate to mild) • Patient relapsed post treatment and needed surgery
Subject #2	63	Remicade, Humira, Entyvio, Stelara	18	19	193	29	No evidence of improvement
Subject #3	28	Remicade, Humira, Stelara, Methotrexate	21	15	75	27	Significant mucosal healing: <ul style="list-style-type: none"> • 29% reduction in SES-CD score (severe to moderate) • Exploring single-patient IND
Subject #4	49	Remicade, Stelara, Humira, Entyvio, Methotrexate, Mercaptopurine	12	3	162	45	Significant mucosal healing: <ul style="list-style-type: none"> • 75% reduction in SES-CD score (moderate to mild) • Exploring single-patient IND

Disease severity according to SES-CD score¹:
Remission: 0-2
Mild: 3-6
Moderate: 7-15
Severe: >15

¹Italian Group for the Study of Inflammatory Bowel Disease. <https://www.igibdscores.it/en/info-sescd.html>. Accessed July 19, 2021.

Clinical Activity and Preliminary Efficacy Results

- Rapid response within eight weeks of treatment;
- Mean reduction in LIGHT levels of approximately 80% as compared to baseline;
- Clinically meaningful endoscopic improvement in 75% (3/4) of subjects, as determined by colonoscopy (SES-CD score);
- Three subjects that demonstrated endoscopic healing have explored single-patient investigational new drug (IND) applications; and
- One subject (1/4) relapsed post treatment and required surgery.

Preliminary Safety Results

- The adverse events observed in study subjects were mild to moderate with the most common adverse events associated with the gastrointestinal track and the underlying Crohn's disease;
- There were no treatment emergent serious adverse events attributed to CERC-002;
- No evidence of increased infections or adverse events related to immunosuppression; and
- The favorable safety profile is consistent with that which was seen in the CERC-002 COVID19 ARDS trial that studied a 16 mg/kg single dose.

Based on results of the first cohort of data, the independent safety review committee of the Phase 1b clinical trial endorsed continued dose exploration by proceeding to the next planned cohort (n=4) without protocol modification. The trial is ongoing, and the total duration of participation is approximately 26 weeks. More information can be found on clinicaltrials.gov (NCT03169894).

“Crohn's disease is a serious, chronic disease with symptoms and complications that can have a major impact on patients' daily lives, and additional therapies are needed to improve the prognosis for many living with this inflammatory bowel disease,” said Gerald W. Dryden, M.D., Ph.D., M.S., MSPH, study investigator and Professor of Medicine and Director of the Inflammatory Bowel Disease Program, Department of Medicine, Gastroenterology, Hepatology and Nutrition at the University of Louisville. “This proof-of-concept study included patients with moderate to severe Crohn's disease who failed more than three biologic treatment alternatives with multiple mechanisms of actions and had very resistant disease. These positive results support further advancement as a potential new treatment option that may address the unmet needs of patients living with this challenging disease.”

“We are delighted with the therapeutic response and favorable safety and tolerability profile observed in this initial cohort of our Phase 1b study for CERC-002 in moderate to severe Crohn's disease subjects refractory to

biologics, and we plan to proceed into further clinical development. Later this year, we expect to report additional efficacy and safety data from the high dose cohort for this ongoing open-label study and intend to use those data as an important component of the design of the next clinical study,” said H. Jeffrey Wilkins, M.D., Chief Medical Officer of Cerecor. “These encouraging results are our second positive proof-of-concept with this novel first-in-class monoclonal antibody, and we believe further validate the LIGHT mechanism of action in both acute and chronic inflammatory diseases. Our goal is to develop promising therapeutics driven by our biomarker approach which elucidates novel targets for combating specific auto-immune disorders which still have a significant unmet need.”

Investor Conference Call and Webcast

Cerecor management will host an investor webcast and conference call today at 4:30 p.m. ET to discuss the initial Phase 1b proof-of-concept Crohn’s disease results of CERC-002, as well the next steps for the CERC-002 clinical program. The conference call may be accessed by dialing +1 (833) 693-0535 for participants based in the United States or +1 (661) 407-1574 for participants based outside of the United States and entering conference ID 1979467. The accompanying slide presentation and live webcast may be accessed by visiting the investor relations section of the Cerecor website at www.cerecor.com. Following the webcast, a replay will be available on the website.

CERC-002 (anti-LIGHT monoclonal antibody)

CERC-002 is a fully human anti-LIGHT or tumor necrosis factor superfamily member 14 (TNFSF14) monoclonal antibody licensed from Kyowa Kirin Co., Ltd. It is the only clinical-stage anti-LIGHT therapy and has the potential to treat a number of LIGHT-associated immune diseases, including cytokine storm-induced COVID-19 ARDS. It is currently in development for Crohn’s disease and cytokine storm induced COVID-19 ARDS. Cerecor has also developed a validated, high sensitivity serum/plasma LIGHT assay in collaboration with Myriad RBM.

Role of LIGHT in Acute Inflammatory Response

LIGHT (homologous to Lymphotoxin, exhibits inducible expression and competes with HSV glycoprotein D for binding to herpesvirus entry mediator, a receptor expressed on T lymphocytes) is a cytokine with inflammatory actions encoded by the TNFSF14 gene. LIGHT plays an important role in regulating immune responses in the lung, gut and skin. It stimulates T Cell and B Cell response as well as induces the release of other cytokines such as IL-1, IL-6, IL-8, IL-10, TNF and GM-CSF. Therefore, LIGHT potentially plays a key role in immune responses to viral pneumonia and other diseases.

