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

FORM 8-K

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

Date of Report (Date of earliest event reported) June 1, 2020

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 April 30, 2020 was approximately $13.0 million. This estimate of the Company's cash and cash equivalents as of April 30, 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 quarter ended June 30, 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 quarterly period are finalized.

The information in Item 2.02 of this Current Report on Form 8-K shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended. The information contained herein shall not be incorporated by reference into any filing with the Securities and Exchange Commission (the "SEC") made by the Company, whether made before or after the date hereof, except as expressly set forth by specific reference in such a filing.

Item 8.01. Other Events.

On June 1, 2020, 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 April 30, 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: June 1, 2020

/s/ Christopher Sullivan

Christopher Sullivan

Interim Chief Financial Officer

Exhibit 99.1

Patient Inspired Science

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

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June | 2020 Corporate Highlights | Focus on COVID-19 ARDS

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: our 2020 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 our 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.

Highlights

- Recent Merger of Cerecor and Aevi has created a rich pipeline of novel, 1st in class assets all with proven mechanistic rationale
- Only known anti-LIGHT mAb in the clinic, offers potential to treat cytokine storm-induced COVID-19 ARDS in the near-term and broader ARDS indication beyond
  - CERC-002 will enter the clinic in June and is expected to deliver definitive topline POC data in Q4 2020
- CERC-007 (anti-IL-18 mAb), unique molecular target, is expected to deliver initial data in multiple myeloma 1Q 2021 and top line data 2Q 2021; initial data in adult onset Still's Disease by 2Q 2021.
- CERC-006 (dual mTOR inhibitor), topline data expected 2Q 2021
- CERC-800 series (substrate replacement therapy for congenital disorders of glycosylation, all orphan designated, Priority Review Vouchers eligible) will release data from CDG-FIRST 1H 2020
  - CERC-801 pivotal trial expected start 4Q 2020, top line data expected 4Q 2021
  - CERC-802 pivotal trial expected start 4Q 2020, top line data expected 3Q 2021
  - CERC-803 pivotal trial expected start 1H 2021, top line data expected 2H 2021

Clinical-Stage Pipeline

Core Research & Development Areas	Therapeutic Area	Program	Mechanism of Action	Lead Indication	Development Stage				
					Preclinical	Phase 1	Phase 2	Phase 3	Upcoming Milestone
Immunology	Inflammation	CERC-002	Anti-LIGHT mAb	ARDS					Initial Data 4Q 2020
		CERC-002	Anti-LIGHT mAb	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 1Q21 Top Line 2Q21
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					Initial data from CDG-FIRST 1H20
		CERC-802	D-Mannose replacement	MPI-CDG					
		CERC-803	L-Fucose replacement	LADII-CDG					

CERC-007

Phase 2-ready, anti-IL-18 monoclonal antibody for Multiple Myeloma & Adult Onset Still's Disease

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Phase II-Ready Asset for Multiple Myeloma (MM) and Adult Onset Still's Disease (AOSD)

First-in-class, only fully human anti-IL-18 mAb with potential to address multiple tumor types and inflammatory conditions

Strong Scientific Rationale	• Elevated IL-18 is correlated with poor survival in MM patients and disease severity in AOSD patients
Need for Novel MOAs	• A need for improved durability of response and treatment relapse rate in multiple myeloma • Currently there are no approved targeted therapies for AOSD in the U.S.
Unique Mechanism of Action	• IL-18 allows tumor to evade immune destruction, and is a driver of tumor growth • Demonstrated proof-of-concept with an IL-18 binding protein in AOSD
Clinical Differentiation	• Unique MOA and safety profile makes it an ideal candidate for combination therapy in MM • Completely new mechanism with strong correlation for disease severity in AOSD

Source: Nakamura Cancer Cell. 2018. 33(4):634-648.e5.; Kudela et al. (2019) *BMC Rheumatol*. 3:4

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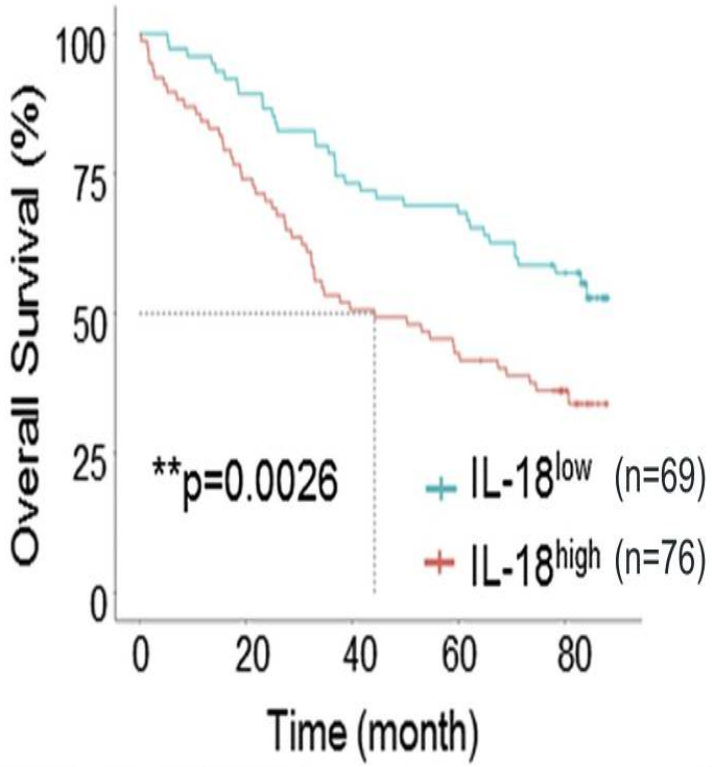
Strong Potential in Multiple Myeloma

Elevated IL-18 levels correlate with poor survival in multiple myeloma patients

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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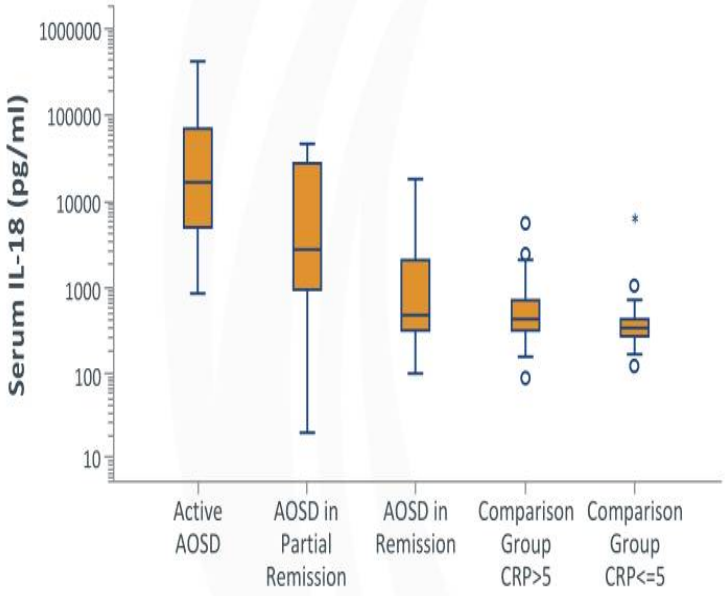
Additional Targets within IL-18-Mediated Autoimmune Disorders

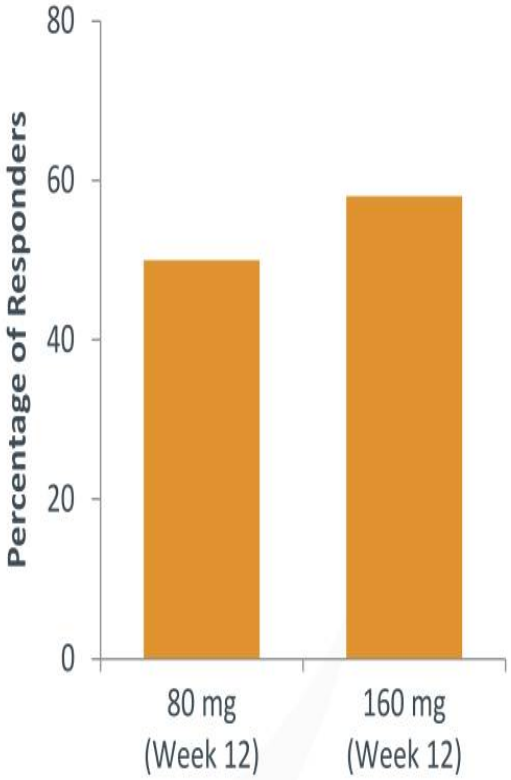
IL-18 levels correlate with AOSD severity

