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): January 7, 2021

CERECOR INC.
(Exact name of registrant as specified in its charter)

Delaware		
(State or other jurisdiction of incorporation)		
001-37590		**45-0705648**
(Commission File Number)		**(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 2.02. Results of Operations and Financial Condition.

On a preliminary unaudited basis, Cerecor Inc. (the "Company") estimates that its cash and cash equivalents as of December 31, 2020 was approximately $18.9 million. This estimate of the Company's cash and cash equivalents as of December 31, 2020 is preliminary, has not been audited and is subject to change upon completion of the Company's financial closing procedures. This estimate is not a comprehensive statement of the Company's financial results for the year ended December 31, 2020, and the Company's actual results may differ materially from this estimate as a result of the completion of the Company's financial closing procedures, final adjustments and other developments arising between now and the time that the Company's financial results for this annual period are finalized.

Item 8.01. Other Events.

On January 7, 2021, 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 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 of 1933 and Section 21E of the Securities Exchange Act of 1934, including statements related to the Company's estimated cash and cash equivalents as of December 31, 2020. 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, 2019, 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.

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: January 7, 2021

By: /s/ Christopher Sullivan
Christopher Sullivan
Interim Chief Financial Officer

Exhibit 99.1

Patient Inspired Science

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

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January 7 | 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 Cerecor, Inc. ("Cerecor") 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: its 2021 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; 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 created a rich pipeline of six novel, first-in-class assets in eight clinical development programs across immunology, oncology, and rare diseases
- All assets have proven mechanistic rationale, biomarkers or established proof-of-concept to de-risk the pipeline and increase probability of success
- Demonstrated successful proof of concept with CERC-002 (anti-LIGHT mAb) in COVID-19 ARDS
- Near term catalysts anticipated over next 12 months
  - CERC-002 initial data for severe pediatric onset Crohn's Q1 2021
  - CERC-007 initial data for multiple myeloma (Q1 2021) and AOSD (Q2 2021)
  - CERC-006 initial data for complex lymphatic malformations Q2 2021
  - CERC-800s series congenital disorders of glycosylation pivotal data 2H 2021
- 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

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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					FDA EOP-2 Meeting 1Q 2021
		CERC-002	Anti-LIGHT mAb	Severe Pediatric Onset Crohn's					Initial Data 1Q 2021
		CERC-007	Anti-IL-18 mAb	AOSD					Initial Data 2Q 2021
Oncology	Blood Cancers	CERC-007	Anti-IL-18 mAb	Multiple Myeloma					Initial Data 1Q 2021
Rare Genetic Disorders	Complex Lymphatic Malformations	CERC-006†	Dual mTOR inhibitor	Complex Lymphatic Malformations					Initial Data 2Q 2021
	Congenital Disorders of Glycosylation	CERC-801†	D-Galactose replacement	PGM1-CDG					Pivotal Trial Data 2H 2021
		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

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CERC-002

Anti-LIGHT monoclonal antibody in clinical studies for COVID-19 ARDS and Severe Pediatric-onset Crohn's Disease

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Executive Summary

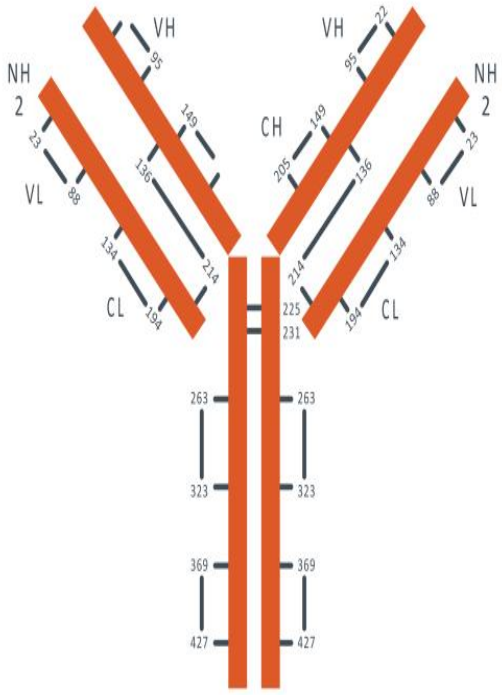
Successful Proof of Concept for CERC-002 in Patients Hospitalized with COVID-19 ARDS

- Proof of concept demonstrated in hospitalized patients with COVID-19 related ARDS
  - COVID-19 patients treated with a single dose of CERC-002 demonstrated robust improvement in the primary endpoint (proportion of patients alive and free of respiratory failure over the 28-day study period) compared to placebo (n=62, odds ratio [OR] = 2.62, p=0.059)
  - A prespecified subgroup analysis of patients ≥ 60 years of age showed that CERC-002 treatment led to a greater than 3-fold likelihood of avoiding respiratory failure and death (n=33, OR = 3.38, p=0.054)
  - 28-day mortality was reduced by approximately 50% in patients treated with CERC-002 (3 patients) vs. placebo (6 patients). There was a total of 4 COVID-19 related deaths in patients on CERC-002 vs. 9 on placebo as of December 2020. These data will be updated and analyzed at the 60-day timepoint
  - Importantly, CERC-002 showed activity on top of corticosteroids in COVID-19 ARDS (>90% of patients in the trial received corticosteroids and >60% received remdesivir)
- CERC-002 was well tolerated with no appreciable differences in immunosuppression or other SAE between CERC-002 and placebo
- CERC-002 dramatically and rapidly reduced serum free-LIGHT levels
  - ~85% reduction in free LIGHT achieved in 1 day
- Plan to meet with the FDA regarding a registration trial and filing for Breakthrough Therapy Designation
- Additionally, the company is continuing its program in severe pediatric-onset Crohn's disease and is exploring the applicability of CERC-002 in non-COVID-19 ARDS

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

The only known clinical stage anti-LIGHT antibody

- In-licensed from Kyowa Kirin Co.
- Positive toxicology profile
  - 8-week monkey toxicology study was well tolerated up to 100 mg/kg per week with NOAEL at 60 mg/kg
- Phase I trial successfully completed
  - Up to 1200 mg SQ in healthy volunteers (n=48) without significant toxicity
- Proprietary free LIGHT assay developed in collaboration with Myriad RBM enables a biomarker-based development approach

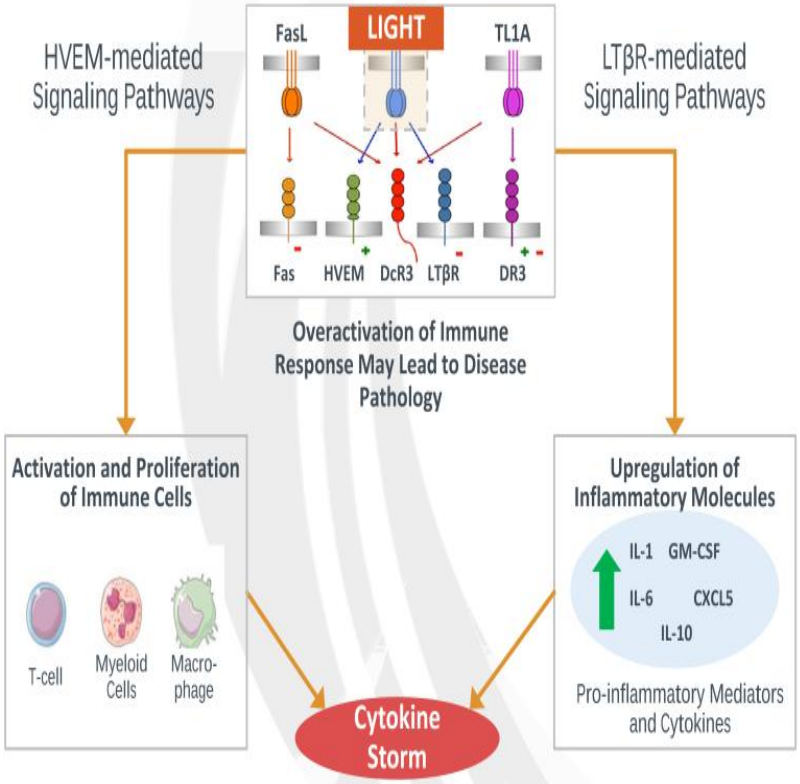


Discovered at La Jolla Allergy Institute and Licensed by Cerecor in 2016

SQ: Subcutaneous; NOAEL: No observed adverse effect level

LIGHT is Potentially a Key Driver of the Inflammatory Response in Cytokine Storm in ARDS

