

Intra-Cellular Therapies, Inc.

19,169,155 Shares of Common Stock

This prospectus supplement no. 2 supplements the prospectus dated April 4, 2014, relating to the offering and resale by the selling stockholders identified in the prospectus of up to 19,169,155 shares of our common stock, par value \$0.0001 per share. These shares were privately issued to the selling stockholders on August 29, 2013 in connection with the reverse merger transaction described in the prospectus.

This prospectus supplement incorporates into our prospectus the information contained in Item 8.01 of our attached current report on Form 8-K (including portions of the press release filed as Exhibit 99.1 thereto cited in Item 8.01), which was filed with the Securities and Exchange Commission on May 5, 2014.

You should read this prospectus supplement in conjunction with the prospectus, including any supplements and amendments thereto. This prospectus supplement is qualified by reference to the prospectus except to the extent that the information in the prospectus supplement supersedes the information contained in the prospectus.

This prospectus supplement is not complete without, and may not be delivered or utilized except in connection with, the prospectus, including any supplements and amendments thereto.

Our common stock is listed on the NASDAQ Global Select Market under the symbol "ITCI." On May 2, 2014, the last reported sale price of our common stock on the NASDAQ Global Select Market was \$16.08.

Investment in our common stock involves risks. See "Risk Factors" beginning on page 10 of the prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is May 5, 2014.

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): May 5, 2014

Intra-Cellular Therapies, Inc.

(Exact name of registrant as specified in its charter)

Commission File Number: 001-36274

Delaware (State or other jurisdiction of incorporation) 36-4742850 (IRS Employer Identification No.)

3960 Broadway New York, New York 10032 (Address of principal executive offices, including zip code)

(212) 923-3344 (Registrant's telephone number, including area code)

Not applicable (Former name or former address, if changed since last report)

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:

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

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

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

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

ITEM 2.02 Results of Operations and Financial Condition.

On May 5, 2014, Intra-Cellular Therapies, Inc. (the "Company") announced its first quarter 2014 financial results and provided a corporate update. A copy of the Company's press release containing such announcements is attached hereto as Exhibit 99.1. The information in the press release under the caption "First Quarter 2014 Financial Results," together with the condensed consolidated financial information included in the press release, are incorporated by reference into this Item 2.02 of this Current Report on Form 8-K.

ITEM 8.01 Other Events.

In the press release dated May 5, 2014, the Company also provided a corporate update. The information set forth under the heading "Recent and Upcoming Corporate Highlights," together with the forward-looking statement disclaimer at the end of the press release, are incorporated by reference into this Item 8.01 of this Current Report on Form 8-K.

ITEM 9.01 Financial Statements and Exhibits.

(d) Exhibits

 Exhibit
 Description

 99.1
 Press release dated May 5, 2014.

The press release contains hypertext links to information on our website. The information on our website is not incorporated by reference into this Current Report on Form 8-K and does not constitute a part of this Form 8-K.

The portions of the press release incorporated by reference into Item 8.01 of this Current Report on Form 8-K are being filed pursuant to Item 8.01. The remaining portions of the press release are being furnished pursuant to Item 2.02 of this Current Report on Form 8-K and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act") or otherwise subject to the liabilities of that Section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act except as shall be expressly set forth by specific reference in such filing.

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.

INTRA-CELLULAR THERAPIES, INC.

By: /s/ Lawrence J. Hineline

Lawrence J. Hineline Vice President of Finance, Chief Financial Officer and Secretary

Date: May 5, 2014

Intra-Cellular Therapies Reports First Quarter 2014 Financial Results

NEW YORK, May 5, 2014 /GLOBE NEWSWIRE/ — Intra-Cellular Therapies, Inc. (NASDAQ: ITCI), a biopharmaceutical company focused on the development of therapeutics for central nervous system (CNS) disorders, today announced its financial results for the first quarter ended March 31, 2014, and provided a corporate update.

First Quarter 2014 Financial Results

The Company reported a net loss of \$4.5 million, or (0.17) per share (basic and diluted), for the first quarter of 2014 compared with a net loss of \$5.6 million, or (0.39) per share (basic and diluted), for the first quarter of 2013.