Elevated Serum IL-18 Levels in AOSD Patients



- IL-18 is a key driver of several orphan auto-inflammatory diseases
  - Adult Onset Still's Disease (AOSD)
- Serum IL-18 correlates with disease severity
  - AB2 Bio clinical proof-of-concept in AOSD (n = 23) using IL-18bp (T1/2 = 40 h); 4/4 patients with undetectable serum IL-18 had a clinical response

IL-18bp Response Rates



Patients Received Subcutaneous Administration of 80 or 160 Mg Three Times per Week

 Kudela et al. *BMC Rheumatol*. 2019. 3:4. Gabay et al. *Ann Rheum Dis*. 2018. 77(6):840-847

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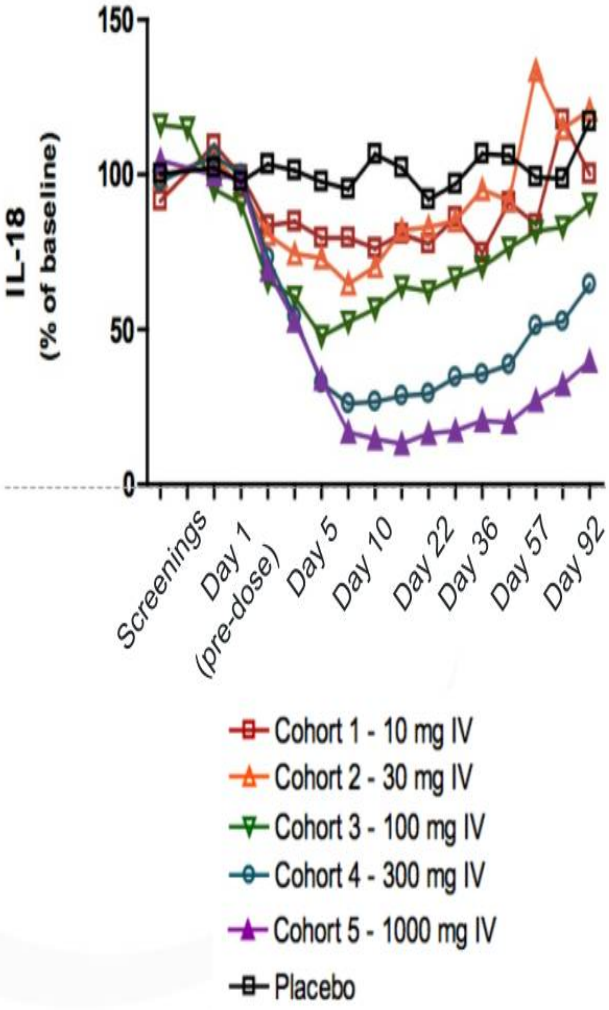
First-in-Class Anti-IL-18 High Affinity Monoclonal Antibody

Data from phase 1 study demonstrated favorable PK and safety profile

- 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 2-ready 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

Program Update as of June 2020

Anticipate proof-of-concept trial initiation Q4 2020 in both MM and AOSD

Multiple Myeloma

- Pre-IND meeting with the FDA completed, concurrence on high-level design
- CRO under contract (PRA); sites selected; study start anticipated early 4Q 2020
- Classic 3+3 dose escalation design to determine recommended Phase 2 dose (anticipated 1Q 2021) followed by a treatment expansion portion to establish response rate (anticipated 2Q 2021)

AOSD

- Pre-IND meeting with the FDA completed, working through design details
- CRO under contract (PRA); study start anticipated 4Q 2020

CMC

- Preparing clinical supplies, expected 3Q 2020
- Supply sufficient for multiple POC studies
- CMO: Catalent Biologics

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CERC-006

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

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Phase II-Ready Asset for Complex Lymphatic Malformations

Potential first-in-class potent inhibitor of mTORC1/mTORC2

High Unmet Need	• Orphan disease(s) with combined US prevalence of 30 to 60k associated with high mortality rates of 20% to 50% over 3 to 7 years
Demonstrated Proof of Concept	• Off label use of sirolimus (mTORC1 inhibitor) has demonstrated modest efficacy, hampered by significant safety issues
Potent Dual mTOR Inhibition	• Potent inhibitor of mTORC1/mTORC2 allowing for lower dosing to achieve efficacy and improve safety • Dual inhibition may prevent upregulation of AKT and PI3K, potentially leading to less diabetes and mucositis
Potential to Become Standard of Care	• Potential to be the first pharmacologic therapy approved for complex lymphatic malformations

Source: ClearView market research

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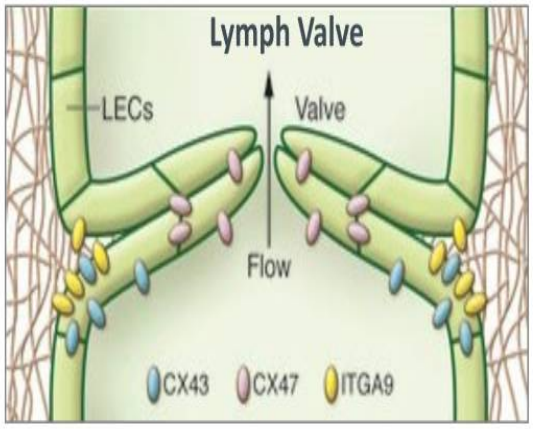
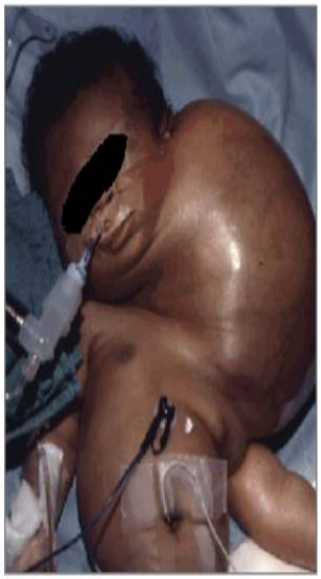
Complex Lymphatic Malformations Are a Family of Potentially Life-threatening Congenital Diseases

- 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



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

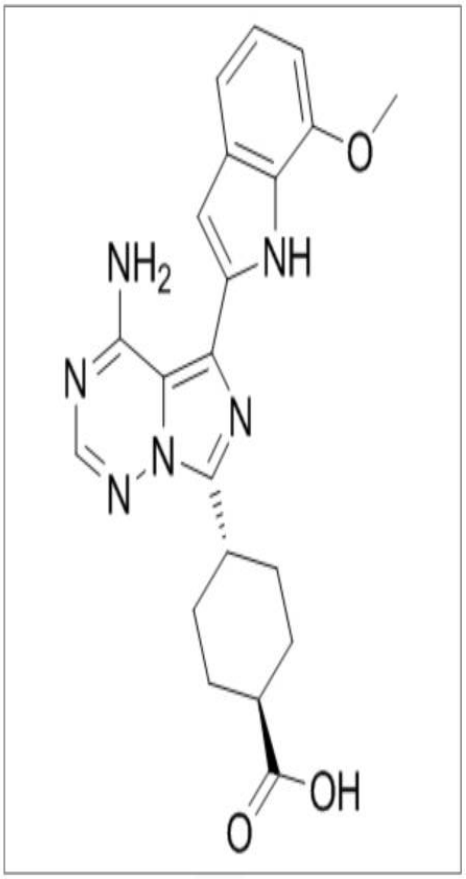


Source: figure adapted from Brouillard et al. (2014) *J Clin Invest*. 124(3):898-904

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

Potential for improved efficacy and tolerability

- 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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Program Update as of June 2020

Anticipate proof-of-concept trial initiation Q1 2021

Complex Lymphatic Malformations

- Pre-IND meeting with the FDA completed, concurrence on inclusion criteria and high-level design
- Key sites identified and KOLs engaged, study start anticipated 1Q 2021
- Orphan Drug and Rare Pediatric Disease Designation (PRV eligibility) application submission planned for June 2020

CMC

- Clinical supplies expected 4Q 2020
- Manufacturing underway at Patheon

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CERC-800s

Monosaccharide therapy for Congenital Disorders of Glycosylation (CDGs)

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Treatment for Congenital Disorders of Glycosylation (CDGs)