LIGHT Releases Inflammatory Cytokines and Activates Both T Cells and B Cells



- Highly expressed in **neutrophils and macrophages** and induces airway inflammation. It also appears to **exacerbate pulmonary fibrosis** in patients who recover from ARDS
- A critical factor in **COVID-19 cytokine storm**, pulmonary failure and longer-term pulmonary fibrosis and in **broader ARDS etiologies**

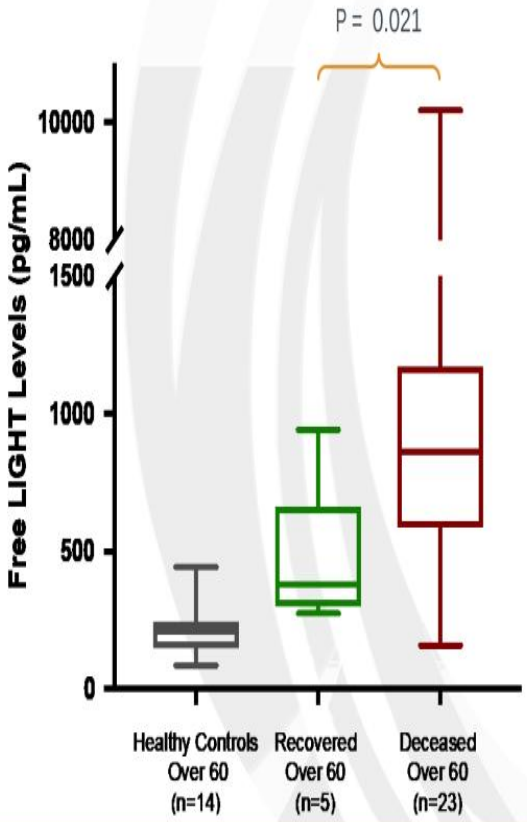
Recent biomarker data from hospitalized COVID-19 patients demonstrates elevated LIGHT levels, implicating its role in ARDS[1]

1. Perlin et al. (2020) *mSphere*. 5(4):e00699-20.

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 Over 60



Key Implications

- In patients over 60, 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 over 60 of age (82%) compared to patients <60 years (32%)

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

1. Perlin et al. (2020) *mSphere*. 5(4):e00699-20.
2. Arunachalam *et al.* (2020) *Science*. 369(6508):1210-1220

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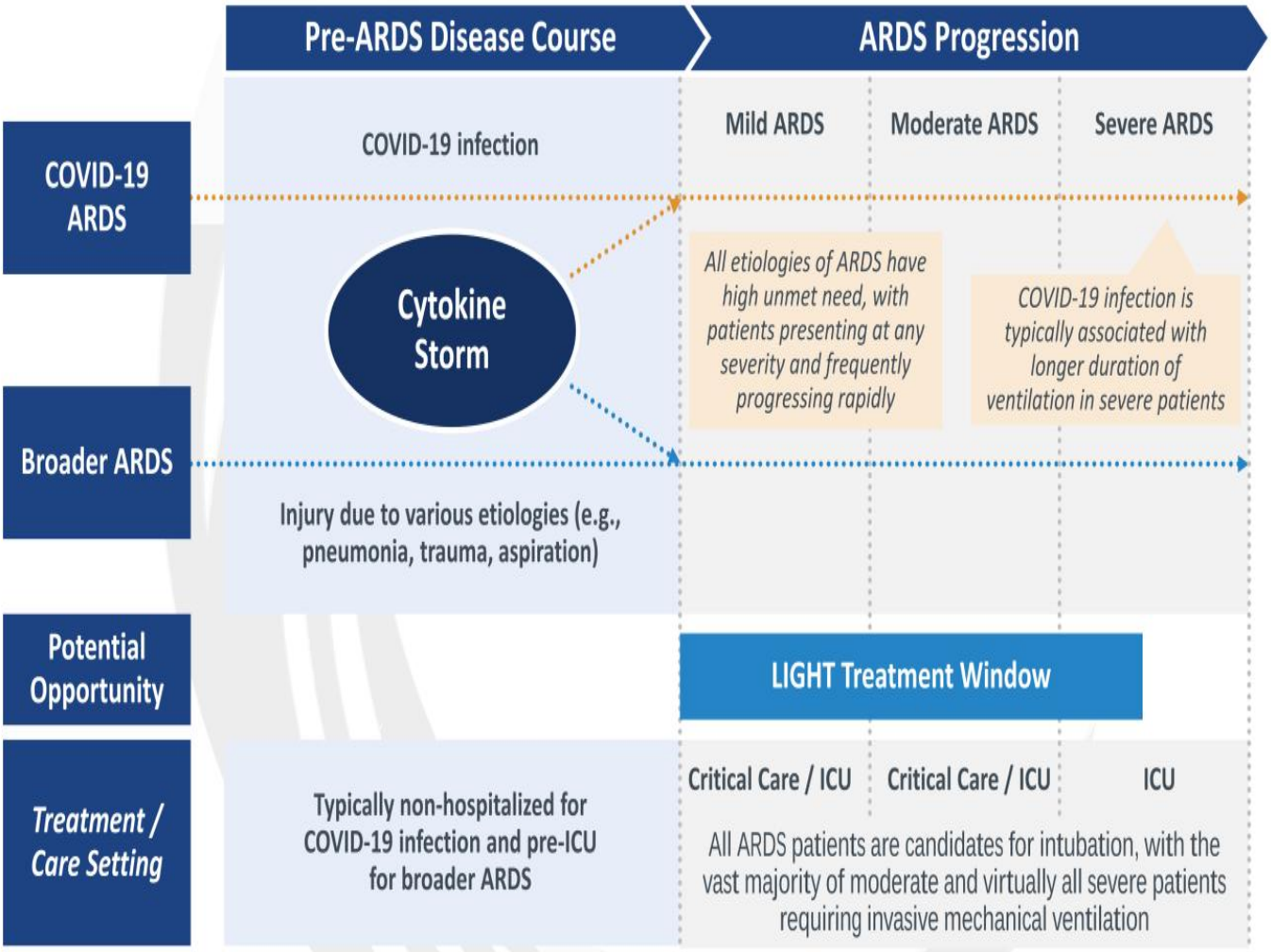
Cytokine Storm Drives ARDS Across Etiologies

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

Source: Physician Interviews; Papazian et al. *Ann. Intensive Care* 2019; Bhatraju et al. *NEJM* 2020

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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, Multi-Center, 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 [maximum 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

- The 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 an absolute difference of 25% between cohorts

Key Secondary / Exploratory Endpoints

- 1-month mortality
- Change in Pa02/Fi02 ratio
- Time to and duration of invasive ventilation
- LIGHT levels and other biomarkers of inflammation
- Viral load

PaO2 - Partial Pressure of Oxygen, FiO2 - Fraction of Inspired Oxygen

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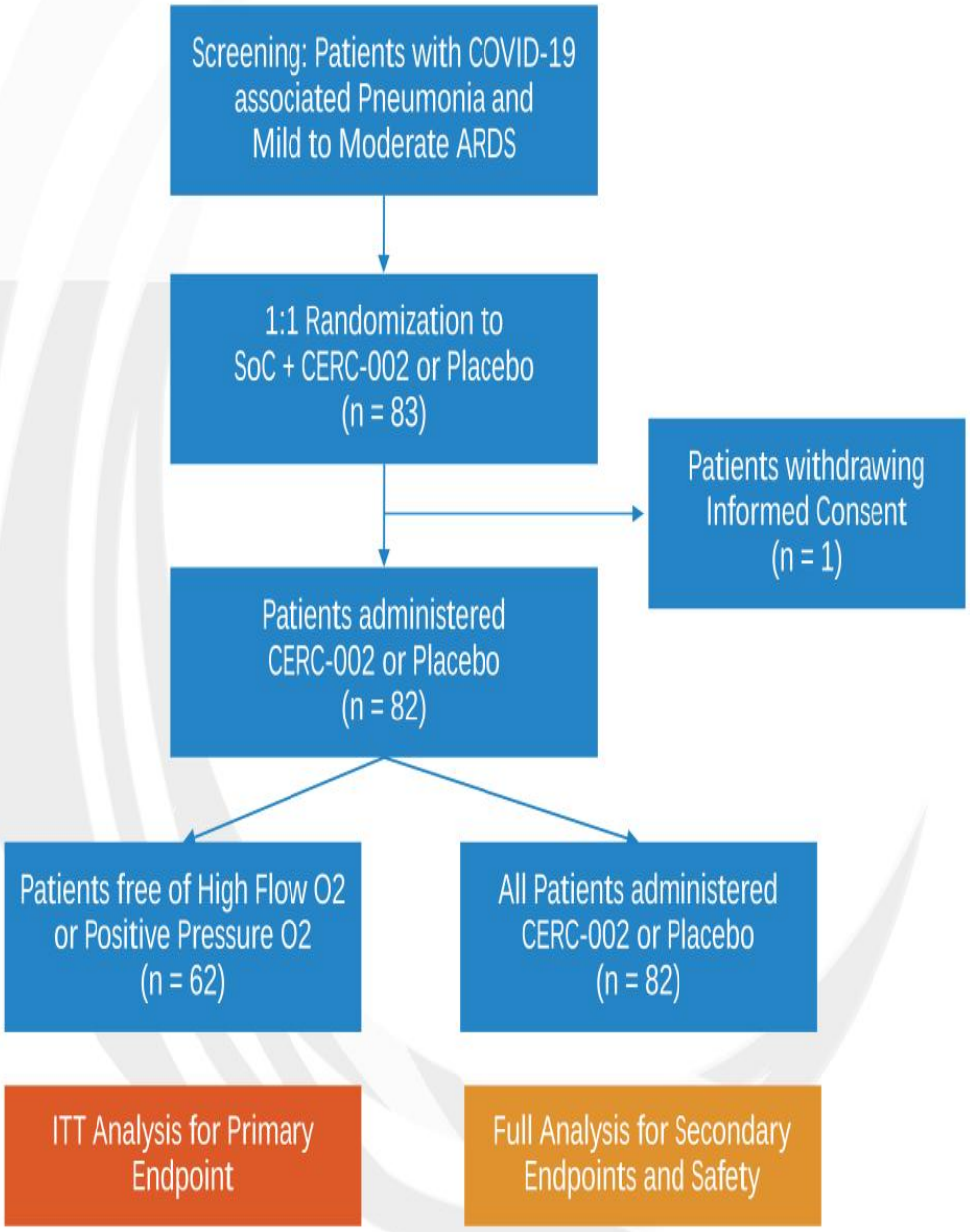
Patient Disposition Chart