Research and development (R&D) expenses for the first quarter of 2014 were \$2.8 million, compared to \$5.0 million for the first quarter of 2013. The decrease is due almost exclusively to costs associated with outside clinical testing for our Phase 2 clinical trials of ITI-007 that was completed in late 2013, with no related costs incurred in 2014. Partially offsetting this decrease are expenses relating to manufacturing of drug material for our ITI-007 product candidate of approximately \$635,000 and the initiation of our Phase 1/2 clinical trial of ITI-007 in healthy geriatric volunteers and dementia patients totaling approximately \$1.0 million.

General and administrative (G&A) expenses were \$1.9 million for the first quarter of 2014, compared to \$1.0 million for the same period in 2013. The increase is primarily the result of professional fees and directors' and officers' insurance costs due to the activities associated with being a public company, with the remainder comprised primarily of higher salary and benefits expenses.

Cash and cash equivalents totaled \$145.6 million at March 31, 2014, compared to \$37.2 million at December 31, 2013.

During the first quarter of 2014, the Company raised net proceeds of approximately \$115.4 million in a public offering of its common stock, and in connection with the closing of that offering, its common stock began trading on The NASDAQ Global Select Market under the symbol "ITCI" on January 31, 2014.

The Company expects that existing cash and cash equivalents will be dedicated primarily to clinical trials of ITI-007 in schizophrenia and bipolar disorder, earlier stage clinical trials of ITI-007 in dementia, and other clinical and preclinical activities for ITI-007. To a much lesser extent, funds will be used for other pre-clinical programs.

Recent and Upcoming Corporate Highlights

- The Company presented additional analyses of the Phase 2 clinical trial of ITI-007 in patients with acutely exacerbated schizophrenia and other related presentations at the 4th Biennial Schizophrenia International Research Society Conference held in Florence, Italy, April 5-9, 2014.
- The Company announced that IC200131, the major circulating active metabolite of ITI-007, is in preclinical development as a candidate for the treatment of mood disorders and other neurological and psychiatric conditions.
- Additional presentations on ITI-007 will be featured later this week at the 167th Annual Meeting of the American Psychiatric Association (APA) and the 69th Annual Meeting of the Society of Biological Psychiatry (SOBP). The APA annual meeting will be held May 3-7, 2014, in New York, NY. The SOBP annual meeting will be held May 8-10, 2014 in New York, NY.
- In Q2 2014, the Company plans to request a meeting with the FDA to discuss the existing safety and efficacy data for ITI-007 and future clinical development plans for ITI-007.
- The Company plans to initiate Phase 3 trials of ITI-007 in schizophrenia in the second half of 2014 and clinical studies in bipolar disorder in 2015.
- The Company expects initial data from the ITI-007-200 trial in healthy geriatric subjects and in patients with dementia, including Alzheimer's disease, to be available in the second half of 2014.

About Intra-Cellular Therapies

Intra-Cellular Therapies (the "Company") is developing novel drugs for the treatment of neuropsychiatric and neurodegenerative disease and other disorders of the central nervous system ("CNS"). The Company is developing its lead drug candidate, ITI-007, for the treatment of schizophrenia, behavioral disturbances in dementia, bipolar disorder and other neuropsychiatric and neurological disorders. In December 2013, the Company announced positive topline results from the Company's randomized, placebo- and active-controlled Phase II clinical trial of ITI-007 in patients with acutely exacerbated schizophrenia. This study showed a statistically significant improvement in symptoms associated with schizophrenia at the 60 mg dose on the trial's prespecified primary endpoint and a favorable safety profile. The Company is also utilizing its phosphodiesterase (PDE) platform and other proprietary chemistry platforms to

develop drugs for the treatment of cognitive deficits in schizophrenia and other CNS disorders. The Company has partnered its lead PDE1 compound, ITI-214, and backups from this platform with the Takeda Pharmaceutical Company. ITI-214 has finished the first Phase 1 clinical trial and is now in subsequent Phase 1 trials. The Company is also developing inhibitors against additional targets for CNS indications such as Alzheimer's disease, Parkinson's disease and depression and non-CNS indications such as cardiovascular disease.

