Clinical benefit of oral sabizabulin for hospitalized adults with covid-19 on supplemental oxygen

Paula Skarda, MD – Internal Medicine/Pediatrics Regions Hospital, St. Paul, Minnesota

Sabizabulin has not been granted Emergency Use Authorization (EUA) or U.S. Food and Drug Administration (FDA) approval. The safety and efficacy of sabizabulin has not been established

Forward looking statements

The statements in this release that are not historical facts are "forward-looking statements" as that term is defined in the Private Securities Litigation Reform Act of 1995. Forward-looking statements in this release include statements regarding: whether and when the Company will submit an EUA application, or receive an emergency use authorization or any approval from FDA or from any regulatory authority outside the U.S. for sabizabulin for certain COVID-19 patients; whether and when sabizabulin will become an available treatment option for certain COVID-19 patients in the U.S. or anywhere outside the U.S.; whether the Company will have sufficient supply of sabizabulin to meet demand, if an emergency use authorization or other approval is granted; whether the Company will secure any advance purchase agreement with the U.S. government or any foreign government; whether the Company will be able to obtain a premium price for sabizabulin as a COVID-19 treatment; whether the potential market, patient populations and revenue examples will be realized; whether the current and future clinical development and results will demonstrate sufficient efficacy and safety and potential benefits to secure FDA approval of the Company's drug candidates and companion diagnostic; whether the drug candidates will be approved for the targeted line of therapy; the anticipated design and scope of clinical studies and FDA acceptance of such design and scope; whether any regulatory pathways, including the accelerated Fast Track designations, to seek FDA approval for sabizabulin, enobosarm or any of the Company's drug candidates are or continue to be available; whether the expected commencement and timing of the Company's clinical studies, including the Phase 3 ENABLAR-2 study, the sabizabulin monotherapy Phase 2b clinical study for 3rd line treatment of metastatic breast cancer, the Phase 2 registration clinical study for VERU-100, and the development of the companion diagnostic will be met; when clinical results from the ongoing clinical studies will be available, whether sabizabulin, enobosarm, VERU-100, zuclomiphene, and ENTADFI will serve any unmet need or, what dosage, if any, might be approved for use in the U.S. or elsewhere, and also statements about the potential, timing and efficacy of the rest of the Company's development pipeline, and the timing of the Company's submissions to FDA and FDA's review of all such submissions; whether any of the selective clinical properties previously observed in clinical studies of sabizabulin, enobosarm, VERU-100 or other drug candidates will be replicated in the current and planned clinical development program for such drug candidates and whether any such properties will be recognized by the FDA in any potential approvals and labeling; whether the companion diagnostic for enobosarm will be developed successfully or be approved by the FDA for use; and whether and when ENTADFI will be commercialized successfully. These forward-looking statements are based on the Company's current expectations and subject to risks and uncertainties that may cause actual results to differ materially, including unanticipated developments in and risks related to: the development of the Company's product portfolio and the results of clinical studies possibly being unsuccessful or insufficient to meet applicable regulatory standards or warrant continued development; the ability to enroll sufficient numbers of subjects in clinical studies and the ability to enroll subjects in accordance with planned schedules; the ability to fund planned clinical development; the timing of any submission to the FDA or other regulatory authorities and any determinations made by the FDA or any other regulatory authority, including the risk that the Company may not be able to obtain an EUA from the FDA or similar authorizations from other regulatory authorities on a timely basis or at all; any agreements or positions taken by the FDA in a pre-EUA meeting does not bind the FDA or prevent it from later taking a different position, asking for more data or delaying or denying the application; the possibility that as vaccines become widely distributed the need for new COVID-19 treatment candidates may be reduced or eliminated; government entities possibly taking actions that directly or indirectly have the effect of limiting opportunities for sabizabulin as a COVID-19 treatment, including favoring other treatment alternatives or imposing price controls on COVID-19 treatments; the Company lacks experience in scaling up or commercializing a drug product and may not be able to successfully commercialize sabizabulin as a COVID-19 treatment; the Company may be unable to manufacture sabizabulin as a COVID-19 treatment in sufficient quantities or at sufficient yields; the risk that the Company is unable to obtain favorable pricing for sabizabulin as a COVID-19 treatment in the U.S. or elsewhere or is unable to obtain reimbursement from governmental or commercial health insurance payors; the Company's existing products and any future products, if approved, possibly not being commercially successful; the effects of the COVID-19 pandemic and measures to address the pandemic on the Company's clinical studies, supply chain and other third-party providers, commercial efforts, and business development operations; the ability of the Company to obtain sufficient financing on acceptable terms when needed to fund development and operations; demand for, market acceptance of, and competition against any of the Company's products or product candidates; new or existing competitors with greater resources and capabilities and new competitive product approvals and/or introductions; changes in regulatory practices or policies or government-driven healthcare reform efforts, including pricing pressures and insurance coverage and reimbursement changes; the Company's ability to successfully commercialize any of its products, if approved; risks relating to the Company's development of its own dedicated direct to patient telemedicine and telepharmacy services platform, including the Company's lack of experience in developing such a platform, potential regulatory complexity, and development costs; the Company's ability to protect and enforce its intellectual property; the potential that delays in orders or shipments under government tenders or the Company's U.S. prescription business could cause significant quarter-to-quarter variations in the Company's operating results and adversely affect its net revenues and gross profit; the Company's reliance on its international partners and on the level of spending by country governments, global donors and other public health organizations in the global public sector; the concentration of accounts receivable with our largest customers and the collection of those receivables; the Company's production capacity, efficiency and supply constraints and interruptions, including potential disruption of production at the Company's and third party manufacturing facilities and/or of the Company's ability to timely supply product due to labor unrest or strikes, labor shortages, raw material shortages, physical damage to the Company's and third party facilities, COVID-19 (including the impact of COVID-19 on suppliers of key raw materials), product testing, transportation delays or regulatory actions; costs and other effects of litigation, including product liability claims; the Company's ability to identify, successfully negotiate and complete suitable acquisitions or other strategic initiatives; the Company's ability to successfully integrate acquired businesses, technologies or products; and other risks detailed from time to time in the Company's press releases, shareholder communications and Securities and Exchange Commission filings, including the Company's Form 10-K for the fiscal year ended September 30, 2021 and subsequent quarterly reports on Form 10-Q. These documents are available on the "SEC Filings" section of our website at www.verupharma.com/investors. The Company disclaims any intent or obligation to update these forward-looking statements.