Patient Demographics

Characteristic	CERC-002 (n=41)	Placebo (n=42)
Age		
Mean (SD)	59.2 (14.5)	58.1 (14.2)
Age Group		
< 60 years (n, %)	20 (48.8%)	21 (50%)
≥ 60 years (n, %)	21 (51.2%)	21 (50%)
Gender		
Male	25 (61%)	32 (76.2%)
Female	16 (39%)	10 (23.8%)
Free LIGHT Level at Baseline		
Mean (range) pg/mL	348 (63 - 667)	273 (37 - 703)
Race		
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%)
Concomitant Medication		
Systemic corticosteroids	38 (92.6%)	37 (88.1%)
Remdesivir	27 (65.9%)	29 (69.0%)

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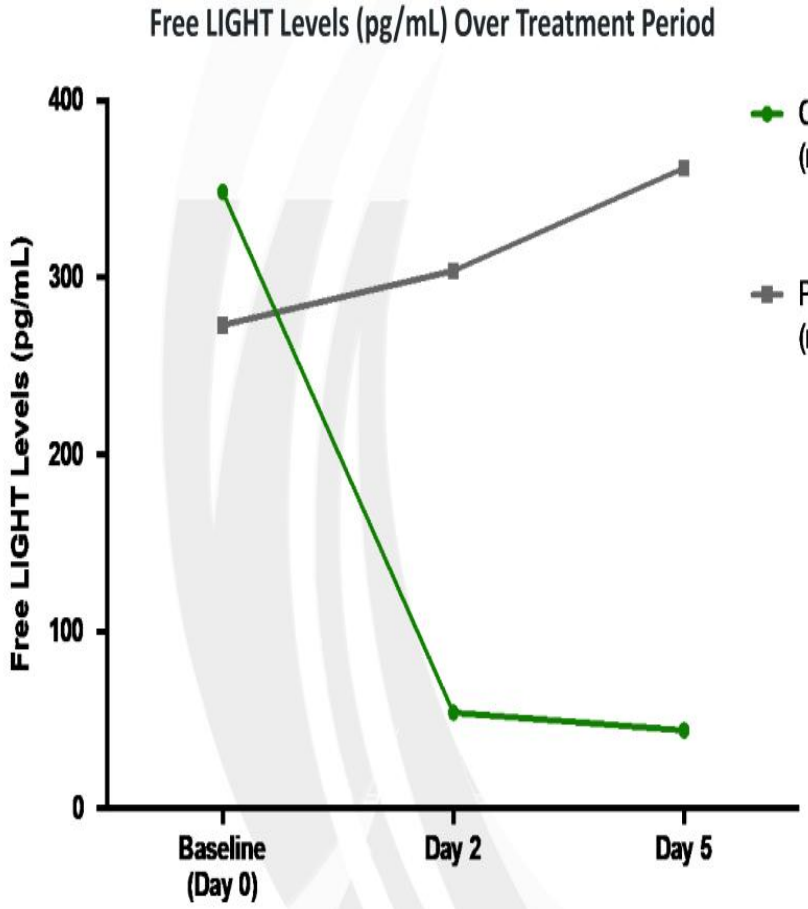
A Single Dose of CERC-002 Reduced Free LIGHT Levels Dramatically and Rapidly



- Mean free LIGHT levels were comparable at baseline across cohorts
- Mean free LIGHT levels were about 100 pg/mL higher in the patients ≥ 60 years-old
- Free LIGHT levels reduced quickly in the active cohort and increased in the placebo cohort
- The pharmacodynamic effect was on top of standard of care where approximately 90% of patients received systemic corticosteroids

Free LIGHT is inhibited by Day 1 and remains low

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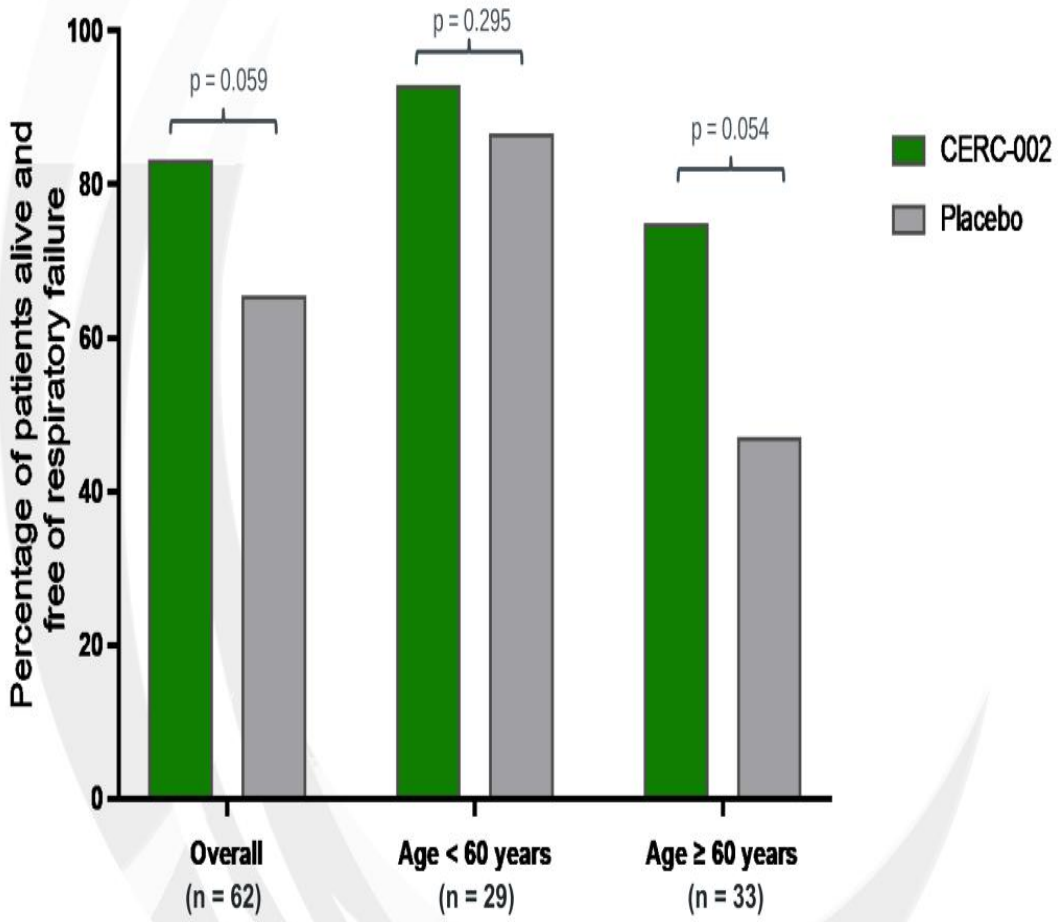
Robust Treatment Effect Demonstrated in Patients at Greatest Risk of Respiratory Failure and Death