Forward-Looking Statements

This news release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 that involve risks and uncertainties that could cause actual results to be materially different from historical results or from any future results expressed or implied by such forward-looking statements. Such forward-looking statements include statements regarding, among other things, our expected use of our cash and cash equivalents; our clinical development plans for ITI-007 under the caption "Recent and Upcoming Corporate Highlights;" and our research and development efforts and plans under the caption "About Intra-Cellular Therapies." All such forward-looking statements are based on management's present expectations and are subject to certain factors, risks and uncertainties that may cause actual results, outcome of events, timing and performance to differ materially from those expressed or implied by such statements. These risks and uncertainties include, but are not limited to the following: our current and planned clinical trials for ITI-007 and our other product candidates may not be successful or may take longer and be more costly than anticipated; product candidates that appeared promising in earlier research and clinical trials may not demonstrate safety and/or efficacy in larger-scale or later clinical trials; our reliance on collaborative partners and other third-parties for development and commercialization of our product candidates; and the other risk factors discussed under the heading "Risk Factors" contained in our most recent Annual Report on Form 10-K filed with the SEC. All statements contained in this press release are made only as of the date of this press release, and we do not intend to update this information unless required by law.

Contact:

Juan Sanchez, M.D. Vice President Corporate Communications and Investor Relations of Intra-Cellular Therapies, Inc. Phone: 212-923-3344

Burns McClellan, Inc. Lisa Burns/Angeli Kolhatkar (Investors) Justin Jackson (Media) <u>jjackson@burnsmc.com</u> 212-213-0006

INTRA-CELLULAR THERAPIES, INC. CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS (Unaudited)

	Three-Months E 2014	nded March 31, 2013
Revenues	\$ 167,787	\$ 598,252
Costs and expenses:		
Research and development	2,829,299	4,952,260
General and administrative	1,912,951	1,046,608
Total costs and expenses	4,742,250	5,998,868
Loss from operations	(4,574,463)	(5,400,616)
Interest expense	(5,041)	(241,316)
Interest income	36,220	3,555
Net loss	<u>\$ (4,543,284)</u>	\$ (5,638,377)
Net loss per common share: Basic and Diluted	\$ (0.17)	\$ (0.39)
Basic and Difuted	\$ (0.17)	\$ (0.39)
Weighted average number of common shares:		
Basic & Diluted	26,475,907	14,599,612

(1) The condensed consolidated statements of operations for the quarters ended March 31, 2014 and 2013 have not been audited and do not include all of the information and footnotes required by accounting principles generally accepted in the United States for complete financial statements.

CONDENSED CONSOLIDATED BALANCE SHEETS

	March 31, 2014 (Unaudited)	December 31, 2013
Assets	(Unaudited)	(Audited)
Current assets:		
Cash and cash equivalents	\$143,618,247	\$ 35,150,924
Certificates of deposit	2,000,000	2,000,000
Accounts receivable	167,787	336,318
Prepaid expenses and other current assets	585,104	762,243
Total current assets	146,371,138	38,249,485
Property and equipment, net	65,075	68,272
Other assets	200,447	131,555
Total assets	\$146,636,660	\$ 38,449,312
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	\$ 2,142,779	\$ 3,395,067
Accrued and other current liabilities	940,594	2,611,091
Accrued employee benefits	828,262	827,879
Total current liabilities	3,911,635	6,834,037
Stockholders' equity:		
Common stock, \$.0001 par value: 100,000,000 shares authorized; 29,222,746 and 22,159,446 shares issued and		
outstanding at March 31, 2014 and December 31, 2013, respectively	2,922	2,216
Additional paid-in capital	204,829,884	89,177,556
Accumulated deficit	(62,107,781)	(57,564,497)
Total stockholders' equity	142,725,025	31,615,275
Total liabilities and stockholders' equity	\$146,636,660	\$ 38,449,312

The condensed consolidated balance sheet at March 31, 2014 has not been audited and this schedule does not include all of the information and footnotes required by accounting principles generally accepted in the United States for complete financial statements.