

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

FORM S-1

**REGISTRATION STATEMENT
under the
SECURITIES ACT OF 1933**

CYCLACEL PHARMACEUTICALS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or other
jurisdiction of incorporation or
organization)

3826
(Primary Standard Industrial
Classification Code Number)

91-1707622
(IRS Employer
Identification No.)

**200 Connell Drive, Suite 1500
Berkeley Heights, NJ 07922
(908) 517-7330**

(Address, including zip code, and telephone number, including area
code, of registrant's principal executive offices)

**Spiro Rombotis
President & Chief Executive Officer
Cyclacel Pharmaceuticals, Inc.
200 Connell Drive, Suite 1500
Berkeley Heights, NJ 07922
(908) 517-7330**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

**Joel I. Papernik, Esq.
Jeffrey P. Schultz, Esq.
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
919 Third Avenue
New York, NY 10022
(212) 935-3000**

**Approximate date of commencement of proposed sale to the public:
From time to time after this registration statement becomes effective.**

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

.. Accelerated filer ..

Non-accelerated filer

Smaller reporting company

..

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 7(a)(2)(B) of the Securities Act.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said section 8(a), may determine.

THE INFORMATION IN THIS PRELIMINARY PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. WE MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PRELIMINARY PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

SUBJECT TO COMPLETION, DATED OCTOBER 8, 2024

PRELIMINARY PROSPECTUS



CYCLACEL PHARMACEUTICALS, INC.

Up to Shares of Common Stock
and up to Accompanying Common Stock Warrants to purchase up to Shares of Common Stock
or
Up to Pre-Funded Warrants to purchase up to Shares of Common Stock and up to Accompanying
Common Stock Warrants to purchase up to Shares of Common Stock

Up to Shares of Common Stock Issuable Upon Exercise of the Pre-Funded Warrants and Common Stock Warrants

This is a best efforts public offering of up to shares of our common stock, up to common stock purchase warrants to purchase up to shares of our common stock (which we refer to as "Common Stock Warrants"), and the shares of common stock underlying the Common Stock Warrants, at a combined public offering price of \$ per share of common stock and accompanying Common Stock Warrants. Each Common Stock Warrant is exercisable immediately upon issuance for one share of common stock at an exercise price of \$ share and will expire five years from the initial exercise date.

We are also offering to those purchasers, if any, whose purchase of common stock in this offering would otherwise result in any such purchaser, together with its affiliates, beneficially owning more than 4.99% (or, at the election of such purchaser, 9.99%) of our outstanding common stock immediately following the consummation of this offering, the opportunity to purchase pre-funded warrants in lieu of shares of our common stock that would otherwise result in such purchaser's beneficial ownership exceeding 4.99% (or, at the election of such purchaser, 9.99%) of our outstanding common stock. The purchase price for each pre-funded warrant will equal the per share public offering price for the common stock in this offering less the \$0.0001 per share exercise price of each such pre-funded warrant. Each pre-funded warrant will be exercisable upon issuance and will not expire prior to exercise. For each pre-funded warrant that we sell, the number of shares of common stock that we are selling will be decreased on a one-for-one basis.

Our common stock is quoted for trading on the Nasdaq Capital Market under the symbol "CYCC". On [], 2024, the last reported sales price for our common stock was \$X.XX per share. The actual public offering price per share and accompanying Common Stock Warrant will be determined between us, the Placement Agent and the investors in the offering, and may be at a discount to then current market price of our common stock. Therefore, the assumed public offering price used throughout this prospectus may not be indicative of the final public offering price. We do not intend to apply for listing of the Common Stock Warrants or pre-funded warrants on any national securities exchange or trading system. Without an active trading market, the liquidity of the Common Stock Warrants and the pre-funded warrants will be limited.

An investment in our securities involves a high degree of risk. Before buying any securities you should carefully read the discussion of the material risks of investing in our securities in "Risk Factors" beginning on page 6 of this prospectus or incorporated herein by reference.

We have engaged _____ as our exclusive placement agent ("_____" or the "Placement Agent") to use its reasonable best efforts to solicit offers to purchase our securities in this offering. The offering of the securities will terminate on the earlier of (i) the first date that we enter into securities purchase agreements to sell the securities offered hereby, or (ii) , 2024. The Placement Agent has no obligation to purchase any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of the securities. Because there is no minimum offering amount required as a condition to closing in this offering the actual public amount, placement agent's fee, and proceeds to us, if any, are not presently determinable and may be substantially less than the total maximum offering amounts set forth above and throughout this prospectus. We have agreed to pay the Placement Agent the placement agent fees set forth in the table below and to provide certain other compensation to the Placement Agent. See "Plan of Distribution" beginning on page 26 of this prospectus for more information regarding these arrangements.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION ("SEC") NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

	Per Share and related Common Stock Warrant ⁽²⁾	Per Pre-Funded Warrant and related Common Stock Warrant ⁽²⁾	Total
Assumed Public offering price ⁽¹⁾	\$	\$	\$
Placement Agent fees	\$	\$	\$
Proceeds to us before offering expenses ⁽³⁾	\$	\$	\$

(1) The public offering price corresponds to (x) a public offering price of \$ per share and accompanying Common Stock Warrants and (y) an assumed public offering price of \$ per pre-funded warrant and accompanying Common Stock Warrants.

(2) Based on an assumed public offering price of \$ per share of common stock and associated Common Stock Warrant, or in the case of pre-funded warrants, \$ per pre-funded warrant and associated Common Stock Warrant. The final public offering price per share and associated Common Stock Warrant or pre-funded warrant and associated Common Stock Warrant, as the case may be, will be determined by the Company, Placement Agent and the investors in this offering and may be a discount to the market price of the Company's common stock.

(3) We estimate the total expenses of this offering will be approximately \$.

We expect this offering to be completed within two business days following the commencement of this offering and we will deliver all securities to be issued in connection with this offering delivery versus payment upon receipt of investor funds received by us. Accordingly, there is no arrangement to receive or place investor funds in an escrow, trust or any similar account.

We expect to deliver our shares, Common Stock Warrants and pre-funded warrants, if any, to purchasers in the offering on or about _____, 2024.

_____, 2024

TABLE OF CONTENTS

	PAGE
<u>PROSPECTUS SUMMARY</u>	<u>1</u>
<u>THE OFFERING</u>	<u>4</u>
<u>RISK FACTORS</u>	<u>6</u>
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	<u>9</u>
<u>USE OF PROCEEDS</u>	<u>10</u>
<u>MARKET FOR OUR COMMON STOCK</u>	<u>10</u>
<u>DIVIDEND POLICY</u>	<u>10</u>
<u>CAPITALIZATION</u>	<u>11</u>
<u>DILUTION</u>	<u>12</u>
<u>DESCRIPTION OF OUR COMMON STOCK</u>	<u>13</u>
<u>DESCRIPTION OF OUR PREFERRED STOCK</u>	<u>14</u>
<u>DESCRIPTION OF OUTSTANDING WARRANTS</u>	<u>22</u>
<u>DESCRIPTION OF THE SECURITIES WE ARE OFFERING</u>	<u>23</u>
<u>PLAN OF DISTRIBUTION</u>	<u>26</u>
<u>DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES</u>	<u>28</u>
<u>LEGAL MATTERS</u>	<u>28</u>
<u>EXPERTS</u>	<u>28</u>
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	<u>28</u>
<u>INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE</u>	<u>29</u>

You should read this prospectus and any applicable prospectus supplement before making an investment in the securities of Cyclacel Pharmaceuticals, Inc. See "Where You Can Find More Information" for more information. You should rely only on the information contained in this prospectus or a prospectus supplement. The Company has not authorized anyone to provide you with different information. This document may be used only in jurisdictions where offers and sales of these securities are permitted. You should assume that information contained in this prospectus, or in any prospectus supplement, is accurate only as of any date on the front cover of the applicable document. Our business, financial condition, results of operations and prospects may have changed since that date. Unless otherwise noted in this prospectus, "Cyclacel Pharmaceuticals," "Cyclacel," "the Company," "we," "us," "our" and similar terms refer to Cyclacel Pharmaceuticals, Inc.

Smaller Reporting Company - Scaled Disclosure

Pursuant to Item 10(f) of Regulation S-K promulgated under the Securities Act of 1933, as amended (the "Securities Act"), as indicated herein, we have elected to comply with the scaled disclosure requirements applicable to "smaller reporting companies," including providing two years of audited financial statements.

PROSPECTUS SUMMARY

This summary highlights some information from this prospectus. It may not contain all the information important to making an investment decision. You should read the following summary together with the more detailed information regarding our Company and the securities being sold in this offering, including in the section titled "Risk Factors" and other information incorporated by reference herein.

Business Overview

We are a clinical-stage biopharmaceutical company working to develop innovative cancer medicines based on cell cycle, transcriptional regulation and mitosis biology. We are a pioneer company in the field of cancer cell cycle biology with a vision to improve patient healthcare by translating insights in cancer biology into medicines that can overcome resistance and ultimately increase a patient's overall survival.

The transcriptional regulation program is evaluating fadraciclib, a CDK2/9 inhibitor, in solid tumors and hematological malignancies. The anti-mitotic program is evaluating plogosertib (or plogo), a PLK1 inhibitor, in solid tumors and hematological malignancies. Our strategy is to build a diversified biopharmaceutical business based on a pipeline of novel drug candidates addressing oncology and hematology indications.

We have retained rights to commercialize our clinical development candidates and our business objective is to enter into selective partnership arrangements with these programs. Substantially all our efforts to date have been devoted to performing research and development, conducting clinical trials, developing and acquiring intellectual property, raising capital and recruiting and training personnel.

Fadraciclib Phase 1/2 Study in Advanced Solid Tumors and Lymphoma (065-101; NCT#04983810)

The ongoing study is an open-label, multicenter, Phase 1/2 registration-directed trial using a streamlined design. Phase 1 explored both schedule and escalating doses of oral fadraciclib as a single-agent in a 28-day cycle with a primary objective of identifying maximum tolerated dose or MTD and/or the recommended Phase 2 dose or RP2D. Having completed Phase 1 the trial is now in the Phase 2, proof-of-concept, cohort stage, using a Simon 2-stage design, where single agent fadraciclib can be administered to patients in up to eight cohorts defined by histology or molecular subtype thought to be sensitive to the drug's mechanism of action and informed by the clinical activity of fadraciclib in previous studies. The seven histology-based cohorts include: Cohort 1: endometrial and ovarian; 2: cholangiocarcinoma or biliary tract; 3: hepatocellular; 4: breast, including HR positive, HER2 negative, triple negative, and HER-2 positive; 5: T-Cell lymphoma; 6: B-Cell lymphoma; and 7: colorectal cancers. Cohort 8 is biomarker selected, including patients with CDKN2A and/or CDKN2B abnormalities. The protocol allows for expansion of a cohort based on exceeding certain futility criteria. The primary objective of Phase 2 is to achieve proof of concept and determine preliminary efficacy by overall response rate. Safety, pharmacokinetics and efficacy will be investigated for all subjects. Exploratory objectives are to investigate clinical pharmacodynamics and pharmacogenomics of fadraciclib.

In the Phase 1 part of the 065-101 study, a total of 48 heavily pretreated patients have been dosed through eight dose levels. Clinical, pharmacokinetic (PK) and pharmacodynamic (PD) data from the study were presented at a poster at the 2024 American Society of Clinical Oncology (ASCO) Annual Meeting.

Patients received a median of four prior lines of therapy. Fadraciclib was generally well tolerated with good compliance between dose levels 1 and 5. The most common treatment related adverse events reported were nausea (66.0%), vomiting (46.8%), diarrhea (31.9%) fatigue (25.5%), and hyperglycemia (21.3%). A total of 25 drug-related serious adverse events (SAE) were reported in 8 patients. The most common SAEs reported were hyperglycemia (n=4), platelet count decrease (n=3), and accidental overdose (n=3).

There were no drug-related SAEs at dose level 5 (100 mg bid, 5 days a week, for 4/4 weeks) which was selected for the Phase 2 proof of concept part of the 065-101 study. Pharmacokinetics were dose-proportional and exceeded the preclinical efficacy targets for both CDK2 and CDK9. Pharmacodynamics evaluated in peripheral blood showed suppression of CDKN2A/B by four hours post treatment in most patients who received 100 mg bid or higher.

A total of 34 patients had measurable target lesions at baseline. Two partial responses were reported in patients with T-cell lymphoma, one of whom had CDKN2A loss. A squamous non-small cell lung (NSCLC) cancer patient with CDKN2A and CDKN2B loss achieved 22% reduction in tumor burden at 4 weeks per RECIST 1.1 criteria. In addition, clinical benefit was reported in two patients with endometrial cancer and one each with ovarian and pancreatic cancers.

The Phase 2, proof of concept part of the study is enrolling patients with CDKN2A and/or CDKN2B abnormalities in Cohort 8 and T-cell lymphoma in Cohort 5. Cohort 8 has been completed as per protocol with 12 patients enrolled.

Fadraciclib tablets can be given orally with repeat dosing which has led to transient suppression of anti-apoptosis proteins with generally good tolerability and no Grade 3 or higher hematological toxicity in the first cycle. We believe that fadraciclib's inhibition of CDK2 and CDK9 may be superior to inhibiting either CDK2 or CDK9 alone.

Plogosertib Phase 1/2 Study in Advanced Solid Tumors and Lymphoma (140-101, Orally Dosed)

Similar to fadraciclib, plogosertib is being evaluated as a single-agent in an open-label Phase 1/2 registration-directed trial using a streamlined design. The trial seeks to determine RP2D in a dose escalation stage. Once RP2D has been established, the trial will immediately enter into proof-of-concept, cohort stage, using a Simon 2-stage design. In this stage plogosertib will be administered to patients in up to seven mechanistically relevant cohorts including patients with bladder, breast, colorectal (including KRAS mutant), hepatocellular and biliary tract, and lung cancers (both small cell and non-small cell), as well as lymphomas. An additional basket cohort will enroll patients with biomarkers relevant to the drug's mechanism, including MYC amplified tumors. The protocol allows for expansion of individual cohorts based on response which may allow acceleration of the clinical development and registration plan for plogosertib. Fifteen patients have been treated at the first five dose escalation levels with no dose limiting toxicities observed. A new oral formulation of plogosertib is under development and further patients will be recruited to this study subject to availability of the new formulation and capital resources.