Monosaccharide therapy for PGM1-CDG, MPI-CDG and LADII

High Patient Unmet Need	• Ultra-rare Orphan diseases with an estimated 1,000 to 1,500 patients world-wide; no approved therapies to date
Demonstrated Proof of Concept	• Data from the literature shows clinical and biomarker improvement when patients are treated with non-approved, non-GMP monosaccharides (D-galactose / D-mannose / L-fucose)
Efficient Development Approach	• Small prospective trials for each indication • Global engagement with KOLs helps identify patients and sites • Potential Priority Review of NDAs (8-month review cycle)
Rare Disease Focus	• All three programs have been orphan-designated and are PRV eligible

 Source: DelveInsight Syndicated Report

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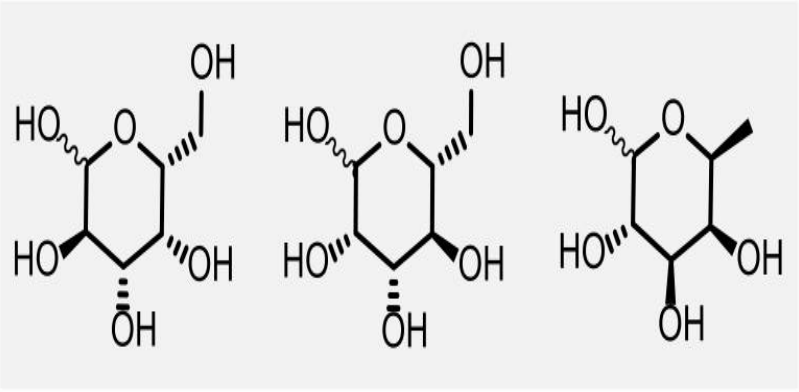
Pharmaceutical Grade Treatments for CDGs

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



Eligibility	CERC-801	CERC-802	CERC-803
Accelerated Pathway	✓	✓	✓
NCE 5-yrs Exclusivity	✓	✓	✓
FDA ODD 7-yrs Exclusivity	✓	✓	✓
Priority Review Voucher	✓	✓	✓

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Program Update as of June 2020

All three programs on track

CERC-801	• Natural history data is being provided by NIH funded Frontiers in Congenital Disorders of Glycosylation Consortium (FCDGC) Project in June 2020 • Pivotal trial will be run in collaboration with the Frontiers Project in 4Q 2020; trial design completed; Type C FDA meeting planned for 3Q 2020 • Sites and patients identified via the Frontiers Project • Estimated N=10; 6-month study with primary endpoint of surrogate biomarkers
CERC-802	• Natural history data for MPI-CDG in press June 2020 • Sites and patients identified through engagement with KOLs • Type C FDA meeting planned for 3Q 2020; trial design completed; study start expected 4Q 2020 • Estimated N=5; 3-month study with primary endpoint: maintenance of antithrombin III
CERC-803	• Ultra rare disease with multiple patients and sites identified • IND submission planned for 4Q 2020
CMC	• Clinical supplies manufacturing on track for all three programs

CERC-002

Anti-LIGHT monoclonal antibody in clinical studies for COVID-19 ARDS

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The Impact of Cytokine Storm Induced COVID-19 ARDS

The outbreak of Coronavirus Disease 2019 (COVID-19) has created a global health crisis

Approximately **1,500*** people in the United States **die** each day from COVID-19

The viral infection triggers a hyperactive immune response leading to cytokine storm and **Acute Respiratory Distress Syndrome (ARDS),** a leading cause of death in COVID-19 patients

There is currently **no effective treatment** for **Cytokine Storm induced COVID-19 ARDS**

Our data implicate the inflammatory cytokine, **LIGHT**, as a potential key driver of cytokine storm leading to ARDS and death

We believe CERC-002 is the only known therapeutic currently in clinical development that inhibits the inflammatory cytokine LIGHT

 *Data from Bloomberg COVID Tracker April 2020

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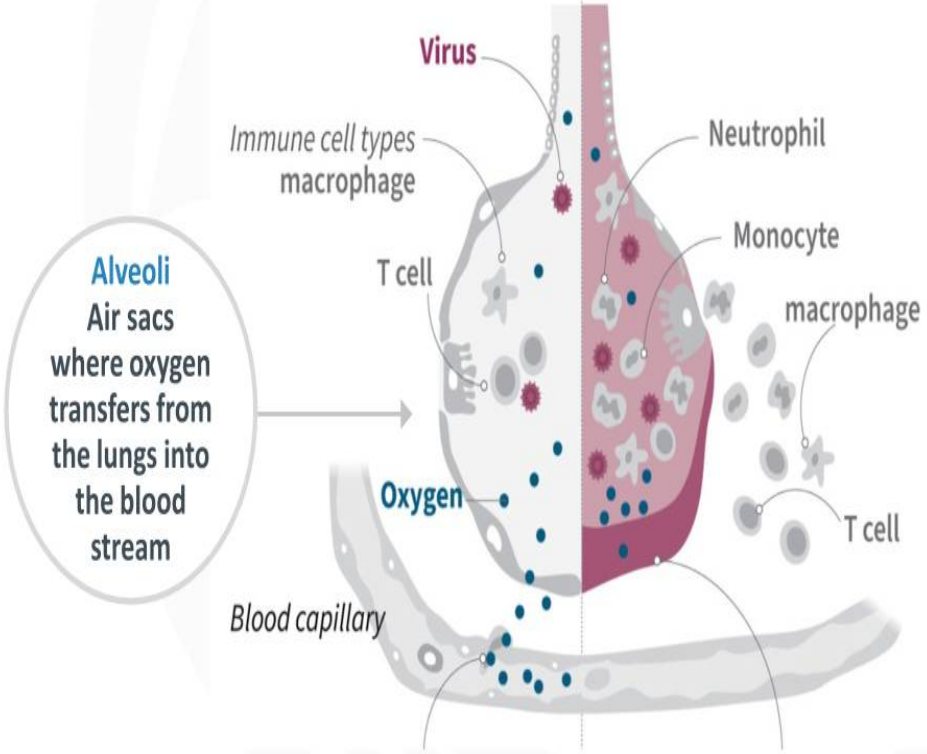
Hyperactive Immune Response Leads to Cytokine Storm

Cytokine storm induced ARDS is a major driver of poor COVID-19 outcomes

Protective Immune Response	Hyperactive Immune Response
Immune cells arrive at the site of infection but do not overwhelm	Excessive cytokines lead to over-recruitment of immune cells and hyperinflammation

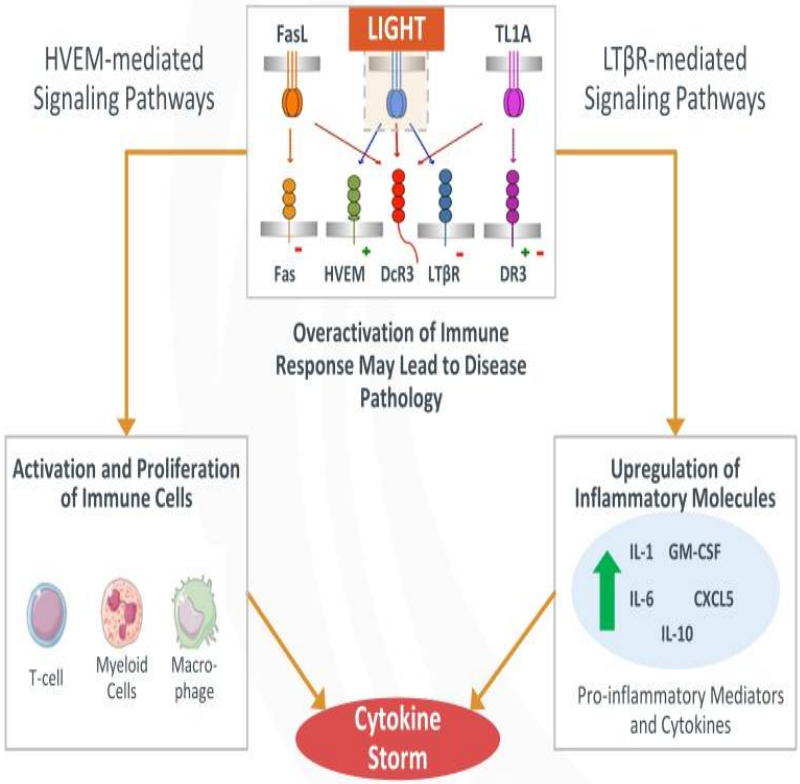


Oxygen transfer is not impacted by immune response	Excessive immune response leads to cell death and respiratory failure

