

Accepted Manuscript

Ligand-Lipid and Ligand-Core Affinity control the Interaction of Gold Nanoparticles with Artificial Lipid Bilayers and Cell Membranes

Janine Broda, Julia Setzler, Annika Leifert, Julia Steitz, Roland Benz, Ulrich Simon, Wolfgang Wenzel

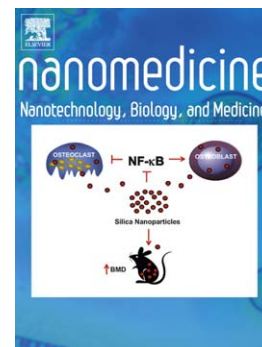
PII: S1549-9634(16)00008-3
DOI: doi: [10.1016/j.nano.2015.12.384](https://doi.org/10.1016/j.nano.2015.12.384)
Reference: NANO 1264

To appear in: *Nanomedicine: Nanotechnology, Biology, and Medicine*

Received date: 30 November 2015
Revised date: 28 December 2015
Accepted date: 28 December 2015

Please cite this article as: Broda Janine, Setzler Julia, Leifert Annika, Steitz Julia, Benz Roland, Simon Ulrich, Wenzel Wolfgang, Ligand-Lipid and Ligand-Core Affinity control the Interaction of Gold Nanoparticles with Artificial Lipid Bilayers and Cell Membranes, *Nanomedicine: Nanotechnology, Biology, and Medicine* (2016), doi: [10.1016/j.nano.2015.12.384](https://doi.org/10.1016/j.nano.2015.12.384)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Ligand-Lipid and Ligand-Core Affinity control the Interaction of Gold Nanoparticles with Artificial Lipid Bilayers and Cell Membranes

Janine Broda^{1,#}, Julia Setzler^{2,#}, Annika Leifert¹, Julia Steitz⁵, Roland Benz^{3,4}, Ulrich Simon¹, Wolfgang Wenzel^{2,*}

¹ Institute of Inorganic Chemistry, RWTH Aachen University, Aachen, Germany

² Institute of Nanotechnology (INT), Karlsruhe Institute of Technology (KIT), P.O. Box 3640, 76021 Karlsruhe, Germany

³ Rudolf-Virchow-Center, University of Würzburg, Würzburg, Germany

⁴ Department of Life Sciences and Chemistry, Jacobs University Bremen, Bremen, Germany.,

⁵ Institute for Laboratory Animal Science, Medical Faculty, RWTH Aachen University, Aachen, Germany

The authors have equally contributed to this work

* Address correspondence to wolfgang.wenzel@kit.edu

Keywords: Gold Nanoparticles, Colloidal Synthesis, Artificial Black Lipid Membranes, Electrophysiology, Nanotoxicity, Size and Surface Charge Effect

Word count for Abstract: 149

Word count for Manuscript: 5089

Number of Figures: 8

Number of References: 55

Number of Tables: 1

JS and WW acknowledge support by the BMBF project “Molecular Interaction Engineering” in the program Biotechnology 2020+ and the program Science and Technology of Nanosystems at KIT. JB and US acknowledge support by the German Research Foundation DFG (Investigator Grants Si609/9 and Research Training Group „Biointerface”) as well as by the Excellence Initiative of the German federal and state Governments (I³TM).

Download English Version:

<https://daneshyari.com/en/article/877373>

Download Persian Version:

<https://daneshyari.com/article/877373>

[Daneshyari.com](https://daneshyari.com)