Recent Developments

We do not currently have sufficient funds to complete development and commercialization of any of our drug candidates. Current business and capital market risks could have a detrimental effect on the availability of sources of funding and our ability to access them in the future, which may delay or impede our progress of advancing our drugs currently in the clinical pipeline to approval by the FDA or EMA for commercialization. Based on our current operating plan, we anticipate that our cash and cash equivalents of \$6.0 million as of June 30, 2024 will allow us to meet our liquidity requirements into October 2024. As of September 27, 2024 our cash balance on hand was approximately \$2.8 million. There is no guarantee that we will be able to raise additional funds on acceptable terms or at all to extend operations past October 2024. In the event that we are not able to raise additional funds, we may be forced to curtail operations, delay or stop ongoing development activities, cease operations altogether, or file for

bankruptcy.

On March 27, 2024, we received a written notice (the "Notice") from The Nasdaq Stock Market LLC ("Nasdaq") indicating that we are not in compliance with Nasdaq Listing Rule 5550(b)(1), which requires companies listed on The Nasdaq Capital Market to maintain a minimum of \$2,500,000 in stockholders' equity for continued listing (the "Stockholders' Equity Requirement"). Our stockholders' equity was \$607,000 as of December 31, 2023 and, as a result, we did not satisfy Listing Rule 5550(b)(1). Our stockholders' equity as of June 30, 2024 was \$999,000.

We submitted a plan to Nasdaq's Listing Qualifications Staff ("Staff") advising of actions we have taken or will take to regain compliance with Nasdaq Listing Rule 5550(b)(1). The Staff did not approve the plan and we have appealed that decision to a Nasdaq hearings panel which is scheduled on October 15, 2024. There can be no assurance that following the hearings panel that Nasdaq will grant an extension or that we will be able to comply with the applicable listing standards of Nasdaq. If Nasdaq does not grant such extension or if we are unable to comply with such listing standards, our securities will be delisted from Nasdaq.

Corporate Information

We were incorporated in Delaware in August 1997. Our corporate headquarters are located at 200 Connell Drive, Suite 1500, Berkeley Heights, New Jersey 07922, and our telephone number is 908-517-7330. Our employees are located in the United States and the United Kingdom.

We are a "smaller reporting company" as defined in Rule 12b-2 of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and have elected to take advantage of certain of the scaled disclosure available for smaller reporting companies. As a result, the information that we provide may be different than you might receive from other public reporting companies in which you hold equity interests.

Our corporate website address is www.cyclacel.com. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to reports filed pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended, are available free of charge on our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission. The Securities and Exchange Commission maintains an internet site that contains our public filings with the Securities and Exchange Commission and other information regarding our company, at www.sec.gov. These reports and other information concerning our company may also be accessed at the Securities and Exchange Commission's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the Securities and Exchange Commission at 1-800-SEC-0330. The contents of these websites are not incorporated into this prospectus. Further, our references to the URLs for these websites are intended to be inactive textual reference only.

Information contained in, or that can be accessed through, our website is not incorporated by reference into this prospectus, and you should not consider information on our website to be part of this prospectus. Our design logo, "Cyclacel," and our other registered and common law trade names, trademarks, and service marks are the property of Cyclacel Pharmaceuticals, Inc.

The trademarks, trade names, and service marks appearing in this prospectus are the property of their respective owners. We do not intend our use or display of other companies' trademarks, trade names, or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other companies or products.

Reverse Stock Split

Effective at 5:00 p.m. Eastern Time on Friday, December 15, 2023, we effected a reverse stock split of our outstanding common stock ("Reverse Split"). As a result of the Reverse Split, each of our stockholders received one new share of common stock for every 15 shares such stockholder held immediately prior to the effective time of the Reverse Split. The Reverse Split affected all of our issued and outstanding shares of common stock equally. The Reverse Split also affected our outstanding stock options, warrants and other exercisable or convertible securities and resulted in the shares underlying such instruments being reduced and the exercise price being increased proportionately. No fractional shares were issued as a result of the Reverse Split. Any fractional shares that would have otherwise resulted from the Reverse Split was paid in cash, at an amount equal to the resulting fractional interest in one share of the common stock to which the stockholder would otherwise be entitled, multiplied by the closing trading price of our common stock on December 15, 2023. Except where indicated therein, the documents incorporated by reference herein do not reflect the Reverse Split.

THE OFFERING

Issuer	Cyclacel Pharmaceuticals, Inc.	
Common stock to be offered	Up to	shares of common stock.
Common Stock Warrants to be offered	Up to	Common Stock Warrants to purchase up to shares of our common stock, which will be exercisable immediately upon issuance and ending five years from the initial exercise date at an exercise price of \$ per share of common stock.

Pre-funded warrants to be offered	We are also offering to certain purchasers whose purchase of our common stock in this offering would otherwise result in the purchaser, together with its affiliates, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding shares of common stock immediately following the consummation of this offering, the opportunity to purchase pre-funded warrants in lieu of common stock that would otherwise result in any such purchaser's beneficial ownership exceeding 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding shares of common stock. Each pre-funded warrant will be exercisable for one share of common stock. The purchase price of each pre-funded warrant and the accompanying Common Stock Warrant will equal the price at which the common stock and the accompanying Common Stock Warrant are being sold to the public in this offering, minus \$0.0001, and the exercise price of each pre-funded warrant will be \$0.0001 per share. The pre-funded warrants will be exercisable immediately and may be exercised at any time until exercised in full. For each pre-funded warrant we sell, the number of shares of common stock we are offering will be decreased on a one-for-one basis. Because we will issue a Common Stock Warrant for each share of common stock and for each pre-funded warrant sold in this offering, the number of Common Stock Warrants sold in this offering will not change as a result of a change in the mix of the shares of our common stock and pre-funded warrants sold.
Common stock to be outstanding before this offering	[] shares of common stock as of the date hereof (not including shares issuable upon exercisable warrants).
Assumed public offering price	Assumed public offering price of \$ [] per share of common stock and accompanying Common Stock Warrants, or pre-funded warrants and accompanying Common Stock Warrants, as applicable.
Common stock to be outstanding after this offering	shares (assuming we sell only shares of common stock and no pre-funded warrants, and none of the Common Stock Warrants issued in this offering are exercised).
Use of proceeds	We estimate that the net proceeds from this offering will be approximately \$ [] based on an assumed public offering price, based on the last reported sale price on [] , 2024, of \$ [] per share of common stock and accompanying Common Stock Warrants, after deducting estimated Placement Agent fees and estimated offering expenses payable by us and excluding the proceeds, if any, from the cash exercise of the Common Stock Warrants issued in this offering. We intend to use the net proceeds from this offering for working capital and general corporate purposes. Assuming net proceeds of approximately \$ [] million from this offering (assuming an offering with gross proceeds of \$ [] million), we believe that the net proceeds from this offering, together with our existing cash and cash equivalents, will satisfy our capital needs for the next [] months under our current business plan. Assuming net proceeds of \$ [] million from this offering (assuming an offering with gross proceeds of \$ [] million), we believe that the net proceeds from this offering, together with our existing cash and cash equivalents, will satisfy our capital needs for the next [] months under our current business plan. Assuming net proceeds of \$ [] million from this offering (assuming an offering with gross proceeds of \$ [] million), we believe that the net proceeds from this offering, together with our existing cash and cash equivalents, will satisfy our capital needs for the next [] months under our current business plan. See "Use of Proceeds" on page 10 of this prospectus for additional information.

Lock-up	We and each of our officers and directors have agreed to be subject to a lock-up period of days following the closing date of this offering. This means that, during the applicable lock-up period, we may not offer for sale, contract to sell, or sell any shares of our common stock or any securities convertible into, or exercisable or exchangeable for, shares of our common stock subject to certain customary exceptions. The Placement Agent may, in its sole discretion and without notice, waive the terms of any of these lock-up agreements. See "Plan of Distribution" on page 26.
Nasdaq Capital Market symbol	Our shares of common stock are traded on The Nasdaq Capital Market under the symbol "CYCC". There is no established public trading market for the Common Stock Warrants or pre-funded warrants, and we do not expect such markets to develop. We do not intend to apply for listing of the Common Stock Warrants or pre-funded warrants on any securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the Common Stock Warrants and pre-funded warrants will be limited.
Risk factors	Investing in our securities involves a high degree of risk. See "Risk Factors" on page 6 of this prospectus or incorporated herein by reference to read about factors that you should consider carefully before buying our securities.
The number of shares of our common stock to be outstanding immediately after this offering as shown above is based on 2,151,131 shares of common stock outstanding as of September 25, 2024, assumes we only sell shares of common stock in this offering and no Common Stock Warrants have been exercised, and excludes:	
<ul style="list-style-type: none"> · 131,744 shares of common stock issuable upon the exercise of options outstanding as of June 30, 2024 at a weighted average exercise price of \$46.16 per share; · 40,926 shares of common stock issuable upon vesting of restricted stock units outstanding as of June 30, 2024 at a weighted average exercise price of \$12.07 per share; · 190,039 shares of common stock reserved for future issuance under our equity incentive plan as of June 30, 2024; · 5,333 shares of common stock reserved for future issuance under our inducement equity incentive plan as of June 30, 2024 · 10,871,577 shares of common stock issuable upon the exercise of warrants outstanding as of June 30, 2024 at a weighted-average exercise price of \$4.06 per share; · 440 shares of common stock issuable upon the conversion of 264 shares of our Series A Convertible Preferred Stock, par value \$0.001 per share, outstanding as of June 30, 2024; and · 6 shares of common stock issuable upon the conversion of 335,273 shares of our 6% Convertible Exchangeable Preferred Stock, par value \$0.001 per share, outstanding as of June 30, 2024. 	

RISK FACTORS

Investing in our securities involves a high degree of risk. Before deciding whether to invest in our securities, you should consider carefully the risks and uncertainties described below, as well as the risks discussed under the heading "Risk Factors" contained in our [Annual Report on Form 10-K for the year ended December 31, 2023](#), our [Quarterly Report on Form 10-Q for the three and six months ended June 30, 2024](#), as well as subsequent filings with the SEC, and as incorporated by reference herein, and as the same may be amended, supplemented or superceded by the risks and uncertainties described under similar headings in the other documents that are filed after the date hereof and incorporated by reference herein. The risks described in these documents are not the only ones we face, but those that we consider to be material. There may be other unknown or unpredictable economic, business, competitive, regulatory or other factors that could have material adverse effects on our future results. Past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. If any of these risks actually occurs, our business, financial condition, results of operations or cash flow could be seriously harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment. Please also read carefully the section herein titled "Special Note Regarding Forward-Looking Statements" on page 9.

We may be unsuccessful in raising the capital necessary to address our going concern issues and to comply with the Nasdaq stockholders' equity requirements, or if we are successful, it may be on terms that are highly dilutive to existing stockholders.

Historically, we funded our operations by raising capital from external sources, including through the sale of common stock, preferred stock and warrants. We are currently facing significant challenges to our ability to raise significant amounts of capital through the sale of common stock, including the following factors:

<ul style="list-style-type: none">· In general, it is difficult for development stage companies to raise capital under current market conditions; and· the perception that we may be unable to continue as a going concern and may be delisted from Nasdaq may impede our ability to attract further equity investment.
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Given these factors, there can be no assurances we will be successful at raising sufficient capital to address our going concern issues or the Nasdaq stockholders' equity requirements. However, if we are successful, it may be on terms that are very dilutive to existing stockholders. Despite our ability to secure capital in the past, there can be no assurance that additional equity or debt financing will be available to us or that we may be able to secure funding from any other sources. In the event that we are not able to secure funding, we may be forced to curtail operations or payments, delay or stop ongoing development activities, attempt to sell the business, cease operations altogether, or file for bankruptcy.

If we fail to comply with the continued listing requirements of the Nasdaq Capital Market, our common stock may be delisted and the price of our common stock and our ability to access the capital markets could be negatively impacted.

On March 27, 2024, we received a written notice (the "Notice") from The Nasdaq Stock Market LLC ("Nasdaq") indicating that we are not in compliance with Nasdaq Listing Rule 5550(b)(1), which requires companies listed on The Nasdaq Capital Market to maintain a minimum of \$2,500,000 in stockholders' equity for continued listing (the "Stockholders' Equity Requirement"). Our stockholders' equity was \$607,000 as of December 31, 2023 and, as a result, we did not satisfy Listing Rule 5550(b)(1). Our stockholders' equity as of June 30, 2024 was \$999,000.

We submitted a plan to Nasdaq's Listing Qualifications Staff ("Staff") advising of actions we have taken or will take to regain compliance with Nasdaq Listing Rule 5550(b)(1). The Staff did not approve the plan and we have appealed that decision to a Nasdaq hearings panel which is scheduled on October 15, 2024. There can be no assurance that following the hearings panel that Nasdaq will grant an extension or that we will be able to comply with the applicable listing standards of Nasdaq.

If, for any reason, Nasdaq were to delist our securities from trading on its exchange and we are unable to obtain listing on another reputable national securities exchange, a reduction in some or all of the following may occur, each of which could materially adversely affect our stockholders:

- the liquidity and marketability of our common stock;
- the market price of our common stock;
- our ability to obtain financing for the continuation of our operations;
- the number of institutional and general investors that will consider investing in our common stock;

- the number of market makers in our common stock;
- the availability of information concerning the trading prices and volume of our common stock; and
- the number of broker-dealers willing to execute trades in shares of our common stock.

In addition, if we cease to be eligible to trade on Nasdaq, we may have to pursue trading on a less recognized or accepted market, such as the over the counter markets, our stock may be traded as a "penny stock," which would make transactions in our stock more difficult and cumbersome, and we may be unable to access capital on favorable terms or at all, as companies trading on alternative markets may be viewed as less attractive investments with higher associated risks, such that existing or prospective institutional investors may be less interested in, or prohibited from, investing in our common stock. This may also cause the market price of our common stock to decline.