Primary Endpoint: Percentage of patients alive and free of respiratory failure at Day 28



CERC-002 treatment led to a greater than 3-fold likelihood of avoiding respiratory failure and death in patients ≥ 60 years (OR: 3.38, 90% CI: 0.98 – 11.68)

 Data on file

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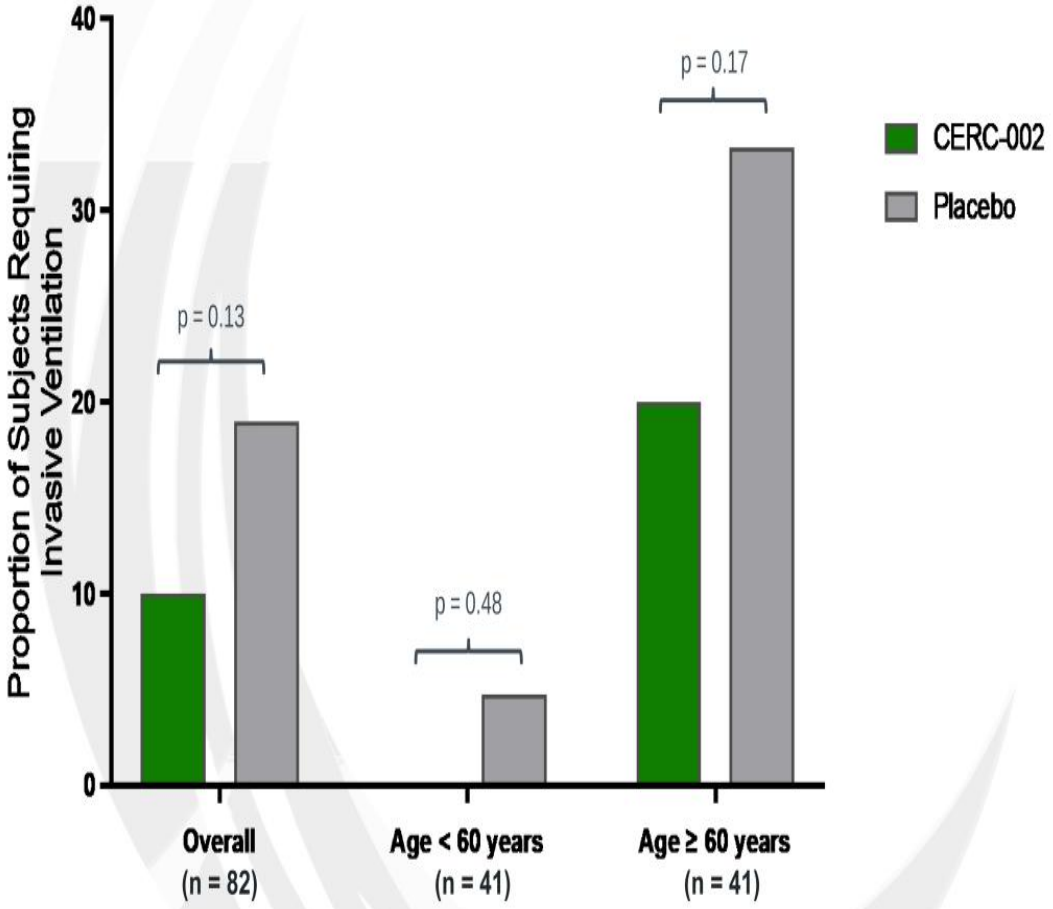
Clear trend of CERC-002 reducing the need for invasive ventilation; this effect is driven by events in the ≥ 60-year-old subset of patients

Proportion/Percentage of Subjects Requiring Invasive Ventilation



Patients ≥ 60 years treated with CERC-002 were twice as likely to avoid invasive ventilation (OR: 2.0, 90% CI: 0.61 - 6.6)

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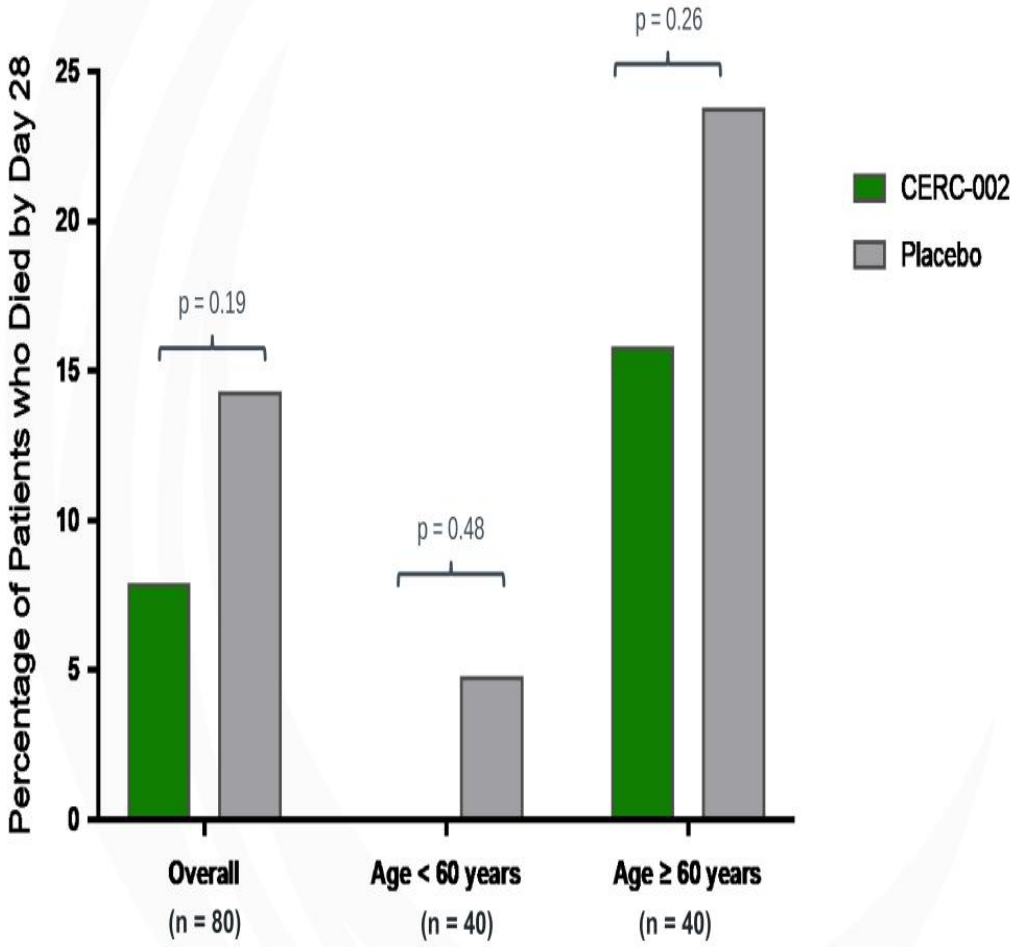
28-day mortality was ~50% lower in patients treated with CERC-002 (3 patients) vs. placebo (6 patients)

COVID-19 related deaths: 4 on CERC-002 vs. 9 on placebo (December 2020)



60-day follow up data in progress

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Safety and Tolerability

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

	CERC-002 N = 40	Placebo N = 42
Subjects with ≥1 AE (%)	16 (40%)	21 (50%)
Subjects with ≥ Drug-related AE	8 (20%)	6 (14.3%)
AEs > 5%		
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%)

