Filed by TCR² Therapeutics Inc.

This communication is filed pursuant to Rule 425 under the United States Securities Act of 1933 and deemed filed pursuant to Rule 14a-12 of the Securities Exchange Act of 1934

Subject Company: TCR^2 Therapeutics Inc.

(Commission File No. 001-38811)

Date: March 6, 2023

This filing relates to the proposed merger of TCR2 Therapeutics Inc., a Delaware corporation (the "Company"), with CM Merger Sub, Inc. ("Merger Sub"), a Delaware corporation and an indirect wholly-owned subsidiary of Adaptimmune Therapeutics plc ("Parent") a public limited company incorporated in England and Wales, pursuant to the terms of that certain Agreement and Plan of Merger, dated as of March 5, 2023, by and among the Company, Merger Sub, and Parent (the "Merger Agreement").

1. What was announced?

- TCR² announced a strategic combination with Adaptimmune Therapeutics aimed at creating a preeminent cell therapy company for solid tumors.
- This is an exciting milestone for both TCR² and Adaptimmune.
- The combination brings together two highly complementary and patient-centric businesses to create new opportunities for our company and for our employees.
- · Combining with Adaptimmune will give us a stronger foundation to achieve our longstanding goal of bringing to cancer patients an innovative set of potentially curative therapies.
- · The transaction is currently expected to close in Q2 2023.

2. Who is Adaptimmune Therapeutics?

- · Adaptimmune is a leader in TCR-specific cell therapy, focused on designing and delivering novel cancer immunotherapy products.
- Their clinical pipeline is led by afami-cel for the treatment of people with synovial sarcoma and they are on track to submit a BLA by mid-year making it the first TCR therapy approvable for solid tumors.
- They also have a deep preclinical pipeline with multiple second generation autologous and allogeneic approaches backed by a proprietary TCR platform that is complementary to ours.
- · For more information, please visit https://www.adaptimmune.com/.

3. Why is TCR² merging with Adaptimmune Therapeutics?

- · As you know, focus and specialization are critical in the cell therapy space, and we believe the combined company will have the technologies and financial basis necessary to succeed in a very competitive and capital intensive space.
- · We will have a deep bench of cell therapy professionals, infrastructure and end-to-end capabilities that could be applied across an even broader portfolio of innovations, with a cash runway anticipated to extend into 2026.
- · Combining with Adaptimmune will give us a stronger foundation to achieve our longstanding goal of bringing to cancer patients an innovative set of potentially curative therapies.
- · Overall, with the impressive capabilities from both organizations, we can reach even greater heights than we could have achieved on our own.

4. What does this mean for employees?

- We are confident that TCR² and Adaptimmune are terrific partners.
- · With the impressive capabilities from both organizations, we can reach even greater heights of patient care and innovation than we could have achieved on our own.
- Importantly, it is clear that we share not just a common vision, but a deep belief in our people.
- From our many interactions with Adaptimmune, we have discovered that Adaptimmune has a culture very similar to our own. We can see that they share our commitment to maintaining a healthy, vibrant and collaborative culture.
- Until the transaction closes, which we currently expect to occur in Q2 2023, TCR² and Adaptimmune remain separate companies operating independently as we have done before.

• It is important to stay focused on our day-to-day roles and responsibilities so that we can continue to treat cancer patients with gavo-cel and TC-510. They depend on us.

5. What does this mean for compensation and benefits programs?

Adaptimmune has agreed that, for a period of 12 months following the merger or, if shorter, for such period each TCR² employee remains employed with the combined entity, each TCR² employee will be provided with a base salary and target annual cash incentive compensation opportunity and employee benefits (excluding any equity-based, change in control, defined benefit or retention benefits) **no less favorable** than are in effect immediately prior to the merger.

6. What does this mean for my equity awards in TCR²? Can I change my ESPP contributions between now and close?

- **If you hold stock options**, your options will be assumed by Adaptimmune such that they will be exercisable for American Depositary Shares ("ADSs") or ordinary shares of Adaptimmune. In connection with this assumption, your stock option's strike price and the number of ADSs or ordinary shares subject to your stock option will be equitably adjusted, with your stock option generally maintaining the same "spread" value as of immediately prior to the merger and having substantially similar terms and conditions.
- **If you hold restricted stock units ("RSUs"),** your RSUs will be assumed by Adaptimmune such that they will be settled in ADSs or ordinary shares of Adaptimmune. In connection with this assumption, the number of shares subject to your RSUs will be equitably adjusted and your RSUs will be converted into RSU-style stock options (with a nominal exercise price), but your new Adaptimmune RSUs will generally have the same value as your TCR² RSUs as of immediately prior to the merger and will have substantially similar terms and conditions.
- If you currently participate in the TCR² Employee Stock Purchase Plan ("ESPP"), you will not be able to increase your contributions and no new offering periods will be commenced. The current ESPP offering period will continue in effect as normal, except that if the merger closes before the last day of the current ESPP offering period, then the offering period will be shortened and end a few days before the merger. Any accumulated contributions made during that shorter offering period will be used to purchase TCR² shares just before the merger. If you do not currently participate in the ESPP, you will not be able to begin participating in the ESPP.