We have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds, including for any of the purposes described in the section of this prospectus entitled "Use of Proceeds". You will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the net proceeds are being used appropriately. The failure by our

management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our securities to decline and delay the development of our product candidates. Pending the application of these funds, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

You will experience immediate and substantial dilution in the net tangible book value of the shares you purchase in this offering and may experience additional dilution in the future.

The combined public offering price per share of common stock and related Common Stock Warrant, and the combined public offering price of each pre-funded warrant and related Common Stock Warrant, will be substantially higher than the pro forma as adjusted net tangible book value per share of our common stock after giving effect to this offering. Assuming the sale of shares of our common stock and Common Stock Warrants to purchase up to shares of common stock at an assumed combined public offering price of \$ per share and related Common Stock Warrants, the closing sale price per share of our common stock on the Nasdaq on , 2024, assuming no sale of any pre-funded warrants in this offering, no exercise of the Common Stock Warrants being offered in this offering and after deducting the placement agent fees and commissions and estimated offering expenses payable by us, you will incur immediate dilution of approximately \$ per share. As a result of the dilution to investors purchasing securities in this offering, investors may receive significantly less than the purchase price paid in this offering, if anything, in the event of the liquidation of our company. See the section entitled "Dilution" below for a more detailed discussion of the dilution you will incur if you participate in this offering. To the extent shares are issued under outstanding options and warrants at exercise prices lower than the public offering price of our common stock in this offering, you will incur further dilution.

There is no public market for the Common Stock Warrants or pre-funded warrants being offered by us in this offering.

There is no established public trading market for the Common Stock Warrants or the pre-funded warrants, and we do not expect such markets to develop. In addition, we do not intend to apply to list the Common Stock Warrants or pre-funded warrants on any national securities exchange or other nationally recognized trading system. Without an active market, the liquidity of the Common Stock Warrants and pre-funded warrants will be limited.

The Common Stock Warrants and pre-funded warrants are speculative in nature.

The Common Stock Warrants and pre-funded warrants offered hereby do not confer any rights of share of common stock ownership on their holders, such as voting rights or the right to receive dividends, but rather merely represent the right to acquire shares of common stock at a fixed price. Specifically, commencing on the date of issuance, holders of the Common Stock Warrants may acquire the shares of common stock issuable upon exercise of such warrants at an exercise price of \$ per share of common stock, and holders of the pre-funded warrants may acquire the shares of common stock issuable upon exercise of such warrants at an exercise price of \$0.0001 per share of common stock. Moreover, following this offering, the market value of the Common Stock Warrants and pre-funded warrants is uncertain and there can be no assurance that the market value of the Common Stock Warrants or pre-funded warrants will equal or exceed their respective public offering prices. There can be no assurance that the market price of the shares of common stock will ever equal or exceed the exercise price of the Common Stock Warrants or pre-funded warrants, and consequently, whether it will ever be profitable for holders of Common Stock Warrants to exercise the Common Stock Warrants or for holders of the pre-funded warrants to exercise the pre-funded warrants.

Holders of the Common Stock Warrants and pre-funded warrants offered hereby will have no rights as common stockholders with respect to the shares of our common stock underlying such warrants until such holders exercise their Common Stock Warrants or pre-funded warrants and acquire our common stock, except as otherwise provided in the applicable warrants.

Until holders of the Common Stock Warrants and the pre-funded warrants acquire shares of our common stock upon exercise thereof, such holders will have no rights with respect to the shares of our common stock underlying such warrants, except to the extent that holders of such warrants will have certain rights to participate in distributions or dividends paid on our common stock as set forth in the applicable warrants. Upon exercise of the Common Stock Warrants and the pre-funded warrants, the holders will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

This is a best efforts offering, no minimum amount of securities is required to be sold, and we may not raise the amount of capital we believe is required for our business plans, including our near-term business plans.

The Placement Agent has agreed to use its reasonable best efforts to solicit offers to purchase the securities in this offering. The Placement Agent has no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of the securities. There is no required minimum number of securities that must be sold as a condition to completion of this offering. Because there is no minimum offering amount required as a condition to the closing of this offering, the actual offering amount, placement agent fees and proceeds to us are not presently determinable and may be substantially less than the maximum amounts set forth above. We may sell fewer than all of the securities offered hereby, which may significantly reduce the amount of proceeds received by us, and investors in this offering will not receive a refund in the event that we do not sell an amount of securities sufficient to support our continued operations, including our near-term continued operations. Thus, we may not raise the amount of capital we believe is required for our operations in the short-term and may need to raise additional funds, which may not be available or available on terms acceptable to us.

Purchasers who purchase our securities in this offering pursuant to a securities purchase agreement may have rights not available to purchasers that purchase without the benefit of a securities purchase agreement.

In addition to rights and remedies available to all purchasers in this offering under federal securities and state law, the purchasers that enter into a securities purchase agreement will also be able to bring claims of breach of contract against us. The ability to pursue a claim for breach of contract provides those investors with the means to enforce the covenants uniquely available to them under the securities purchase agreement including, but not limited to: (i) timely delivery of securities; (ii) agreement to not enter into any financings for days from closing; and (iii) indemnification for breach of contract.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein may contain forward-looking statements that involve risks and uncertainties. These statements are based on our management's current beliefs, expectations and assumptions about future events, conditions and results and on information currently available to us. Discussions containing these forward-looking statements may be found, among other places, in the sections titled "Business," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" incorporated by reference from our most recent Annual Report on Form 10-K, as well as any amendments thereto reflected in subsequent filings with the SEC.

Any statements in this prospectus or incorporated by reference herein about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and are forward-looking statements. Within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, these forward-looking statements include statements regarding:

- the size and growth potential of the markets for our products, and our ability to serve those markets;
- the rate and degree of market acceptance of our products;
- our ability to expand our sales organization to address effectively existing and new markets that we intend to target;
- the impact from future regulatory, judicial, and legislative changes or developments in the U.S. and foreign countries;
- our ability to compete effectively in a competitive industry;
- the success of competing technologies that are or may become available;
- the performance of any third-party contract sales organizations, suppliers and manufacturers;
- our ability to attract and retain key scientific or management personnel;
- the accuracy of our estimates regarding expenses, future revenues, reimbursement rates, capital requirements and needs for additional financing;
- our ability to comply with the covenants and satisfy certain conditions of any debt facility;
- our ability to obtain funding for our operations;
- our ability to remain listed on the Nasdaq Capital Market; and
- our ability to attract collaborators and strategic partnerships.

In some cases, you can identify forward-looking statements by terminology such as "anticipate," "believe," "continue," "could," "estimate," "expects," "intend," "may," "might," "plan," "potential," "predict," "project," "should," "will," "would" or the negative or plural of those terms, and similar expressions intended to identify statements about the future, although not all forward-looking statements contain these words. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

You should refer to the risks and uncertainties described in the "Risk Factors" section contained in this prospectus and under similar headings in the other documents that are incorporated by reference into this prospectus for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. Given these risks, uncertainties and other factors, many of which are beyond our control, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate, and you should not place undue reliance on these forward-looking statements. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all.

Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to revise any forward-looking statements to reflect events or developments occurring after the date of this prospectus, even if new information becomes available in the future.

USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately \$ based on an assumed public offering price, based on the last reported sale price on , 2024, of \$ per share of common stock and accompanying Common Stock Warrants, after deducting estimated Placement Agent fees and estimated offering expenses payable by us and excluding the proceeds, if any, from the cash exercise of the Common Stock Warrants issued in this offering. However, because this is a best efforts offering and there is no minimum offering amount required as a condition to the closing of this offering, the actual offering amount, Placement Agent's fees and net proceeds to us are not presently determinable and may be substantially less than the maximum amounts set forth on the cover page of this prospectus.

We intend to use the net proceeds of this offering for working capital and other general corporate purposes. Pursuant to the tail provisions in certain engagement agreements with Ladenburg Thalmann & Co. Inc. ("Ladenburg") and Roth Capital Partners ("Roth"), we may be obligated to pay certain cash fees in the event that certain investors participate in this offering or depending on the level of gross proceeds of the offering. Other than the potential cash fee to Ladenburg or Roth, our management will retain broad discretion over the allocation of the net proceeds from this offering.

Based on our planned use of the net proceeds, we estimate such funds, together with our existing cash and cash equivalents, will be sufficient for us to fund our operating expenses and working capital requirements through at least . We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we expect.

MARKET FOR OUR COMMON STOCK

Market Information

Our common stock currently trades under the symbol "CYCC" on Nasdaq.

Stockholders

As of September 25, 2024, there were approximately 11 stockholders of record.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our common stock and do not expect to pay any cash dividends on our common stock for the foreseeable future. We intend to use future earnings, if any, in the operation and expansion of our business. Any future determination relating to our dividend policy will be made at the discretion of our board of directors, based on our financial condition, results of operations, contractual restrictions, capital requirements, business properties, restrictions imposed by applicable law and other factors our board of directors may deem relevant.

CAPITALIZATION

The following table sets forth our cash and cash equivalents, debt obligations, and capitalization as of June 30, 2024 (i) on an actual basis; and (ii) on a pro forma as adjusted basis to give effect to the issuance and sale of shares of our common stock and Common Stock Warrants based on an assumed public offering price, based on the last reported sale price on , 2024 of \$ per share, for total net proceeds of approximately \$ (assuming no sale of pre-funded warrants).

	June 30, 2024	As Adjusted
Cash and cash equivalents	\$ 6,000	\$
Total liabilities	7,191	
Stockholders' equity:		
Preferred stock, \$0.001 par value; 5,000,000 shares authorized at June 30, 2024;	—	
6% Convertible Exchangeable preferred stock; 335,273 shares issued and outstanding at June 30, 2024.	—	
Aggregate preference in liquidation of \$4,006,512 as of June 30, 2024	—	
Series A convertible preferred stock, \$0.001 par value; 264 shares issued and outstanding at June 30, 2024	—	
Series B convertible preferred stock, \$0.001 par value; 0 shares issued and outstanding at June 30, 2024	—	
Common stock, \$0.001 par value; 100,000,000 shares authorized at June 30, 2024; 1,805,204 shares issued and outstanding at June 30, 2024	2	
Additional paid-in capital	436,397	
Accumulated other comprehensive loss	(915)	
Accumulated deficit	(431,485)	
Total stockholders' equity	999	
Total liabilities and stockholders' equity	<u><u>\$ 8,190</u></u>	<u><u>\$</u></u>

The foregoing pro forma as adjusted information is illustrative only, and our capitalization following the completion of this offering will be adjusted based on the actual public offering price and other terms of this offering determined at pricing. You should read this table together with our financial statements and the related notes appearing elsewhere in this prospectus.

The number of shares of our common stock to be outstanding immediately after this offering as shown above is based on 1,805,204 shares of common stock outstanding as of June 30, 2024, assumes we only sell shares of common stock in this offering and no exercise of any Common Stock Warrants, and excludes:

- 131,744 shares of common stock issuable upon the exercise of options outstanding as of June 30, 2024 at a weighted average exercise price of \$46.16 per share;
- 40,926 shares of common stock issuable upon vesting of restricted stock units outstanding as of June 30, 2024 at a weighted average exercise price of \$12.07 per share;
- 190,039 shares of common stock reserved for future issuance under our equity incentive plan as of June 30, 2024;
- 5,333 shares of common stock reserved for future issuance under our inducement equity incentive plan as of June 30, 2024;
- 10,871,577 shares of common stock issuable upon the exercise of warrants outstanding as of June 30, 2024 at a weighted-average exercise price of \$4.06 per share;
- 440 shares of common stock issuable upon the conversion of 264 shares of our Series A Convertible Preferred Stock, par value \$0.001 per share, outstanding as of June 30, 2024; and
- 6 shares of common stock issuable upon the conversion of 335,273 shares of our 6% Convertible Exchangeable Preferred Stock, par value \$0.001 per share, outstanding as of June 30, 2024.

DILUTION

If you invest in our securities in this offering, your interest will be diluted to the extent of the difference between the public offering price per share of common stock and accompanying Common Stock Warrants and the pro forma as adjusted net tangible book value per share of common stock immediately after this offering.

Our net tangible book value is the amount of our total tangible assets less our total liabilities. We had a net tangible book value as of June 30, 2024 of \$999,000, or \$0.55 per share of common stock.

Pro forma as adjusted net tangible book value is our pro forma net tangible book value, plus the effect of the sale of our securities in this offering at the public offering price of \$ per share of common stock and accompanying Common Stock Warrant and after deducting the Placement Agent fees and commissions and other estimated offering expenses payable by us. Our pro forma as adjusted net tangible book value as of June 30, 2024 would have been approximately \$, or \$ per share. This amount represents an immediate decrease in pro forma as adjusted net tangible book value of approximately \$ per share to our existing stockholders, and an immediate dilution of \$ per share to new investors participating in this offering. Dilution per share to new investors is determined by subtracting pro forma as adjusted net tangible book value per share after this offering from the public offering price per share paid by new investors. The final public offering price will be determined through negotiation between us, the Placement Agent and

investors in the offering and may be at a discount to the current market price. Therefore, the assumed public offering price used throughout this prospectus may not be indicative of the final public offering price.

The following table illustrates this per share dilution:

Assumed public offering price per share (attributing no value to the warrants)	\$	
Net tangible book value per share as of June 30, 2024	\$	0.55
Decrease in pro forma as adjusted net tangible book value per share after this offering	\$	
Pro forma as adjusted net tangible book value per share after giving effect of this offering	\$	
Dilution in pro forma as adjusted net tangible book value per share to new investors	\$	

Each \$0.50 increase (decrease) in the public offering price of \$ per share and accompanying Common Stock Warrants would increase (decrease) the pro forma as adjusted net tangible book value per share by \$, and the dilution per share to new investors in this offering by \$, assuming the number of shares of common stock offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the Placement Agent fees and commissions and estimated offering expenses payable by us. Each increase of in the number of shares of common stock and accompanying Common Stock Warrants sold in this offering would increase (decrease) our pro forma as adjusted net tangible book value by approximately \$ and the dilution per share to new investors in this offering by \$, assuming that the public offering price per share and accompanying Common Stock Warrants remains the same and after deducting Placement Agent fees and commissions and estimated offering expenses payable by us.

