



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

February 4, 2015

Via E-Mail

Keith R. Dunleavy, M.D.
Chief Executive Officer and Chairman
Inovalon Holdings, Inc.
4321 Collington Road
Bowie, MD 20716

**Re: Inovalon Holdings, Inc.
Amendment Nos. 2 and 3 to Registration Statement on Form S-1
Filed January 26 and 29, 2015
File No. 333-201321**

Dear Dr. Dunleavy:

We have reviewed the filings referenced above and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. Unless otherwise noted, where prior comments are referenced, they refer to our letter dated January 20, 2015.

General

1. Please ensure that all correspondence is submitted on EDGAR, including your correspondence dated January 26 and 27, 2015.

Amendment No. 3 to Form S-1 filed on January 29, 2015

Management's Discussion and Analysis of Financial Condition and Results of Operations

Critical Accounting Policies and Estimates

Stock-Based Compensation, page 76

2. Tell us the reasons for the differing grant date fair values of common stock in the table on page 76 in relation to the valuations of common stock disclosed on pages 78-79.

Valuation of Our Common Stock, page 77

3. Refer to your revised disclosure in the last paragraph on page 77 in response to prior comment 2. We note your assertion that the additional stock-based compensation expense to be recognized in the fourth quarter is not material to the company's financial

Keith R. Dunleavy, M.D.
Inovalon Holdings, Inc.
February 4, 2015
Page 2

statements for the nine months ended September 30, 2014. Please explain to us and revise to disclose the materiality of the catch-up adjustment to the company's results of operations for the fourth quarter and fiscal year ended December 31, 2014.

4. Tell us how you considered the impact on your financial statements of the application of an excess minority interest in estimating the fair value of the company's shares in periods prior to January 1, 2014. In this regard, we note that the related adjustment you disclose you intend to record impacts only valuations performed during fiscal 2014.

Description of Capital Stock

Choice of Forum, page 152

5. Please tell us what consideration you have given to including risk factor disclosure addressing the impact of the exclusive forum provision on investors. Please note that we may have additional comments once you have filed your charter documents.

You may contact Tamara Tangen, Staff Accountant, at (202) 551-3443, or Craig Wilson, Senior Assistant Chief Accountant at (202) 551-3226, if you have questions regarding comments on the financial statements and related matters. Please contact Ivan Griswold, Attorney-Advisor, at (202) 551-3853 or, in his absence, me at (202) 551-3457 with any other questions. If you require additional assistance, you may contact Barbara C. Jacobs, Assistant Director, at (202) 551-3735.

Sincerely,

/s/ Maryse Mills-Apenteng

Maryse Mills-Apenteng
Special Counsel

cc: Via E-Mail
David P. Slotkin, Morrison & Foerster LLP
Justin R. Salon, Morrison & Foerster LLP