

## Upconverting nanovesicles for the activation of ruthenium anti-cancer prodrugs with red light

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#### Citation

Askes, S. H. C. (2016, November 24). *Upconverting nanovesicles for the activation of ruthenium anti-cancer prodrugs with red light*. Retrieved from https://hdl.handle.net/1887/44378

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Author: Askes, S.H.C.

Title: Converting nanovesicles for the activation of ruthenium anti-cancer prodrugs with

red light **Issue Date:** 2016-11-24

# UPCONVERTING NANOVESICLES FOR THE ACTIVATION OF RUTHENIUM ANTI-CANCER PRODRUGS WITH RED LIGHT

#### **PROEFSCHRIFT**

Ter verkrijging van

de graad van Doctor aan de Universiteit Leiden,
op gezag van Rector Magnificus Prof. mr. C. J. J. M. Stolker,
volgens besluit van het College voor Promoties
te verdedigen op donderdag 24 november 2016
klokke 10:00 uur

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Verbonden aan Centre for Cooperative Research in Biomaterials "CIC biomaGUNE" (San Sebastián, Spain)

This work has been financially supported by Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NWO).

Printing was financially supported by Avantes BV.

"Just remember, you can't climb the ladder of success with your hands in your pockets"

Arnold Schwarzenegger

"Those worlds in space are as countless as all the grains of sand on all the beaches of the Earth. Each of those worlds is as real as ours. In every one of them, there's a succession of incidences, events, occurrences which influence its future. Countless worlds, numberless moments, an immensity of space and time. And our small planet, at this moment, here we face a critical branch-point in the history. What we do with our world, right now, will propagate down through the centuries and powerfully affect the destiny of our descendants. It is well within our power to destroy our civilization, and perhaps our species as well. If we capitulate to superstition, or greed, or stupidity we can plunge our world into a darkness deeper than the time between the collapse of classical civilization and the Italian Renaissance. But we are also capable of using our compassion and our intelligence, our technology and our wealth to make an abundant and meaningful life for every inhabitant of this planet. To enhance enormously our understanding of the Universe, and to carry us to the stars."

Carl Sagan

Dedicated to all great minds of past and present, on whose shoulders we may stand.

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