The number of shares of our common stock to be outstanding immediately after this offering as shown above is based on 1,805,204 shares of common stock outstanding as of June 30, 2024, assumes we only sell shares of common stock in this offering and no exercise of any Common Stock Warrants, and excludes:

- 131,744 shares of common stock issuable upon the exercise of options outstanding as of June 30, 2024 at a weighted average exercise price of \$46.16 per share;
- 40,926 shares of common stock issuable upon vesting of restricted stock units outstanding as of June 30, 2024 at a weighted average exercise price of \$12.07 per share;
- 190,039 shares of common stock reserved for future issuance under our equity incentive plan as of June 30, 2024;
- 5,333 shares of common stock reserved for future issuance under our inducement equity incentive plan as of June 30, 2024;
- 10,871,577 shares of common stock issuable upon the exercise of warrants outstanding as of June 30, 2024 at a weighted-average exercise price of \$4.06 per share;
- 440 shares of common stock issuable upon the conversion of 264 shares of our Series A Convertible Preferred Stock, par value \$0.001 per share, outstanding as of June 30, 2024; and
- 6 shares of common stock issuable upon the conversion of 335,273 shares of our 6% Convertible Exchangeable Preferred Stock, par value \$0.001 per share, outstanding as of June 30, 2024.

To the extent that any outstanding warrants or options are exercised, new options or other equity awards are issued under our equity incentive plans, or we issue additional shares in the future, there will be further dilution to new investors participating in this offering. In addition, we may choose to raise additional capital due to market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or equity-based securities, the issuance of these securities could result in further dilution to our stockholders.

DESCRIPTION OF CAPITAL STOCK

Common Stock

We are authorized to issue 100,000,000 shares of common stock, \$0.001 par value per share. As of September 25, 2024, 2,151,131 shares of common stock were issued and outstanding. The following descriptions of our common stock and provisions of our amended and restated certificate of incorporation and amended and restated by-laws are only summaries, and we encourage you to review complete copies of these documents, which have been filed as exhibits to our periodic reports with the SEC.

Transfer Agent

Our transfer agent and registrar for our common stock is Equiniti Trust Company, LLC.

Listing

Our common stock is listed for quotation on The Nasdaq Capital Market under the symbol "CYCC."

Dividends, Voting Rights and Liquidation

Holders of common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders, and do not have cumulative voting rights. Subject to preferences that may be applicable to any outstanding shares of preferred stock, holders of common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by our board of directors out of funds legally available for dividend payments. All outstanding shares of common stock are fully paid and non-assessable, and the shares of common stock to be issued upon completion of this offering will be fully paid and non-assessable. The holders of common stock have no preferences or rights of conversion, exchange, pre-emption or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. In the event of any liquidation, dissolution or winding-up of our affairs, holders of common stock will be entitled to share ratably in our assets that are remaining after payment or provision for payment of all of our debts and obligations and after liquidation payments to holders of outstanding shares of preferred stock, if any.

Delaware Law and Certain Charter and By-law Provisions

The provisions of (1) Delaware law, (2) our amended and restated certificate of incorporation, and (3) our amended and restated bylaws discussed below could discourage or make it more difficult to accomplish a proxy contest or other change in our management or the acquisition of control by a holder of a substantial amount of our voting stock. It is possible that these provisions could make it more difficult to accomplish, or could deter, transactions that stockholders may otherwise consider to be in their best interests or in our best interests. These provisions are intended to enhance the likelihood of

continuity and stability in the composition of our board of directors and in the policies formulated by the board of directors and to discourage certain types of transactions that may involve an actual or threatened change of control of us. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions also are intended to discourage certain tactics that may be used in proxy fights. Such provisions also may have the effect of preventing changes in our management.

Delaware Statutory Business Combinations Provision. We are subject to the anti-takeover provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies.

For purposes of Section 203, a "business combination" is defined broadly to include a merger, asset sale or other transaction resulting in a financial benefit to the interested stockholder, and, subject to certain exceptions, an "interested stockholder" is a person who, together with his or her affiliates and associates, owns (or within three years prior, did own) 15% or more of the corporation's voting stock.

Classified Board of Directors; Removal of Directors for Cause. Our amended and restated certificate of incorporation and amended and restated bylaws provide that our board of directors is divided into three classes, each serving staggered three-year terms ending at the annual meeting of our stockholders. All directors elected to our classified board of directors will serve until the election and qualification of their respective successors or their earlier resignation or removal. The board of directors is authorized to create new directorships and to fill such positions so created and is permitted to specify the class to which any such new position is assigned. The person filling such position would serve for the term applicable to that class. The board of directors (or its remaining members, even if less than a quorum) is also empowered to fill vacancies on the board of directors occurring for any reason for the remainder of the term of the class of directors in which the vacancy occurred. Members of the board of directors may only be removed for cause and only by the affirmative vote of 80% of our outstanding voting stock. These provisions are likely to increase the time required for stockholders to change the composition of the board of directors. For example, in general, at least two annual meetings will be necessary for stockholders to effect a change in a majority of the members of the board of directors.

Advance Notice Provisions for Stockholder Proposals and Stockholder Nominations of Directors. Our amended and restated bylaws provide that, for nominations to the board of directors or for other business to be properly brought by a stockholder before a meeting of stockholders, the stockholder must first have given timely notice of the proposal in writing to our Secretary. For an annual meeting, a stockholder's notice generally must be delivered not less than 45 days nor more than 75 days prior to the anniversary of the mailing date of the proxy statement for the previous year's annual meeting. For a special meeting, the notice must generally be delivered by the later of 90 days prior to the special meeting or ten days following the day on which public announcement of the meeting is first made. Detailed requirements as to the form of the notice and information required in the notice are specified in the amended and restated bylaws. If it is determined that business was not properly brought before a meeting in accordance with our bylaw provisions, such business will not be conducted at the meeting.

Special Meetings of Stockholders. Special meetings of the stockholders may be called only by our board of directors pursuant to a resolution adopted by a majority of the total number of directors.

No Stockholder Action by Written Consent. Our amended and restated certificate of incorporation and amended and restated bylaws do not permit our stockholders to act by written consent. As a result, any action to be effected by our stockholders must be effected at a duly called annual or special meeting of the stockholders.

Super-Majority Stockholder Vote Required for Certain Actions. The Delaware General Corporation Law provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws, unless the corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our amended and restated certificate of incorporation requires the affirmative vote of the holders of at least 80% of our outstanding voting stock to amend or repeal any of the provisions discussed in this section of this prospectus entitled "Anti-Takeover Provisions" or to reduce the number of authorized shares of common stock or preferred stock. This 80% stockholder vote would be in addition to any separate class vote that might in the future be required pursuant to the terms of any preferred stock that might then be outstanding. In addition, an 80% vote is also required for any amendment to, or repeal of, our amended and restated bylaws by the stockholders. Our amended and restated bylaws may be amended or repealed by a simple majority vote of the board of directors.

Preferred Stock

We have the authority to issue up to 5,000,000 shares of preferred stock. As of September 25, 2024, 335,273 shares of our preferred stock were outstanding as 6% Convertible Exchangeable Preferred Stock (see "6% Convertible Exchangeable Preferred Stock" below), 264 shares of our preferred stock were outstanding as Series A Convertible Preferred Stock (see "Series A Convertible Preferred Stock" below), and no shares of our preferred stock were outstanding as Series B Convertible Preferred Stock (see "Series B Convertible Preferred Stock" below). The description of preferred stock provisions set forth below is not complete and is subject to and qualified in its entirety by reference to our certificate of incorporation and the certificate of designations relating to each series of preferred stock.

The board of directors has the right, without the consent of holders of common stock, to designate and issue one or more series of preferred stock, which may be convertible into common stock at a ratio determined by the board of directors. A series of preferred stock may bear rights superior to common stock as to voting, dividends, redemption, distributions in liquidation, dissolution, or winding up, and other relative rights and preferences. The board may set the following terms of any series of preferred stock:

- the number of shares constituting the series and the distinctive designation of the series;
- dividend rates, whether dividends are cumulative, and, if so, from what date; and the relative rights of priority of payment of dividends;
- voting rights and the terms of the voting rights;
- conversion privileges and the terms and conditions of conversion, including provision for adjustment of the conversion rate;
- redemption rights and the terms and conditions of redemption, including the date or dates upon or after which shares may be redeemable, and the amount per share payable in case of redemption, which may vary under different conditions and at different redemption dates;
- sinking fund provisions for the redemption or purchase of shares;
- rights in the event of voluntary or involuntary liquidation, dissolution or winding up of the corporation, and the relative rights of priority of payment; and

- any other relative powers, preferences, rights, privileges, qualifications, limitations and restrictions of the series.

Dividends on outstanding shares of preferred stock will be paid or declared and set apart for payment before any dividends may be paid or declared and set apart for payment on the common stock with respect to the same dividend period.

If, upon any voluntary or involuntary liquidation, dissolution or winding up of the Company, the assets available for distribution to holders of preferred stock are insufficient to pay the full preferential amount to which the holders are entitled, then the available assets will be distributed ratably among the shares of all series of preferred stock in accordance with the respective preferential amounts (including unpaid cumulative dividends, if any) payable with respect to each series.

Holders of preferred stock will not be entitled to preemptive rights to purchase or subscribe for any shares of any class of capital stock of the corporation. The preferred stock will, when issued, be fully paid and non-assessable. The rights of the holders of preferred stock will be subordinate to those of our general creditors.

We have previously issued shares of preferred stock in three series, designated as 6% Convertible Exchangeable Preferred Stock, of which 335,273 are currently outstanding, as Series A Convertible Preferred Stock, of which 264 are currently outstanding, and as Series B Convertible Preferred Stock, of which no shares are currently outstanding. Our 6% Convertible Exchangeable Preferred Stock is quoted on The Nasdaq Capital Market under the symbol "CYCCP."

6% Convertible Exchangeable Preferred Stock

General

Our board of directors designated 2,046,813 shares of the preferred stock that were issued as convertible preferred stock on November 3, 2004. The shares of convertible preferred stock are duly and validly issued, fully paid and non-assessable. These shares will not have any preemptive rights if we issue other series of preferred stock. The convertible preferred stock is not subject to any sinking fund. We have no obligation to retire the convertible preferred stock. The convertible preferred stock has a perpetual maturity and may remain outstanding indefinitely, subject to the holder's right to convert the convertible preferred stock and our right to cause the conversion of the convertible preferred stock and exchange or redeem the convertible preferred stock at our option. Any convertible preferred stock converted, exchanged or redeemed or acquired by us will, upon cancellation, have the status of authorized but unissued shares of convertible preferred stock. We will be able to reissue these cancelled shares of convertible preferred stock.

Dividends

When and if declared by our board of directors out of the legally available funds, holders of the convertible preferred stock are entitled to receive cash dividends at an annual rate of 6% of the liquidation preference of the convertible preferred stock. Dividends are payable quarterly on the first day of February, May, August and November. If any dividends are not declared, they will accrue and be paid at such later date, if any, as determined by our board of directors. Dividends on the convertible preferred stock will be cumulative from the issue date. Dividends will be payable to holders of record as they appear on our stock books not more than 60 days nor less than 10 days preceding the payment dates, as fixed by our board of directors. If the convertible preferred stock is called for redemption on a redemption date between the dividend record date and the dividend payment date and the holder does not convert the convertible preferred stock (as described below), the holder shall receive the dividend payment together with all other accrued and unpaid dividends on the redemption date instead of receiving the dividend on the dividend date. Dividends payable on the convertible preferred stock for any period greater or less than a full dividend period will be computed on the basis of a 360-day year consisting of twelve 30-day months. Accrued but unpaid dividends will not bear interest.

If we do not pay or set aside cumulative dividends in full on the convertible preferred stock and any other preferred stock ranking on the same basis as to dividends, all dividends declared upon shares of the convertible preferred stock and any other preferred stock ranking on the same basis as to dividends will be declared on a pro rata basis until all accrued dividends are paid in full. For these purposes, "pro rata" means that the amount of dividends declared per share on the convertible preferred stock and any other preferred stock ranking on the same basis as to dividends bear to each other will be the same ratio that accrued and unpaid dividends per share on the shares of the convertible preferred stock and such other preferred stock bear to each other. We will not be able to redeem, purchase or otherwise acquire any of our stock ranking on the same basis as the convertible preferred stock as to dividends or liquidation preferences unless we have paid or set aside full cumulative dividends, if any, accrued on all outstanding shares of convertible preferred stock.

Unless we have paid or set aside cumulative dividends in full on the convertible preferred stock and any other of the convertible preferred stock ranking on the same basis as to dividends:

- we may not declare or pay or set aside dividends on common stock or any other stock ranking junior to the convertible preferred stock as to dividends or liquidation preferences, excluding dividends or distributions of shares, options, warrants or rights to purchase common stock or other stock ranking junior to the convertible preferred stock as to dividends; or
- we will not be able to redeem, purchase or otherwise acquire any of our other stock ranking junior to the convertible preferred stock as to dividends or liquidation preferences, except in very limited circumstances.

Under Delaware law, we may only make dividends or distributions to our stockholders from:

- our surplus; or
- the net profits for the current fiscal year before which the dividend or distribution is declared under certain circumstances.

For the year ended December 31, 2023, the company declared dividends of \$0.15 per share quarterly. These dividends were paid on May 1, August 1 and November 1, 2023, and February 1, 2024, respectively. The company did not declare or pay the quarterly dividend scheduled for May 1, or August 1, 2024.