Disclosures- Paula Skarda, MD

Principle Investigator

- **Phase 3, Randomized, Placebo-Controlled, Efficacy and Safety Study of VERU-111 for the Treatment of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) in Patients at High Risk for Acute Respiratory Distress Syndrome (ARDS)** -Veru, Inc
    - I received no compensation. All compensation was directed to and received by my employer, Regions Hospital, St. Paul, MN by Veru, Inc.

Oral Abstract Presentation ID Week 2022

- **Clinical Benefit of Oral sabizabulin for Hospitalized Adults with CoVID-19 on Supplemental Oxygen**
    - For today's presentation while I did not receive direct compensation, my meeting registration, lodging, travel, and travel expenses will be reimbursed paid by Veru Inc.

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Veru requested emergency use authorization

Sabizabulin	
Requested emergency use authorization	**Sabizaulin is not a U.S. Food and Drug Administration (FDA) approved product and at this time sabizabulin has not been granted FDA Emergency Use Authorization (EUA).** In clinical trials, sabizabulin was studied for treatment of SARS-CoV-2 infection in hospitalized adult patients with moderate to severe COVID-19 infection who are at high risk for ARDS[1]: • with positive results of direct SARS-CoV-2 viral testing, and • who are hospitalized, and • who are at high risk for developing ARDS, and • for whom alternative COVID-19 treatment options authorized by FDA are not accessible or are not clinically appropriate.
Dosage and Administration	9mg daily oral or via nasogastric tube, up to 21 days or until hospital discharge (which ever occurs first)