Figure adapted from AFP Graphics
https://twitter.com/AFPgraphics/status/1246330114171961358/photo/1

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 COVID-19 ARDS

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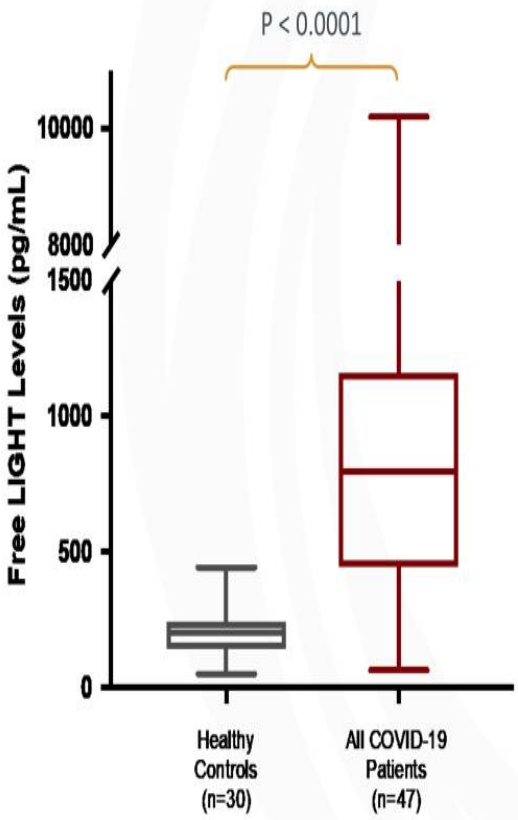
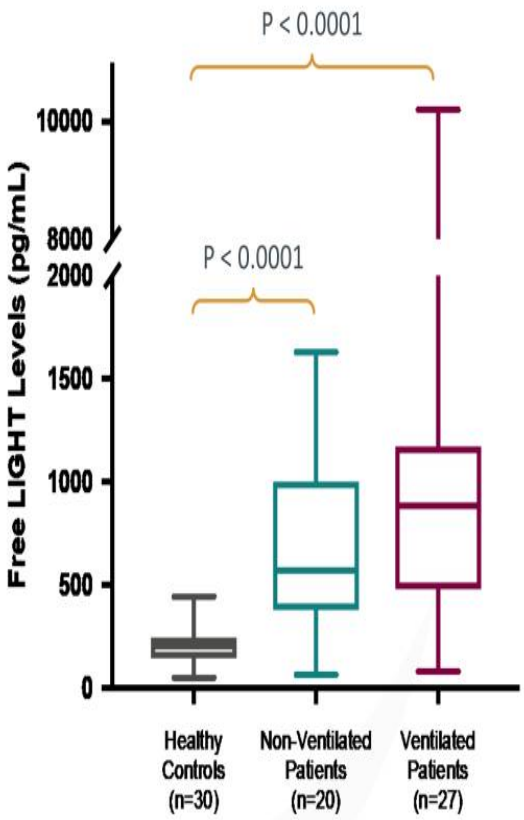
LIGHT is Significantly Elevated in Hospitalized COVID-19 Patients

LIGHT Levels in Hospitalized COVID-19 Patients



LIGHT Levels in Both Non-Ventilated and Ventilated Patients



Free LIGHT levels are significantly elevated in serum of hospitalized patients with COVID-19, suggesting that it plays a key role in underlying disease pathophysiology

 Data on file; Press released 05/26/2020

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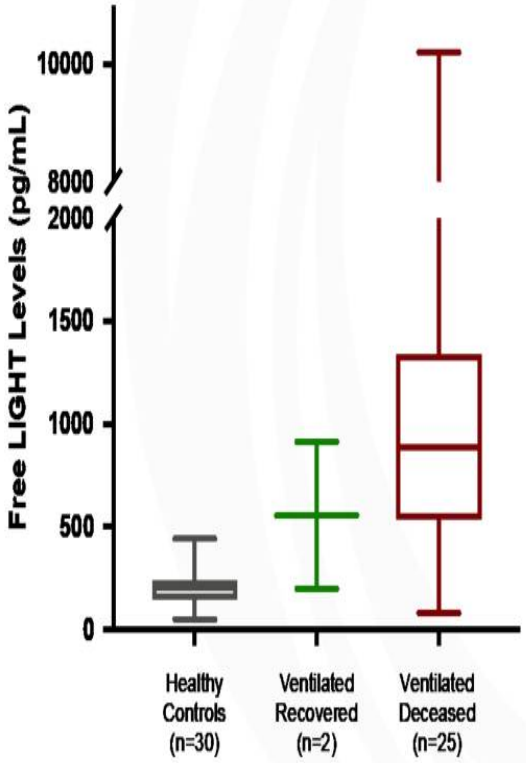
Elevated LIGHT Levels Are Linked to Mortality in Ventilated Patients

Elevated LIGHT Levels Associated with Increased Mortality in Ventilated Patients



Key Implications

- In ventilated patients, LIGHT levels were higher in those patients that eventually died than in those patients that recovered. This did not reach statistical significance because of the small number of survivors (n=2)
- Observed mortality rate was higher for ventilated patients (93%) compared to non-ventilated patients (20%)

Elevated LIGHT may be a predictor of mortality in COVID-19 ARDS patients, most notably in those being treated with invasive mechanical ventilation

 Data on file; Press released 05/26/2020

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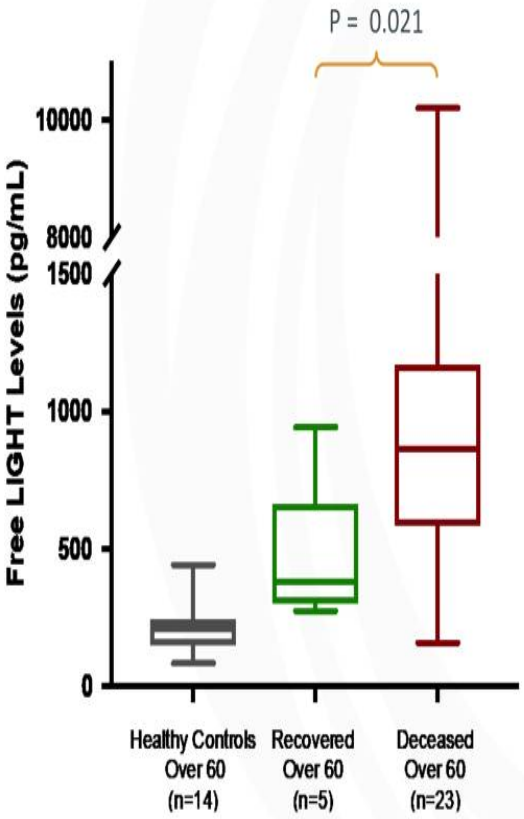
Elevated LIGHT is Most Strongly Linked to Mortality in Patients 60+

