Technology Available for Licensing
UB Docket R-6814, R-6918,

University at Buffalo
Technology Transfer
Vice President for Research
and Economic Development

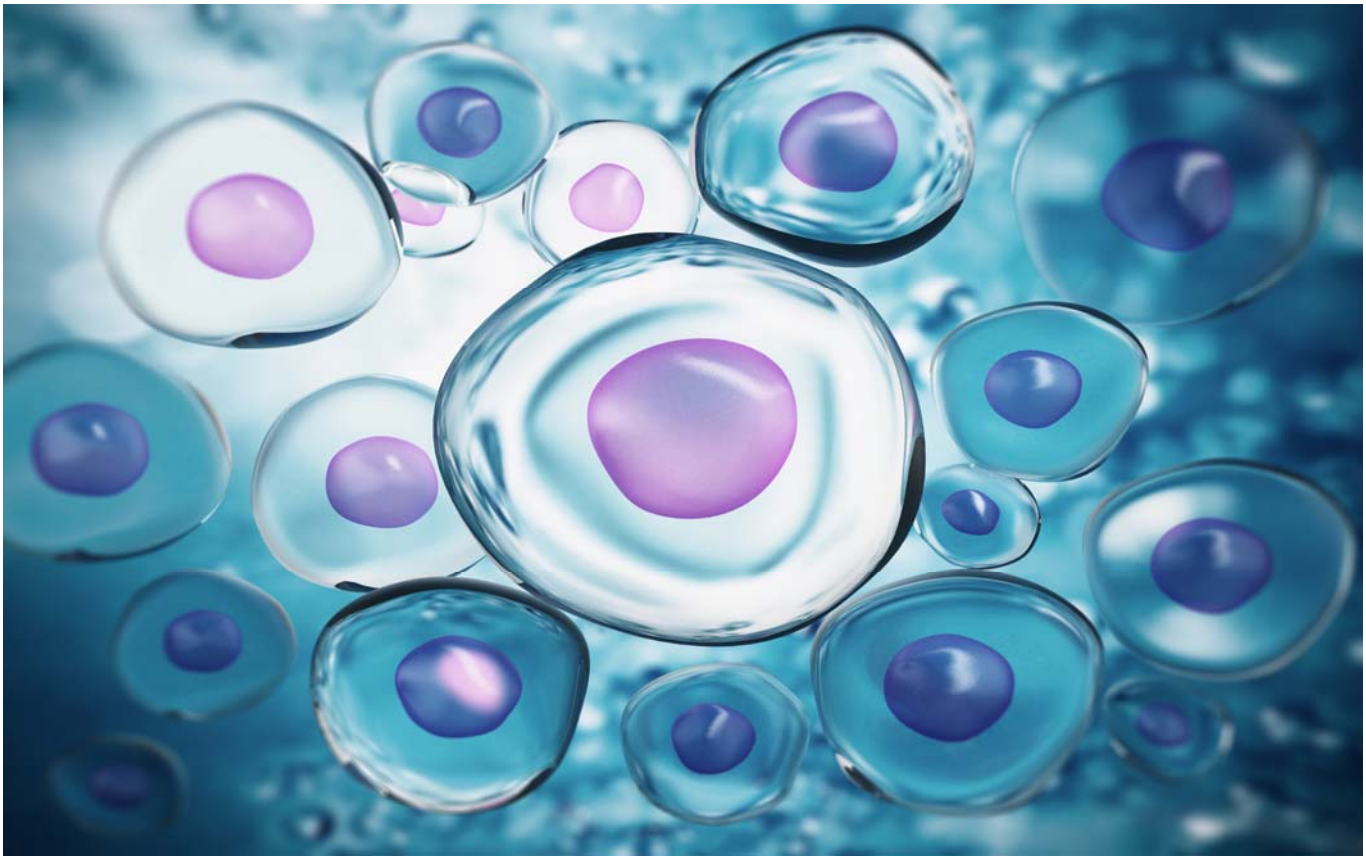
Method to Formulate Drugs with Less Surfactant for Improved Hydrophobic Drug Formulations

Researchers at The University at Buffalo have developed a novel method that is effective in formulating drugs.

Hydrophobic drug formation traditionally requires heavy use of surfactants for administration. This technology, which is available for licensing, produces concentrated hydrophobic drugs that produce fewer negative side effects than traditional formulations. This method can be used to create stable, concentrated drug micelles, which give more effective results and better outcomes for patients.

Taxanes, commonly used in chemotherapy applications, is one such drug that can be effectively concentrated in these micelles. This technology can be used with other hydrophobic drugs such as Docetaxel, Fulvestrant, and Haloperidol.

Moreover, when co-loading other substances (e.g., Coenzyme Q, Vitamin K, Docetaxel) with the desired drug, this technology results in even more effective drug loading. UB researchers have identified several co-loaders that produce stripped, stabilized micelles in physiological saline conditions.



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ADVANTAGES

- Less surfactant used than in traditional formulations, meaning fewer patient complications.
- Superior results in drug delivery/ manufacturing.
- Better drug delivery for more effective dosing.

APPLICATIONS AND MARKETS

- Improved hydrophobic drug delivery and formulation
- Drug manufacturing

PATENT STATUS

US Patent Granted September 12, 2017
US Patent No. 9,757,334

PCT National Date January 2, 2017
Foreign Patent Filings in Multiple Countries

RELATED PUBLICATIONS

Zhang, Y, et al., “Therapeutic Surfactant-Stripped Frozen Micelles” *Nature Communications* 7, (2016) Article 11649.

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