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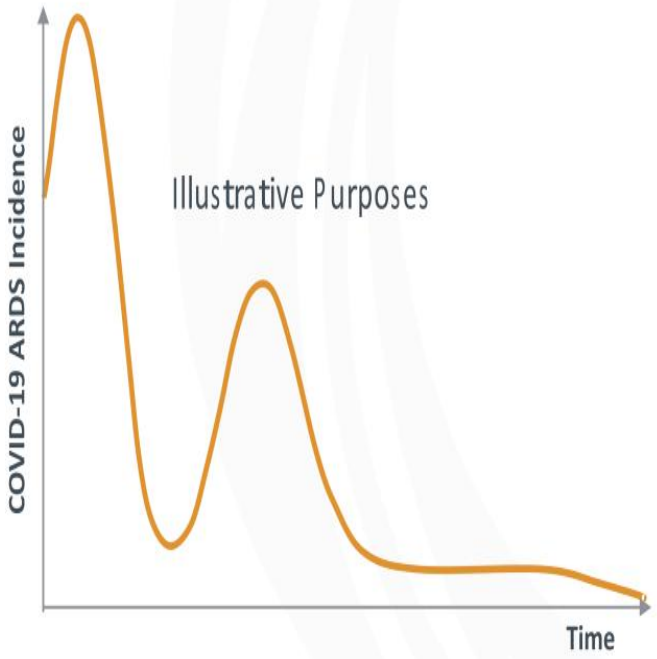
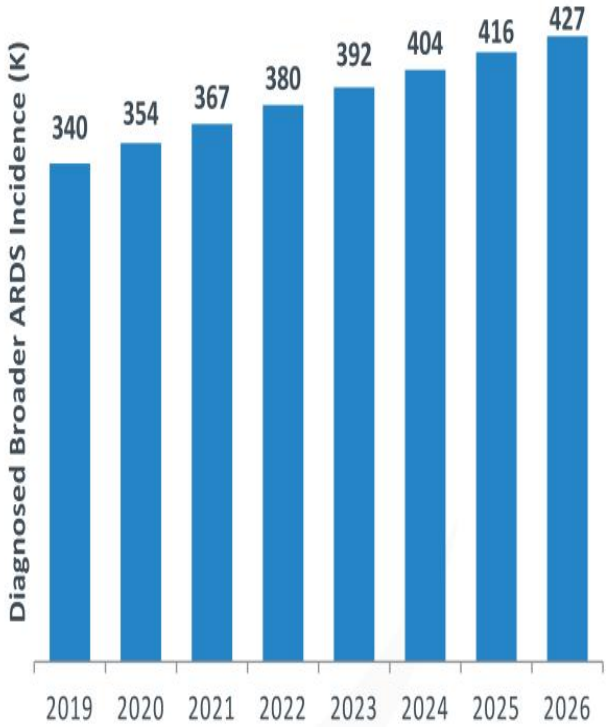
COVID-19 and Broader ARDS Target Populations

COVID-19 ARDS provides a potential path to treat a larger patient population in broader ARDS

U.S. COVID-19 Related ARDS Patients



Estimated U.S. Broader ARDS Patients Excluding COVID-19



There is a large market opportunity and high unmet need for effective therapy in cytokine storm induced ARDS beyond COVID-19

Source: Rubenfeld et al. *N Engl J Med.* 2005, 353(16):1685-93. Kissler et al. *Science.* 2020. UpToDate

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Next Steps

- 60-day safety data expected 1Q 2021
- Plan to present full data at a future scientific meeting
- End of phase 2 meeting with FDA to discuss registration trial and filing for Breakthrough Therapy Designation
- Severe pediatric onset Crohn's disease – initial data 1Q 2021
- Currently exploring the applicability of CERC-002 in non-COVID-19 ARDS

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CERC-007

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

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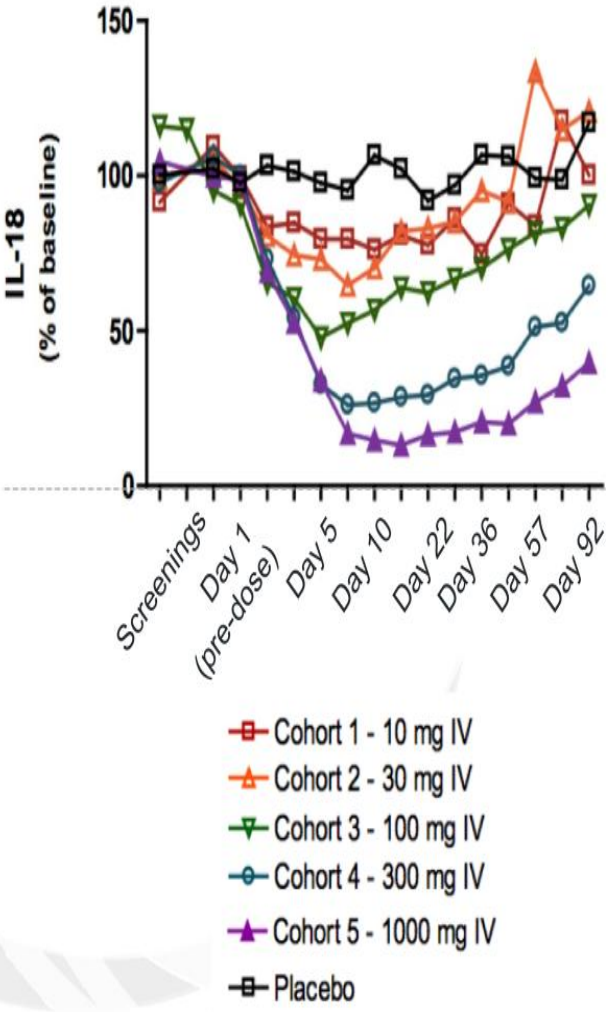
First-in-Class Anti-IL-18 High Affinity Monoclonal Antibody

Data from phase 1 study demonstrated favorable PK and safety profile

- In-licensed from Medimmune / AZ
- 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 tox completed
  - Frozen, unformulated bulk material available to support clinical proof-of-concept in patients and nonclinical 6-month chronic tox studies

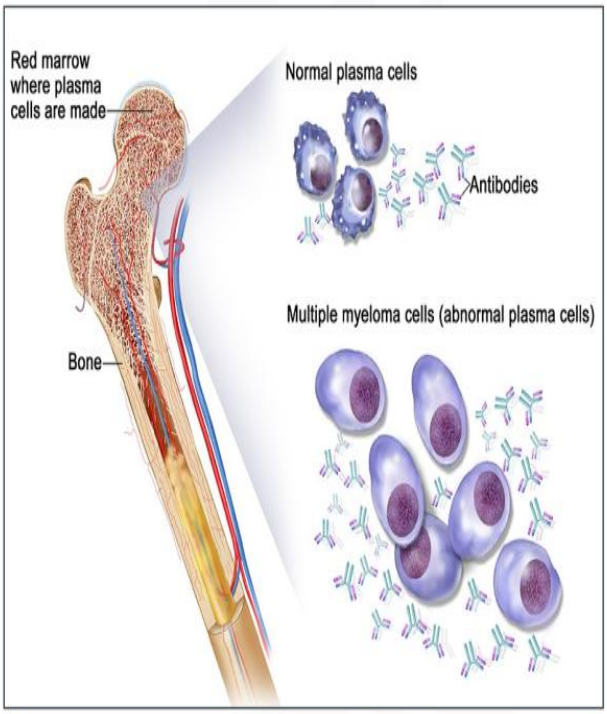


Data on file: AstraZenaca

Multiple Myeloma Is The Second Most Common Blood Cancer Globally

MM is characterized by the neoplastic proliferation of plasma cells with the overproduction of monoclonal proteins or M-proteins

Multiple Myeloma (MM) Pathophysiology



A progressive disease with both cell-autonomous genetic abnormalities, and microenvironmental changes contributing to the growth of the malignant neoplasm[2]

Disease Overview

Patient Population	• Prevalence in U.S. ~140,000[1] • Occurs in older people (median age at diagnosis is 69)[1] • 35% of patients are younger than 65[1]
Signs and Symptoms	• Majority may present with anemia, bone pain or elevated creatinine while fatigue, hypercalcemia, and weight loss observed in a minority of patients[2]
Treatment Approach	• MM is treated with at least one of three main classes of agents, utilized in combination across all lines of therapy[3]: • Immunomodulators - Revlimid®, Pomalyst® • Protease inhibitors - Velcade®, Kyprolis® • Anti-CD38 - Darzalex®, Sarclisa®
Prognosis	• Estimated 5-year survival is ~50% in the U.S., though specific genetic deletions such as 17p may be associated with shorter survival[1]

 [1]NCI SEER Website; [2]Palumbo. NEJM. 2011; [3]ClearView Analysis 2017.

