

Getting DNA to self-assemble

August 25 2005

University of Illinois researchers have developed new ways to get DNA to self-assemble into various kinds of structures.

The findings might help deliver genetic material to locations in the body for gene therapy or in highly targeted drug delivery, reported the Champaign (Ill.) News-Gazette Thursday.

Gerard Wong and his colleagues have been developing techniques for using positively charged ions -- calcium, magnesium and the like -- to glue negatively charged DNA and negatively charged delivery molecules to one another.

Wong said he is interested in how a similar, pathological molecular self-assembly process contributes to cystic fibrosis -- an inherited disease that thickens mucus and other bodily fluids and leads to respiratory failure.

The findings are published in the Proceedings of the National Academy of Sciences.

Copyright 2005 by United Press International

Citation: Getting DNA to self-assemble (2005, August 25) retrieved 2 May 2024 from <https://phys.org/news/2005-08-dna-self-assemble.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private

study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.