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

 Data on file; Press released 05/26/2020

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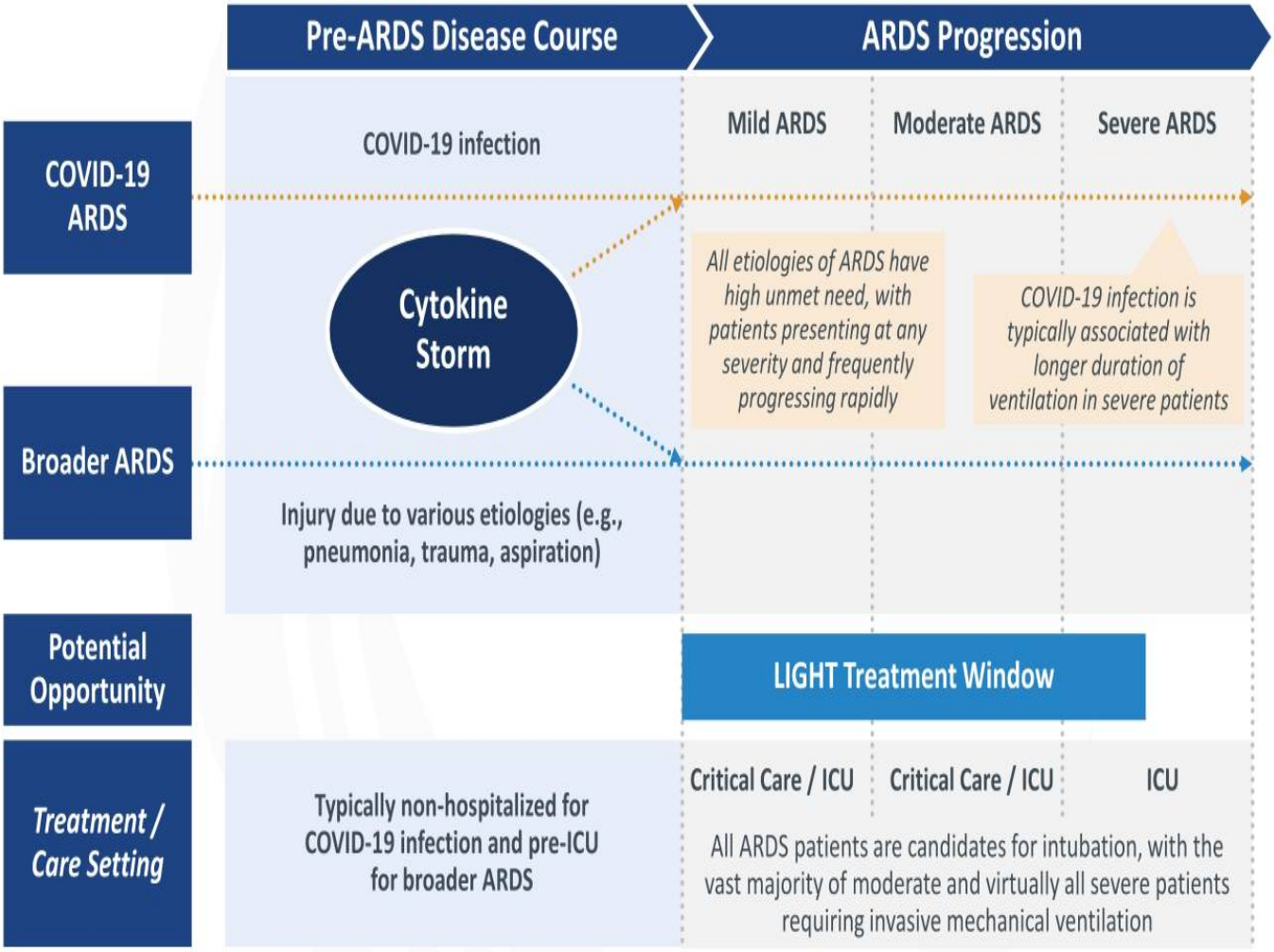
Cytokine Storm Drives ARDS Across Etiologies

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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Potential Beyond COVID-19 ARDS

CERC-002 may be applicable to the broader ARDS population

COVID-19 ARDS Patients

- High Morbidity and Mortality
- High ICU / Ventilation Cost ($90 – $125 K per patient)
- Rationale for LIGHT as a Target
- Rapid Development Potential
- Persistent Long-term Incidence

Broader ARDS Patients

- Viral / Bacterial Infections
- Trauma
- Aspiration
- Sepsis
- Pancreatitis

CERC-002 has the potential to treat the underlying disease of cytokine storm induced ARDS

Source: Chueng. *Am J Respir Crit Care Med.* 2006; Dasta. *Crit Care Med.* 2005; Hamel. *Am J Med;* 2000; Bice. *Semin Respir Crit Care Med.* 2013; ClearView Analysis. MV: Mechanical Ventilation

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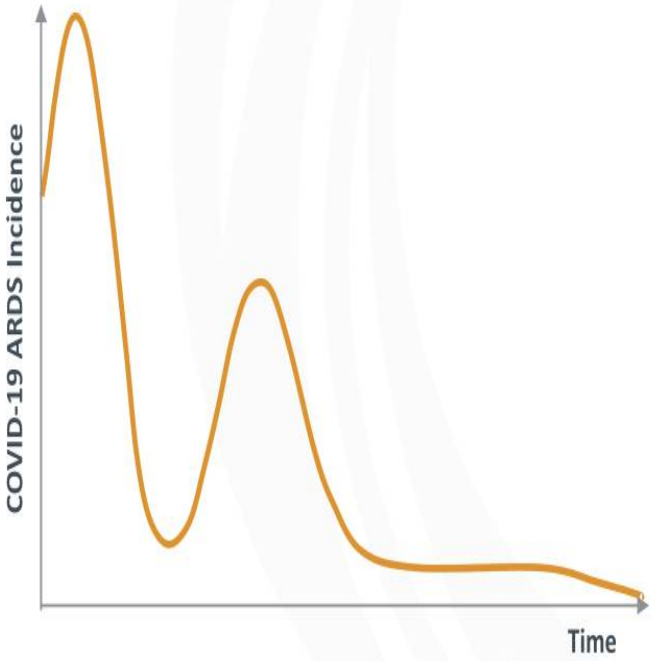
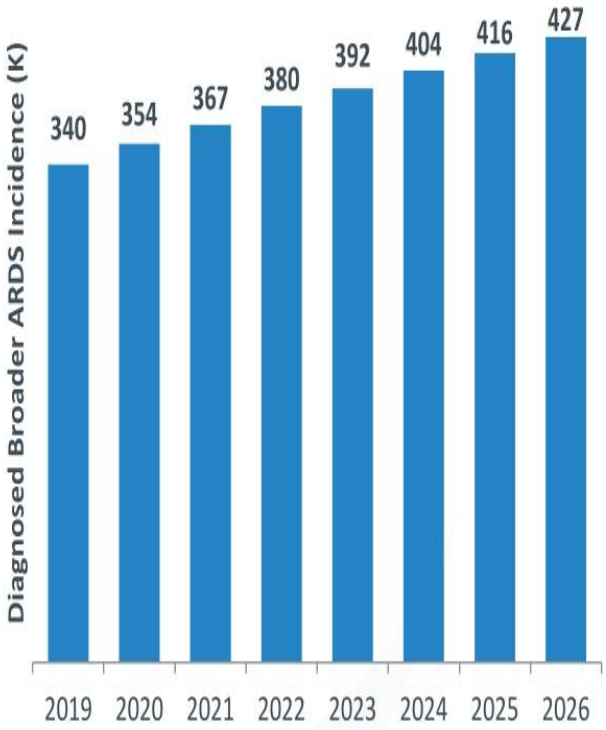
COVID-19 and Broader ARDS Target Populations

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

U.S. COVID-19 Related ARDS Patients



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

The only known clinical stage anti-LIGHT antibody

Free LIGHT Assay Developed in Collaboration with Myriad RBM

Enables a biomarker / precision medicine development approach

Positive Toxicology Profile

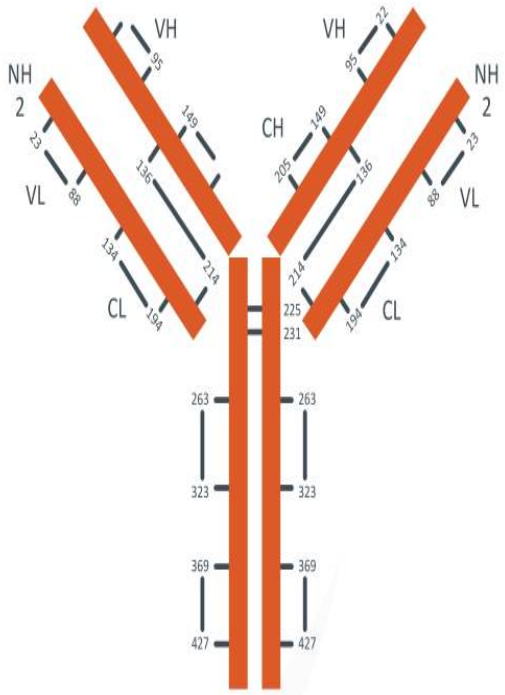
8-week monkey toxicology study was well tolerated up to 100 mg/kg per week with NOAEL at 60 mg/kg

Phase I Trial Successfully Completed

Up to 1200 mg SQ in healthy volunteers (n=48) without significant toxicity

Phase I/II open-label signal finding study in Crohn's disease currently ongoing (US IND 113264)

One patient completed study and drug was well-tolerated with a **significant reduction in LIGHT levels at a low dose with a clinically meaningful improvement**



