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Title: Quantification of Motor Neuron Loss and Muscular Atrophy in Ricin-Induced Focal Nerve Injury

Authors: Yajie Liang, Jiangyang Zhang, Piotr Walczak, Jeff W.M. Bulte



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## ACCEPTED MANUSCRIPT

**Research Article** 

#### **Quantification of Motor Neuron Loss and Muscular Atrophy**

#### in Ricin-Induced Focal Nerve Injury

Yajie Liang<sup>a,b</sup>, Jiangyang Zhang<sup>a</sup>, Piotr Walczak<sup>a,b,f</sup>, Jeff W.M. Bulte<sup>a,b,c,d,e,\*</sup>

<sup>a</sup>Russell H. Morgan Dept. of Radiology and Radiological Science,
Division of MR Research, <sup>b</sup>Cellular Imaging Section and Vascular Biology Program,
Institute for Cell Engineering, <sup>c</sup>Dept. of Chemical & Biomolecular Engineering,
<sup>d</sup>Dept. of Oncology, and <sup>e</sup>Dept of Biomedical Engineering
The Johns Hopkins University School of Medicine, Baltimore, MD 21205, USA.
<sup>f</sup>Department of Neurology and Neurosurgery, Faculty of Medical Sciences,
University of Warmia and Mazury, Olsztyn, Poland,

<u>\*Corresponding author:</u> Jeff W.M. Bulte, PhD Dept. of Radiology and Institute for Cell Engineering The Johns Hopkins University School of Medicine 217 Traylor, 720 Rutland Ave Baltimore, MD 21205 Phone 443-287-0996 Fax 443-287-7945 jwmbulte@mri.jhu.edu

<u>Highlights</u>

- Intrasciatic injection of RCA60/120 induces nerve injury and muscle atrophy
- Fluorogold neuronal tracing allows 3D analysis of motor neuron loss
- The CatWalk is a more flexible method than rotarod test for studying motor deficits

#### Abstract

Background: Intrasciatic nerve injection of the Ricinus communis agglutinin (RCA or

ricin) causes degeneration of motor neurons (MNs) with functional deficits, such as those

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