About Cerecor

Cerecor is a biopharmaceutical company focused on becoming a leader in the development and commercialization of treatments for immunologic, immuno-oncologic and rare genetic disorders. The company is advancing its clinical-stage pipeline of innovative therapies that address unmet patient needs within rare and orphan diseases. The company’s rare disease pipeline includes CERC-801, CERC-802 and CERC-803, which are in development for congenital disorders of glycosylation and CERC-006, an oral mTORc1/c2 inhibitor in development for the treatment of complex lymphatic malformations. The company is also developing two monoclonal antibodies, CERC-002, and CERC-007. CERC-002 targets the cytokine LIGHT (TNFSF14) and is in clinical development for treatment of severe pediatric-onset Crohn’s disease and COVID-19 acute respiratory distress syndrome. CERC-007 targets the cytokine IL-18 and is in clinical development for the treatment of Still’s disease (adult onset Still’s disease (AOSD) and systemic juvenile idiopathic arthritis (sJIA)) and multiple myeloma (MM). CERC-006, 801, 802 and 803 have all received Orphan Drug Designation and Rare Pediatric Disease Designation, which makes all four eligible for a priority review voucher upon FDA approval.

For more information about Cerecor, please visit www.cerecor.com.

Forward-Looking Statements

This press release may include forward-looking statements made pursuant to the Private Securities Litigation Reform Act of 1995. Forward-looking statements are statements that are not historical facts. Such forward-looking statements are subject to significant risks and uncertainties that are subject to change based on various factors (many of which are beyond Cerecor's control), which could cause actual results to differ from the forward-looking statements. Such statements may include, without limitation, statements with respect to Cerecor's plans, objectives, projections, expectations and intentions and other statements identified by words such as "projects," "may," "might," "will," "could," "would," "should," "continue," "seeks," "aims," "predicts," "believes," "expects," "anticipates," "estimates," "intends," "plans," "potential," or similar expressions (including their use in the negative), or by discussions of future matters such as: the development of product candidates or products; timing and success of trial results and regulatory review; potential attributes and benefits of product candidates; and other statements that are not historical. These statements are based upon the current beliefs and expectations of Cerecor's management but are subject to significant risks and uncertainties, including: drug development costs, timing and other risks, including reliance on investigators and enrollment of patients in clinical trials, which might be slowed by the COVID-19 pandemic; regulatory risks; Cerecor's cash position and the potential need for it to raise additional capital; general economic and market risks and uncertainties, including those caused by the COVID-19 pandemic; the risk that preliminary findings from our clinical studies may not be indicative of subsequent study results; and those other risks detailed in Cerecor's filings with the Securities and Exchange Commission. Actual results may differ from those set forth in the forward-looking statements. Except as required by applicable law, Cerecor expressly disclaims any obligations or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in Cerecor's expectations with respect thereto or any change in events, conditions or circumstances on which any statement is based.

For media and investor inquiries

Chris Brinzey
Westwicke, an ICR Company
Chris.brinzey@westwicke.com
339-970-2843

or

Schond L. Greenway
Investor Relations
Chief Financial Officer
Cerecor Inc.
sgreenway@cerecor.com
610-522-6200

Exhibit 99.3

Patient-Inspired Science

CERC-002 Crohn's Disease - Phase 1b Initial Data (Cohort 1)

July | 2021



Forward-Looking Statements

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Today's Agenda

Executive Summary and Brief Introduction

Mike Cola
Chief Executive Officer

IBD, Crohn's Disease, and Ulcerative Colitis Overview

- Overview of IBD (Crohn's Disease and Ulcerative Colitis)
- Significant Burden of Illness and Unmet Need; Disease Pathology
- Treatment Options and Competitive Landscape

Garry Neil, MD
Chief Scientific Officer

CERC-002: Clinical Rationale for Use in Treatment of IBD

Garry Neil, MD

CERC-002 Initial Data (1st Cohort of Crohn's Disease Patients)

H. Jeffrey Wilkins, MD
Chief Medical Officer

Summary Comments

Mike Cola

Closing and Questions & Answers

Mike Cola; H. Jeffrey Wilkins, MD; Garry Neil, MD
Gerald W. Dryden, MD, PhD, MS, MSPH
University of Louisville; Specialty Areas: Digestive & Liver Health



Executive Summary: CERC-002 Demonstrates Potential Proof-of-Concept in Initial Low-Dose Cohort

2nd Positive Proof-of-Concept Study With CERC-002 Further Validates the LIGHT MOA in Inflammatory Diseases

- Open-label proof-of-concept study in patients with moderate to severe Crohn's disease who previously failed 3 or more lines of biologic therapies, including anti-TNF α *
- Clinically meaningful mucosal healing, determined by colonoscopy, in 3 of 4 subjects (SES-CD)**
- Rapid response within 8 weeks
- Well-tolerated, no serious adverse events observed
- High-dose cohort fully enrolled with results expected 2H21

