

October 6, 2022



Sigyn Therapeutics™ Announces Cancer-Related Patent Submission Entitled: “System and Methods to Enhance Chemotherapy Delivery and Reduce Toxicity”

SAN DIEGO, CA, Oct. 06, 2022 (GLOBE NEWSWIRE) -- via [NewMediaWire](#) – Sigyn Therapeutics, Inc. (“Sigyn” or the “Company”) (OTCQB: SIGY), a development-stage company focused on creating therapeutic solutions to address unmet needs in global health, today announced that a provisional patent application entitled: “*SYSTEM AND METHODS TO ENHANCE CHEMOTHERAPY DELIVERY AND REDUCE TOXICITY*” has been filed with the United States Patent and Trademark Office (“USPTO”).

Cancer is the second leading cause of death in the United States¹. Despite therapeutic advances, treatment toxicity, drug resistance and inadequate tumor site delivery restrict the benefit of chemotherapeutic agents administered to cancer patients. More specifically, less than 5% of systemically administered chemotherapeutic agents are reported to reach their target tumor site^{2,3}. Off-target chemotherapeutic agents contribute to treatment toxicity^{2,3} and may promote the spread of cancer metastasis^{4,5,6,7,8}.

To overcome these challenges, Sigyn’s patent submission describes a therapeutic device system whose primary objective is to enhance chemotherapy delivery and reduce its toxicity. A secondary objective of the therapeutic system is to reduce treatment dosing without sacrificing patient benefit, or conversely increase chemotherapy dosing without added toxicity. In concert with these objectives, the therapeutic system offers to reduce drug resistance and inhibit the potential spread of cancer metastasis induced by the administration of chemotherapeutic agents.

“This patent submission is dedicated to friends and family members whose lives were taken by cancer,” stated Jim Joyce, CEO of Sigyn Therapeutics and the inventor underlying the patent submission. “Additionally, as we advance Sigyn Therapy™ to address life-threatening conditions that are beyond the reach of drugs, I want to clarify that the intent of this patent submission is to protect the development of a therapeutic system to improve the benefit of chemotherapeutic drugs already approved to treat cancer,” concluded Joyce.

On September 14, 2022, the Company announced plans to initiate first-in-human studies of Sigyn Therapy in End-Stage Renal Disease (ESRD) patients suffering from excess inflammation and/or endotoxemia. Sigyn Therapy is a broad-spectrum blood purification technology designed to treat pathogen-associated inflammatory disorders that are not addressed with approved drug therapies. Candidate treatment indications for Sigyn Therapy also include sepsis, community acquired pneumonia and emerging pandemic threats.

About Sigyn Therapeutics™

Sigyn Therapeutics is a development-stage company focused on creating therapeutic solutions to address unmet needs in global health. Sigyn Therapy™, the Company's lead product candidate, is a broad-spectrum blood purification technology designed to treat pathogen-associated inflammatory disorders that are not addressed with approved drug therapies.

Candidate treatment indications for Sigyn Therapy include sepsis (leading cause of hospital deaths), community acquired pneumonia (a leading cause of death among infectious diseases), emerging pandemic threats, and inflammation & endotoxemia in end-stage renal disease patients.

The Company's development pipeline includes a cancer treatment system designed to enhance the delivery of FDA approved chemotherapeutic agents and reduce their toxicity. To learn more about Sigyn Therapeutics, visit: www.SigynTherapeutics.com

References:

