

# Accepted Manuscript

*In-vitro* evaluation of optimal inhalation flow patterns for commercial dry powder inhalers and pressurized metered dose inhalers with human inhalation flow pattern simulator

Daiki Hira, Tomoyuki Okuda, Ayano Mizutani, Nao Tomida, Hirokazu Okamoto

PII: S0022-3549(18)30076-5

DOI: [10.1016/j.xphs.2018.02.002](https://doi.org/10.1016/j.xphs.2018.02.002)

Reference: XPHS 1073

To appear in: *Journal of Pharmaceutical Sciences*

Received Date: 10 January 2018

Revised Date: 16 January 2018

Accepted Date: 1 February 2018

Please cite this article as: Hira D, Okuda T, Mizutani A, Tomida N, Okamoto H, *In-vitro* evaluation of optimal inhalation flow patterns for commercial dry powder inhalers and pressurized metered dose inhalers with human inhalation flow pattern simulator, *Journal of Pharmaceutical Sciences* (2018), doi: 10.1016/j.xphs.2018.02.002.

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.



1 **Manuscript for Journal of Pharmaceutical Sciences**

2 **Note**

3

4 ***In-vitro* evaluation of optimal inhalation flow patterns for commercial dry powder inhalers and**  
5 **pressurized metered dose inhalers with human inhalation flow pattern simulator**

6

7 Daiki Hira<sup>1,2,3</sup>, Tomoyuki Okuda<sup>1</sup>, Ayano Mizutani<sup>1</sup>, Nao Tomida<sup>1</sup>, and Hirokazu Okamoto<sup>1,4</sup>

8

9 <sup>1</sup> Faculty of Pharmacy, Meijo University, 150 Yagotoyama, Tempaku-ku, Nagoya, Aichi 468-8503, Japan

10 <sup>2</sup> College of Pharmaceutical Sciences, Ritsumeikan University, Noji-higashi 1-1-1, Kusatsu, Shiga  
11 525-8577, Japan

12 <sup>3</sup> Department of Pharmacy, Shiga University of Medical Science Hospital, Seta Tsukinowa-cho, Otsu,  
13 Shiga 520-2192, Japan

14 <sup>4</sup> Corresponding author: Hirokazu Okamoto, Faculty of Pharmacy, Meijo University, 150 Yagotoyama,  
15 Tempaku-ku, Nagoya, Aichi 468-8503, Japan.

16 Telephone: +81-52-839-2661; Fax: +81-52-839-2661; E-mail: [okamotoh@meijo-u.ac.jp](mailto:okamotoh@meijo-u.ac.jp)

17

18 Word count: 1977 words

19

Download English Version:

<https://daneshyari.com/en/article/8513312>

Download Persian Version:

<https://daneshyari.com/article/8513312>

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