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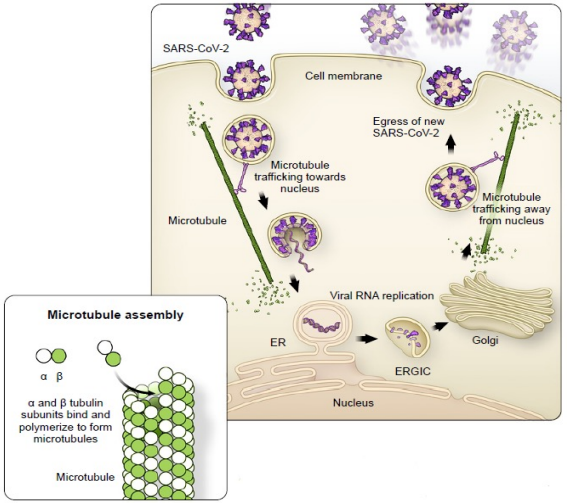
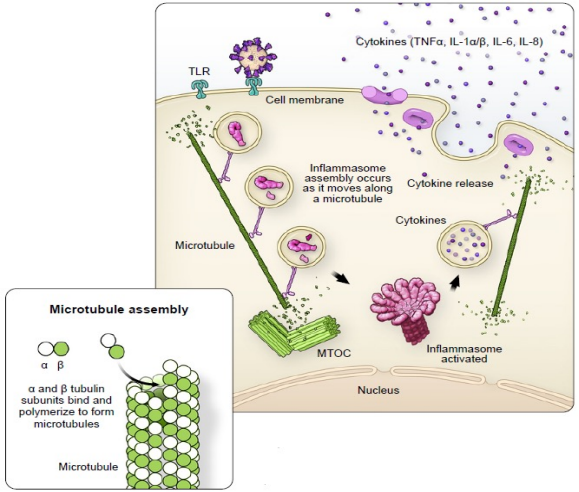
Sabizabulin targets microtubules to halt viral infection as well as suppresses the aberrant antiviral immune response that can lead to cytokine storm [9,10]

Viral Infection



Immune Response



Sabizabulin, a microtubule disruptor, has dual antiviral and anti-inflammatory activities

- **SARS-CoV-2** utilizes **host cell receptors**, **proteases**, and **vesicular transport** mechanisms to facilitate **viral entry**, **replication**, and **egress**[1-4]
- **Infection** triggers **innate and adaptive immune responses**; dysregulated antiviral immune responses can lead to **cytokine storm**, **ARDS**, and **systemic effects**[5-8]

ARDS=acute respiratory distress syndrome; SARS-CoV-2=severe acute respiratory syndrome coronavirus 2.

References: 1. Baggin J, et al. Nat Microbiol. 2021;6:1219-1232; 2. V'kovski P et al. Nat Rev Microbiol. 2021;19(3):155-170; 3. Bohn MK, et al. Physiol (Bethesda). 2020;35(5):288-301; 4. Zhang Q, et al. Signal Transduct Target Ther. 2021;6(1):233; 5. Boechat JL, et al. Pulmonol. 2021;27:423-437; 6. Hu B, et al. J Med Virol. 2021;93:250-256; 7. Montazersaheb S, et al. Virol J. 2022;19:92; 8. Wu D et al. Front Immunol. 2022;13:826106. 9. Aminpour M et al. Life (Basel). 2022;12(6):814.

In the interim analysis of a Phase 3 clinical trial sabizabulin treatment resulted in a 55.2% relative reduction in mortality compared to placebo[1]

Trial Design

- Randomized, multicenter placebo-controlled Phase 3 clinical trial was conducted in hospitalized moderate-severe COVID-19 patients at high-risk for acute respiratory distress syndrome (ARDS) and death.
- Patients were randomized (2:1) to receive oral sabizabulin 9mg or placebo + standard of care daily (up to 21 days or discharged from the hospital).

Key Inclusion Criteria

- Age: ≥18 years
- SARS-CoV-2 infection confirmed
- SpO_2 baseline ≤ 94% (on room air, prior to oxygen support)
- World Health Organization (WHO): 9 point Ordinal Scale for Clinical Improvement

WHO 4	Oxygen by mask or nasal prongs with a documented comorbidity (asthma, chronic lung disease, diabetes, hypertension, severe obesity [BMI ≥40], 65 years of age or older, primarily reside in a nursing home or long-term care facility, or immunocompromised)
WHO 5	Non-invasive ventilation or high-flow oxygen
WHO 6	Intubation and mechanical ventilation

BMI – Body mass index; SpO_2 – oxygen saturation; +Interim Analysis; analysis done on first 150 subjects to complete day 60

References: 1. Barnette KG, Gordon MS, Rodriguez D, et al. NEJM Evidence. 2022;(20220706). doi:10.1056/EVIDoa2200145