7. What is an ADS?

- · An "ADS" is an "American Depositary Share".
- · ADSs are a common method that non-US companies, like Adaptimmune, utilize in order to trade their shares in the US market.
- · Each ADS is the economic equivalent of six ordinary shares of Adaptimmune and can be converted into ordinary shares of Adaptimmune. You can also convert ordinary shares into ADSs.

8. Should we anticipate any layoffs following the transaction?

- · We understand this news may create anxiety about job security.
- · While the ultimate decision will be up to Adaptimmune post-closing of the transaction, we have an opportunity in the coming weeks to influence the outcome and we are committed to being as transparent as possible during this process, and treating all employees with due respect.
- Until the transaction closes, which we currently expect to occur in Q2 2023, TCR² and Adaptimmune remain separate companies operating independently and as we have done before.
- · Remaining focused on your day-to-day responsibilities and remembering that we have many cancer patients depending on us is the best thing we can do.

9. Who will lead the combined company?

- · Following the close of the transaction, the combined company will be led by Adrian Rawcliffe, the current CEO of Adaptimmune.
- · Adrian is an industry veteran with over 20-years of experience in the biopharma industry, including at Adaptimmune and GSK, with a proven track record of driving innovation.
- Additional members of the leadership team are expected to be announced at a later time.

· Garry Menzel will be joining the Board of the combined company, along with two other directors from TCR2 to ensure continuity and representation of our many achievements.

10. Where will the combined company be located? Will any facilities be shut down?

- Until the transaction closes, both TCR² and Adaptimmune will remain in their current locations and continue to do business as usual.
- · Following the close of the transaction, the combined company will have a significant presence in the key United States cell therapy and innovation hubs of Philadelphia, PA, and Cambridge, MA, as well as Oxford/Stevenage in the United Kingdom. Many of you will have the opportunity to anchor that presence here in Kendall Square.

11. Will there be changes to reporting structures as a result of the transaction?

Any such changes would occur following the transaction's close, which is currently expected to occur in Q2 2023.

12. What will be the name of the combined business?

· Upon completion of the transaction, the company will be called Adaptimmune.

13. When will the transaction close?

The merger is currently expected to close in Q2 2023, subject to approvals by Adaptimmune and TCR² shareholders and other closing conditions.

14. What should I do if an employee of Adaptimmune contacts me with questions or requests for information?

- It is important to remember that until closing, TCR² and Adaptimmune remain separate organizations, and we will operate as we have before.
- If you are approached by an Adaptimmune team member for any information about the integration, do not comment and refer them to Angela Justice at angela.justice@tcr2.com.

15. What does this announcement mean for business partners?

- The combination does not impact our relationships with our partners, and we are operating as we have before.
- We remain dedicated to working with our partners to support their needs and the needs of the cancer patients we serve.

16. Can I post on social media about this announcement?

- · It is important that you DO NOT post on social media about this announcement. Only authorized leaders at the company are permitted to discuss the transaction publicly, including on social media.
- You can share TCR²'s social posts from our official channels (those owned by TCR² and operated by our corporate communications team), but please do not add any commentary to official posts that you choose to share.
- You cannot engage beyond that, especially with third parties. This includes but is not limited to liking messages, responding to other users, or reposting content.
- · It is important that we speak with one voice and that you do not make any comments, including in response to media or investor inquiries.

17. Who can I contact if I have more questions?

- If you have questions or concerns beyond what is provided in the Employee FAQ, please contact a member of the Leadership Team.
- \cdot We will continue to keep you updated on important developments as we move through the transaction process.

Forward-looking Statements

This communication relates to the proposed transaction pursuant to the terms of the Merger Agreement. This communication includes express or implied forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), about the proposed transaction between the Company and Parent and the operations of the combined company that involve risks and uncertainties relating to future events and the future performance of Parent and the Company. Actual events or results may differ materially from these forward-looking statements. Words such as "will," "could," "would," "should," "expect," "plan," "anticipate," "intend," "believe," "estimate," "predict," "project," "potential," "continue," "future," "opportunity" "will likely result," "target," variations of such words, and similar expressions or negatives of these words are intended to identify such forward-looking statements, although not all forward-looking statements contain these identifying words. Examples of such forward-looking statements include, but are not limited to, express or implied statements regarding: the business combination and related matters, including, but not limited to, satisfaction of closing conditions to the proposed transaction, prospective performance and opportunities with respect to Parent or the Company, post-closing operations and the outlook for the companies' businesses; Parent's, the Company's or the combined company's targets, plans, objectives or goals for future operations, including those related to Parent's and the Company's product candidates, research and development, product candidate introductions and product candidate approvals as well as cooperation in relation thereto; projections of or targets for revenues, costs, income (or loss), earnings per share, capital expenditures, dividends, capital structure, net financials and other financial measures; future economic performance, future actions and outcome