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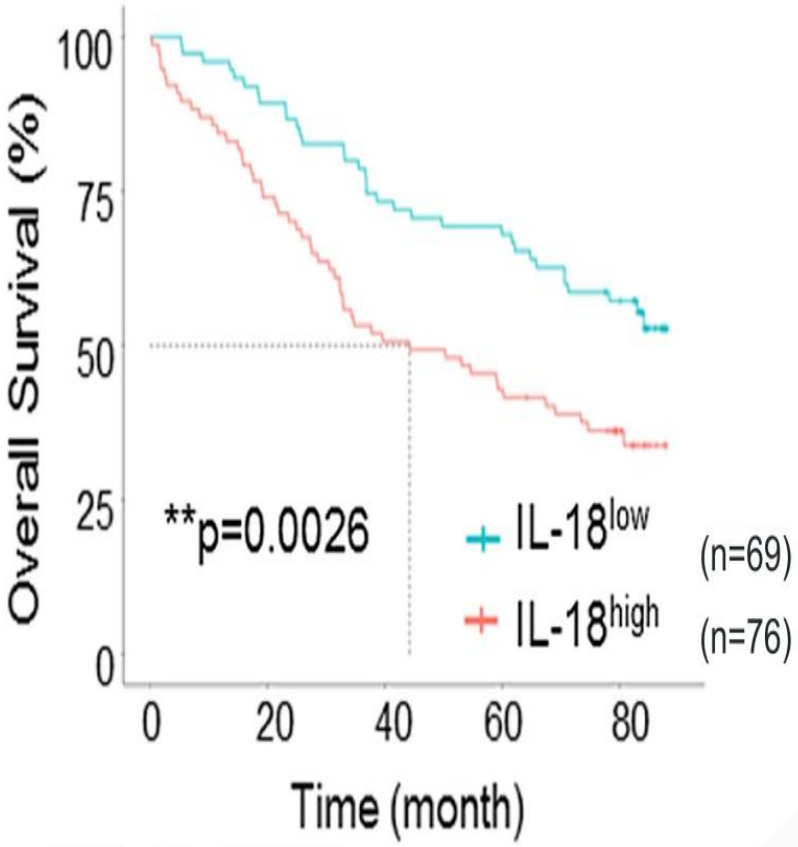
Strong Potential in Multiple Myeloma

IL-18 Levels Are Elevated in Many MM Patients and Correlate with Poor Survival



- Patients with high IL-18 have significantly worse median survival (42 months vs. >84 months, p value= 0.0026, HR = 1.84)
- Reducing IL-18 levels prolongs survival in rodent models of multiple myeloma

Source: Nakamura Cancer Cell. 2018. 33(4):634-648.e5

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CERC-007 Treatment of Patients with Resistant and Refractory Multiple Myeloma

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

Proposed Dose Escalation and Expansion Trial Design

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

Inclusion Criteria

Patients with treatment resistant and refractory multiple myeloma had exposures to IMIDs, Proteasome inhibitors and anti-CD38 mAb
No more than 4–6 lines of therapy

Estimated Enrollment:
Dose Escalation ~ 14
Expansion Phase = 14

CERC-007: Dose Escalation Phase
3 + 3 Design

CERC-007
Expansion Phase at RP2D
N = 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

MM initial data anticipated 1Q 2021

RP2D – Recommended Phase 2 Dose, SPEP – Serum Protein Electrophoresis

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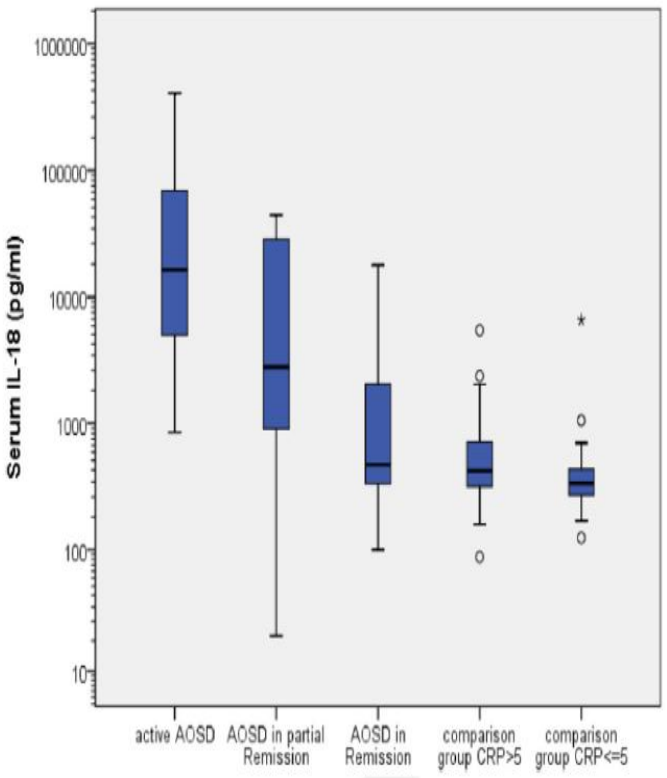
Adult-Onset Still's Disease (AOSD) Overview

- Rare disease with estimated U.S diagnosed prevalence of 3,500 to 7,000[1]
- Symptoms include fever, rash, pharyngitis, arthritis, liver disease, increased ferritin
- No definitive genetic or infectious cause
- ~40% have severe chronic disease[2]
- Treatment: NSAID, steroids, immunosuppressants and anti-IL-1

Serum IL-18 Levels Significantly Elevated in AOSD Patients



1. ClearView Healthcare Partners Analysis, May 2017
2. Gerfaud-Valentin et al. (2014) *Autoimmun Rev.* 13(7):708-22.
3. Figure from Kudela et al. (2019) *BMC Rheumatol.* 3:4.

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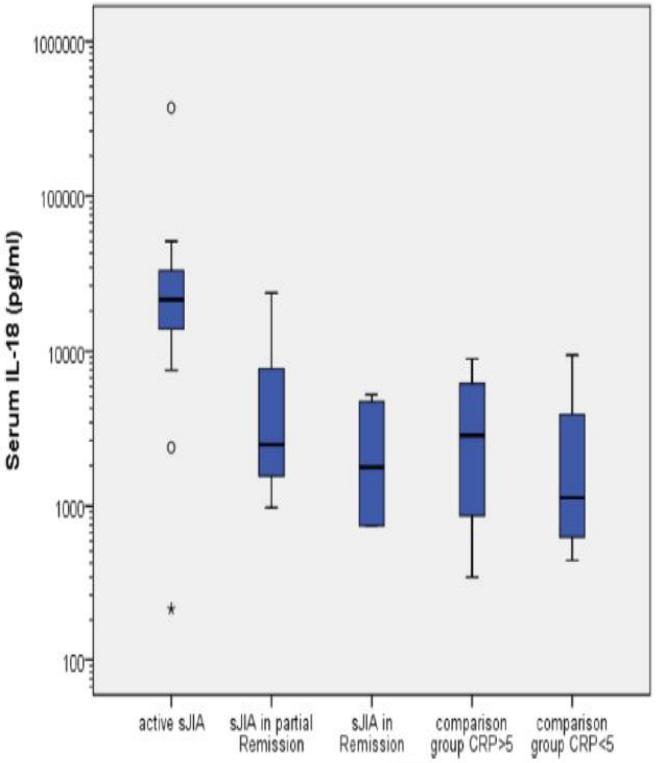
Systemic Juvenile Idiopathic Arthritis (sJIA) Overview

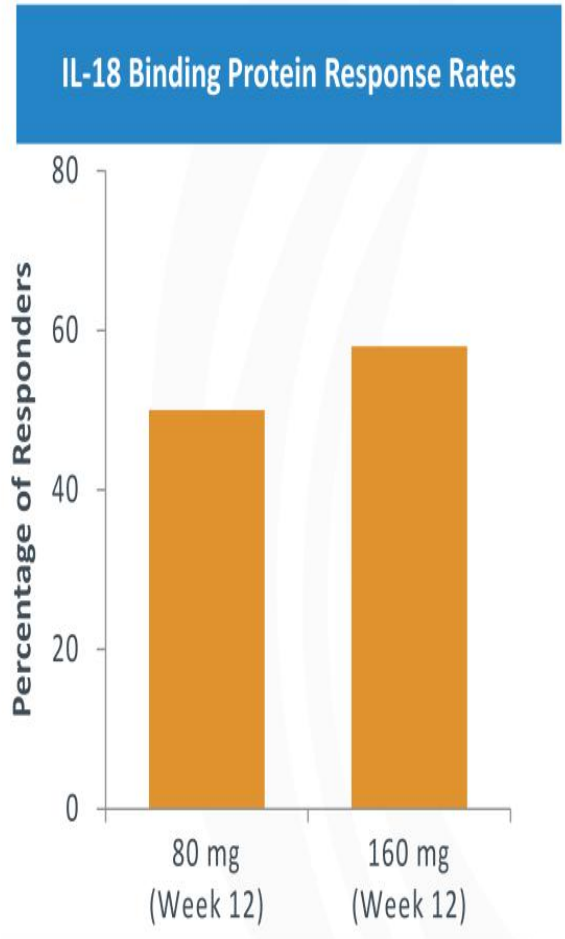
- Rare childhood onset disease with estimated U.S. diagnosed prevalence of 4,500 to 6,500[1]
- Intermittent fever, rash and arthritis; often splenomegaly, lymph nodes
- Autoinflammatory disease – not autoimmune
  - IL-1, 6, 18 other cytokines important in the pathogenesis
- Treatment: NSAID, DMARDS and Targeted Therapies (anti-IL-1 and anti-IL-6)
  - Significant number of refractory patients