1. Wang X, Zhang H, Chen X. Drug resistance and combating drug resistance in cancer. *Cancer Drug Resist* 2019;2:141-60. <http://dx.doi.org/10.20517/cdr.2019.10>
2. Stanislav Filip, Ondřej Kubeček, Jiří Špaček, Jiřina Martínková, Milan Bláha, Extracorporeal apheresis system – A nanoparticle drugs' elimination method to enhance the benefit of cytostatic therapy in cancer patients, *Journal of Applied Biomedicine*, Volume 14, Issue 2, 2016, Pages 91-96,
3. Motamarri, A., Wolfe, A. M., Ramajayam, K. K., Pattanaik, S., Benton, T., Peterson, Y., Faridi, P., Prakash, P., Twombly, K., & Haemmerich, D. (2022). Extracorporeal Removal of Thermosensitive Liposomal Doxorubicin from Systemic Circulation after Tumor Delivery to Reduce Toxicities. *Cancers*, 14(5), 1322. <https://doi.org/10.3390/cancers14051322>
4. Bandari SK, Purushothaman A, Ramani VC, Brinkley GJ, Chandrashekar DS, Varambally S, et al.. Chemotherapy Induces Secretion of Exosomes Loaded With Heparanase That Degrades Extracellular Matrix and Impacts Tumor and Host Cell Behavior. *Matrix Biol* (2018) 65:104–18. 10.1016/j.matbio.2017.09.001
5. Keklikoglou, I., Cianciaruso, C., Güç, E. et al. Chemotherapy elicits pro-metastatic extracellular vesicles in breast cancer models. *Nat Cell Biol* 21, 190–202 (2019). <https://doi.org/10.1038/s41556-018-0256-3>
6. Carson A. Wills, Xiaoming Liu, Longgui Chen, Yuanjun Zhao, Christopher M. Dower, Jeffrey Sundstrom, Hong-Gang Wang; Chemotherapy-Induced Upregulation of Small Extracellular Vesicle-Associated PTX3 Accelerates Breast Cancer Metastasis. *Cancer Res* 15 January 2021; 81 (2): 452–463. <https://doi.org/10.1158/0008-5472.CAN-20-1976>
7. Role of extracellular vesicles in chemotherapy-induced lung metastasis
Nahal Mansouri, Ioanna Keklikoglou, Sina Nassiri, Bruno Torchia, Alan Guichard, Michele De Palma
European Respiratory Journal Sep 2020, 56 (suppl 64) 3944;DOI: 10.1183/13993003.congress-2020.3944
8. Samuel P, Mulcahy LA, Furlong F, McCarthy HO, Brooks SA, Fabbri M, Pink RC, Carter DRF. Cisplatin induces the release of extracellular vesicles from ovarian cancer cells that can induce invasiveness and drug resistance in bystander cells. *Philos Trans R Soc Lond B Biol Sci*. 2018 Jan 5;373(1737):20170065. doi: 10.1098/rstb.2017.0065. PMID: 29158318; PMCID: PMC5717443.

Cautionary Note Regarding Forward-Looking Statements

This information in this press release contains forward-looking statements of Sigyn Therapeutics, Inc. ("Sigyn") that involve substantial risks and uncertainties. All statements contained in this summary are 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 that involve risks and uncertainties. Statements containing words such as "may," "believe," "anticipate," "expect," "intend," "plan," "project," "will," "projections," "estimate," "potentially" or similar expressions constitute forward-looking statements. Such forward-looking statements are subject to significant risks and uncertainties and actual results may differ materially from the results anticipated in the forward-looking statements. These forward-looking statements are based upon Sigyn's current expectations and involve assumptions that may never materialize or may prove to be incorrect. Factors that may contribute to such differences may include, without limitation, the Company's ability to clinically advance Sigyn Therapy in human studies required for market clearance, the Company's ability to manufacture Sigyn Therapy, the Company's ability to raise capital resources, and other potential risks. The foregoing list of risks and uncertainties is illustrative but is not exhaustive. Additional factors that could cause results to differ materially from those anticipated in forward-looking statements can be found under the caption "Risk Factors" in the Company's Annual Report on Form 10-K for the year ended December 31, 2021, and in the Company's other filings with the Securities and Exchange Commission, including its quarterly Reports on Form 10-Q. All forward-looking statements contained in this report speak only as of the date on which they were made. Except as may be required by law, the Company does not intend, nor does it undertake any duty, to update this information to reflect future events or circumstances.

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Source: Sigyn Therapeutics, Inc.