Conversion

Conversion Rights

Holders of our convertible preferred stock may convert the convertible preferred stock at any time into a number of shares of common stock

determined by dividing the \$10.00 liquidation preference by the conversion price of \$592,200. This conversion price is equivalent to a conversion rate of approximately 0.0000167 shares of common stock for each share of convertible preferred stock. We will not make any adjustment to the conversion price for accrued or unpaid dividends upon conversion. We will not issue fractional shares of common stock upon conversion. However, we will instead pay cash for each fractional share based upon the market price of the common stock on the last business day prior to the conversion date. If we call the convertible preferred stock for redemption, the holder's right to convert the convertible preferred stock will expire at the close of business on the business day immediately preceding the date fixed for redemption, unless we fail to pay the redemption price.

Automatic Conversion

Unless we redeem or exchange the convertible preferred stock, we may elect to convert some or all of the convertible preferred stock into shares of our common stock if the closing price of our common stock has exceeded 150% of the conversion price for at least 20 out of 30 consecutive trading days ending within five trading days prior to the notice of automatic conversion. If we elect to convert less than all of the shares of convertible preferred stock, we shall select the shares to be converted by lot or pro rata or in some other equitable manner in our discretion. On or after November 3, 2007, we may not elect to automatically convert the convertible preferred stock if full cumulative dividends on the convertible preferred stock for all past dividend periods have not been paid or set aside for payment.

Conversion Price Adjustment - General

The conversion price of \$592,200 will be adjusted if:

- (1) we dividend or distribute common stock in shares of our common stock;
- (2) we subdivide or combine our common stock;
- (3) we issue to all holders of common stock certain rights or warrants to purchase our common stock at less than the current market price;
- (4) we dividend or distribute to all holders of our common stock shares of our capital stock or evidences of indebtedness or assets, excluding:
 - those rights, warrants, dividends or distributions referred to in (1) or (3), or
 - dividends and distributions paid in cash;
- (5) we made a dividend or distribution consisting of cash to all holders of common stock;
- (6) we purchase common stock pursuant to a tender offer made by us or any of our subsidiaries; and
- (7) a person other than us or any of our subsidiaries makes any payment on a tender offer or exchange offer and, as of the closing of the offer, the board of directors is not recommending rejection of the offer. We will only make this adjustment if the tender or exchange offer increases a person's ownership to more than 25% of our outstanding common stock, and only if the payment per share of common stock exceeds the current market price of our common stock. We will not make this adjustment if the offering documents disclose our plan to engage in any consolidation, merger, or transfer of all or substantially all of our properties and if specified conditions are met.

16

If we implement a stockholder rights plan, this new rights plan must provide that, upon conversion of the existing convertible preferred stock the holders will receive, in addition to the common stock issuable upon such conversion, the rights under such rights plan regardless of whether the rights have separated from the common stock before the time of conversion. The distribution of rights or warrants pursuant to a stockholder rights plan will not result in an adjustment to the conversion price of the convertible preferred stock until a specified triggering event occurs.

The occurrence and magnitude of certain of the adjustments described above is dependent upon the current market price of our common stock. For these purposes, "current market price" generally means the lesser of:

- the closing sale price on certain specified dates, or
- the average of the closing prices of the common stock for the ten trading day period immediately prior to certain specified dates.

We may make a temporary reduction in the conversion price of the convertible preferred stock if our board of directors determines that this decrease would be in our best interest. We may, at our option, reduce the conversion price if our board of directors deems it advisable to avoid or diminish any income tax to holders of common stock resulting from any dividend or distribution of stock or rights to acquire stock or from any event treated as such for income tax purposes.

Conversion Price Adjustment - Merger, Consolidation or Sale of Assets

If we are involved in a transaction in which shares of our common stock are converted into the right to receive other securities, cash or other property, or a sale or transfer of all or substantially all of our assets under which the holders of our common stock shall be entitled to receive other securities, cash or other property, then appropriate provision shall be made so that the shares of convertible preferred stock will convert into:

- (1) if the transaction is a common stock fundamental change, as defined below, common stock of the kind received by holders of common stock as a result of common stock fundamental change in accordance with paragraph (1) below under the subsection entitled "- Fundamental Change Conversion Price Adjustments," and
- (2) if the transaction is not a common stock fundamental change, and subject to funds being legally available at conversion, the kind and amount of the securities, cash or other property that would have been receivable upon the recapitalization, reclassification, consolidation, merger, sale, transfer or share exchange by a holder of the number of shares of common stock issuable upon conversion of the convertible preferred stock immediately prior to the recapitalization, reclassification, consolidation, merger, sale, transfer or share exchange, after giving effect to any adjustment in the conversion price in accordance with paragraph (2) below under the subsection entitled "- Fundamental Change Conversion Price Adjustments."

The company formed by the consolidation, merger, asset acquisition or share acquisition shall provide for this right in its organizational document. This organizational document shall also provide for adjustments so that the organizational document shall be as nearly practicably equivalent to adjustments in this section for events occurring after the effective date of the organizational document.

The following types of transactions, among others, would be covered by this adjustment:

- (1) we recapitalize or reclassify our common stock, except for:
 - a change in par value,
 - a change from par value to no par value,

- a change from no par value to par value, or
- a subdivision or combination of our common stock.

(2) we consolidate or merge into any other person, or any merger of another person into us, except for a merger that does not result in a reclassification, conversion, exchange or cancellation of common stock,

(3) we sell, transfer or lease all or substantially all of our assets and holders of our common stock become entitled to receive other securities, cash or other property, or

(4) we undertake any compulsory share exchange.

Fundamental Change Conversion Price Adjustments

If a fundamental change occurs, the conversion price will be adjusted as follows:

- (1) in the case of a common stock fundamental change, the conversion price shall be the conversion price after giving effect to any other prior adjustments effected pursuant to the preceding paragraphs, multiplied by a fraction, the numerator of which is the purchaser stock price, as defined below, and the denominator of which is the applicable price, as defined below. However, in the event of a common stock fundamental change in which:
 - 100% of the value of the consideration received by a holder of our common stock is common stock of the successor, acquirer or other third party, and cash, if any, paid with respect to any fractional interests in such common stock resulting from such common stock fundamental change, and
 - All of our common stock shall have been exchanged for, converted into or acquired for, common stock of the successor, acquirer or other third party, and any cash with respect to fractional interests,
 - the conversion price shall be the conversion price in effect immediately prior to such common stock fundamental change multiplied by a fraction, the numerator of which is one (1) and the denominator of which is the number of shares of common stock of the successor, acquirer or other third party received by a holder of one share of our common stock as a result of the common stock fundamental change; and
- (2) in the case of a non-stock fundamental change, the conversion price shall be the lower of:
 - the conversion price after giving effect to any other prior adjustments effected pursuant to the preceding paragraph and
 - the product of
 - A. the applicable price, and
 - B. a fraction, the numerator of which is \$10 and the denominator of which is (x) the amount of the redemption price for one share of convertible preferred stock if the redemption date were the date of the non-stock fundamental change (or if the date of such non-stock fundamental change falls within the period beginning on the first issue date of the convertible preferred stock through October 31, 2005, the twelve-month period commencing November 1, 2005 and the twelve-month period commencing November 1, 2006, the product of 106.0%, 105.4% or 104.8%, respectively, and \$10) plus (y) any then-accrued and unpaid distributions on one share of convertible preferred stock.

Holders of convertible preferred stock may receive significantly different consideration upon conversion depending upon whether a fundamental change is a non-stock fundamental change or a common stock fundamental change. In the event of a non-stock fundamental change, the shares of convertible preferred stock will convert into stock and other securities or property or assets, including cash, determined by the number of shares of common stock receivable upon conversion at the conversion price as adjusted in accordance with (2) above. In the event of a common stock fundamental change, under certain circumstances, the holder of convertible preferred stock will receive different consideration depending on whether the holder converts his or her shares of convertible preferred stock on or after the common stock fundamental change.

Definitions for the Fundamental Change Adjustment Provision

“applicable price” means:

- in a non-stock fundamental change in which the holders of common stock receive only cash, the amount of cash received by a holder of one share of common stock, and
- in the event of any other fundamental change, the average of the daily closing price for one share of common stock during the 10 trading days immediately prior to the record date for the determination of the holders of common stock entitled to receive cash, securities, property or other assets in connection with the fundamental change or, if there is no such record date, prior to the date upon which the holders of common stock shall have the right to receive such cash, securities, property or other assets.

“common stock fundamental change” means any fundamental change in which more than 50% of the value, as determined in good faith by our board of directors, of the consideration received by holders of our common stock consists of common stock that, for the 10 trading days immediately prior to such fundamental change, has been admitted for listing or admitted for listing subject to notice of issuance on a national securities exchange or quoted on The Nasdaq National Market, except that a fundamental change shall not be a common stock fundamental change unless either:

- we continue to exist after the occurrence of the fundamental change and the outstanding convertible preferred stock continues to exist as outstanding convertible preferred stock, or
- not later than the occurrence of the fundamental change, the outstanding convertible preferred stock is converted into or exchanged for shares of preferred stock, which preferred stock has rights, preferences and limitations substantially similar, but no less favorable, to those of the convertible preferred stock.

“fundamental change” means the occurrence of any transaction or event or series of transactions or events pursuant to which all or substantially all of our common stock shall be exchanged for, converted into, acquired for or shall constitute solely the right to receive cash, securities, property or other assets, whether by means of an exchange offer, liquidation, tender offer, consolidation, merger, combination, reclassification, recapitalization or otherwise. However, for purposes of adjustment of the conversion price, in the case of any series of transactions or events, the fundamental change shall be deemed to have occurred when substantially all of the common stock shall have been exchanged for, converted into or acquired for, or shall constitute solely the right to receive, such cash, securities, property or other assets, but the adjustment shall be based upon the consideration that the holders of our common stock received in the transaction or event as a result of which more than 50% of our common stock shall have been exchanged for, converted into or acquired for, or shall constitute solely the right to receive, such cash, securities, property or other assets.

“non-stock fundamental change” means any fundamental change other than a common stock fundamental change.

“purchaser stock price” means the average of the daily closing price for one share of the common stock received by holders of the common stock in the common stock fundamental change during the 10 trading days immediately prior to the date fixed for the determination of the holders of the common stock entitled to receive such common stock or, if there is no such date, prior to the date upon which the holders of the common stock shall have the right to receive such common stock.

Liquidation Rights

In the event of our voluntary or involuntary dissolution, liquidation, or winding up, the holders of the convertible preferred stock shall receive a liquidation preference of \$10 per share and all accrued and unpaid dividends through the distribution date. Holders of any class or series of preferred stock ranking on the same basis as the convertible preferred stock as to liquidation shall also be entitled to receive the full respective liquidation preferences and any accrued and unpaid dividends through the distribution date. Only after the preferred stock holders have received their liquidation preference and any accrued and unpaid dividends will we distribute assets to common stock holders or any of our other stock ranking junior to the shares of convertible preferred stock upon liquidation. If upon such dissolution, liquidation or winding up, we do not have enough assets to pay in full the amounts due on the convertible preferred stock and any other preferred stock ranking on the same basis with the convertible preferred stock as to liquidation, the holders of the convertible preferred stock and such other preferred stock will share ratably in any such distributions of our assets:

- first in proportion to the liquidation preferences until the preferences are paid in full, and
- then in proportion to the amounts of accrued but unpaid dividends.

After we pay any liquidation preference and accrued dividends, holders of the convertible preferred stock will not be entitled to participate any further in the distribution of our assets. The following events will not be deemed to be a dissolution, liquidation or winding up of Cyclacel:

- the sale of all or substantially all of the assets;
- our merger or consolidation into or with any other corporation; or
- our liquidation, dissolution, winding up or reorganization immediately followed by a reincorporation as another corporation.

Optional Redemption

The Company may, at its option, redeem the Preferred Stock in whole or in part, out of funds legally available at the redemption price of \$10.00 per share.

Exchange Provisions

We may exchange the convertible preferred stock in whole, but not in part, for debentures on any dividend payment date on or after November 1, 2005 at the rate of \$10 principal amount of debentures for each outstanding share of convertible preferred stock. Debentures will be issuable in denominations of \$1,000 and integral multiples of \$1,000. If the exchange results in an amount of debentures that is not an integral multiple of \$1,000, we will pay in cash an amount in excess of the closest integral multiple of \$1,000. We will mail written notice of our intention to exchange the convertible preferred stock to each record holder not less than 30 nor more than 60 days prior to the exchange date.

We refer to the date fixed for exchange of the convertible preferred stock for debentures as the “exchange date.” On the exchange date, the holder’s rights as a stockholder of Cyclacel shall cease, the shares of convertible preferred stock will no longer be outstanding, and will only represent the right to receive the debentures and any accrued and unpaid dividends, without interest. We may not exercise our option to exchange the convertible preferred stock for the debentures if:

- full cumulative dividends on the convertible preferred stock to the exchange date have not been paid or set aside for payment, or
- an event of default under the indenture would occur on conversion, or has occurred and is continuing.

Voting Rights

Holders of our convertible preferred stock have no voting rights except as described below or as required by law. Shares of our convertible preferred stock held by us or any entity controlled by us will not have any voting rights.

The Certificate of Designations governing the Preferred Stock provides that if the Company fails to pay dividends on its Preferred Stock for six quarterly periods, holders of Preferred Stock are entitled to nominate and elect two directors to the Company’s Board of Directors.

Without the vote or consent of the holders of at least a majority of the shares of convertible preferred stock, we may not:

- adversely change the rights, preferences and limitations of the convertible preferred stock by modifying our certificate of incorporation or bylaws, or
- authorize, issue, reclassify any of our authorized stock into, increase the authorized amount of, or authorize or issue any convertible obligation or security or right to purchase, any class of stock that ranks senior to the convertible preferred stock as to dividends or distributions of assets upon liquidation, dissolution or winding up of the stock.

No class vote on the part of convertible preferred stock shall be required (except as otherwise required by law or resolution of our board of directors) in connection with the authorization, issuance or increase in the authorized amount of any shares of capital stock ranking junior to or on parity with the

convertible preferred stock both as to the payment of dividends and as to distribution of assets upon our liquidation, dissolution or winding up, whether voluntary or involuntary, including our common stock and the convertible preferred stock.