Serum IL-18 Levels Significantly Elevated in sJIA Patients



1. ClearView Healthcare Partners Analysis, May 2017
2. Figure from Kudela et al. (2019) *BMC Rheumatol.* 3:4.

Proof-of-Concept Clinical Data: IL-18 Binding Protein Demonstrates Efficacy Response in Patients with AOSD



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

Gabay et al. *Ann Rheum Dis.* 2018. 77(6):840-847

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 ≥20% from baseline values, and a 70% decrease of CRP levels compared with baseline values (or reduction to normal levels) or normalization of ferritin

CERC-007 Treatment of Patients with Adult Onset Still Disease

Potential best-in-class and first-in-class anti-IL-18 mAb

Proposed Proof-of-Concept Trial Design

A Multicenter, Phase 1b Study of CERC-007 in Subjects with Active Adult Onset Stills Disease

Inclusion Criteria

- Patients with active AOSD as measured by high fever, elevated CRP and ferritin
- Failed on NSAIDS and Corticosteroids

Estimated Enrollment: N = 12

12 weeks

CERC-007 7 mg/kg (max 500 mg) q 4 weeks (n=6)

12 weeks

CERC-007 14 mg/kg (max 500 mg) q 4 weeks (n=6)

Primary Endpoint

- Reduction of CRP by at least 50% and elimination of fever for > 48 hours

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 2Q 2021

CRP – C Reactive Protein, DAS – Disease Activity Score,

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CERC-006

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

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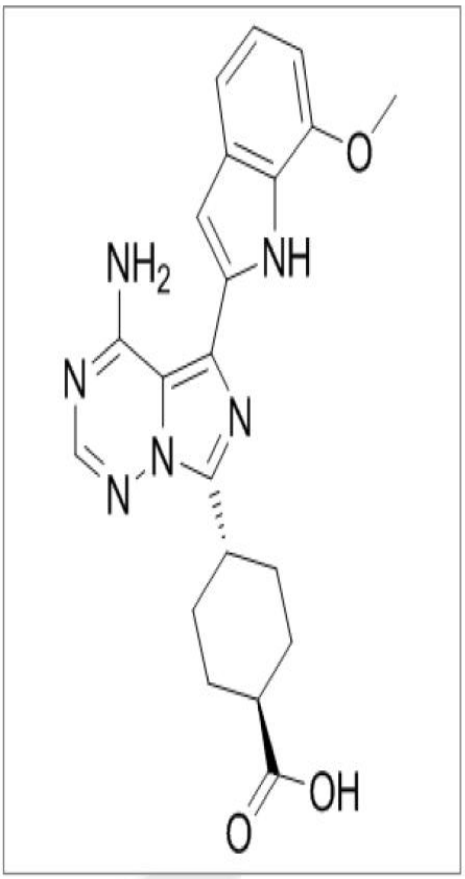
High Potency, Second Generation, Dual Inhibitor of mTORC1/2

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; IC_{50} = 22 nM and 65 nM for mTORC1 and mTORC2, respectively[2]



[1] Mateo et al. *Br J Cancer*. 2016, 114(8):889-96.; [2] Bhagwat et al. *Mol Cancer Ther*.2011, 10(8):1394-406

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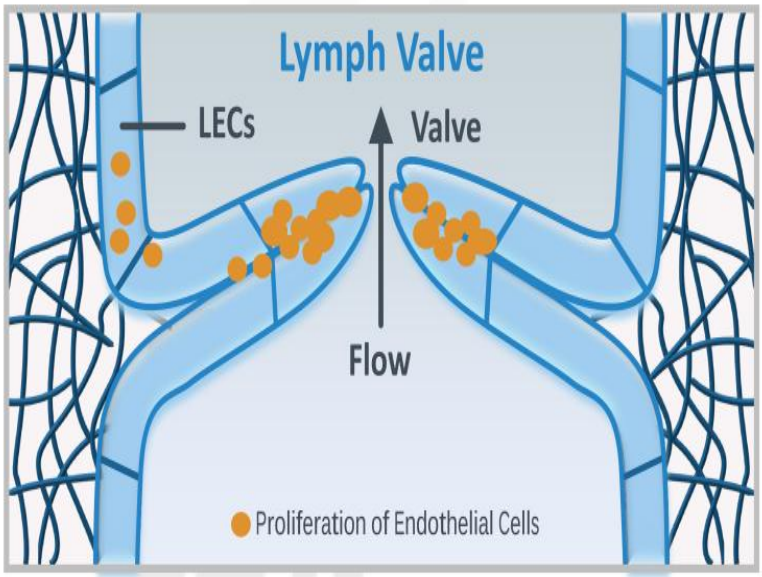
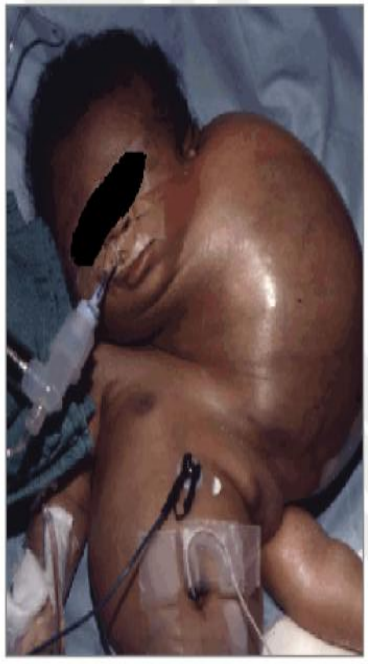
Complex Lymphatic Malformations Are a Family of Potentially Life-threatening Congenital Diseases



- 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

Source: Figure adapted from Brouillard et al. (2014) *J Clin Invest*. 124(3):898-904

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Off-label Use of mTOR Inhibitor Sirolimus in LM

Open-label clinical studies support efficacy, however use is limited by tolerability issues and lack of FDA approval

- Phase II trial enrolled patients with complicated vascular anomalies[1]
  - Study enrolled patients with different subtypes of LM 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 causes 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	• 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	

[1] Adams et al. *Pediatrics*. 2016, 137(2):e20153257.

CERC-800s

Monosaccharide therapy for Congenital Disorders of Glycosylation (CDGs)

CERECOR

Congenital Disorders of Glycosylation (CDG): 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 supplementation[1]
  - MPI-CDG: D-mannose supplementation[2]
  - LAD-II (SLC35C1-CDG): L-fucose supplementation[3]

[1]Wong et al. (2017) *Genet Med.* 19(11):1226-1235. [2]Harms et al. (2002) *Acta Paediatr.* 91(10):1065-72. [3]Marquardt et al. (1999) *Blood.* 94(12):3976-85.

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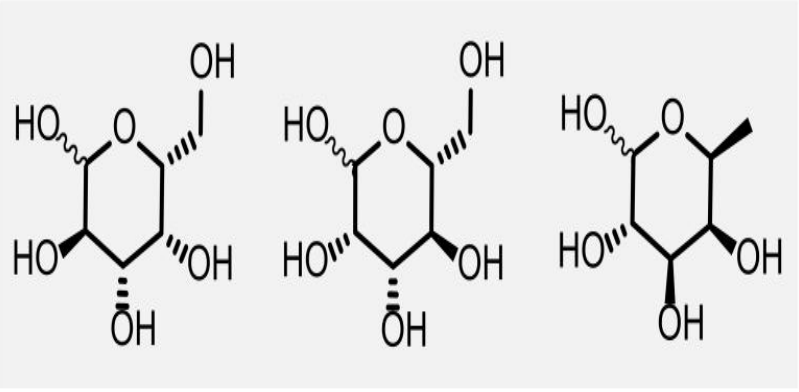
Pharmaceutical Grade Treatments for CDGs

Opportunity to be the first FDA approved drugs for CDGs

- Established therapeutic POC
- GMP manufacturing and FDA approval will ensure quality and consistency
- Potential for reimbursement