These statements are based on Parent's and the Company's current plans, estimates and projections. By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific. A number of important factors, including those described in this communication, could cause actual results to differ materially from those contemplated in any forward-looking statements. Factors that may affect future results and may cause these forward-looking statements to be inaccurate include, without limitation: uncertainties as to the timing for completion of the proposed transaction; uncertainties as to the Company's and/or Parent's ability to obtain the approval of Parent's shareholders or the Company's stockholders required to consummate the proposed transaction; the possibility that competing offers will be made by third parties; the occurrence of events that may give rise to a right of one or both of Parent and the Company to terminate the merger agreement; the possibility that various closing conditions for the proposed transaction may not be satisfied or waived on a timely basis or at all, including the possibility that a governmental entity may prohibit, delay, or refuse to grant approval, if required, for the consummation of the proposed transaction (or only grant approval subject to adverse conditions or limitations); the difficulty of predicting the timing or outcome of consents or regulatory approvals or actions, if any; the possibility that the proposed transaction may not be completed in the time frame expected by Parent and the Company, or at all; the risk that Parent and Company may not realize the anticipated benefits of the proposed transaction in the time frame expected, or at all; the effects of the proposed transaction on relationships with Parent's or the Company's employees, business or collaboration partners or governmental entities; the ability to retain and hire key personnel; potential adverse reactions or changes to business relationships resulting from the announcement or completion of the proposed transaction; significant or unexpected costs, charges or expenses resulting from the proposed transaction; the potential impact of unforeseen liabilities, future capital expenditures, revenues, costs, expenses, earnings, synergies, economic performance, indebtedness, financial condition and losses on the future prospects, business and management strategies for the management, expansion and growth of the combined business after the consummation of the proposed transaction; potential negative effects related to this announcement or the consummation of the proposed transaction on the market price of Parent's American Depositary Shares or the Company's common stock and/or Parent's or the Company's operating or financial results; uncertainties as to the long-term value of Parent's American Depositary Shares (and the ordinary shares represented thereby), including the dilution caused by Parent's issuance of additional American Depositary Shares (and the ordinary shares represented thereby) in connection with the proposed transaction; unknown liabilities related to Parent or the Company; the nature, cost and outcome of any litigation and other legal proceedings involving Parent, the Company or their respective directors, including any legal proceedings related to the proposed transaction; risks related to global as well as local political and economic conditions, including interest rate and currency exchange rate fluctuations; potential delays or failures related to research and/or development of Parent's or the Company's programs or product candidates; risks related to any loss of Parent's or the Company's patents or other intellectual property rights; any interruptions of the supply chain for raw materials or manufacturing for Parent or the Company's product candidates, the nature, timing, cost and possible success and therapeutic applications of product candidates being developed by Parent, the Company and/or their respective collaborators or licensees; the extent to which the results from the research and development programs conducted by Parent, the Company, and/or their respective collaborators or licensees may be replicated in other studies and/or lead to advancement of product candidates to clinical trials, therapeutic applications, or regulatory approval; uncertainty of the utilization, market acceptance, and commercial success of Parent or the Company's product candidates, and the impact of studies (whether conducted by Parent, the Company or others and whether mandated or voluntary) on any of the foregoing; unexpected breaches or terminations with respect to Parent's or the Company's material contracts or arrangements; risks related to competition for Parent's or the Company's product candidates; Parent's or the Company's ability to successfully develop or commercialize Parent's or the Company's product candidates; Parent's, the Company's, and their collaborators' abilities to continue to conduct current and future developmental, preclinical and clinical programs; potential exposure to legal proceedings and investigations; risks related to changes in governmental laws and related interpretation thereof, including on reimbursement, intellectual property protection and regulatory controls on testing, approval, manufacturing, development or commercialization of any of Parent's or the Company's product candidates; unexpected increase in costs and expenses with respect to the potential transaction or Parent's or the Company's business or operations; and risks and uncertainties related to epidemics, pandemics or other public health crises and their impact on Parent's and the Company's respective businesses, operations, supply chain, patient enrollment and retention, preclinical and clinical trials, strategy, goals and anticipated milestones. While the foregoing list of factors presented here is considered representative, no list should be considered to be a complete statement of all potential risks and uncertainties. There can be no assurance that the proposed transaction or any other transaction described above will in fact be consummated in the manner described or at all. A more complete description of these and other material risks can be found in Parent's and the Company's respective filings with the U.S. Securities and Exchange Commission (the "SEC"), including each of their Annual Reports on Form 10-K for the year ended December 31, 2021, subsequent Quarterly Reports on Form 10-Q and other documents that may be filed from time to time with the SEC, as well as, the Registration Statement on Form S-4 which includes the joint proxy statement of Parent and the Company that also constitutes the prospectus of Parent, which joint proxy statement/prospectus will be mailed or otherwise disseminated to Parent's shareholders and the Company's stockholders when it becomes available. Parent and the Company also plan to file other relevant documents with the SEC regarding the proposed transaction.

