

Patent No. 8,365,742 Petition
For *Inter Partes* Review

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

JT INTERNATIONAL S.A.,
Petitioner

v.

Fontem Holdings 1 B.V.,
Patent Owner

Patent No. 8,365,742
Issue Date: February 5, 2013
Title: AEROSOL ELECTRONIC CIGARETTE

Inter Partes Review No. IPR2015-01587

**DECLARATION OF JEFFREY ARTHUR SCHUSTER, Ph.D.,
UNDER 37 C.F.R. § 1.68 IN SUPPORT OF PETITIONERS PETITION FOR
INTER PARTES REVIEW OF U.S. PATENT NO. 8,365,742**

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I, Jeffrey Arthur Schuster, Ph.D., declare as follows:

I. INTRODUCTION

1. I have been retained on behalf of Petitioner JT International S.A. (“JTI”) for the above-captioned Petition for *Inter Partes* Review (“IPR”) of U.S. Patent No. 8,365,742 (“the ‘742 patent”).

2. I am being compensated for my time in connection with this IPR at my standard consulting rate of \$185.00 per hour. My compensation is not affected by the outcome of this matter.

3. I also submitted a declaration in support of JTI’s Petition for *Inter Partes* Review of U.S. Patent No. 8,375,957 (*Inter Partes* Review No. IPR2015-01513). U.S. Patent No. 8,375,957 is directed to an electronic cigarette.

II. QUALIFICATIONS

4. My curriculum vitae, which is attached to this declaration as Exhibit A, provides an accurate identification of my background and experience.

5. My field of expertise includes research, development and design of pulmonary drug delivery devices.

6. This declaration is based upon my knowledge, skill, experience, training, and education in my field of expertise, and upon information reviewed in connection with my retention as a technical expert in this matter.

7. I graduated from UC Berkeley in 1985 with a B.A. in Physics. I graduated in 1993 from UC Berkeley with a Ph.D. in Physics.

8. My experience has included co-inventing multiple pulmonary drug delivery systems, directing a group of engineers and scientists in developing next generation aerosol drug delivery technology, leading technology transfer of needle free autoinjector technology, managing multiple companies' patent portfolios, leading an inhalation drug delivery technology company, leading drug delivery business development, leading development of multiple aerosol drug delivery platforms, and leading a drug delivery technology selection effort for a major biotechnology company.

9. About fifteen years ago, I helped evaluate an e-cigarette with a heating element and nicotine resin that was being sold in China. In particular, I proposed an e-cigarette design that would be smaller and more compact than the one I evaluated.

10. I have contributed to the development of needle-free jet injectors, an implantable pump, and a flow cytometry system.

11. I started *eficia*, which developed an innovative digital health compliance monitor for drug delivery devices including inhalers and autoinjectors.

12. I am an inventor on 33 US patents, along with numerous foreign equivalents, in the areas of pulmonary drug delivery and needle free injection, and

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