In the interim analysis of a Phase 3 clinical trial sabizabulin treatment resulted in a 55.2% relative reduction in mortality compared to placebo[1]

Outcomes[1-2]

- In a planned interim analysis, sabizabulin treatment resulted in a 55.2% relative reduction in mortality at Day 60 compared to placebo.
- Analysis of the full data set of 204 patients was consistent with the interim efficacy analysis with a relative reduction of 51.6% in deaths in mortality at Day 60 compared to placebo

Safety[1]

- Adverse events seen in this study were considered consistent with patients with severe COVID-19 illness.
- Fewer patients in the sabizabulin-treated group experienced adverse events compared with the placebo group (63.1% vs 78.3%).
- Serious adverse events occurred less often with sabizabulin than with placebo (29.2% vs 46.4%).
- The most frequently reported serious adverse events (≥5% in either group) with sabizabulin and placebo, respectively, included pneumonia (3.1% vs. 5.8%), septic shock (1.5% vs. 7.2%), acute kidney injury (4.6% vs. 8.7%), pneumothorax (0.8% vs 8.7%), and respiratory failure (10.0% vs. 20.3%).

References: 1. Barnette KG, Gordon MS, Rodriguez D, et al. NEJM Evidence. 2022;(20220706). doi:10.1056/EVIDoa2200145
2. Data On File at Veru Inc

Methods

A total of 88 patients classified as WHO 4 with a baseline comorbidity underwent randomization (59 sabizabulin/29 placebo)

- **Analysis population**
  - Patients classified as WHO 4 with at least one comorbidity (Asthma, Chronic Lung Disease, Diabetes, Hypertension, Severe Obesity (BMI ≥40), >65 years of age, in a nursing/long-term care facility, or immunocompromised)

- **Primary endpoint**
  - All-cause mortality up to day 60

- **Key secondary endpoints**
  - Hospital length of stay
  - Intensive Care Unit (ICU) days
  - Mechanical Ventilation days

Data On File at Veru Inc

Patient demographics

Demographics WHO 4 (subjects for whom vitals status is known)

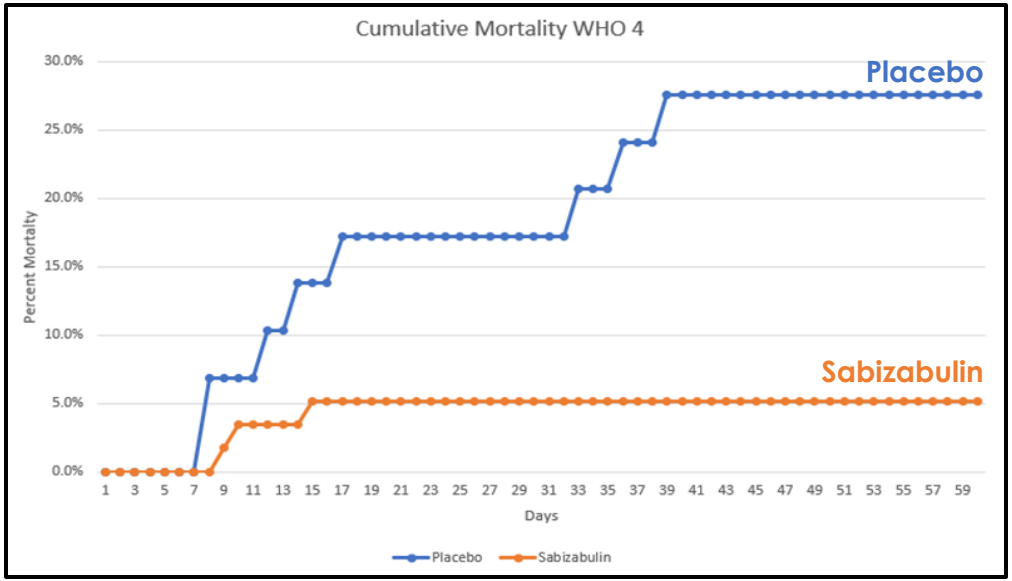
	Sabizabulin (n=58)	Placebo (n=29)
Age (yrs)	65.8±10.5 (40,92)	69.0±7.49 (52,86)
BMI (kg/m^2)	31.0±6.52 (19.1,48.8)	30.3±5.82 (22.6,48.4)
SpO_2 at baseline (day 1) (%)	91.0±3.81 (82,99)	91.0±3.08 (84,99)
Vaccinated	31.0%	34.4%
Vaccinated ≥2 doses	25.9%	31.0%
Vaccinated ≥3 doses	10.3%	20.7%
Dexamethasone[1]	77.6%	75.9%
Any corticosteroid[1]	98.3%	96.4%
Remdesivir[1]	12.1%	10.3%

