AMERICAN ONCOLOGY NETWORK, INC. Primary Offering of 8,337,500 Shares of Class A Common Stock Secondary Offering of 51,161,832 Shares of Class A Common Stock 6,113,333 Warrants to Purchase Shares of Class A Common Stock

This prospectus supplement is being filed to update and supplement the information contained in the prospectus dated May 3, 2024 (the "*Prospectus*"), which forms part of our registration statement on Form S-1 (No. 333-274975), as amended, with the information contained in our Current Report on Form 8-K, filed with the Securities and Exchange Commission (the "*SEC*") on June 3, 2024 (the "*Current Report*"). Accordingly, we have attached the Current Report to this prospectus supplement.

The Prospectus and this prospectus supplement relate to: (i) the issuance by us of up to 8,337,500 shares of class A common stock, par value \$0.0001 per share (the "Class A Common Stock"), of American Oncology Network, Inc., a Delaware corporation (the "Company" "we," "us," or "AON"), to be issued upon the exercise of 8,337,500 public warrants, which entitles its holder to purchase shares of Class A Common Stock at an exercise price of \$11.50 per share and (ii) the resale of (a) an aggregate of 51,161,832 shares of Class A Common Stock by certain of the selling securityholders named in the Prospectus (each a "Selling Securityholder" and, collectively, the "Selling Securityholders") and (b) 6,113,333 private placement warrants to purchase shares of Class A Common Stock issued to the Selling Securityholders.

This prospectus supplement updates and supplements the information in the Prospectus and is not complete without, and may not be delivered or utilized except in combination with, the Prospectus, including any amendments or supplements thereto. This prospectus supplement should be read in conjunction with the Prospectus and if there is any inconsistency between the information in the Prospectus and this prospectus supplement, you should rely on the information in this prospectus supplement. Terms used in this prospectus supplement but not defined herein shall have the meanings given to such terms in the Prospectus.

You should read the Prospectus, this prospectus supplement and any additional prospectus supplement or amendment carefully before you invest in our securities. Our Class A Common Stock is listed on the Nasdaq Stock Market under the symbol "AONC". Our warrants are listed on the Nasdaq Stock Market under the symbol "AONCW." On May 31, 2024, the closing price of our Class A Common Stock was \$3.34 and the closing price of our warrants was \$0.13.

Investing in our Class A Common Stock and warrants involves a high degree of risk. See the section titled "Risk Factors" beginning on page 13 of the Prospectus and in our other documents subsequently filed with the SEC.

Neither the SEC nor any other state securities commission has approved or disapproved of these securities or passed on the adequacy or accuracy of the Prospectus or this prospectus supplement. Any representation to the contrary is a criminal offense.

June 3, 2024

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): June 3, 2024

American Oncology Network, Inc.

	(Exact name of registrant as specified in it	s charter)		
Delaware	001-40177	85-3984427		
(State or other jurisdiction of incorporation or organization)	(Commission File Number)	(Commission File Number) (I.R.S. Employer Identification Number)		
14543 Global Parkway, Su Fort Myers, FL	nite 110	33913		
(Address of principal executi	ve offices)	(Zip Code)		
	(833) 886-1725 (Registrant's telephone number, including	area code)		
Check the appropriate box below if the Form following provisions:	8-K filing is intended to simultaneously sati	sfy the filing obligation of the registrant under any	of the	
☐ Written communications pursuant to Rule 4	25 under the Securities Act (17 CFR 230.425)			

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))

Securities registered pursuant to Section 12(b) of the Securities Exchange Act of 1934:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A common stock, par value \$0.0001, per share	AONC	The Nasdaq Stock Market LLC
Warrants, each whole warrant exercisable for one share of Class A common stock at an exercise price of \$11.50 per share	AONCW	The Nasdaq Stock Market LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 or Rule 12b-2 of the Securities Exchange Act of 1934.

Emerging growth company □

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. \Box

Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

(c) On June 3, 2024, the American Oncology Network, Inc. (the "Company") announced that the Board of Directors (the "Board") appointed David Afshar as Chief Financial Officer and Chief Operating Officer, effective immediately. Mr. Afshar had been interim Chief Financial Officer since May 17, 2024.

David Afshar previously served from July 2023 to February 2024 as chief financial officer of U.S. Heart and Vascular. Prior to that, Mr. Afshar served from February 2018 to July 2023 as chief financial officer of Aveanna Healthcare, a leading, diversified home care company. Prior to that, Mr. Afshar served from 2010 to 2018 as chief financial officer of ApolloMD, a large multispecialty physician practice. Mr. Afshar has also served as an inspections leader with the Public Company Accounting Oversight Board, where he led inspections of "Big Four" audit firms. In addition, Mr. Afshar has served as chief accounting officer and interim chief financial officer with Regency Hospital Company, a long-term acute care provider. Mr. Afshar received his Bachelor of Sciences degree in accounting from the University of Maryland and started his career with Ernst & Young in the Health Sciences practice and served as a senior manager. Mr. Afshar is 52 years old.

Mr. Afshar and the Company expect to enter into an employment agreement providing for compensation terms as set forth in his offer letter (the "Offer Letter") and as disclosed herewith. Under the terms of the Offer Letter, Mr. Afshar shall be paid an annual base salary of \$475,000, a one-time sign on bonus payment of \$50,000, and a potential annual bonus up to \$237,500 at the discretion of the Compensation Committee of the Board. The Offer Letter also provides that Mr. Afshar shall receive an equity grant of 150,000 shares of the Company's Class A common stock in the form of Restricted Stock Units, pursuant to the terms of the American Oncology Network, Inc. 2023 Incentive Equity Plan (the "Equity Grant") and subject to vesting. The Offer Letter also provides that Mr. Afshar is eligible for an additional payment of \$1,000,000 in the event that a change in control occurs prior to June 1, 2026, or \$1,500,000 in the event that a change in control occurs on or after June 1, 2026.

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.

AMERICAN ONCOLOGY NETWORK, INC.

By: /s/ Todd Schonherz

Name: Todd Schonherz

Title: Chief Executive Officer

Dated: June 3, 2024