Issuer Free Writing Prospectus dated July 15, 2021 Filed Pursuant to Rule 433 Relating to Preliminary Prospectus dated July 12, 2021 Registration Statement No. 333-255491

TScan Therapeutics, Inc.

This free writing prospectus relates to the initial public offering of shares of common stock of TScan Therapeutics, Inc. (the "Company") and should be read together with the preliminary prospectus dated July 12, 2021 (the "Preliminary Prospectus") included in Amendment No. 4 to the Registration Statement ("Amendment No. 4") on Form S-1 (File No. 333-255491) relating to the offering of such securities. Amendment No. 4 may be accessed through the following link: https://www.sec.gov/Archives/edgar/data/0001783328/000119312521212364/d107876ds1a.htm. This free writing prospectus supplements and updates the information contained in the Preliminary Prospectus. You should read the Preliminary Prospectus carefully, including the section entitled "Risk Factors," before deciding to invest in the Company's common stock. Capitalized and other terms used but not defined herein have the meanings set forth in the Preliminary Prospectus.

TScan Therapeutics, Inc.

6,666,667 Shares of Common Stock

TScan Therapeutics, Inc. Issuer: Symbol: **TCRX** Base Shares Offered: 6,666,667 Over-Allotment Option Shares: 1,000,000 Initial Public Offering Price: \$15.00 per share July 15, 2021 Pricing Date: Closing Date: July 20, 2021 CUSIP No: 89854M 101

Joint Book-Running Managers:

Morgan Stanley & Co. LLC

Jefferies LLC

Cowen and Company, LLC Barclays Capital Inc.

The Company has directed allocations representing an aggregate of 866,665 shares of the Company's common stock (the "Allocated Shares") to certain investors, including certain existing stockholders affiliated with the Company or its directors. Substantially all of the Allocated Shares will not be subject to a lock-up agreement.

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The Company has filed registration statements (including the Preliminary Prospectus) with the Securities and Exchange Commission (the "SEC") for the initial public offering of its common stock to which this communication relates, which became effective on July 15, 2021. Before you invest, you should read the Preliminary Prospectus and other documents the Company has filed with the SEC for more complete information about the Company and the

Company's initial public offering of its common stock. You may get these documents for free by visiting EDGAR on the SEC web site at www.sec.gov. Alternatively, the Company, any underwriter or any dealer participating in the offering will arrange to send you the prospectus if you request it from Morgan Stanley & Co. LLC Attn: Prospectus Department, 180 Varick Street, 2nd Floor, New York, NY 10014 or by email at prospectus@morganstanley.com; Jefferies LLC, Attention: Equity Syndicate Prospectus Department, 520 Madison Avenue, 2nd Floor, New York, NY 10022, by telephone at (877) 821-7388 or by e-mail at prospectus_department@jefferies.com; Cowen and Company, LLC at c/o Broadridge Financial Solutions, Attention: Prospectus Department, 1155 Long Island Avenue, Edgewood, New York 11717, by telephone at (833) 297-2926 or by email at PostSaleManualRequests@broadridge.com; and Barclays Capital Inc. at c/o Broadridge Financial Solutions, 1155 Long Island Avenue, Edgewood, New York 11717, by telephone at 1-888-603-5847 or by email at barclaysprospectus@broadridge.com.