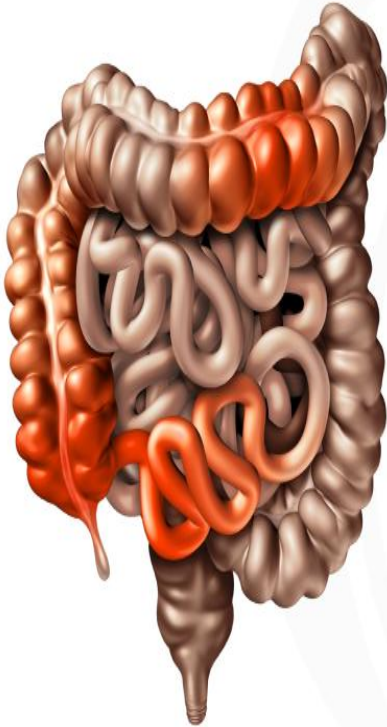


Inflammatory Bowel Disease, Crohn's Disease, and Ulcerative Colitis Overview



Inflammatory Bowel Disease Overview

Significant Unmet Need Exists in Crohn's Disease and Ulcerative Colitis



- Inflammatory bowel disease (IBD) is a broad term indicating chronic inflammation of the gastrointestinal (GI) tract and includes both Crohn's disease (CD) and ulcerative colitis (UC)¹
 - Relapsing and remitting course characterized by intestinal inflammation and epithelial injury, causing lifelong morbidity² that significantly impacts quality of life^{3,4}
- Standard of care relies on treating the inflammatory activity that causes strictures, fistula, and abscesses as well as heightened incidence of colitis-associated neoplasia associated with IBD⁵
- An estimated 1.6-3.1 million US adults (~1.3%) have a diagnosis of IBD^{1,6}
 - Estimated US cases of CD as many as 780K⁷
- Approximately \$16.7B global market opportunity in 2020 with 4.5% compound annual growth rate⁸

1. Centers for Disease Control and Prevention. Inflammatory bowel disease. <https://www.cdc.gov/ibd/features/ibd-more-chronic-diseases.html>. Accessed July 17, 2021.

2. Atreya R et al. *Front Med (Lausanne)*. 2020;7:517.

3. Knowles SR et al. *Inflamm Bowel Dis*. 2018;24(4):742-751.

4. Byron C et al. *J Clin Nurs*. 2020;29(3-4):305-319.

5. GBD 2017 Inflammatory Bowel Disease Collaborators. *Lancet*. 2020;5:17-30.

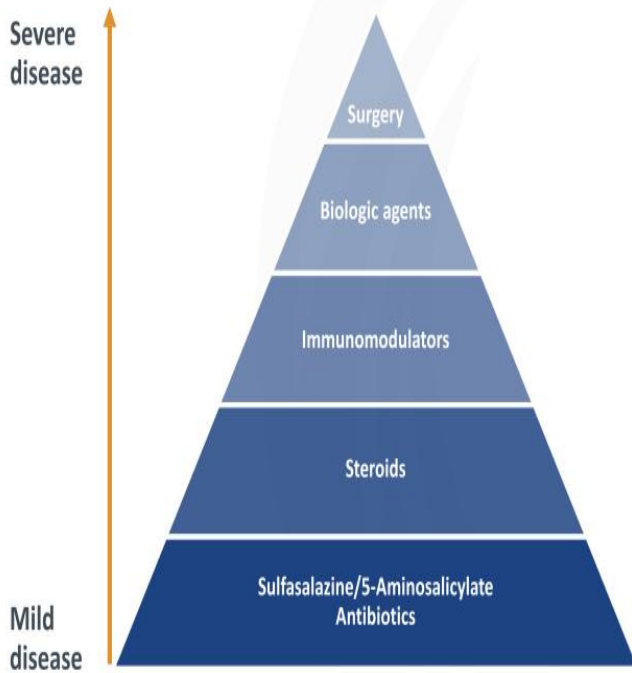
6. Crohn's and Colitis Foundation of America. The facts about inflammatory bowel disease. <https://www.crohnscolitisfoundation.org/sites/default/files/2019-02/Updated%20IBD%20Factbook.pdf>. Accessed July 19, 2021.

7. Shivashankar R et al. *Clin Gastroenterol Hepatol*. 2017;15(6):857-863.

8. EMR Reports. <https://www.expertmarketresearch.com/reports/inflammatory-bowel-disease-treatment-market>. Accessed July 17, 2021.



Substantial Opportunity Remains in the Treatment of IBD



- Majority of patients are designated moderate/severe and treated with pharmacologic intervention
- Almost all patients with moderate to severe IBD will receive biologics over the course of treatment¹
 - Approximately one-third are primary non-responders to anti-TNF therapies
 - 30-50% of initial responders become refractory
- Remission rates for advanced therapies have remained at ~20% (placebo-adjusted) for patients with moderate to severe disease²
- Newly developed therapies such as Janus kinase (JAK) inhibitors carry significant safety concerns
- Significant opportunity remains for new, safe, and effective treatments addressing novel targets

