UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934 (Amendment No.)

Filed by the Registrant x

Filed by a Party other than the Registrant o

Check the appropriate box:

- o Preliminary Proxy Statement
- o Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
- o Definitive Proxy Statement
- x Definitive Additional Materials
- Soliciting Material under §240.14a-12

ONCONOVA THERAPEUTICS, INC.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- x No fee required.
- o Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
 - (1) Title of each class of securities to which transaction applies:
 - (2) Aggregate number of securities to which transaction applies:
 - (3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):
 - (4) Proposed maximum aggregate value of transaction:
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- o Fee paid previously with preliminary materials.
- Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.
 - (1) Amount Previously Paid:
 - (2) Form, Schedule or Registration Statement No.:
 - (3) Filing Party:
 - (4) Date Filed:

Onconova Therapeutics, Inc., a Delaware corporation ("Onconova" or the "Company"), is filing materials contained in this Schedule 14A with the U.S. Securities and Exchange Commission (the "SEC") as definitive additional materials pursuant to Rule 14a-6(b) under the Securities Exchange Act of 1934, as amended, in connection with the solicitation of proxies by the Board of Directors for the Company's 2020 Annual Meeting of Stockholders (the "Annual Meeting"). On April 23, 2020, Onconova filed a definitive proxy statement (the "2020 Proxy Statement") and a definitive form of proxy card with the SEC in connection with the Annual Meeting.

These definitive additional materials were first sent or made available to stockholders on or about April 23, 2020.

Press Release Issued on May 11, 2020

Attached hereto is a press release that Onconova issued on May 11, 2020. In its press release, the Company announced that, as disclosed in the 2020 Proxy Statement, due to the public health impact of the COVID-19 pandemic, the Company's Annual Meeting of Stockholders will be held in a virtual meeting webcast format, beginning at 10:30 a.m. EDT on Wednesday, May 27, 2020.

Onconova Therapeutics Announces Virtual Format For 2020 Annual Meeting of Stockholders

NEWTOWN, Pa., May 11, 2020 — Onconova Therapeutics, Inc. (NASDAQ: ONTX), a Phase 3 stage biopharmaceutical company focused on discovering and developing novel products to treat cancer, with an initial focus on myelodysplastic syndromes (MDS), today announced that, as disclosed in the Company's Definitive Proxy Statement for the Company's 2020 Annual Meeting of Stockholders, due to the public health impact of the COVID-19 pandemic, the Company's Annual Meeting of Stockholders will be held in a virtual meeting webcast format, beginning at 10:30 a.m. EDT on Wednesday, May 27, 2020. Stockholders will not be able to attend the Annual Meeting in person.

Onconova stockholders as of the close of business on March 30, 2020 can join the live virtual meeting. Stockholders will be able to listen, vote and submit questions from any remote location with internet connectivity. Instructions on how to participate in the Annual Meeting and demonstrate proof of stock ownership are on your proxy card and will be posted in advance of the Annual Meeting at www.virtualshareholdermeeting.com/ONTX2020. If you have any questions or need assistance voting, please contact our proxy solicitor MacKenzie Partners, Inc. at proxy@mackenziepartners.com or 800-322-2885.

Whether or not stockholders plan to attend the Annual Meeting, they are urged to vote and submit their proxy card in advance of the meeting by one of the methods described in the proxy materials for the Annual Meeting.

THE COMPANY'S 2020 PROXY STATEMENT CONTAINS IMPORTANT INFORMATION AND THIS ANNOUNCEMENT SHOULD BE READ IN CONJUNCTION WITH THE 2020 PROXY STATEMENT. THE 2020 PROXY STATEMENT AND OTHER RELEVANT MATERIALS ARE AVAILABLE FOR FREE AT THE U.S. SECURITY & EXCHANGE COMMISSION'S WEBSITE (www.sec.gov) AND AT THE COMPANY'S WEBSITE (www.onconova.com).

About Onconova Therapeutics, Inc.

Onconova Therapeutics, Inc. is a Phase 3-stage biopharmaceutical company focused on discovering and developing novel drugs to treat cancer, with an initial focus on myelodysplastic syndromes (MDS). Onconova has a pipeline of proprietary targeted agents designed to work against specific cellular pathways that are important in cancer cells. Advanced clinical trials with the Company's lead compound, rigosertib, are aimed at what the Company believes are unmet medical needs of patients with MDS. Onconova has conducted trials with two other research compounds and has a pre-clinical program with a CDK4/6 and ARK5 inhibitor, ON 123300.

For more information, please visit https://www.onconova.com/.

Forward-Looking Statements

Some of the statements in this release are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995, and involve risks and uncertainties. These statements relate to Onconova expectations regarding the INSPIRE Trial and Onconova's other development plans. Onconova has attempted to identify forward-looking statements by terminology including "believes," "estimates," "anticipates," "expects," "plans," "intends," "may," "could," "might," "will," "should," "approximately" or other words that convey uncertainty of future events or outcomes. Although Onconova believes that the expectations reflected in such forward-looking statements are reasonable as of the date made, expectations may prove to have been materially different from the results expressed or implied by such forward-looking statements. These statements are only predictions and involve known and unknown risks, uncertainties, and other factors, including Onconova's ability to continue as a going concern, maintain its Nasdaq listing, the need for additional financing, the success and timing of Onconova's clinical trials and regulatory approval of protocols, our collaborations including the effective termination of the HanX license and securities purchase agreements and plans for partnering certain territories, and those discussed under the heading "Risk Factors" in Onconova's most recent Annual Report on Form 10-K and quarterly reports on Form 10-Q. Any forward-looking statements contained in this release speak only as of its date. Onconova undertakes no obligation to update any forward-looking statements contained in this release to reflect events or circumstances occurring after its date or to reflect the occurrence of unanticipated events.

Press release contact information

Company Contact:

Avi Oler Onconova Therapeutics, Inc. 267-759-3680 ir@onconova.us http://www.onconova.com/contact/

Media

David Schull, Russo Partners LLC: (212) 845-4271 Nic Johnson, Russo Partners LLC: (212) 845-4242

Investors
Jan Medina, CFA, Russo Partners LLC: (646) 942-5632