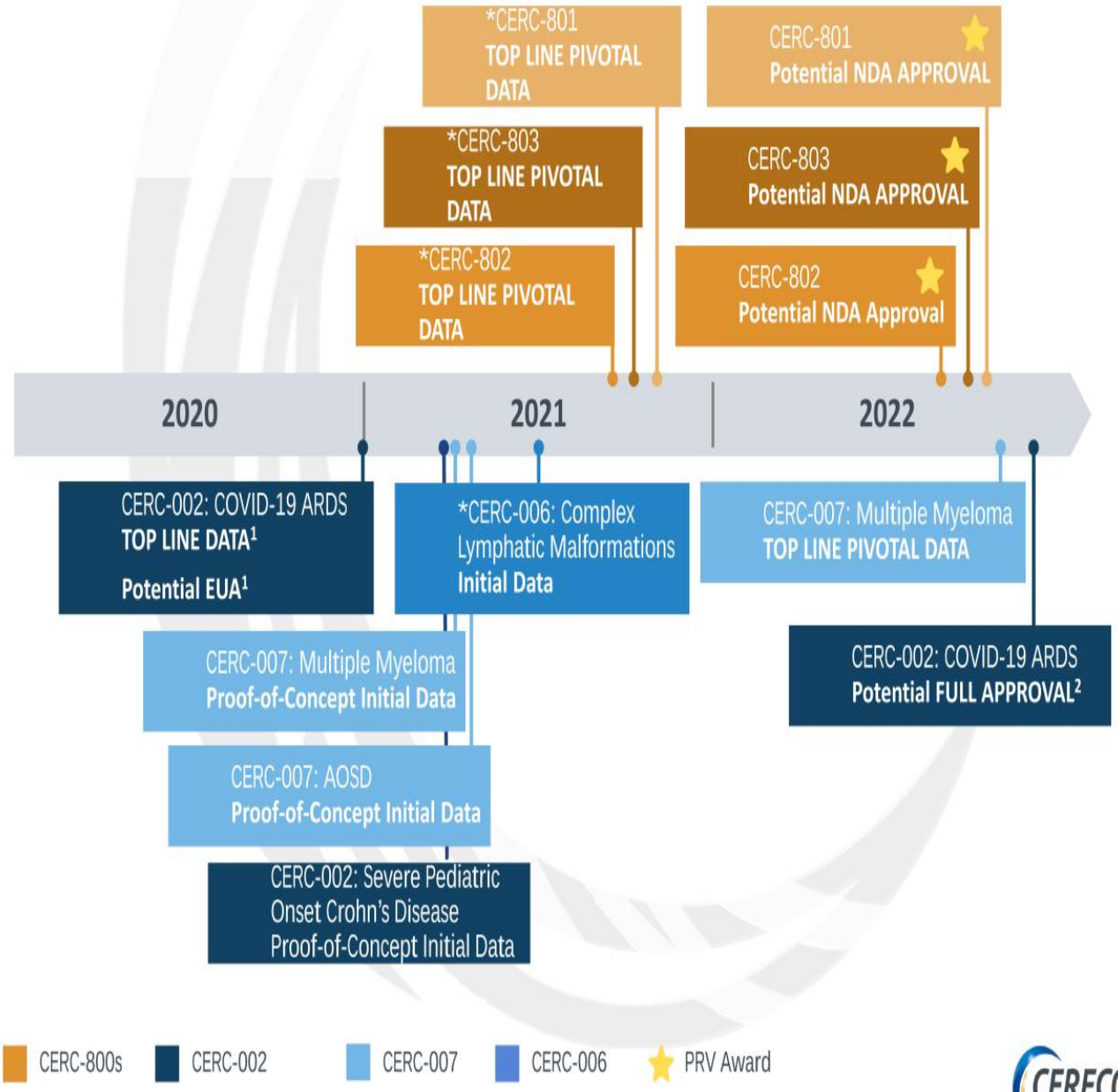


	CERC-801	CERC-802	CERC-803
Accelerated Pathway	✓	✓	✓
FDA ODD 7-yrs Exclusivity	✓	✓	✓
Priority Review Voucher*	✓	✓	✓
Pivotal Data Anticipated	2H 2021	2H 2021	2H 2021

*All three CERC-800 compounds granted RPDD prior to September 30, 2020; eligible for Priority Review Voucher upon approval

Highlights Through 2022

Multiple catalysts and 4 potential PRV awards from first-in-class medicines for diseases with no approved treatment options



* PRV Eligible [1] COVID-19 Related ARDS; additional pivotal study will be run if necessary [2]Broader ARDS. EUA: Emergency Use Authorization

Key Financial Information

Financial & Investor Information

Key financial highlights

NASDAQ:CERC

The following data is as of September 30, 2020

- Outstanding common shares – 74.9M
- Fully diluted shares – 94.9M
- Average daily trading volume – 563K
- Cash – $33.4M*

*Preliminary unaudited cash balance as of December 31, 2020 is $18.9 million

CERECOR

Select Board and Management Team Members

Proven track record in drug development & commercialization

Michael Cola

Chief Executive Officer

- Former President of Specialty Pharmaceuticals, Shire plc
- Former President of the Life Sciences Group, Safequard Scientifics, Inc.

Garry Neil, MD

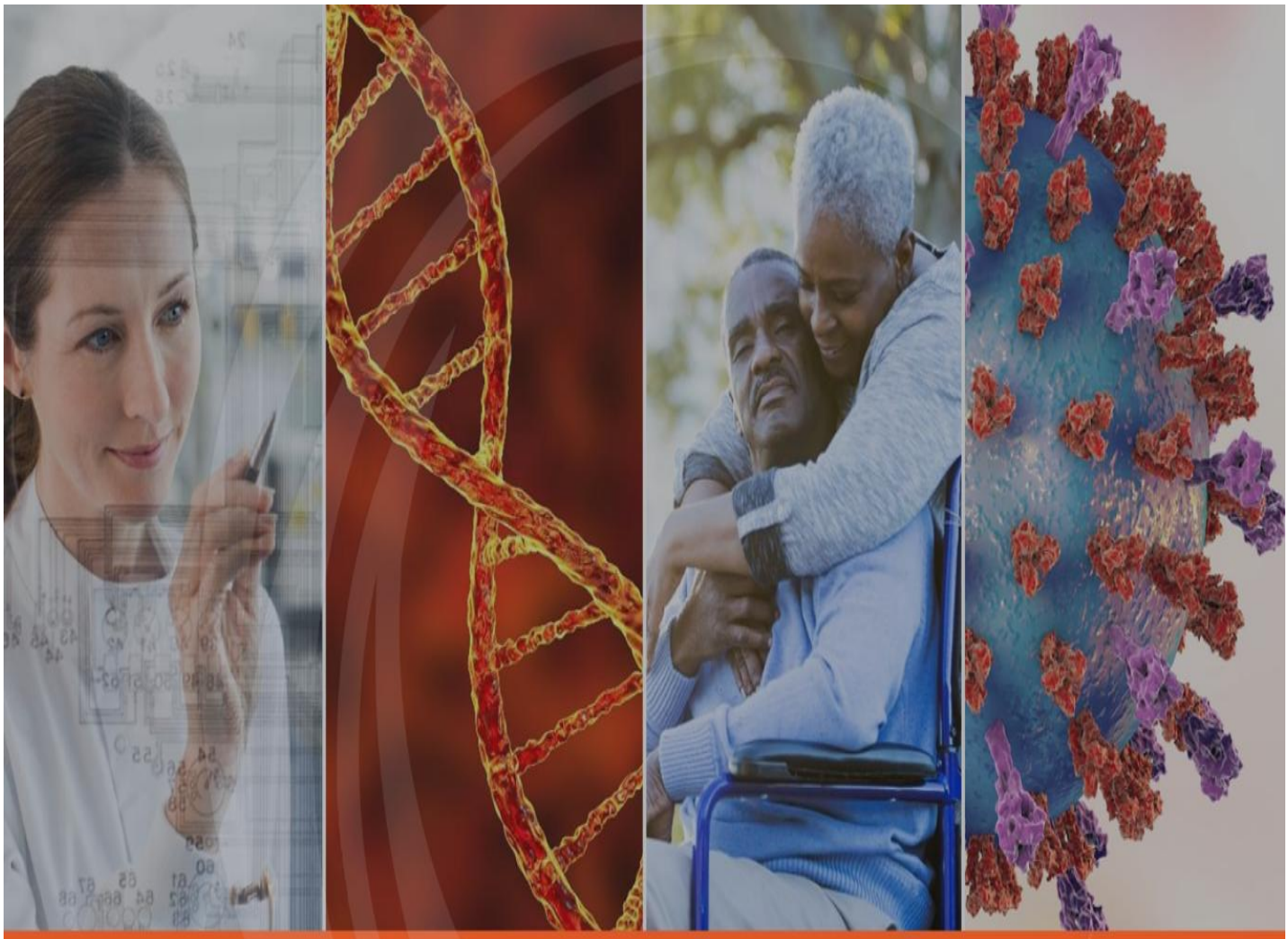
Chief Scientific Officer

- Former Corporate VP of Science & Technology, Johnson & Johnson
- Former Group President, Johnson & Johnson Pharmaceutical Research and Development

Sol J. Barer, PhD

Chairman of the Board of Directors

- Chairman of the Board of Directors, Teva Pharmaceutical Industries
- Former Chairman and CEO, Celgene Corp.



NASDAQ:CERC

www.cerecor.com

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CERECOR

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