ZyVersa Therapeutics Announces Publication in Molecular Neurobiology Reinforcing Data Demonstrating That Inflammasome ASC Inhibitor IC 100 Attenuates the Inflammatory Response Causing Neuronal Damage in Multiple Sclerosis Model, Potentially Providing Neuroprotection

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- *Molecular Neurobiology publication demonstrated that NLRP3 inflammasomes have an important role in the pathogenesis of multiple sclerosis ("MS") based on significant decreases in neuronal damage and demyelination resulting from NLRP3 inhibition in a mouse model of MS.*
- *MS, which affects around 2.1 million people worldwide, is a chronic, progressive inflammatory disease of the central nervous system characterized by neuron damage in the brain and spinal cord, leading to significant physical and cognitive disability.*
- *ZyVersa is developing Inflammasome ASC Inhibitor IC 100, designed to inhibit formation of multiple types of inflammasomes and their associated ASC specks to attenuate initiation and perpetuation of damaging inflammation.*

WESTON, Fla., Nov. 01, 2023 (GLOBE NEWSWIRE) -- ZyVersa Therapeutics, Inc. (Nasdaq: ZVSA, or "ZyVersa"), a clinical stage specialty biopharmaceutical company developing first-in-class drugs for treatment of inflammatory and renal diseases, announces a publication in the peer-reviewed journal, *Molecular Neurobiology*, demonstrating neuroprotective effects of NLRP3 inflammasome inhibition in a mouse model of MS using a research tool molecule, MCC950.

In the paper titled, "Inhibiting the NLRP3 Inflammasome with MCC950 Alleviates Neurological Impairment in the Brain of EAE Mice," the authors studied a mouse model which mirrors MS-like pathology and is commonly used to research MS disease progression. Key findings showed that NLRP3 inflammasome inhibition:

- Ameliorated pathological changes in the spinal cord and neuron damage in the brain of MS mice.
- Reduced microglia activation and prevention of its conversion to the M1 phenotype which induces neuroinflammation and neurotoxicity.
- Reduced activation of astrocytes, which are involved in development of MS.

The authors concluded, "our work indicates that inhibition of NLRP3 inflammasome has the therapeutic effects of neuroprotection through immunomodulation and is a promising therapeutic strategy for MS." To read the article, Click Here.

"There is a need for new therapeutic options for MS. Current drug therapies provide symptom control and help to alleviate disability, but they are not neuroprotective," stated Stephen C. Glover, ZyVersa's Co-founder, Chairman, CEO and President. "It is encouraging that the research published in *Molecular Neurobiology* substantiates our published MS data with Inflammasome ASC Inhibitor IC 100, providing support for its use as a potential therapeutic option. By inhibiting ASC, IC 100 blocks formation of NLRP3 and other types of inflammasomes to block initiation of the inflammatory cascade. Likewise, IC 100 uniquely inhibits ASC specks to attenuate perpetuation of damaging inflammation". To read the paper on IC 100 in an animal model of MS, Click Here.

About Inflammasome ASC Inhibitor IC 100

IC 100 is a novel humanized IgG4 monoclonal antibody that inhibits the inflammasome adaptor protein ASC. IC 100 was designed to attenuate both initiation and perpetuation of the inflammatory response. It does so by binding to a specific region of the ASC component of multiple types of inflammasomes, including NLRP1, NLRP2, NLRP3, NLRC4, AIM2, Pyrin. Intracellularly, IC 100 binds to ASC monomers, inhibiting inflammasome formation, thereby blocking activation of IL-1β early in the inflammatory cascade. IC 100 also binds to ASC in ASC Specks, both intracellularly and extracellularly, further blocking activation of IL-1β and the perpetuation of the inflammatory response that is pathogenic in inflammatory diseases. Because active cytokines amplify adaptive immunity through various mechanisms, IC 100, by attenuating cytokine activation, also attenuates the adaptive immune response.

About ZyVersa Therapeutics, Inc.

ZyVersa (Nasdaq: ZVSA) is a clinical stage specialty biopharmaceutical company leveraging advanced, proprietary technologies to develop first-in-class drugs for patients with renal and inflammatory diseases who have significant unmet medical needs. The Company is currently advancing a therapeutic development pipeline with multiple programs built around its two proprietary technologies – Cholesterol Efflux Mediator™ VAR 200 for treatment of kidney diseases, and Inflammasome ASC Inhibitor IC 100, targeting damaging inflammation associated with numerous CNS and other inflammatory diseases. For more information, please visit www.zyversa.com.

Cautionary Statement Regarding Forward-Looking Statements

Certain statements contained in this press release regarding matters that are not historical facts, are forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995. These include statements regarding management's intentions, plans, beliefs, expectations, or forecasts for the future, and, therefore, you are cautioned not to place undue reliance on them. No forward-looking statement can be guaranteed, and actual results may differ materially from those projected. ZyVersa Therapeutics, Inc ("ZyVersa") uses words such as "anticipates," "believes," "plans," "expects," "projects," "future," "intends," "may," "will," "should," "could," "estimates," "predicts," "potential," "continue," "guidance," and similar expressions to identify these forward-looking statements that are intended to be covered by the safe-harbor provisions. Such forward-looking statements are based on ZyVersa's expectations and involve risks and uncertainties; consequently, actual results may differ materially from those expressed or implied in the statements due to a number of factors, including ZyVersa's plans to develop and commercialize its product candidates, the timing of initiation of ZyVersa's planned preclinical and clinical trials; the timing of the availability of data from ZyVersa's preclinical and clinical trials; the timing of any planned investigational new drug application or new drug application; ZyVersa's plans to research, develop, and commercialize its current and future product candidates; the clinical utility, potential benefits and market acceptance of ZyVersa's product candidates; ZyVersa's commercialization, marketing and manufacturing capabilities and strategy; ZyVersa's ability to protect its intellectual property position; and ZyVersa's estimates regarding future revenue, expenses, capital requirements and need for additional financing.

New factors emerge from time-to-time, and it is not possible for ZyVersa to predict all such factors, nor can ZyVersa assess the impact of each such factor on the business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. Forward-looking statements included in this press release are based on information available to ZyVersa as of the date of this press release. ZyVersa disclaims any obligation to update such forward-looking statements to reflect events or circumstances after the date of this press release, except as required by applicable law.

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Corporate and IR Contact:
Karen Cashmere
Chief Commercial Officer
kcashmere@zyversa.com
786-251-9641

Media Contacts
Tiberend Strategic Advisors, Inc.
Casey McDonald
cmcdonald@tiberend.com
646-577-8520

Dave Schemelia
dschemelia@tiberend.com
609-468-9325