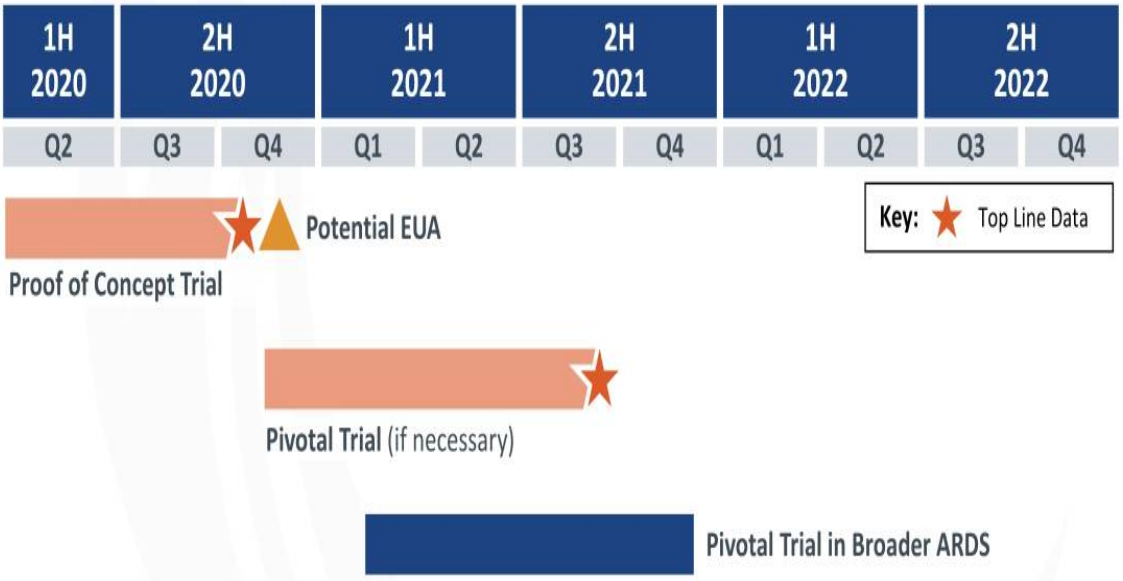
Discovered at La Jolla Allergy Institute and Licensed by Cerecor in 2016

 SQ: Subcutaneous; NOAEL: No observed adverse effect level

Clearance from the FDA to Initiate Clinical Trial in Cytokine Storm-Induced COVID-19 ARDS with CERC-002

Clear path for clinical development in COVID-19 ARDS, creating a path for development in generalized ARDS

Planned Development Path for CERC-002



Proof of Concept trial to begin in June 2020; Expected top line data Q4

EUA: Emergency Use Authorization

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 Acute Lung Injury

Estimated Enrollment (N=82)

1:1 Randomization

- **CERC-002 (16 mg/kg [maximum 1200 mg]) on Day 1 by SQ injection + Standard of Care**
- **Placebo-matched SQ injection + Standard of Care**

Primary Endpoint

- The proportion of patients treated with CERC-002 compared with placebo in addition to standard of care, alive and free of respiratory failure over 28 days
- 80% power to show a 40% Δ

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

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Physician Perspectives on CERC-002

Front line physicians[1] (n=14) with significant experience in COVID-19 and ARDS broadly viewed CERC-002's mechanism as novel with potential to fill an urgent unmet need

Urgent Medical Need	"There are very few options for ARDS patients so I would definitely want to use an agent like this."
Novel MOA	"This mechanism has higher potential to address ARDS than other cytokine inhibitors."
Broad Anticipated Utilization	"This mechanism makes sense for all types of ARDS, not just COVID-19."

Source: Physician Interviews, ClearView Healthcare Partners.

[1]14 physicians and KOLs were interviewed for an hour each for insights into COVID-19 ARDS, broader ARDS, and CERC-002.

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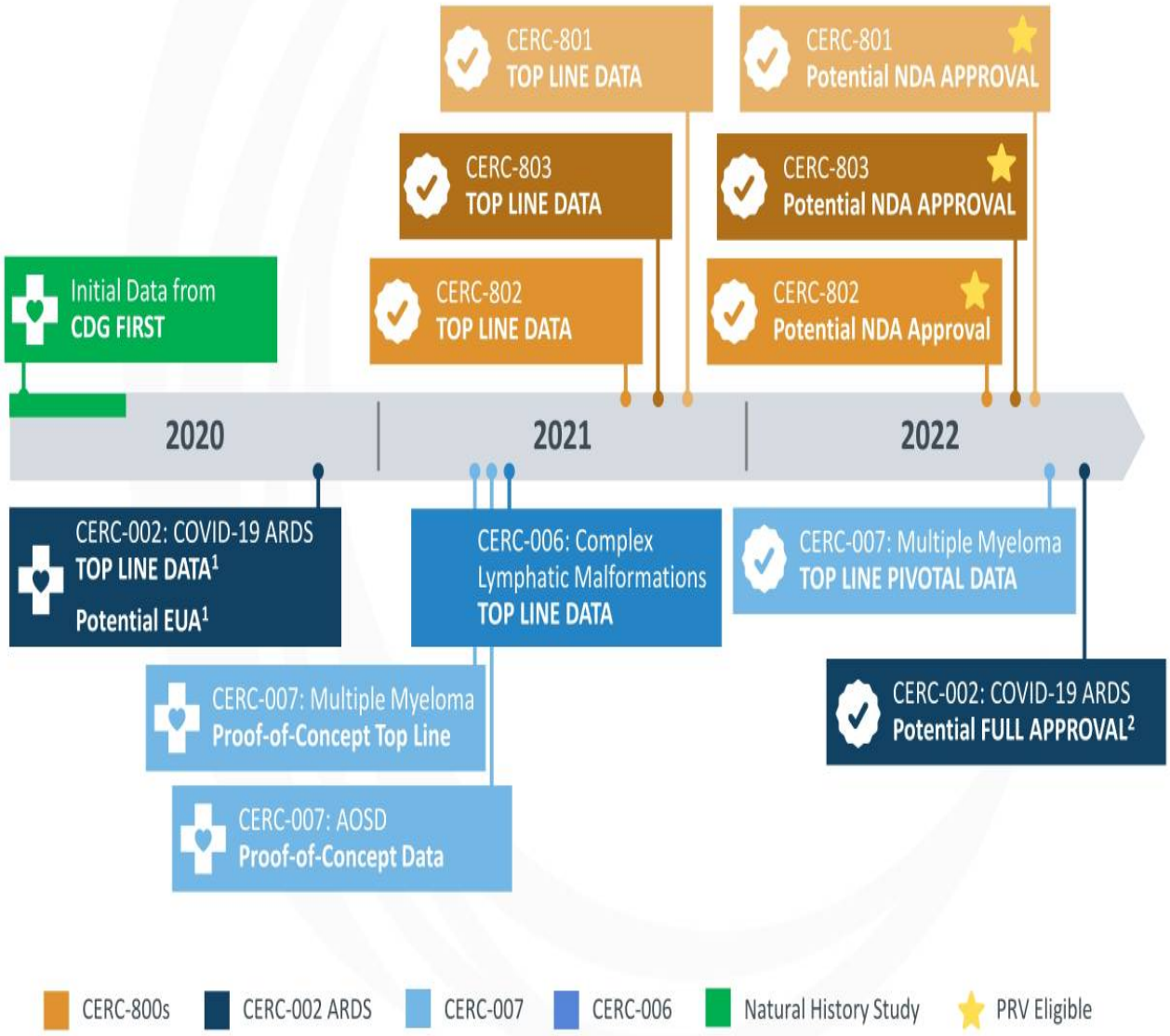
Highlights Through 2022

Multiple catalysts and 3 potential PRV awards from first-in-class medicines for diseases with no approved treatment options