1. Atreya R et al. *Front Med (Lausanne)*. 2020;7:517.

2. Clearview Healthcare Partners. Crohn's disease and ulcerative colitis. Initial disease landscape overview. May 2021.

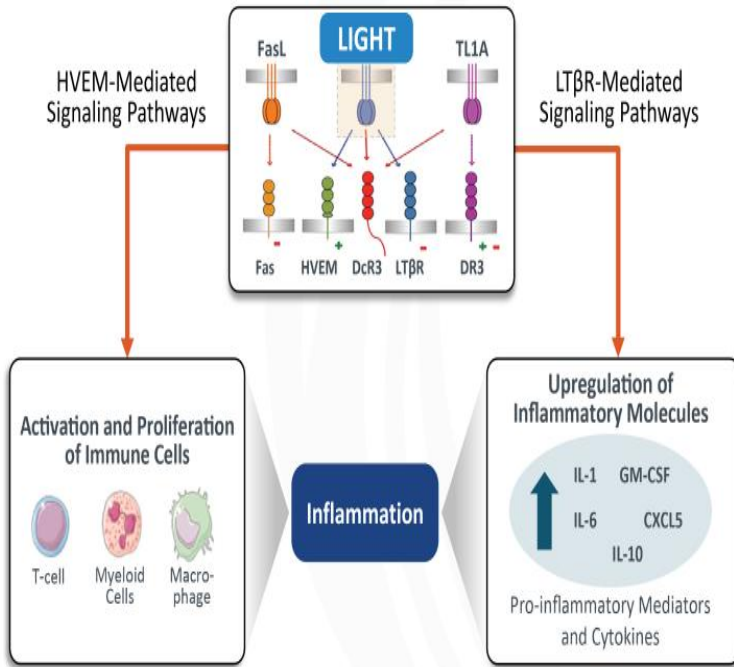
CERC-002: Clinical Rationale for Use in Treatment of IBD

Role of LIGHT in IBD, Crohn's Disease, and Ulcerative Colitis



LIGHT Is a Key Driver of Inflammation

Member of the TNF Superfamily (TNFSF14) of Proteins, Involved in T-Cell Activation and Inflammation



- LIGHT (TNFSF14) is a pro-inflammatory cytokine and a co-stimulator of T cells and Th1 cytokines, including interferon (IFN)- γ ¹
- LIGHT is expressed on activated T cells, natural killer (NK) cells, monocytes, granulocytes, and immature dendritic cells²
- LIGHT is an important immuno-regulator in the barrier tissues: GI tract, skin, lung, and others³⁻⁵

LIGHT, homologous to Lymphotoxin, exhibits Inducible expression and competes with HSV Glycoprotein D for binding to herpesvirus entry mediator (HVEM), a receptor expressed on T lymphocytes.

1. Ware CF. *Annu Rev Immunol.* 2005;23:787-819.
 2. Wang J, Fu YX. *Immunol Res.* 2004;30(2):201-214.
 9 | 3. Herro R et al. *J Invest Dermatol.* 2015;135(8):2109-2118.

4. Herro R et al. *J Allergy Clin Immunol.* 2015;136(3):757-768.
 5. Giles DA et al. *Front Immunol.* 2018;9:2585.



Multiple Lines of Evidence Support Importance of LIGHT in IBD

■ Patient data

- Elevated levels of LIGHT in patients with CD¹ and UC²
- High LIGHT mRNA levels detected in human inflamed intestinal tissue compared with normal tissue^{1,3}
- LIGHT gene upregulation is observed in CD and UC⁴

■ Animal models of IBD

- LIGHT overexpression increases intestinal inflammation in rodents⁵
- Anti-LIGHT monoclonal antibody (mAb) treatment ameliorates inflammation in the dextrate sulfate sodium (DSS)–induced colitis model⁶
- Knockout of the LIGHT (or its ligand, HVEM) gene results in reduced intestinal inflammation (in some models)⁷

1. Data on file, Cerecor, Inc.

2. Moraes L et al. *Inflamm Bowel Dis*. 2020;26(6):874-884.

3. Cohavy O et al. *J Immunol*. 2005;174(2):646-653.

10 | 4. Wang J et al. *J Immunol*. 2005;174(12):8173-8182.

5. Shaikh RB et al. *J Immunol*. 2001;167(11):6330-6337.

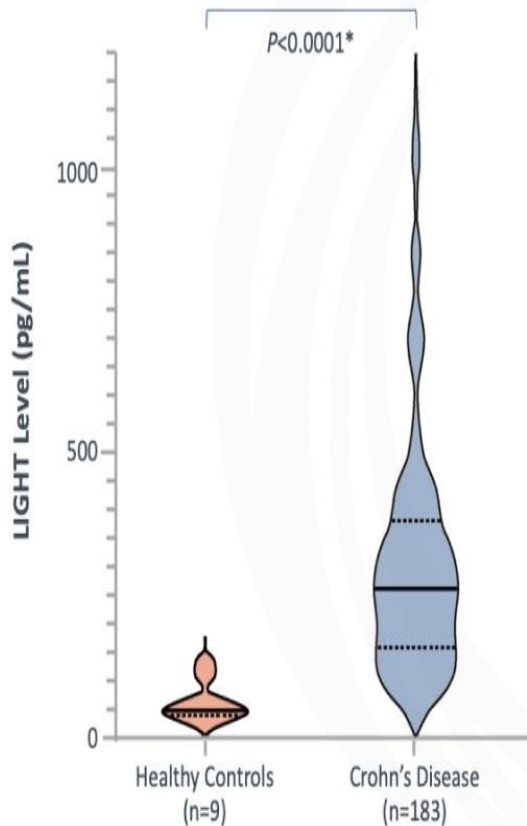
6. Jungbeck M et al. *Immunology*. 2009;128(3):451-458.