In addition, without the vote or consent of the holders of at least a majority of the shares of convertible preferred stock we may not:

- enter into a share exchange that affects the convertible preferred stock, or
- consolidate with or merge into another entity, or
- permit another entity to consolidate with or merge into us,

unless the convertible preferred stock remains outstanding and its rights, privileges and preferences are unaffected or it is converted into or exchanged for convertible preferred stock of the surviving entity having rights, preferences and limitations substantially similar, but no less favorable, to the convertible preferred stock.

In determining a majority under these voting provisions, holders of convertible preferred stock will vote together with holders of any other preferred stock that rank on parity as to dividends and that have like voting rights.

Series A Preferred Stock

8,872 shares of the Company's Series A Preferred Stock were issued in a underwritten public offering on July 21, 2017 (the "July 2017 Underwritten Public Offering"). Each share of Series A Preferred Stock is convertible at any time at the option of the holder thereof, into a number of shares of common stock determined by dividing \$1,000 by the initial conversion price of \$600.00 per share, subject to a 4.99% blocker provision, or, upon election by a holder prior to the issuance of shares of Series A Preferred Stock, 9.99%, and is subject to adjustment for stock splits, stock dividends, distributions, subdivisions and combinations.

During the year ended December 31, 2017, 8,608 shares of the Series A Preferred Stock were converted into 14,333 shares of common stock. As of March 21, 2024, 264 shares of the Series A Preferred Stock remain issued and outstanding. The 264 shares of Series A Preferred Stock issued and outstanding at March 21, 2024, are convertible into 440 shares of common stock.

20

In the event of a liquidation, the holders of Series A Preferred Shares are entitled to participate on an as-converted-to-common stock basis with holders of the common stock in any distribution of assets of the Company to the holders of the common stock. The Series A Certificate of Designation provides, among other things, that we shall not pay any dividends on shares of common stock (other than dividends in the form of common stock) unless and until such time as we pay dividends on each Series A Preferred Share on an as-converted basis. Other than as set forth in the previous sentence, the Series A Certificate of Designation provides that no other dividends shall be paid on Series A Preferred Shares and that we shall pay no dividends (other than dividends in the form of common stock) on shares of common stock unless we simultaneously comply with the previous sentence. The Series A Certificate of Designation does not provide for any restriction on the repurchase of Series A Preferred Shares by us while there is any arrearage in the payment of dividends on the Series A Preferred Shares. There are no sinking fund provisions applicable to the Series A Preferred Shares.

With certain exceptions, as described in the Series A Certificate of Designation, the Series A Preferred Stock has no voting rights. However, as long as any shares of Series A Preferred Stock remain outstanding, the Series A Certificate of Designation provides that we shall not, without the affirmative vote of holders of a majority of the then-outstanding Series A Preferred Stock, (a) alter or change adversely the powers, preferences or rights given to the Series A Preferred Stock or alter or amend the Series A Certificate of Designation, (b) increase the number of authorized shares of Series A Preferred Stock or (c) effect a stock split or reverse stock split of the Series A Preferred Stock or any like event.

Each share of Series A Preferred Stock is convertible at any time at the holder's option into a number of shares of common stock equal to \$1,000 divided by the Series A Conversion Price. The "Series A Conversion Price" was initially \$600.00 and is subject to adjustment for stock splits, stock dividends, distributions, subdivisions and combinations. Notwithstanding the foregoing, the Series A Certificate of Designation further provides that we shall not effect any conversion of Series A Preferred Stock, with certain exceptions, to the extent that, after giving effect to an attempted conversion, the holder of Series A Preferred Shares (together with such holder's affiliates, and any persons acting as a group together with such holder or any of such holder's affiliates) would beneficially own a number of shares of common stock in excess of 4.99% (or, at the election of the holder, 9.99%) of the shares of our common stock then outstanding after giving effect to such exercise (the "Preferred Stock Beneficial Ownership Limitation"); provided, however, that upon notice to the Company, the holder may increase or decrease the Preferred Stock Beneficial Ownership Limitation, provided that in no event shall the Preferred Stock Beneficial Ownership Limitation exceed 9.99% and any increase in the Preferred Stock Beneficial Ownership Limitation will not be effective until 61 days following notice of such increase from the holder to us.

Subject to certain conditions, at any time following the issuance of the Series A Preferred Stock, we will have the right to cause each holder of the Series A Preferred Stock to convert all or part of such holder's Series A Preferred Stock in the event that (i) the volume weighted average price of our common stock for 30 consecutive trading days (the "Measurement Period") exceeds 300% of the initial conversion price of the Series A Preferred Stock (subject to adjustment for forward and reverse stock splits, recapitalizations, stock dividends and similar transactions), (ii) the daily trading volume on each Trading Day during such Measurement Period exceeds \$500,000 per trading day and (iii) the holder is not in possession of any information that constitutes or might constitute, material non-public information which was provided by the Company. Our right to cause each holder of the Series A Preferred Stock to convert all or part of such holder's Series A Preferred Stock shall be exercised ratably among the holders of the then outstanding preferred stock.

The Series A Preferred Stock has no maturity date, will carry the same dividend rights as the common stock, and with certain exceptions contains no voting rights. In the event of any liquidation or dissolution of the Company, the Series A Preferred Stock ranks senior to the common stock in the distribution of assets, to the extent legally available for distribution.

Series B Preferred Stock

237,745 shares of the Company's Series B Preferred Stock were issued in connection with a registered direct offering on December 18, 2020 (the "December 2020 Registered Direct Offering"). Each share of Series B Preferred Stock is convertible at any time at the option of the holder thereof, into one third (1/3) share of common stock, subject to a 9.99% blocker provision, and is subject to adjustment for stock splits, stock dividends, distributions, subdivisions and combinations.

As of March 21, 2024, all shares of the Series B Preferred Stock have been converted into 79,248 shares of common stock and therefore none remain issued and outstanding.

21

Outstanding Warrants

December 2023 Warrants

On December 21, 2023, we entered into a securities purchase agreement (the "Securities Purchase Agreement") with certain institutional investors ("Purchasers"). Pursuant to the Securities Purchase Agreement, we agreed to sell in a registered direct offering ("Registered Direct Offering") 168,500 shares ("Shares") of our common stock, and pre-funded warrants ("Pre-Funded Warrants") to purchase up to 219,700 shares of common stock. The Pre-Funded Warrants have an exercise price of \$0.001 per share and are immediately exercisable and can be exercised at any time after their original issuance until such Pre-Funded Warrants are exercised in full. Each Share was sold at an offering price of \$3.315 and each Pre-Funded Warrant was sold at an offering price of \$3.314 (equal to the purchase price per Share minus the exercise price of the Pre-Funded Warrant).

Pursuant to the Securities Purchase Agreement, in a concurrent private placement (together with the Registered Direct Offering, the "Offerings"), we also issued to the Purchasers unregistered warrants ("Common Warrants") to purchase up to 388,200 shares of common stock. Each Common Warrant has an exercise price of \$3.19 per share, is exercisable immediately following their original issuance and will expire seven years from the original issuance date.

On December 21, 2023, in a separate concurrent insider private placement (the "Insider Private Placement"), we also entered into a Securities Purchase Agreement with certain of our executive officers (the "Insider Securities Purchase Agreement") pursuant to which we sold in a private placement (i) 6,070 shares of common stock and warrants to purchase 6,070 shares of common stock on the same terms as the Common Warrants issued to the Purchasers in the Offerings to Spiro Rombotis, our Chief Executive Officer, and (ii) 1,886 shares of common stock and warrants to purchase 1,886 shares of common stock on the same terms as the Common Warrants issued to the Purchasers in the Offerings to Paul McBarron, our Executive Vice President-Finance, Chief Financial Officer and Chief Operating Officer. Each such share of common stock and accompanying warrant was sold at a purchase price of \$3.315, which was the same purchase price for the Shares sold in the Registered Direct Offering.

The placement agent for the Offerings received warrants that have substantially the same terms as the Warrants issued in the concurrent private placement to the Purchasers in the Offerings to purchase that number of shares of common stock equal to 6.0% of the aggregate number of shares of common stock and Prefunded Warrants sold in the Offerings, or an aggregate of 23,769 shares of common stock, at an exercise price of \$4.14375 per share (the "Placement Agent Warrants"). The Placement Agent Warrants are exercisable immediately following the date of issuance and will expire five years from issuance.

December 2020 Warrants

As of March 21, 2024, warrants to purchase 44,657 shares of common stock issued pursuant to a securities purchase agreement in a December 2020 financing transaction remained outstanding. Each warrant shall be exercisable beginning on the 12-month anniversary of the date of issuance for a period of five years after the date of issuance, at an exercise price of \$61.95 per warrant share. The exercise price of the warrants will be subject to adjustment in the event of any stock dividends and splits, reverse stock split, recapitalization, reorganization or similar transaction, as described in the warrants. The warrants may be exercised on a "cashless" basis.

April 2020 Warrants

As of March 21, 2024, 146,000 warrants issued pursuant to a securities purchase agreement in connection with an April 2020 equity financing remained outstanding, each with an exercise price of \$75.00. The common warrants are immediately exercisable and will expire on the fifth anniversary of the original issuance date. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock. The common warrants were issued separately from the common stock and were eligible for transfer immediately after issuance. A common warrant to purchase one share of common stock was issued for every share of common stock purchased in this offering.

The common warrants are exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise). A holder (together with its affiliates) may not exercise any portion of the common warrant to the extent that the holder would own more than 4.99% of the outstanding common stock immediately after exercise, except that upon at least 61 days prior notice from the holder to us, the holder may increase the amount of ownership of outstanding stock after exercising the holder's common warrants up to 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the common warrants. No fractional shares of common stock will be issued in connection with the exercise of a common warrant. In lieu of fractional shares, we will round down to the next whole share.

DESCRIPTION OF THE SECURITIES WE ARE OFFERING

Common Stock to be Issued as Part of this Offering

The material terms and provisions of our common stock and each other class of our securities which qualifies or limits our common stock are described above under the sections "Description of Capital Stock-- Common Stock," and "Description of Capital Stock—Preferred Stock" of this prospectus.

Common Stock Warrants to be Issued as Part of this Offering

The following is a summary of certain terms and provisions of the Common Stock Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Common Stock Warrant, the form of which will be filed as an exhibit to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the form of the Common Stock Warrant for a complete description of the terms and conditions of the Common Stock Warrants. Pursuant to a warrant agency agreement between us and Equiniti Trust Company, LLC, as warrant agent, the Common Stock Warrants will be issued in book-entry form and shall initially be represented only by one or more global warrants deposited with the warrant agent, as custodian, on behalf of The Depository Trust Company, or DTC, and registered in the name of Cede & Co., a nominee of DTC, or as otherwise directed by DTC.

Duration and Exercise Price

Each Common Stock Warrant offered hereby will have an exercise price equal to \$. The Common Stock Warrants will be immediately exercisable upon issuance and may be exercised until the fifth anniversary of the issuance date. The number of Common Stock Warrants outstanding,

and the exercise price of those securities, will be adjusted proportionately in the event of a reverse or forward stock split of our common stock, a recapitalization or reclassification of our common stock, payment of dividends or distributions in common stock to our common stock holders, or similar transactions. In the event that the Company effects a rights offering to its common stock holders or a pro rata distribution of its assets among its common stock holders, then the holder of the Common Stock Warrants will have the right to participate in such distribution and rights offering to the extent of their pro rata share of the Company's outstanding common stock assuming they owned the number of shares of common stock issuable upon the exercise of their Common Stock Warrants. In the event of a "Fundamental Transaction" by the Company, such as a merger or consolidation of it with another company, the sale or other disposition of all or substantially all of the Company's assets in one or a series of related transactions, a purchase offer, tender offer or exchange offer, or any reclassification, reorganization or recapitalization of the Company's common stock, then the Common Stock Warrant holder will have the right to receive, for each share of common stock issuable upon the exercise of the Common Stock Warrant, at the option of the holder, the number of shares of common stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration payable as a result of the Fundamental Transaction, that would have been issued or conveyed to the Common Stock Warrant holder had the holder exercised the Common Stock Warrant immediately preceding the closing of the Fundamental Transaction. In lieu of receiving such common stock and additional consideration in the Fundamental Transaction, the Common Stock Warrant holder may elect to have the Company or the successor entity purchase the Common Stock Warrant holder's Public Warrant for its fair market value measured by the Black Scholes method.

The Company will promptly notify the holders of Common Stock Warrants in writing of any adjustment to the exercise price or to the number of the outstanding Common Stock Warrants, declaration of a dividend or other distribution, a special non-recurring cash dividend on or a redemption of the common stock, the authorization of a rights offering, the approval of the stockholders required for any proposed reclassification of the common stock, a consolidation or merger by the Company, sale of all or substantially all of the assets of the Company, any compulsory share exchange, or the authorization of any voluntary or involuntary dissolution, liquidation, or winding up of the Company.

The Common Stock Warrants contain a contractual provision stating that all questions concerning the construction, validity, enforcement and interpretation of the Common Stock Warrants are governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law.

There is no trading market available for the Common Stock Warrants on any securities exchange or nationally recognized trading system, and we do not intend to list the Common Stock Warrants on any securities exchange or nationally recognized trading system.

Exercisability

The Common Stock Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of such holder's Common Stock Warrants to the extent that the holder would own more than 4.99% of the outstanding common stock immediately after exercise, except that upon at least 61 days' prior notice from the holder to us, the holder may increase the amount of ownership of outstanding stock after exercising the holder's Common Stock Warrants up to 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Common Stock Warrants.

Cashless Exercise

If, at the time a holder exercises its Common Stock Warrants, a registration statement registering the issuance or resale of the shares of common stock underlying the Common Stock Warrants under the Securities Act is not then effective or available for the issuance of such shares, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Common Stock Warrant.

Transferability

Subject to applicable laws, a warrant may be transferred at the option of the holder upon surrender of the Common Stock Warrant to us together with the appropriate instruments of transfer.

