# Article information:

Photoswitchable nanoparticles for in vivo cancer chemotherapy | PNAS  
<https://www.pnas.org/doi/full/10.1073/pnas.1315336110>

# Article summary:

1. Nanoparticles (NPs) have the potential to deliver drugs to tumors, but their efficacy is limited by the dense tumor matrix and compressed tumor vasculature.

2. Researchers have developed spiropyran-based nanoparticles that shrink in size upon irradiation at 365 nm, which enhances tissue penetration and drug release.

3. Irradiation of s.c. HT-1080 tumors in nude mice administered i.v. docetaxel-containing nanoparticles was more effective treatment than free docetaxel or encapsulated docetaxel without irradiation, with less systemic toxicity.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

This article is a research paper published in PNAS, a highly reputable scientific journal, and thus can be considered reliable and trustworthy for its content and claims made within it. The authors provide evidence for their claims through experiments conducted on mice with s.c implanted HT-1080 tumors, as well as through references to previous studies on the topic of nanoparticle delivery of therapeutics for cancer treatment. The article also provides detailed descriptions of the methods used in the experiments, which adds to its trustworthiness and reliability as a source of information on this topic.

The article does not appear to be biased or one-sided in its reporting; rather, it presents both sides of the argument equally by discussing both the potential benefits of using nanoparticles for cancer chemotherapy as well as some of the obstacles that must be overcome before they can be effectively used in clinical settings. Furthermore, all claims made are supported by evidence from experiments or other sources, making them reliable and trustworthy.

The only potential issue with this article is that it does not explore any counterarguments or alternative points of view regarding the use of nanoparticles for cancer chemotherapy; however, this is likely due to space constraints rather than any bias on behalf of the authors or journal editors. In conclusion, this article can be considered reliable and trustworthy due to its publication in a reputable scientific journal and its support for all claims made with evidence from experiments or other sources.

# Topics for further research:

* Nanoparticle cancer chemotherapy clinical trials
* Nanoparticle drug delivery systems
* Nanoparticle cancer therapy efficacy
* Nanoparticle cancer therapy safety
* Nanoparticle cancer therapy side effects
* Nanoparticle cancer therapy cost-effectiveness

# Report location:

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