

Creating more potent cancer therapy using 'theranostics'

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A City of Hope scientist and his colleagues have developed a user-friendly approach to creating "theranostics—therapy combined with diagnostics—that target specific tumors and diseases.

Key to the process are molecules called metallocorroles, which serve as versatile platforms for the development of drugs and imaging agents. City of Hope's John Termini, Ph.D., and his colleagues at the California Institute of Technology and the Israel Institute of Technology developed a novel method to prepare cell-penetrating nanoparticles called "metallocorrole/protein nanoparticles." The theranostics could both survive longer in the body and better snipe disease targets.

"This study is just one of City of Hope's many ongoing research projects that aim to move the field from [conventional medicine](#) to [precision medicine](#), where therapies are tailored for specific individuals," said Termini, a molecular medicine professor at City of Hope.

The study, published in *Scientific Reports*, a *Nature* publication, on Feb. 19, details a unique way the researchers prepared the theranostics that may be generalizable to many similar molecules.

"Through collaborative brainpower, we were able to create something that has huge chemotherapeutic potential," Termini said. "Down the road, theranostics such as this could shorten treatment duration and diminish the dreaded side effects so many cancer patients fear."

More information: Matan Soll et al. Cell-Penetrating Protein/Corrole Nanoparticles, *Scientific Reports* (2019). [DOI: 10.1038/s41598-019-38592-w](https://doi.org/10.1038/s41598-019-38592-w)

Provided by City of Hope

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