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

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Sol J. Barer, PhD
Chairman

TEVA · Celgene · Amicus Therapeutics

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References: CERC-002

- LIGHT: Lymphotoxin-like, exhibits Inducible expression, and competes with HSV Glycoprotein D for HVEM, a receptor expressed by T lymphocytes; encoded by TNFSF14 (Tumor Necrosis Factor Superfamily 14).
- Bellani G, Laffey JG, Pham T, et al. Epidemiology, Patterns of Care, and Mortality for Patients With Acute Respiratory Distress Syndrome in Intensive Care Units in 50 Countries. JAMA. 2016;315(8):788–800.
- Bhatraju PK et al., Covid-19 in Critically Ill Patients in the Seattle Region — Case Series. NEJM. 2020.
- Bice T, Cox CE, Carson SS. Cost and health care utilization in ARDS--different from other critical illness?. Semin Respir Crit Care Med. 2013;34(4):529-536.
- Cardinale CJ, Wei Z, Panossian S, et al. Targeted resequencing identifies defective variants of decoy receptor 3 in pediatric-onset inflammatory bowel disease. *Genes Immun*. 2013;14(7):447-452.
- Cheung AM, Tansey CM, Tomlinson G, et al. Two-year outcomes, health care use, and costs of survivors of acute respiratory distress syndrome. Am J Respir Crit Care Med. 2006.
- da Silva Antunes R, Madge L, Soroosh P, Tocker J, Croft M. The TNF Family Molecules LIGHT and Lymphotoxin αβ Induce a Distinct Steroid-Resistant Inflammatory Phenotype in Human Lung Epithelial Cells. J Immunol. 2015;195(5):2429-2441.
- da Silva Antunes R, Mehta AK, Madge L, Tocker J, Croft M. TNFSF14 (LIGHT) Exhibits Inflammatory Activities in Lung Fibroblasts Complementary to IL-13 and TGF-β. Front Immunol. 2018;9:576.
- Daher P, Teixeira PG, Coopwood TB, et al. Mild to Moderate to Severe: What Drives the Severity of ARDS in Trauma Patients?. Am Surg. 2018;84(6):808-812.
- Dasta JF, McLaughlin TP, Mody SH, Piech CT. Daily cost of an intensive care unit day: the contribution of mechanical ventilation. Crit Care Med. 2005;33(6):1266-1271.
- Desai P, Tahiliani V, Hutchinson TE, et al. The TNF Superfamily Molecule LIGHT Promotes the Generation of Circulating and Lung-Resident Memory CD8 T Cells following an Acute Respiratory Virus Infection. J Immunol. 2018;200(8):2894-2904.
- Eworuke E, Major JM, Gilbert McClain LI. National incidence rates for Acute Respiratory Distress Syndrome (ARDS) and ARDS cause-specific factors in the United States (2006-2014). J Crit Care. 2018;47:192-197.
- Hamel MB et al., Outcomes and cost-effectiveness of ventilator support and aggressive care for patients with acute respiratory failure due to pneumonia or acute respiratory distress syndrome. Am J Med. 2000.
- Johnson ER, Matthay MA. Acute lung injury: epidemiology, pathogenesis, and treatment. J Aerosol Med Pulm Drug Deliv. 2010;23(4):243-252.
- Kissler SM, Tedijanto C, Goldstein E, Grad YH, Lipsitch M. Projecting the transmission dynamics of SARS-CoV-2 through the postpandemic period. Science. 2020;368(6493):860-868.
- Kugathasan S, Baldassano RN, Bradfield JP, et al. Loci on 20q13 and 21q22 are associated with pediatric-onset inflammatory bowel disease. *Nat Genet*. 2008;40(10):1211-1215.
- Papazan L et al., Formal guidelines: management of acute respiratory distress syndrome. Ann. Intensive Care. 2019.
- Rubenfeld GD, Caldwell E, Peabody E, et al. Incidence and outcomes of acute lung injury. N Engl J Med. 2005;353(16):1685-1693.
- Ware CF. Targeting lymphocyte activation through the lymphotoxin and LIGHT pathways. Immunol Rev. 2008;223:186-201.
- Xu W, Xu Z, Huang L, et al. Transcriptome Sequencing Identifies Novel Immune Response Genes Highly Related to the Severity of Human Adenovirus Type 55 Infection. Front Microbiol. 2019;10:130.
- Zhang M, Perrin L, Pardo P. A Randomized Phase 1 Study to Assess the Safety and Pharmacokinetics of the Subcutaneously Injected Anti-LIGHT Antibody, SAR252067. *Clin Pharmacol Drug Dev*. 2017;6(3):292-301.

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References: CERC-006, CERC-007, CERC-800s

- Adams DM, Trenor CC 3rd, Hammill AM, et al. Efficacy and Safety of Sirolimus in the Treatment of Complicated Vascular Anomalies. *Pediatrics*. 2016;137(2):e20153257.
- Bhagwat SV, Gokhale PC, Crew AP, et al. Preclinical characterization of OSI-027, a potent and selective inhibitor of mTORC1 and mTORC2: distinct from rapamycin. *Mol Cancer Ther*. 2011;10(8):1394-1406.
- Brouillard P, Boon L, Vikkula M. Genetics of lymphatic anomalies. *J Clin Invest*. 2014;124(3):898-904.
- Croteau SE, Kozakewich HP, Perez-Atayde AR, et al. Kaposiform lymphangiomatosis: a distinct aggressive lymphatic anomaly. *J Pediatr*. 2014;164(2):383-388.
- Gabay C, Fautrel B, Rech J, et al. Open-label, multicentre, dose-escalating phase II clinical trial on the safety and efficacy of tadekinig alfa (IL-18BP) in adult-onset Still's disease. *Ann Rheum Dis*. 2018;77(6):840-847
- Kudela H, Drynda S, Lux A, Horneff G, Kekow J. Comparative study of Interleukin-18 (IL-18) serum levels in adult onset Still's disease (AOSD) and systemic onset juvenile idiopathic arthritis (sJIA) and its use as a biomarker for diagnosis and evaluation of disease activity. *BMC Rheumatol*. 2019;3:4.
- Mateo J, Olmos D, Dumez H, et al. A first in man, dose-finding study of the mTORC1/mTORC2 inhibitor OSI-027 in patients with advanced solid malignancies. *Br J Cancer*. 2016;114(8):889-896.
- Nakamura K, Kassem S, Cleynen A, et al. Dysregulated IL-18 Is a Key Driver of Immunosuppression and a Possible Therapeutic Target in the Multiple Myeloma Microenvironment. *Cancer Cell*. 2018;33(4):634-648.e5.
- Ozeki M, Fujino A, Matsuoka K, Nosaka S, Kuroda T, Fukao T. Clinical Features and Prognosis of Generalized Lymphatic Anomaly, Kaposiform Lymphangiomatosis, and Gorham-Stout Disease. *Pediatr Blood Cancer*. 2016;63(5):832-838.
- Perkins JA, Manning SC, Tempero RM, et al. Lymphatic malformations: current cellular and clinical investigations. *Otolaryngol Head Neck Surg*. 2010;142(6):789-794.
- Radenkovic S, Bird MJ, Emmerzaal TL, et al. The Metabolic Map into the Pathomechanism and Treatment of PGM1-CDG. *Am J Hum Genet*. 2019;104(5):835-846.
- Wong SY, Beamer LJ, Gadomski T, et al. Defining the Phenotype and Assessing Severity in Phosphoglucomutase-1 Deficiency. *J Pediatr*. 2016;175:130-136.e8.

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Appendix

Key Financial Information

Financial & Investor Information

Key financial highlights

NASDAQ:CERC

The following data is as of April 30, 2020

- Outstanding shares – 59.6M
- Average Daily Volume – 136K
- Cash – $13M

CERC-002

Anti-LIGHT monoclonal antibody in clinical studies for Pediatric Crohn's Disease

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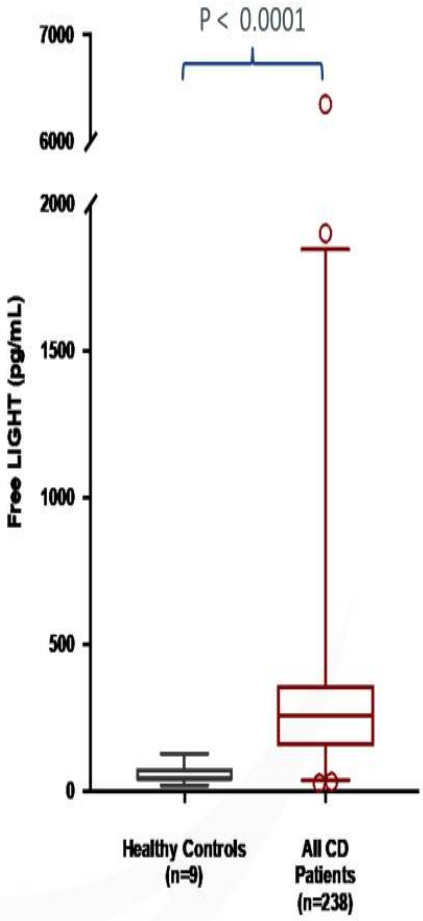
Elevated Free LIGHT Levels Detected in Pediatric Crohn's Disease Patients Using Cerecor's Proprietary Free LIGHT Assay

- Cerecor has developed a proprietary and sensitive immunoassay that quantifies free LIGHT in collaboration with Myriad RBM
  - Validated Simoa® assay detects 0.79 – 4000 pg/mL free LIGHT in serum/plasma
- Using the proprietary assay, we demonstrated that free LIGHT levels are significantly elevated in Crohn's Disease patients

Plasma LIGHT levels are significantly elevated in Crohn's Disease patients (n=238) over healthy individuals (n=9) and are displayed as box-and-whiskers graph (1 - 99% percentile)



* Determined by Kruskal-Wallis test followed by Dunn's multiple comparisons

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

CERC-006

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

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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.