7. Schaer C et al. *PLoS One*. 2011;6(4):e18495.



Elevated LIGHT Levels Detected in Pediatric Crohn's Disease

Plasma LIGHT levels Were Significantly Elevated in Patients With CD vs Healthy Individuals



- Approximately 83% of pediatric patients with CD had significantly elevated LIGHT levels
 - Cross-sectional study of pediatric patients with CD from Center for Applied Genomics at CHOP
 - Studied pediatric patients with CD (n=183) versus healthy age-matched controls (n=9)

Data displayed as box-and-whiskers graph.

*Determined by Mann-Whitney U test.

Plasma samples from CHOP Biobank; controls are matched for age and gender.

11 | Source: Cardinale C et al. Manuscript in preparation.



CERC-002: Previous Clinical Study

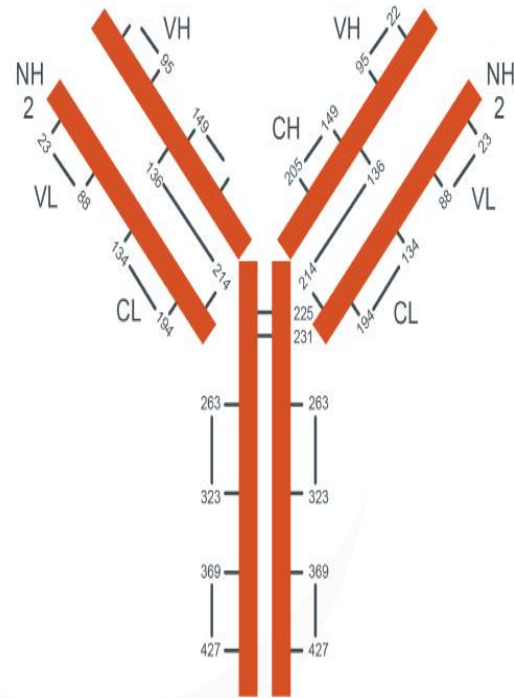
Safety and Efficacy in COVID-19 Acute Respiratory Distress Syndrome (ARDS)



CERC-002: A Novel First-in-Class Anti-LIGHT (TNFSF14) mAb

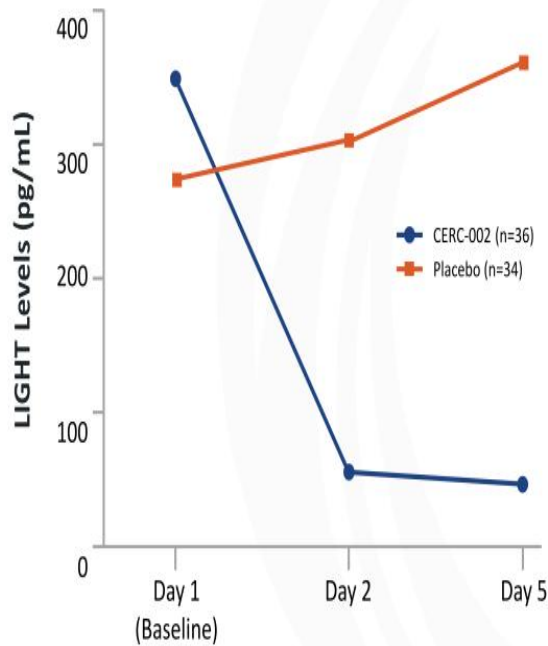
In-licensed From Kyowa Kirin Co., Worldwide Exclusive Rights* for All Indications (2021)

- Novel, first-in-class fully human subcutaneous (SQ) monoclonal antibody (mAb)
- Only known fully human anti-LIGHT mAb
- Only known anti-LIGHT mAb in clinical development



A Single Dose of CERC-002 Reduced LIGHT Levels Dramatically and Rapidly

LIGHT Levels (pg/mL) Over Treatment Period



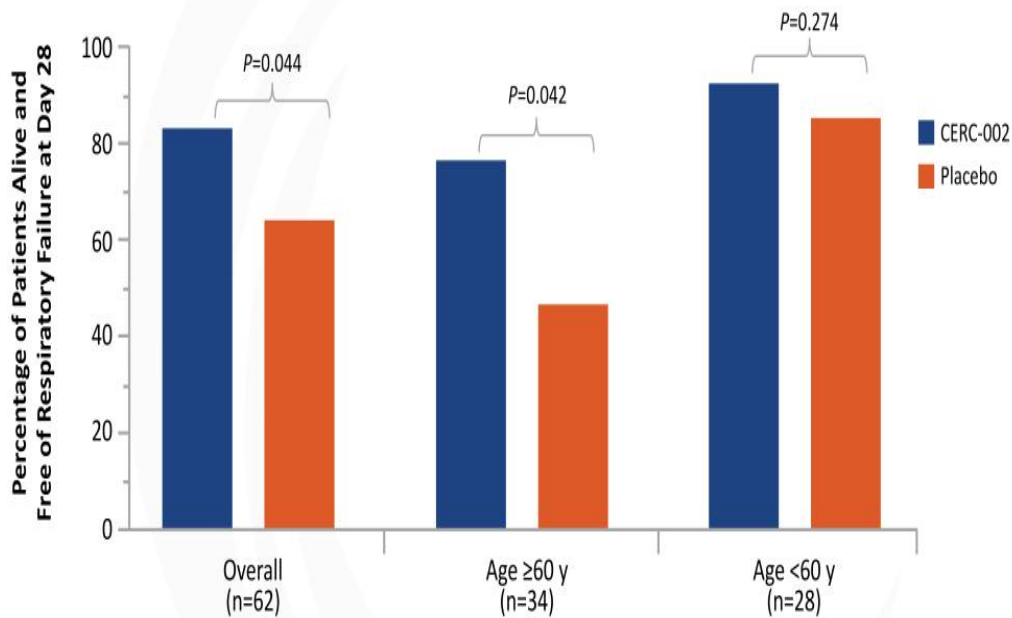
- Mean LIGHT levels were comparable at baseline across cohorts
- Mean LIGHT levels were ~100 pg/mL higher in patients aged ≥ 60 years
- LIGHT levels declined rapidly in the active cohort and increased in the placebo cohort
- Pharmacodynamic effect was in addition to standard of care
 - Approximately 90% of patients received systemic corticosteroids

