

Prospectus Supplement No. 1
(to Prospectus dated July 21, 2015)



This Prospectus Supplement No. 1 supplements and amends the prospectus dated July 21, 2015, relating to the offering and resale by the selling stockholders identified in the prospectus of up to 14,279,820 shares of our common stock, par value \$0.0001 per share. These shares were privately issued to the selling stockholders on March 6, 2015 in connection with the reverse merger transaction described in the prospectus.

This prospectus supplement incorporates into our prospectus the information contained in our attached current report on Form 8-K, which was filed with the Securities and Exchange Commission on August 6, 2015.

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.

There is not currently, and there has never been, any public market for any of our securities. Our securities are not currently eligible for trading on any national securities exchange, including the NASDAQ Stock Market, or any over-the-counter markets, including the OTC Markets—OTCQB tier, or OTCQB. We cannot assure you that our securities will become eligible for trading on any exchange or market. In connection with the offering, we have arranged for a registered broker-dealer to apply to have our common stock quoted on the OTCQB or another over-the-counter system. Until such time as our common stock is quoted on the OTCQB or another public trading market otherwise develops, the selling stockholders identified in the prospectus may only sell their shares of our common stock pursuant to the prospectus at a fixed price of \$6.32 per share. At and after such time, the selling stockholders may sell all or a portion of their shares through public or private transactions at prevailing market prices or at privately negotiated prices.

Investment in our common stock involves risks. See “Risk Factors” on page 9 of the prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has 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 August 6, 2015.

**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): August 1, 2015

KURA ONCOLOGY, INC.
(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

000-53058
(Commission
File Number)

61-1547851
(I.R.S. Employer
Identification No.)

11119 N. Torrey Pines Road, Suite 125, La Jolla, CA
(Address of Principal Executive Offices)

92037
(Zip Code)

Registrant's telephone number, including area code: 858-500-8800

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))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 1.01 Entry into a Material Definitive Agreement

On August 1, 2015, we entered into an Office Lease Agreement (the "**Lease**") for approximately 3,677 square feet of office space located at 55 Cambridge Parkway in Cambridge, Massachusetts. Pursuant to the terms thereof, we paid a security deposit of approximately \$44,000 upon execution of the Lease and took possession of the premises immediately. The Lease is subject to a sixty month term, with initial monthly rent of approximately \$21,000 per month, and subject to a 1.4% annual rent increase. Total base rent payable over the Lease period is \$1.3 million. In addition to base monthly rent, we are obligated to pay for operating expenses, taxes, insurance and utilities applicable to the leased property.

The preceding description of the Lease is a summary of the material terms of the Lease and does not purport to be complete, and is qualified in its entirety by the Lease, a copy of which will be filed as an exhibit to our Quarterly Report on Form 10-Q for the quarter ending September 30, 2015.

SIGNATURE

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.

KURA ONCOLOGY, INC.

Date: August 6, 2015

By: /s/ Heidi Henson

Heidi Henson

Chief Financial Officer and Secretary