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CERC-006 Treatment of Patients with Complex Lymphatic Malformations

Dual mTOR inhibitor to reduce ALK and PI3K expression and optimize dose for safety

Proposed Phase 1b Study

A Multicenter, Phase 1b Study of CERC-006 in Patients with Complex Lymphatic Malformations

Inclusion Criteria

Patients with Complex Lymphatic Malformations

Estimated Enrollment: 10

CERC-006

4 weeks

Primary Endpoint

- Safety and tolerability of CERC-006

Key Secondary / Exploratory Endpoints

- Volumetric measurements over 4 weeks
- VAS score (for those patients with pain)
- Selected biomarkers

Complex lymphatic malformations POC trial anticipated to start 2Q 2021

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CERC-007

Phase 2-ready, anti-IL-18 monoclonal antibody for Multiple Myeloma

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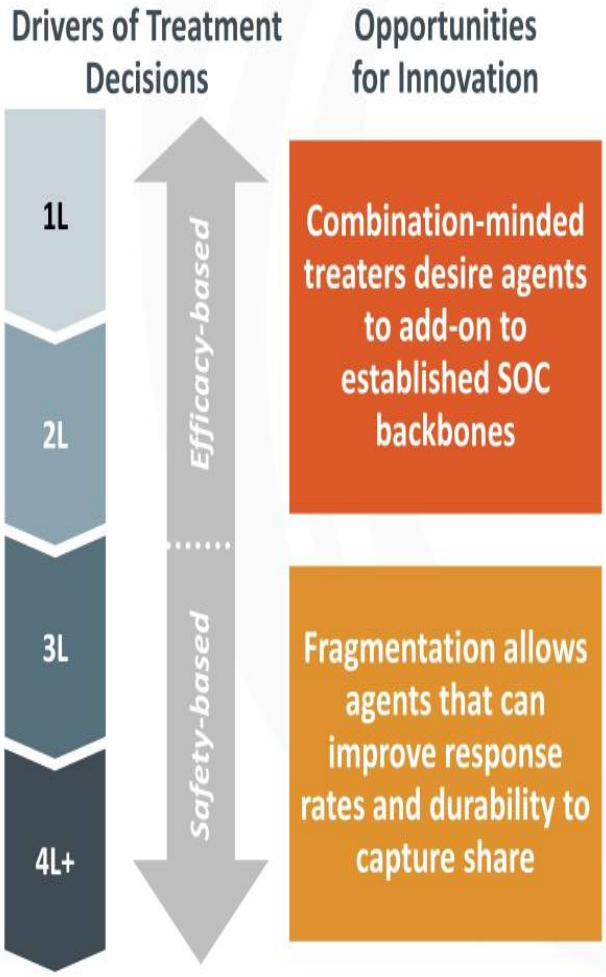
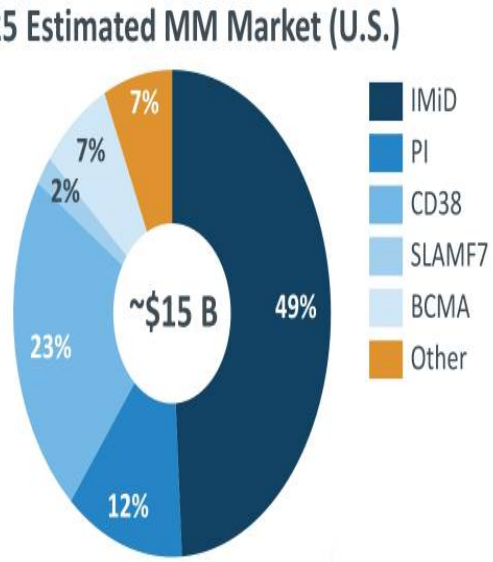
Current and Future Myeloma Market

Enduring unmet need is expected, given the lack of curative therapies; the U.S. MM market is estimated to increase to ~$15 B over the next five years, though

Without a Curative Therapy, MM Physicians Seek Improvements in MM Regimens



Multiple myeloma is a Large and Growing Market



- Multiple myeloma is a progressive disease that impacts ~135 K patients in the U.S.
- The MM market is expected to grow to over $15 B in the U.S. over the next 5 years with the uptake and utilization of novel agents

Source: Company Websites; Evaluate Pharma; GlobalData. MOA: Mechanism of action.

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 RPSD in Dose Escalation Phase
- Response rate by IMWG 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 POC trial anticipated to start 4Q 2020

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CERC-007

Phase 2-ready, anti-IL-18 monoclonal antibody for Adult Onset Still's Disease

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CERC-007 Treatment of Patients with Adult Onset Still Disease

Possible 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 = 14

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

12 weeks

Primary Endpoint

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

Key Secondary / Exploratory Endpoints

- ACR30 and ACR30 for those patients with arthritis at baseline
- Change in Ferritin levels
- Change in IL-18 levels
- Safety and tolerability

AOSD POC trial anticipated to start 4Q 2020

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CERC-800s

Monosaccharide therapies for Congenital Disorders of Glycosylation (CDGs)

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CERC-801 Treatment of PGM1-CDG

Study to be Performed in Partnership with NIH Consortium

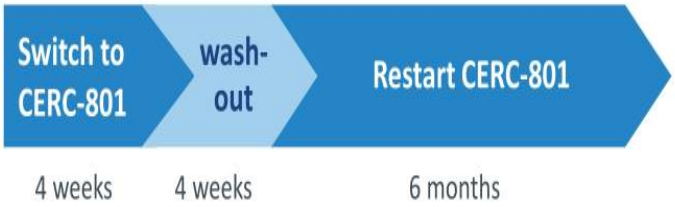
Proposed Pivotal Trial Design

A Phase 3, Open Label, Efficacy, Safety, and Tolerability Study of CERC-801 in patients with Phosphoglucomutase-1 deficiency related congenital disorders of glycosylation (PGM-1)

Inclusion Criteria

Patients with known PGM-1 CDG by biochemical and genetic assays

Estimated Enrollment: (N = 10)



Primary Endpoint

- Return to baseline score of TPCRS (Tulane PGM1-CDG Rating Scale)

Key Secondary / Exploratory Endpoints

- Return to baseline of key biomarkers associated with disease activity (e.g., antithrombin III, N-glycan assay, CPK)
- Safety and tolerability

PGM1-CDG prospective trial expected to begin Q4 2020

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CERC-802 Treatment of MPI-CDG

High Risk of Thrombotic Events Permits Maintenance of Key Serum Biomarkers

Proposed Pivotal Trial Design

A Phase 3, Open Label, Efficacy, Safety, and Tolerability Study of CERC-802 in patients with Mannose phosphate isomerase deficiency related congenital disorders of glycosylation (MPI-CDG)

Inclusion Criteria

Patients with known MPI-CDG by biochemical and genetic assays

Estimated Enrollment: (N= 5)
50 reported in literature

Primary Endpoint

- Maintenance of anti-thrombin III

Key Secondary / Exploratory Endpoints

- Maintenance of stool a-1-antitrypsin levels
- Maintenance of Protein S and Protein C levels
- Safety and tolerability

MPI-CDG prospective trial anticipated to start 4Q 2020

CERC-803 Treatment of LAD-II

Fucose Glycosylation is Key to Function of White Blood Cells

Proposed Pivotal Trial Design

A Phase 3, Open Label, Efficacy, Safety, and Tolerability Study of CERC-803 in patients with Lymphocyte Adhesion Disorder Type II (LAD-II)

Inclusion Criteria

Patients with known MPI-CDG by biochemical and genetic assays

Estimated Enrollment: (N= 3)
10 reported in literature

Primary Endpoint

- Demonstration of return of sialyl Lewis-X antigen on leukocytes after washout by monoclonal antibody assay

Key Secondary / Exploratory Endpoints

- Return to baseline of WBC's
- Assay of return to function of lymphocytes after washout
- Safety and tolerability

LADII prospective trial anticipated to start 1Q 2021

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