Rapid and significant reduction in LIGHT levels after a single SQ dose (16 mg/kg)

Source: Perlin DS et al. CERC-002, a human anti-LIGHT mAb reduces respiratory failure and death in hospitalized COVID-19 ARDS patients (<https://medrxiv.org/cgi/content/short/2021.04.03.21254748v1>).

CERC-002 Significantly Reduced Respiratory Failure and Mortality in a Phase 2 Clinical Trial in Patients Hospitalized With COVID-19 ARDS

Primary Endpoint: Percentage of Patients Alive and Free of Respiratory Failure at Day 28



Efficacy was greatest in patients ≥60 yrs* (n=34, P=0.042), the population most vulnerable to severe complications and death with COVID-19 infection

*Prespecified analysis.

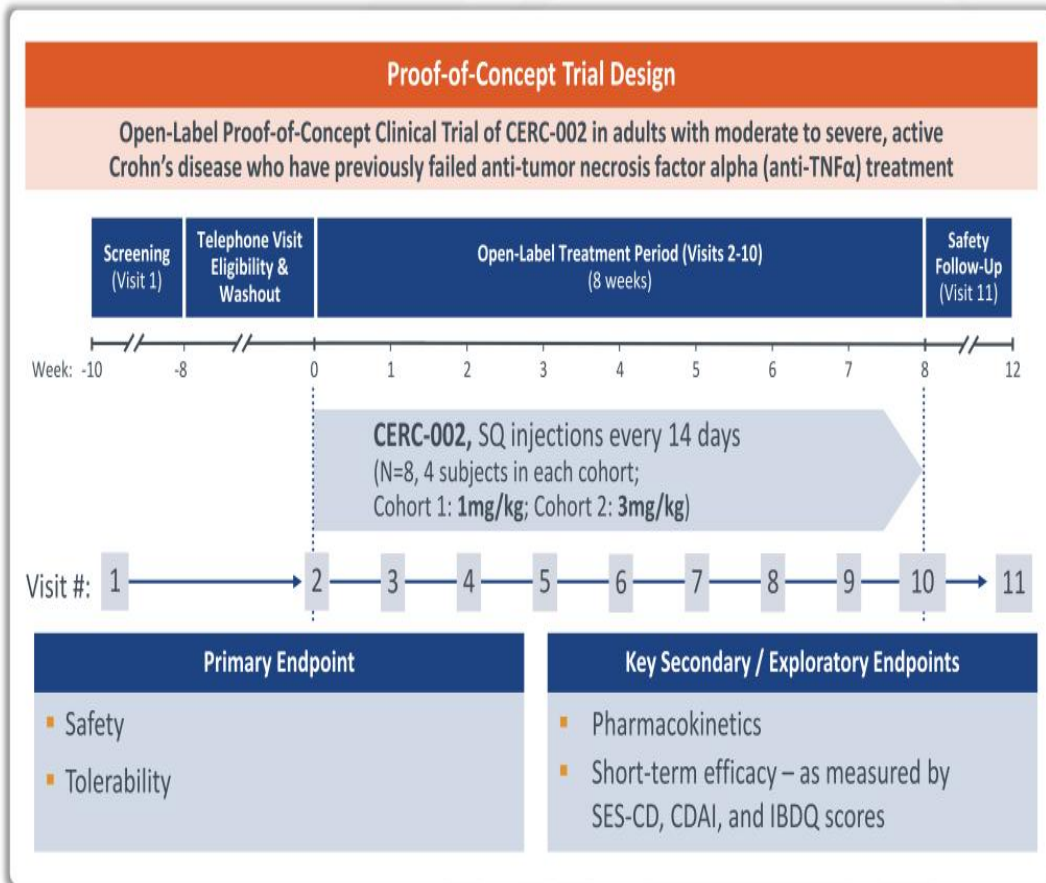


CERC-002: Phase 1b Study in Crohn's Disease

Preliminary Initial Safety and Efficacy Results (Cohort 1)



CERC-002 Crohn's Disease Proof-of-Concept



- Moderate to severe disease
- Anti-TNF α failure
- Heavily pre-treated patients
- Dose escalation starting at 1mg/kg every 2 weeks
- Short duration (8 weeks)



CERC-002 Crohn's Disease Proof-of-Concept: Phase 1b Initial Data (Cohort 1)