Fractional Shares

No fractional shares of common stock will be issued upon the exercise of the Common Stock Warrants. Rather, the number of shares of common stock to be issued will, at our election, either be rounded up to the nearest whole number or we will pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price.

Trading Market

There is no established trading market for the Common Stock Warrants, and we do not expect an active trading market to develop. We do not intend to apply to list the Common Stock Warrants on any securities exchange or other trading market. Without a trading market, the liquidity of the Common Stock Warrants will be extremely limited.

Right as a Stockholder

Except as otherwise provided in the Common Stock Warrants or by virtue of the holder's ownership of shares of our common stock, such holder of Common Stock Warrants does not have the rights or privileges of a holder of our common stock, including any voting rights, until such holder exercises such holder's Common Stock Warrants.

Waivers and Amendments

No term of the Common Stock Warrants may be amended or waived without the written consent of the holders of the Common Stock Warrants purchased in this offering.

Pre-funded Warrants

The following summary of certain terms and provisions of the pre-funded warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the pre-funded warrant, the form of which will be filed as an exhibit to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the form of pre-funded warrant for a complete description of the terms and conditions of the pre-funded warrants. Pursuant to a warrant agency agreement between us and Equiniti Trust Company, LLC, as warrant agent, the pre-funded warrants will be issued in book-entry form and shall initially be represented only by one or more global warrants deposited with the warrant agent, as custodian, on behalf of The Depository Trust Company, or DTC, and registered in the name of Cede & Co., a

nominee of DTC, or as otherwise directed by DTC.

Duration and Exercise Price

Each pre-funded warrant offered hereby will have an initial exercise price per share of common stock equal to \$0.0001. The pre-funded warrants will be immediately exercisable and will expire when exercised in full. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of share dividends, share splits, reorganizations or similar events affecting our shares of common stock and the exercise price. Subject to the rules and regulations of the applicable trading market, we may at any time during the term of the pre-funded warrant, subject to the prior written consent of the holders, reduce the then current exercise price to any amount and for any period of time deemed appropriate by our board of directors.

Exercisability

The pre-funded warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the pre-funded warrant to the extent that the holder would own more than 4.99% of the outstanding shares of common stock immediately after exercise, except that upon at least 61 days' prior notice from the holder to us, the holder may increase the amount of beneficial ownership of outstanding shares after exercising the holder's pre-funded warrants up to 9.99% of the number of our shares of common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. Purchasers of pre-funded warrants in this offering may also elect prior to the issuance of the pre-funded warrants to have the initial exercise limitation set at 9.99% of our outstanding shares of common stock.

24

Cashless Exercise

In lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the pre-funded warrants.

Fractional Shares

No fractional shares of common stock will be issued upon the exercise of the pre-funded warrants. Rather, at the Company's election, the number of shares of common stock to be issued will be rounded up to the nearest whole number or the Company will pay a cash adjustment in an amount equal to such fraction multiplied by the exercise price.

Transferability

Subject to applicable laws, a pre-funded warrant may be transferred at the option of the holder upon surrender of the pre-funded warrants to us together with the appropriate instruments of transfer.

Trading Market

There is no trading market available for the pre-funded warrants on any securities exchange or nationally recognized trading system, and we do not expect a trading market to develop. We do not intend to list the pre-funded warrants on any securities exchange or nationally recognized trading market. Without a trading market, the liquidity of the pre-funded warrants will be extremely limited.

Right as a Shareholder

Except as otherwise provided in the pre-funded warrants or by virtue of such holder's ownership of shares of common stock, the holders of the pre-funded warrants do not have the rights or privileges of holders of our shares of common stock, including any voting rights, until they exercise their pre-funded warrants. The pre-funded warrants will provide that holders have the right to participate in distributions or dividends paid on our shares of common stock.

Fundamental Transaction

In the event of a fundamental transaction, as described in the pre-funded warrants and generally including any reorganization, recapitalization or reclassification of our shares of common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding shares of common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding shares of common stock, the holders of the pre-funded warrants will be entitled to receive upon exercise of the pre-funded warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the pre-funded warrants immediately prior to such fundamental transaction on a net exercise basis.

25

PLAN OF DISTRIBUTION

Pursuant to a placement agency agreement, dated as of [REDACTED], 2024, we have engaged [REDACTED], or the Placement Agent, to act as our exclusive placement agent to solicit offers to purchase the securities offered by this prospectus on a reasonable best efforts basis. The Placement Agent is not purchasing or selling any securities, nor is it required to arrange for the purchase and sale of any specific number or dollar amount of securities, other than to use its "reasonable best efforts" to arrange for the sale of the securities by us. Therefore, we may not sell the entire amount of securities being offered, or any at all. The Placement Agent may engage one or more subagents or selected dealers in connection with this offering. This offering will terminate on [REDACTED], unless we decide to terminate the offering (which we may do at any time in our discretion) prior to that date. We will have one closing for all the securities purchased in this offering. The combined public offering price per share (or pre-funded warrant) and accompanying Common Stock Warrants will be fixed for the duration of this offering.

The placement agency agreement provides that the Placement Agent's obligations are subject to conditions contained in the placement agency agreement.

Investors purchasing securities offered hereby will have the option to execute a securities purchase agreement with us. In addition to rights and remedies available to all purchasers in this offering under federal securities and state law, the purchasers which enter into a securities purchase agreement will also be able to bring claims of breach of contract against us. The ability to pursue a claim for breach of contract is material to larger purchasers in this offering as a means to enforce the following covenants uniquely available to them under the securities purchase agreement: (i) a covenant not to enter into variable rate financings for a period of following the closing of the offering, subject to certain exceptions; and (ii) a covenant to

not issue any shares of common stock or common stock equivalents or securities convertible into shares of common stock for days from closing of the offering, subject to certain exceptions.

We will deliver the securities being issued to the investors upon receipt of investor funds for the purchase of the securities offered pursuant to this prospectus. We expect to deliver the securities being offered pursuant to this prospectus on or about _____, 2024. There is no minimum number of securities or amount of proceeds that is a condition to closing of this offering.

Placement Agent Fees, Commissions and Expenses

Upon the closing of this offering, we will pay the Placement Agent a cash transaction fee equal to _____% of the aggregate gross proceeds to us from the sale of the securities in the offering. In addition, we will reimburse the Placement Agent for its out-of-pocket expenses incurred in connection with this offering, including the fees and expenses of the counsel for the Placement Agent up to \$_____ in the aggregate.

The following table shows the public offering price, Placement Agent fees and proceeds, before expenses, to us, assuming the purchase of all the securities we are offering.

	Per Share and related Common Stock Warrant	Per Pre-Funded Warrant and related Common Stock Warrant	Total
Assumed Public offering price	\$	\$	\$
Placement Agent fees ⁽¹⁾	\$	\$	\$
Proceeds to us before offering expenses ⁽³⁾	\$	\$	\$

We estimate that the total expenses of the offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding Placement Agent fees, will be approximately \$_____, all of which are payable by us. This figure includes the Placement Agent's out-of-pocket expenses incurred in connection with this offering, including the fees and expenses of the counsel for the Placement Agent up to \$_____ in the aggregate.

Tail Fees

We have also agreed to pay the Placement Agent a tail fee equal to the cash compensation in this offering, if any investor, who was introduced to the Company by the Placement Agent or who the Placement Agent conducted discussions with on behalf of the Company during the term of its engagement, provides us with capital in any offering of the Company's securities during the three month period following expiration or termination of our engagement with the Placement Agent. In addition, pursuant to the tail provision in a certain engagement agreement with Ladenburg, we may be obligated to pay certain cash fees and issue warrants to Ladenburg in the event that certain investors participate in this offering.

Determination of Offering Price and Warrant Exercise Price

The actual public offering price of the securities we are offering, and the exercise price of the Common Stock Warrants and pre-funded warrants that we are offering, were negotiated between us, the Placement Agent and the investors in the offering based on the trading of our common stock prior to the offering, among other things. Other factors considered in determining the public offering price of the securities we are offering, as well as the exercise price of the Common Stock Warrants and pre-funded warrants that we are offering include our history and prospects, the stage of development of our business, our business plans for the future and the extent to which they have been implemented, an assessment of our management, the general conditions of the securities markets at the time of the offering and such other factors as were deemed relevant.

Lock-up Agreements

We and each of our officers and directors have agreed to be subject to a lock-up period of days following the closing date of this offering. This means that, during the applicable lock-up period, we may not offer for sale, contract to sell, or sell any shares of our common stock or any securities convertible into, or exercisable or exchangeable for, shares of our common stock subject to certain customary exceptions. The Placement Agent may, in its sole discretion and without notice, waive the terms of any of these lock-up agreements. In addition, we have agreed to not issue any securities that are subject to a price reset based on trading prices of our common stock or upon a specified or contingent event in the future, or enter into an agreement to issue securities at a future determined price, for after the closing date of the offering.

Transfer Agent and Registrar and Warrant Agent

The transfer agent and warrant agent is and will be Equiniti Trust Company, LLC.

Listing

Our common stock is currently listed on the Nasdaq Capital Market under the symbol "CYCC". There is no established public trading market for the Common Stock Warrants or pre-funded warrants, and we do not expect such markets to develop. In addition, we do not intend to apply for a listing of the Common Stock Warrants or pre-funded warrants on any national securities exchange or other nationally recognized trading system.

Indemnification

We have agreed to indemnify the Placement Agent against certain liabilities, including certain liabilities arising under the Securities Act, or to contribute to payments that the Placement Agent may be required to make for these liabilities.

Other Relationships

From time to time, the Placement Agent and its affiliates may provide in the future, various advisory, investment and commercial banking and other services to us in the ordinary course of business, for which they will receive customary fees and commissions.

Regulation M

The Placement Agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act and any fees received by it and any profit realized on the sale of the securities by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. The Placement Agent will be required to comply with the requirements of the Securities Act and the Exchange Act of 1934, as amended (the "Exchange Act"), including, without limitation, Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of our securities by the Placement Agent. Under these rules and regulations, the Placement Agent may not (i) engage in any

stabilization activity in connection with our securities; and (ii) bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until they have completed their participation in the distribution.

Electronic Distribution

A prospectus in electronic format may be made available on a website maintained by the Placement Agent. In connection with the offering, the Placement Agent or selected dealers may distribute prospectuses electronically. No forms of electronic prospectus other than prospectuses that are printable as Adobe® PDF will be used in connection with this offering.

Other than the prospectus in electronic format, the information on the Placement Agent's website and any information contained in any other website maintained by the Placement Agent is not part of the prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or the Placement Agent in its capacity as placement agent and should not be relied upon by investors.

DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Section 145 of the Delaware General Corporation Law (the "DGCL") authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities (including reimbursement for expenses incurred) arising under the Securities Act of 1933. Our amended and restated certificate of incorporation limits the liability of our officers and directors to the fullest extent permitted by the DGCL, and our amended and restated certificate of incorporation provides that we will indemnify our officers and directors to the fullest extent permitted by such law.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers or persons controlling the registrant pursuant to the foregoing provisions, the registrant has been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

LEGAL MATTERS

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., New York, New York, will pass upon the validity of the issuance of the securities offered by this prospectus. _____, New York, New York, is acting as counsel for the Placement Agent in connection with this offering.

EXPERTS

The consolidated financial statements of Cyclacel Pharmaceuticals, Inc. as of December 31, 2023 and 2022 and for each of the years in the two-year period ended December 31, 2023 incorporated in this Prospectus by reference from the Cyclacel Pharmaceuticals, Inc. [Annual Report on Form 10-K for the year ended December 31, 2023](#) have been audited by RSM US LLP, an independent registered public accounting firm, as stated in their report thereon (which report expresses an unqualified opinion and includes explanatory paragraphs relating to substantial doubt about the Company's ability to continue as a going concern) incorporated herein by reference, and have been incorporated in this Prospectus and Registration Statement in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and other periodic reports, proxy statements and other information with the SEC. You can read our SEC filings over the Internet at the SEC's website at www.sec.gov.

Our Internet address is www.cyclacel.com. There we make available free of charge, on or through the investor relations section of our website, annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with the SEC. The information found on our website is not part of this prospectus.

The SEC maintains a website at <http://www.sec.gov> that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC's rules allow us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, and subsequent information that we file with the SEC will automatically update and supersede that information. Any statement contained in this prospectus or a previously filed document incorporated by reference will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or a subsequently filed document incorporated by reference modifies or replaces that statement.

This prospectus incorporates by reference the documents set forth below that have previously been filed with the SEC:

- our [Annual Report on Form 10-K for the fiscal year ended December 31, 2023 as filed with the SEC on March 21, 2024](#) ;
- Amendment No. 1 to our [Annual Report on Form 10-K/A for the fiscal year ended December 31, 2023 as filed with the SEC on April 29, 2024](#);
- our Quarterly Reports on Form10-Q for the quarters ended March 31, 2024 and June 30, 2024, filed with the SEC on [May 14, 2024](#) and [August 14, 2024](#), respectively;
- the portions of our [Definitive Proxy Statement on Schedule 14A](#) (other than information furnished rather than filed therein) filed on May 8, 2024;
- our Current Reports on Form8-K filed on [January 4, 2024](#), [January 12, 2024](#), [January 30, 2024](#), [March 28, 2024](#), [April 26, 2024](#), [May 2, 2024](#), [June 25, 2024](#), [August 22, 2024](#), [August 26, 2024](#), [August 30, 2024](#) and [September 6, 2024](#);
- the description of our common stock contained in [Exhibit 4.12](#) to our Annual Report on Form 10-K for the fiscal year ended December 31, 2023 ; and

- all reports and other documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this prospectus and prior to the termination or completion of the offering of securities under this prospectus shall be deemed to be incorporated by reference in this prospectus and to be a part hereof from the date of filing such reports and other documents.

All reports and other documents we subsequently file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act in this prospectus, prior to the termination of this offering, but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference into this prospectus and deemed to be part of this prospectus from the date of the filing of such reports and documents. Except as stated therein, the documents incorporated by reference herein do not reflect the reverse stock split effected at 5:00 p.m. Eastern Time on Friday, December 15, 2023.

