



## Supporting Information

for *Adv. Sci.*, DOI: 10.1002/advs.201600202

**CD44v6-Peptide Functionalized Nanoparticles Selectively Bind to Metastatic Cancer Cells**

*Linxian Li, Mark Schmitt, Alexandra Matzke-Ogi, Parvesh Wadhvani, Veronique Orian-Rousseau,\* and Pavel A. Levkin\**

# Supporting Information

## **CD44v6-peptide functionalized nanoparticles selectively bind to metastatic cancer cells**

*Linxian Li,<sup>a, b, †</sup> Mark Schmitt,<sup>a, †</sup> Alexandra Matzke-Ogi,<sup>a</sup> Parvesh Wadhvani,<sup>c</sup> Veronique Orian-Rousseau,<sup>a\*</sup> Pavel A. Levkin<sup>a, d,\*</sup>*

Dr. L. Li, Dr. M. Schmitt, Dr. A. Matzke-Ogi, Prof. V. Orian-Rousseau, Dr. P. A. Levkin A  
Institute of Toxicology and Genetics, Karlsruhe Institute of Technology, 76344 Karlsruhe,  
Germany

E-mail: veronique.orian-rousseau@kit.edu; levkin@kit.edu

Dr. L. Li

Institute of Organic Chemistry, University of Heidelberg, 69120 Heidelberg, Germany

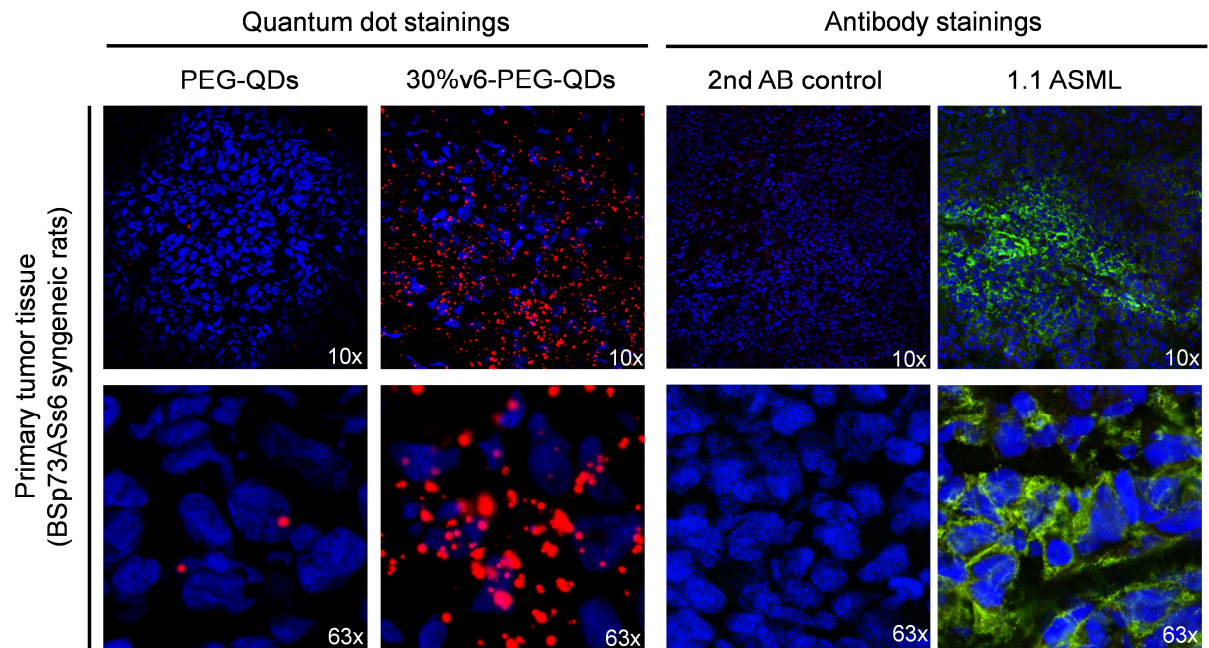
Dr. P. Wadhvani

Institute of Biological Interfaces (IBG-2), Karlsruhe Institute of Technology, 76344 Karlsruhe,  
Germany

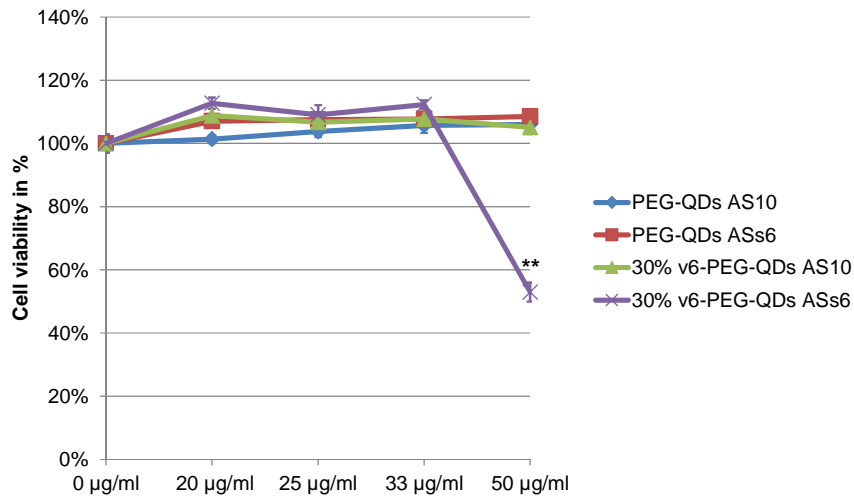
Dr. P. A. Levkin

Department of Applied Physical Chemistry, University of Heidelberg, 69120 Heidelberg,  
Germany

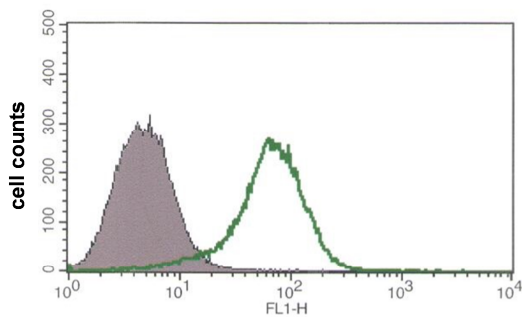
Keywords: Quantum Dots, CD44v6, Tumor Targeting, v6 Peptide, Antimetastatic Activity



**Figure S1.** v6-PEG-QDs stain CD44v6 positive tumor tissues. Sections of primary tumors from BSp73ASs6 injected syngeneic rats were stained either with PEG-QDs (control; panel 1), 30% v6-PEG-QDs (panel 2), 2nd antibody only (control; panel 3) or the rCD44v6 specific antibody 1.1ASML (panel 4). The tissue was counterstained with DAPI and analysed by confocal fluorescence microscopy. Picture show 10x (upper lane) and 63x magnifications (lower lane).



**Figure S2.** v6-PEG-QDs mediated cytotoxicity is specific to CD44v6 expressing pancreatic cancer cells. Ass6 and AS10 cells were incubated for 48 hours with the indicated concentrations of PEG-QDs (control) and v6-PEG-QDs and cell viability was analysed using a WST-1 assay (\*\* P<0,01, AS10 and Ass6 cells treated with v6-PEG-QDs were compared, n=3).



**Figure S3.** CD44v6 expression in ASs6 cells. Bsp73ASs6 (ASs6) cells were stained with a CD44v6 antibody (1.1ASML). All samples were analyzed in a FACScan flow cytometer.

Unstained cells are shown in grey, cells stained with 1.1ASML are shown in green.

Representative pictures from one experiment are shown.