Clinical Study Patient Population

Inclusion Criteria

- Male or female, ≥ 18 to ≤ 75 years of age
- Documented diagnosis of CD via endoscopy/colonoscopy and histological confirmation
- Moderate to severe, active CD
 - Colonoscopy diagnosis
 - SES-CD score ≥ 7
 - Histologic confirmation
- Failed treatment with an approved therapeutic dose of an anti-TNF α monoclonal antibody

Exclusion Criteria

- Diagnosis of UC or indeterminate colitis
- Signs or symptoms of bowel obstruction
- Short bowel syndrome
- Current functional colostomy or ileostomy
- Surgical bowel resection within the 6 months prior to screening or any planned resection during the study period
- Pregnancy or nursing
- Sexually active and not using effective contraception as defined in the protocol

CERC-002 Crohn's Disease Proof-of-Concept: Phase 1b Initial Data (Cohort 1)

Patient-Level Data

Subject #	Age (yrs)	Prior Therapy / # of Prior Lines	SES-CD		LIGHT (pg/mL)		Response
			Baseline	8 Weeks	Baseline	8 Weeks	
Subject #1	42	Remicade, Entyvio, Stelara	11	4	455	24	Significant mucosal healing: <ul style="list-style-type: none"> 64% reduction in SES-CD score (moderate to mild) Patient relapsed post treatment and needed surgery
Subject #2	63	Remicade, Humira, Entyvio, Stelara	18	19	193	29	No evidence of improvement
Subject #3	28	Remicade, Humira, Stelara, Methotrexate	21	15	75	27	Significant mucosal healing: <ul style="list-style-type: none"> 29% reduction in SES-CD score (severe to moderate) Exploring single-patient IND
Subject #4	49	Remicade, Stelara, Humira, Entyvio, Methotrexate, Mercaptopurine	12	3	162	45	Significant mucosal healing: <ul style="list-style-type: none"> 75% reduction in SES-CD score (moderate to mild) Exploring single-patient IND

Disease severity according to SES-CD score¹:

Remission: 0-2

Mild: 3-6

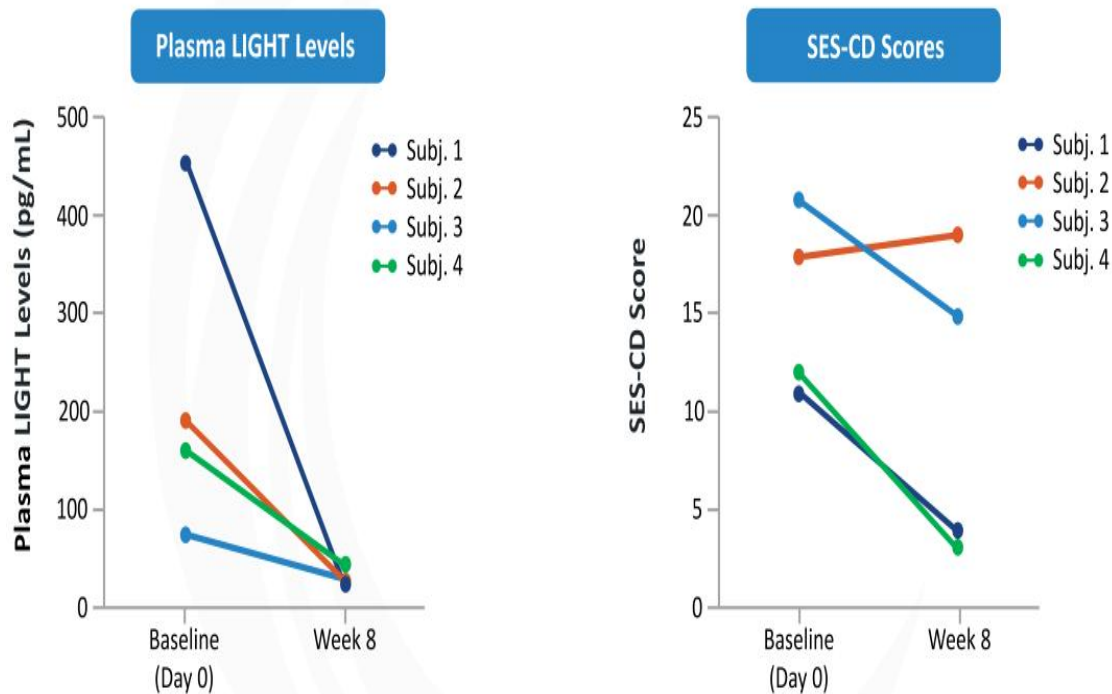
Moderate: 7-15

Severe: >15



CERC-002 Crohn's Disease Proof-of-Concept: Phase 1b Initial Data (Cohort 1)

Preliminary Efficacy Results (Patient-Level Data)



Clinically meaningful mucosal healing, determined by colonoscopy, in 3 of 4 subjects (SES-CD)



CERC-002 Crohn's Disease Proof-of-Concept: Phase 1b Initial Data (Cohort 1)

Independent Preliminary Safety Data Results – CERC-002, SQ Injection (1mg/kg)

- No serious adverse events attributable to study drug
 - Consistent with 83-patient COVID-19 ARDS clinical trial¹
- Adverse events were mild to moderate in nature
 - Most common: GI symptoms consistent with CD
- No evidence of increased infections or adverse events related to immunosuppression
- Recommended by independent safety review committee to continue to next cohort (3mg/kg) without changes to protocol (currently fully enrolled)

21 | 1. Perlin DS et al. CERC-002, a human anti-LIGHT mAb reduces respiratory failure and death in hospitalized COVID-19 ARDS patients (<https://medrxiv.org/cgi/content/short/2021.04.03.21254748v1>).



