UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported): April 7, 2013

ImmunoGen, Inc.

(Exact name of registrant as specified in its charter)

Massachusetts (State or other jurisdiction of

incorporation)

0-17999 (Commission File Number) **04-2726691** (IRS Employer Identification No.)

830 Winter Street, Waltham, MA 02451

(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (781) 895-0600

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (*see* General Instruction A.2. below):

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

ITEM 7.01 — REGULATION FD DISCLOSURE

On April 7, 2013, the first clinical data were reported with BAY 94-9343 at the American Association for Cancer Research (AACR) Annual Meeting 2013 taking place in Washington, DC. BAY 94-9343 is in development by Bayer HealthCare, and utilizes ImmunoGen's Targeted Antibody Payload (TAP) technology under a license with ImmunoGen.

The data reported are initial findings from the first-in-human Phase I trial evaluating increasing doses of BAY 94-9343, administered once every three weeks, in cancer patients previously treated with other therapies. The primary objectives of the trial are to establish the safety, tolerability, pharmacokinetics, and maximum tolerated dose (MTD) of BAY 94-9343 in this patient population.

The doses of BAY 94-9343 evaluated ranged from 0.15 mg/kg to 7.5 mg/kg, with 6.5 mg/kg established as the MTD. Forty-two patients were enrolled, including mesothelioma patients. Among these patients, one had a confirmed partial response (PR), one had an unconfirmed PR, and three patients had durable stable disease lasting at least six treatment cycles (18 weeks). These patients received BAY 94-9343 at dose levels ranging from 3.6 mg/kg to 6.5 mg/kg.

It was reported that two expansion cohorts had been opened to evaluate BAY 94-9343 when administered at its MTD — one for patients with mesothelioma and one for patients with ovarian cancer.

2

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ImmunoGen, Inc.

Date: April 8, 2013

(Registrant)

/s/ Gregory D. Perry

Gregory D. Perry Executive Vice President and Chief Financial Officer