Data On File at Veru Inc

Sabizabulin treatment resulted in an 81.2% reduction in mortality vs placebo in WHO 4 subjects at day 60

Key Primary End Point

- At day 60, sabizabulin resulted in:
  - 22.4% absolute reduction in deaths vs placebo
  - 81.2% relative reduction in deaths vs placebo



Result	Sabizabulin 9mg (N=59)	Placebo (N=29)
Alive	55 (94.8)	21 (72.4)
Dead	3 (5.2)	8 (27.6)
Vital status Missing at Day 60	1	0

Days on study	Sabizabulin 9mg	Placebo	Relative Difference
Mortality at day 15	3/58 (5.2%)	4/29 (13.8%)	-62.3%
Mortality at day 29	3/58 (5.2%)	5/29 (17.2%)	-69.8%
Mortality at day 60	3/58 (5.2%)	8/29 (27.6%)	**-81.2%**

Treatment Comparison	Odds Ratio	95% CI	p-value
Sabizabulin 9mg vs. Placebo	6.22	(1.58, 24.48)	**0.0090**[1]

1 P-value generated using the logistic regression with the multivariate analysis.

Data On File at Veru Inc

Sabizabulin treatment resulted in statistically significant reductions in hospital length of stay, ICU days and mechanical ventilation days vs placebo

Key secondary endpoints

- Sabizabulin treatment vs placebo resulted in relative reductions of:
  - 39.8% in days in hospital (p=0.0191)
  - 74.7% in days in ICU (p=0.0021),
  - 80.7% in days on mechanical ventilation (p=0.0019)

Days in Hospital

Treatment	Mean (days)[1]	SD	Median (days)	Min,Max
Sabizabulin 9 mg (n=59)	14.2	13.92	10.0	2,60
Placebo (n=29)	23.6	23.14	13.0	3,60

Treatment Comparison	LS mean	SE	95% CI	p-value
Sabizabulin 9mg vs. Placebo	-9.4	3.95	(-17.3, -1.6)	0.0191

1. The days in the hospital was set at maximum value (60 days) in all patients that died on study, as per the planned analysis for the study.

Days in ICU

Treatment	Mean (days)[1]	SD	Median (days)	Min,Max
Sabizabulin 9 mg (n=59)	4.4	13.38	0.0	0,60
Placebo (n=29)	17.4	26.87	0.0	0,60

Treatment Comparison	LS mean	SE	95% CI	p-value
Sabizabulin 9mg vs. Placebo	-13.6	4.29	(-22.2, -5.1)	0.0021

1. The days in the ICU was set at maximum value (60 days) in all patients that died on study, as per the planned analysis for the study.

Days on Mechanical Ventilation

Treatment	Mean (days)[1]	SD	Median (days)	Min,Max
Sabizabulin 9 mg (n=59)	3.2	13.29	0.0	0,60
Placebo (n=29)	16.6	27.29	0.0	0,60

Treatment Comparison	LS mean	SE	95% CI	p-value
Sabizabulin 9mg vs. Placebo	-13.9	4.34	(-22.5, -5.3)	0.0019

1. The days on mechanical ventilation was set at maximum value (60 days) in all patients that died on study, as per the planned analysis for the study.

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Conclusions

- Sabizabulin, a dual antiviral and anti-inflammatory agent, significantly reduced deaths in hospitalized moderate to severe COVID-19 WHO 4 patients with at least one comorbidity
- Sabizabulin showed statistically significant reductions in key secondary endpoints: days in hospital, days in the ICU, and days on mechanical ventilation compared to placebo
- Patients treated with sabizabulin experience fewer adverse events and fewer serious adverse events compared with placebo.

OVERALL: This analysis suggests that the antiviral and anti-inflammatory actions of sabizabulin contributes early in the prevention of COVID-19 progression to ARDS and death

Acknowledgements

We would like to thank all of the investigators that participated in the global Phase 3 covid-19 sabizabulin study