Any forward-looking statements speak only as of the date of this communication and are made based on the current beliefs and judgments of Parent's and the Company's management, and the reader is cautioned not to rely on any forward-looking statements made by Parent or the Company. Unless required by law, neither Parent nor the Company is under no duty and undertakes no obligation to update or revise any forward-looking statement after the distribution of this document, including without limitation any financial projection or guidance, whether as a result of new information, future events or otherwise.

No Offer or Solicitation

This communication is not intended to and shall not constitute an offer to subscribe for, buy or sell or the solicitation of an offer to subscribe for, buy or sell any securities, or a solicitation of any vote or approval, nor shall there be any sale of, or offer to sell or buy, securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. This communication is for informational purposes only. No offering of securities shall be made, except by means of a prospectus meeting the requirements of Section 10 of the U.S. Securities Act of 1933, as amended, and otherwise in accordance with applicable law.

Additional Information and Where to Find It

In connection with the proposed transaction, Parent and the Company expect to file with the SEC a Registration Statement on Form S-4. The Registration Statement on Form S-4 will include a document that serves as a prospectus of Parent and a joint proxy statement of Parent and the Company, and each party may also file other documents regarding the proposed transaction with the SEC. INVESTORS AND SECURITY HOLDERS ARE URGED TO READ CAREFULLY THE REGISTRATION STATEMENT ON FORM S-4, JOINT PROXY STATEMENT/PROSPECTUS AND OTHER RELEVANT DOCUMENTS FILED OR WILL BE FILED WITH THE SEC, AS WELL AS ANY AMENDMENTS OR SUPPLEMENTS THERETO AND ANY DOCUMENTS INCORPORATED BY REFERENCE THEREIN, IN THEIR ENTIRETY IF AND WHEN THEY BECOME AVAILABLE BECAUSE THEY CONTAIN OR WILL CONTAIN IMPORTANT INFORMATION ABOUT THE PROPOSED TRANSACTION, RELATED MATTERS AND THE PARTIES TO THE PROPOSED TRANSACTION.

You may obtain a free copy of the Registration Statement on Form S-4, joint proxy statement/prospectus and other relevant documents (if and when they become available) that are or will be filed with the SEC for free at the SEC's website at www.sec.gov. Copies of the documents filed with the SEC by the Company will be available free of charge on the Company's website at https://investors.tcr2.com/ or by contacting the Company's Investor Relations Department at https://investors.tcr2.com/contact-ir. Copies of the documents filed with the SEC by Parent will be available free of charge on Parent's website at https://www.adaptimmune.com/investors-and-media/sec-filings or by contacting Parent's Investor Relations Department at IR@adaptimmune.com.

Participants in the Solicitation

Parent, the Company and certain of their respective directors and executive officers and other members of management and employees may be deemed to be participants in the solicitation of proxies in respect of the proposed transaction. Information about the directors and executive officers of Parent, including a description of their direct or indirect interests, by security holdings or otherwise, is set forth in Parent's proxy statement for its 2022 Annual General Meeting, which was filed with the SEC on April 21, 2022, the Annual Report on Form 10-K for the year ended December 31, 2021 filed with the SEC on March 14, 2022, subsequent Quarterly Reports on Form 10-Q and other documents that may be filed from time to time with the SEC. Information about the directors and executive officers of the Company, including a description of their direct or indirect interests, by security holdings or otherwise, is set forth in the Company's proxy statement for its 2022 Annual Meeting of Stockholders, which was filed with the SEC on September 1, 2022, the Annual Report on Form 10-K for the year ended December 31, 2021 filed with the SEC on March 22, 2022, subsequent Quarterly Reports on Form 10-Q and other documents that may be filed from time to time with the SEC. Other information regarding the participants in the proxy solicitations and a description of their direct and indirect interests, by security holdings or otherwise, will be contained in the joint proxy statement/prospectus included in the Registration Statement on Form S-4 and other relevant materials to be filed with the SEC regarding the proposed transaction when such materials become available. Security holders, potential investors and other readers should read the joint proxy statement/prospectus, included in the Registration Statement on Form S-4 carefully when it becomes available before making any voting or investment decision. You may obtain free copies of these documents from Parent or the Company using the sources indicated above.