Initial Low-Dose Cohort Data Demonstrates Potential Proof-of-Concept

- Open-label proof-of-concept study in patients with moderate to severe Crohn's disease who previously failed 3 lines of biologic therapies, including anti-TNF α *
- Clinically meaningful mucosal healing, determined by colonoscopy, in 3 of 4 subjects (SES-CD)**
- Rapid response within 8 weeks
- Well-tolerated, no serious adverse events
- High-dose cohort fully enrolled with results expected 2H21



CERC-002 Clinical Program

Next Steps

■ Crohn's Disease

- Further evaluation of cohort data, including tissue LIGHT levels
- Cohort 2 (3 mg/kg dose) fully enrolled; complete data anticipated in 2H21

■ Ulcerative Colitis

- Expand clinical study to patients with moderate to severe UC refractory to anti-TNF α *

■ ARDS Program

- Continuing dialogue with FDA to determine registration trial design and timing, including potential expansion to broader ARDS patient population

■ Exploring additional indications for which LIGHT is a driver of inflammation



Summary Comments



Summary

- Second positive proof-of-concept with CERC-002, which we believe further validates the LIGHT mechanism of action in inflammatory diseases (both acute and chronic)
- Biomarker-driven approach elucidates novel indications and de-risks clinical programs
- Precision medicine approach is being applied across the development pipeline



Clinical-Stage Pipeline

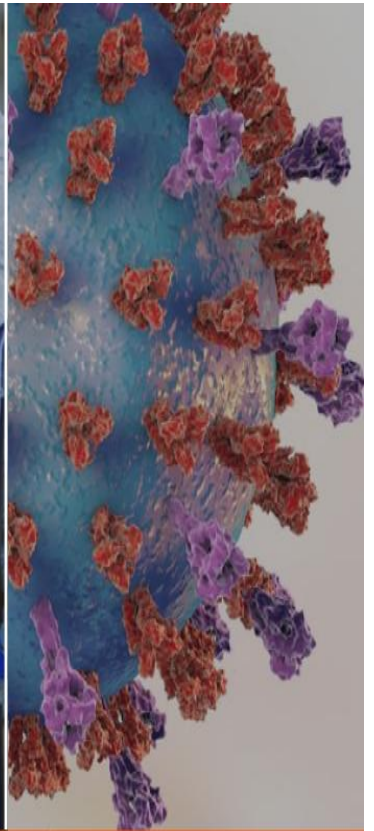
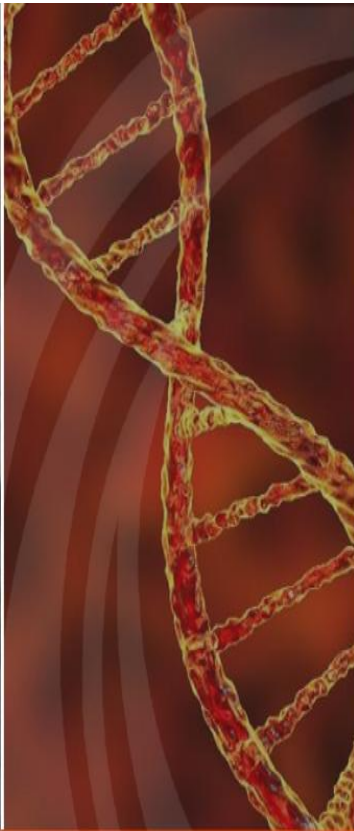
Core Research & Development Areas	Therapeutic Area	Program	Mechanism of Action	Lead Indication	Development Stage				Anticipated Milestone
					Preclin	Phase 1	Phase 2	Pivotal Trial	
Immunology	Inflammation	CERC-002 [‡]	Anti-LIGHT mAb	COVID-19 ARDS					Received FTD*
		CERC-002	Anti-LIGHT mAb	IBD					Top Line Data 2H 2021
		CERC-007	Anti-IL-18 mAb	AOSD					Initial Data 3Q 2021
Oncology	Blood Cancers	CERC-007	Anti-IL-18 mAb	Multiple Myeloma					Top Line Data 2H 2021
Rare Genetic Disorders	Complex Lymphatic Malformations	CERC-006 ⁺	Dual mTOR inhibitor	Complex Lymphatic Malformations					Initial Data 3Q 2021
	Congenital Disorders of Glycosylation	CERC-801 ⁺⁺	D-Galactose replacement	PGM1-CDG					Pivotal Trial Data 1Q 2022
		CERC-802 ⁺⁺	D-Mannose replacement	MPI-CDG					Pivotal Trial Data 2H 2021
		CERC-803 ⁺⁺	L-Fucose replacement	LAD-II (SLC35C1-CDG)					Pivotal Trial Data 2H 2021

+ Orphan Drug Designation, Rare Pediatric Disease Designation; Eligibility for Priority Review Voucher upon approval.

[‡] Fast Track Designation.

* The Company remains in dialogue with the FDA and is working through feedback to determine the trial design for a registrational study and accompanying timelines, including the potential expansion to a larger patient population in broader ARDS.





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