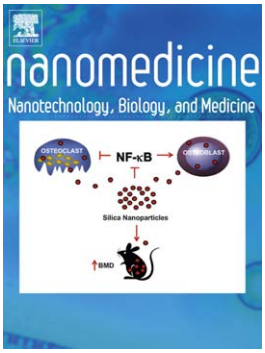
Accepted Manuscript



A nanoparticle-based nicotine vaccine and the influence of particle size on its immunogenicity and efficacy

Zongmin Zhao, Yun Hu Ph.D., Reece Hoerle, Meaghan Devine, Michael Raleigh Ph.D., Paul Pentel Ph.D., Chenming Zhang Ph.D.

PII: S1549-9634(16)30105-8
DOI: doi: 10.1016/j.nano.2016.07.015
Reference: NANO 1389

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

Received date: 16 May 2016
Revised date: 11 July 2016
Accepted date: 25 July 2016

Please cite this article as: Zhao Zongmin, Hu Yun, Hoerle Reece, Devine Meaghan, Raleigh Michael, Pentel Paul, Zhang Chenming, A nanoparticle-based nicotine vaccine and the influence of particle size on its immunogenicity and efficacy, *Nanomedicine: Nanotechnology, Biology, and Medicine* (2016), doi: 10.1016/j.nano.2016.07.015

A nanoparticle-based nicotine vaccine and the influence of particle size on its immunogenicity and efficacy

Zongmin Zhao[a*], Yun Hu[a*], Reece Hoerle[a], Meaghan Devine[a], Michael Raleigh[b], Paul Pentel[b], Chenming Zhang[a,†]

[a] Department of Biological Systems Engineering, Virginia Tech, Blacksburg, VA 24061, United States

[b] Minneapolis Medical Research Foundation, Minneapolis, MN 55404, United States

†Correspondence to: Chenming (Mike) Zhang.

Address: 210 Seitz Hall, Department of Biological Systems Engineering, Virginia Tech University, Blacksburg, VA 24061, USA

Voice: +1-(540)231-7601

Fax: +1-(540)231-3199

Email: chzhang2@vt.edu

* These authors contributed equally to this work.

Potential conflict of interest: C.Z., Z.Z., and Y.H. have a related patent disclosure filed in December 2015 (VTIP disclosure 16-087). The other authors have no conflict of interest to disclose.

Funding: This work was financially supported by the National Institute of Health (National Institute on Drug Abuse) through grant number U01DA036850.

Word count for abstract: 147

Word count for manuscript (body text and figure legends): 4867

Number of references: 36

Number of figures: 8

Number of tables: 2

Number of Supplementary online-only files: 1