You may request a copy of these filings, at no cost, by contacting: 200 Connell Drive, Suite 1500, Berkeley Heights, NJ 07922, telephone (908) 517-7330.

29



CYCLACEL PHARMACEUTICALS, INC.

Up to **Shares of Common Stock**
 Up to **Common Stock Warrants to purchase up to Shares of Common Stock**
 or
 Up to **Pre-Funded Warrants to purchase up to Shares of Common Stock and Accompanying**
Common Stock Warrants to purchase up to Shares of Common Stock

Up to Shares of Common Stock Issuable Upon Exercise of the Pre-Funded Warrants and Common Stock Warrants

PROSPECTUS

_____, 2024

30

PART II INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13 Other Expenses of Issuance and Distribution.

The following table sets forth the costs and expenses, payable by the Company in connection with the registration and sale of the common stock being registered. All amounts are estimates except the SEC registration fee.

	Amount to be paid (\$)
SEC registration fee	\$
Legal fees and expenses	\$
FINRA fee	\$
Accounting fees and expenses	\$
Total	\$

Item 14. Indemnification of Directors and Officers.

Our amended and restated certificate of incorporation, as amended, and amended and restated bylaws, as amended, provide that each person who was or is made a party or is threatened to be made a party to or is otherwise involved (including, without limitation, as a witness) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he or she is or was a director or an officer of Cyclacel Pharmaceuticals, Inc. or is or was serving at our request as a director, officer, or trustee of another corporation, or of a partnership, joint venture, trust or other enterprise, including service with respect to an employee benefit plan, whether the basis of such proceeding is alleged action in an official capacity as a director, officer or trustee or in any other capacity while serving as a director, officer or trustee, shall be indemnified and held harmless by us to the fullest extent authorized by the Delaware General Corporation Law against all expense, liability and loss (including attorneys' fees, judgments, fines, ERISA excise taxes or penalties and amounts paid in settlement) reasonably incurred or suffered by such.

Section 145 of the Delaware General Corporation Law permits a corporation to indemnify any director or officer of the corporation against expenses (including attorney's fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with any action, suit or proceeding brought by reason of the fact that such person is or was a director or officer of the corporation, if such person acted in good faith and in a manner that he reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal action or proceeding, if he or she had no reason to believe his or her conduct was unlawful. In a derivative action, (i.e., one brought by or on behalf of the corporation), indemnification may be provided only for expenses actually and reasonably incurred by any director or officer in connection with the defense or settlement of such an action or suit if such person acted in good faith and in a manner that he or she reasonably believed to be in, or not opposed to, the best interests of the corporation, except that no indemnification shall be provided if such person shall have been adjudged to be liable to the corporation, unless and only to the extent that the court in which the action or suit was brought shall determine that the defendant is fairly and reasonably entitled to indemnity for such expenses despite such adjudication of liability.

Pursuant to Section 102(b)(7) of the Delaware General Corporation Law, our amended and restated certificate of incorporation eliminates the liability of a director to us or our stockholders for monetary damages for such a breach of fiduciary duty as a director, except for liabilities arising:

- from any breach of the director's duty of loyalty to us or our stockholders;
- from acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;

- under Section 174 of the Delaware General Corporation Law; or
- from any transaction from which the director derived an improper personal benefit.

We carry insurance policies insuring our directors and officers against certain liabilities that they may incur in their capacity as directors and officers.

We have entered into indemnification agreements with each of our directors and executive officers. Pursuant to the indemnification agreements, agree to hold harmless and indemnify our directors and executive officers to the fullest extent authorized or permitted by the provisions of our amended and restated certificate of incorporation, amended and restated by-laws and the DGCL, including for any amounts that such director or officer becomes obligated to pay because of any claim to which such director or officer is made or threatened to be made a party, witness or participant, by reason of such director's or officer's service as a director, officer, employee or other agent.

There are certain exceptions from our obligation to indemnify our directors and executive officers pursuant to the indemnification agreements, including for "short-swing" profit claims under Section 16(b) of the Exchange Act losses that are as a result of conduct that is established by a final judgment as knowingly fraudulent or deliberately dishonest or that constituted willful misconduct, or that constituted a breach of the duty of loyalty to us or resulted in any improper personal profit or advantage, where payment is actually made to a director or officer under an insurance policy, indemnity clause, bylaw or agreement, except in respect of any excess beyond payment under such insurance, clause, bylaw or agreement, for indemnification which is not lawful, or in connection with any proceeding initiated by such director or officer, or any proceeding against us or our directors, officers, employees or other agents, unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by our board of directors, (iii) such indemnification is provided by us, in our sole discretion, pursuant to the powers vested in us under the DGCL, or (iv) the proceeding is initiated to enforce a claim for indemnification pursuant to the indemnification agreement.

All of our agreements and obligations contained in the indemnification agreements shall continue during the period when the director or officer who is a party to an indemnification agreement is our director, officer, employee or other agent (or is or is serving at our request as a director, officer, employee or other agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise) and shall continue thereafter so long as such director or officer shall be subject to any possible claim or threatened, pending or completed action, suit or proceeding, whether civil, criminal, arbitral, administrative or investigative. In addition, the indemnification agreements provide for partial indemnification and advance of expenses.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers or controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the Commission this indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

Item 15. Recent Sales of Unregistered Securities

On December 21, 2023, we entered into a Securities Purchase Agreement with certain institutional investors to issue unregistered warrants ("Private Warrants") to purchase up to 388,200 shares of our common stock. Each Private Warrant has an exercise price of \$3.19 per share, was exercisable immediately following its original issuance and will expire seven years from the original issuance date. The Private Warrants were sold in a private placement exempt from registration pursuant to Section 4(a)(2) and/or Rule 506 of the Securities Act. The offering closed on December 26, 2023. The gross proceeds were approximately \$1.29 million before deducting the placement agent fees and other offering expenses. The placement agent also received warrants that have substantially the same terms as the Private Warrants to purchase that number of shares of our common stock equal to an aggregate of 23,769 shares of our common stock at an exercise price of \$4.14375 per share.

Additionally, in a separate concurrent insider private placement, we also sold to certain of our officers 7,956 shares of our common stock and Private Warrants to purchase up to an aggregate of 7,956 shares of our common stock, at a combined purchase price of \$3.315 per share of common stock and accompanying Private Warrant.

On April 30, 2024, we entered into a securities purchase agreement (the "Purchase Agreement") with an institutional investor (the "Purchaser") for the issuance and sale in a private placement (the "Private Placement") of (i) 145,000 shares of our common stock, (ii) pre-funded warrants to purchase up to 4,823,945 shares of common stock (the "Pre-Funded Warrants"), (iii) series A warrants to purchase up to 4,968,945 shares of common stock (the "Series A Warrants"), and (iv) series B warrants to purchase up to 4,968,945 shares of common stock (the "Series B Warrants" and together with the Series A Warrants, the "Common Warrants"). The purchase price of each share of common stock and associated Common Warrants was \$1.61 and the purchase price of each Pre-Funded Warrant and associated Common Warrants was \$1.6099. The Common Warrants were exercisable immediately upon issuance at an exercise price of \$1.36 per share. The Series A Warrants expire five and one-half years from the date of issuance and the Series B Warrants will expire eighteen months from the date of issuance. The Pre-Funded Warrants are exercisable immediately upon issuance at an exercise price of \$0.0001 per share and may be exercised at any time until the Pre-Funded Warrants are exercised in full. A holder of Pre-Funded Warrants or Common Warrants (together with its affiliates) may not exercise any portion of such warrants to the extent that the holder would own more than 4.99% (or, at the election of the holder 9.99%) of our outstanding common stock immediately after exercise. The Private Placement closed on May 2, 2024. The gross proceeds from the Private Placement were approximately \$8.0 million, before deducting placement agent fees and estimated offering expenses payable by us. H.C. Wainwright & Co., LLC ("Wainwright") acted as the Company's exclusive placement agent in connection with the Private Placement, pursuant to that certain engagement letter, dated as of April 29, 2024, between us and Wainwright (as amended, the "Engagement Letter"). Pursuant to the Engagement Letter, we paid Wainwright (i) a cash fee equal to 7.0% of the aggregate gross proceeds of the Private Placement and (ii) a management fee of 1.0% of the aggregate gross proceeds of the Private Placement. In addition, we agreed to pay Wainwright certain expenses and issued to Wainwright or its designees warrants (the "Placement Agent Warrants") to purchase up to an aggregate of 298,137 shares of Common Stock at an exercise price equal to \$2.0125 per share. The Placement Agent Warrants are exercisable immediately upon issuance and have a term of exercise equal to five and a half years from the date of issuance. The securities sold in the Private Placement were sold in a private placement exempt from registration pursuant to Section 4(a)(2) and/or Rule 506 of the Securities Act.

Item 16. Exhibits and Financial Statement Schedules.

(a) The exhibits listed below are filed as part of or incorporated by reference into this Registration Statement on Form S-1. Where certain exhibits are incorporated by reference from a previous filing, the exhibit numbers and previous filings are identified in parentheses.

Exhibit Number	Description
1.1**	Form of Placement Agency Agreement.

3.1 [Amended and Restated Certificate of Incorporation of Cyclacel Pharmaceuticals, Inc. \(previously filed as Exhibit 3.1 to the Registrant's Annual Report on Form 10-K, originally filed with the SEC on April 1, 2013, and incorporated herein by reference\).](#)

3.2 [Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Cyclacel Pharmaceuticals, Inc. \(previously filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on May 27, 2016, and incorporated herein by reference\).](#)

3.3 [Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Cyclacel Pharmaceuticals, Inc. \(previously filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on April 14, 2020, and incorporated herein by reference\).](#)

3.4 [Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Cyclacel Pharmaceuticals, Inc. \(previously filed as Exhibit 3.4 to the Registrant's Registration Statement on Form S-1, originally filed with the SEC on January 19, 2024, and incorporated herein by reference\).](#)

3.5 [Certificate of Correction to Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Cyclacel Pharmaceuticals, Inc. \(previously filed as Exhibit 3.5 to the Registrant's Registration Statement on Form S-1, originally filed with the SEC on January 19, 2024, and incorporated herein by reference\).](#)

3.6 [Second Amended and Restate Bylaws of Cyclacel Pharmaceuticals, Inc. \(previously filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on May 7, 2020, and incorporated herein by reference\).](#)

3.7 [Amendment No. 1 to the Second Amended and Restated Bylaws of Cyclacel Pharmaceuticals, Inc. \(previously filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on November 7, 2023, and incorporated herein by reference\).](#)

3.8 [Certificate of Designation of 6% Convertible Exchangeable Preferred Stock \(previously filed as Exhibit 3.2 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on November 5, 2004, and incorporated herein by reference\).](#)

3.9 [Certificate of Designation of Series A Preferred Stock \(previously filed as Exhibit 3.5 to the Registrant's Registration Statement on Form S-1 \(No. 333-218305\), originally filed with the SEC on July 17, 2017, and incorporated herein by reference\).](#)

3.10 [Certificate of Designation of Preferences, Rights and Limitations of the Series B Convertible Preferred Stock \(previously filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on December 22, 2020, and incorporated herein by reference\).](#)

4.1 [Specimen of Common Stock Certificate \(previously filed as Exhibit 4.1 to Registrant's Registration Statement on Form S-1, File No. 333-109653, originally filed with the SEC on February 17, 2004, as subsequently amended, and incorporated herein by reference\).](#)

33

4.2 [Specimen of Preferred Stock Certificate of Designation \(previously filed as Exhibit 3.2 to Registrant's Registration Statement on Form S-1, File No. 333-119585, originally filed with the SEC on October 21, 2004, as subsequently amended, and incorporated herein by reference\).](#)

4.3 [Form of Warrant to purchase shares of Cyclacel Pharmaceuticals, Inc. Common Stock \(previously filed as Exhibit 4.1 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on July 1, 2011, and incorporated herein by reference\).](#)

4.4 [Registration Rights Agreement, dated as of December 14, 2012, by and between the Company and Aspire Capital Fund, LLC \(previously filed as Exhibit 4.1 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on December 17, 2012, and incorporated herein by reference\).](#)

4.5 [Registration Rights Agreement, dated November 14, 2013, by and between the Company and Aspire Capital Fund, LLC \(previously filed as Exhibit 4.1 to the Registrant's Quarterly Report on Form 10-Q, originally filed with the SEC on November 14, 2013, and incorporated herein by reference\).](#)

4.6 [Form of Warrant to purchase shares of Cyclacel Pharmaceuticals, Inc.'s Common Stock \(previously filed as Exhibit 4.3 to the Registrant's Registration Statement on Form S-1 \(No. 333-218305\), originally filed with the SEC on July 17, 2017, and incorporated herein by reference\).](#)

4.7 [Form of Pre-Funded Warrant \(previously filed as Exhibit 4.1 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on April 24, 2020, and incorporated herein by reference\).](#)

4.8 [Form of Common Warrant \(previously filed as Exhibit 4.2 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on April 24, 2020, and incorporated herein by reference\).](#)

4.9 [Form of Warrant \(previously filed as Exhibit 4.1 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on December 22, 2020, and incorporated herein by reference\).](#)

4.10 [Form of Pre-Funded Common Stock Purchase Warrant \(previously filed as Exhibit 4.1 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on December 26, 2023, and incorporated herein by reference\).](#)

4.11 [Form of Common Stock Purchase Warrant \(previously filed as Exhibit 4.2 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on December 26, 2023, and incorporated herein by reference\).](#)

4.12 [Form of Pre-Funded Warrant \(previously filed as Exhibit 4.1 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on May 2, 2024, and incorporated herein by reference\).](#)

4.13 [Form of Series A Warrant \(previously filed as Exhibit 4.2 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on May 2, 2024, and incorporated herein by reference\).](#)

4.14 [Form of Series B Warrant \(previously filed as Exhibit 4.3 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on May 2, 2024, and incorporated herein by reference\).](#)

4.15 [Form of Placement Agent Warrant \(previously filed as Exhibit 4.4 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on May 2, 2024, and incorporated herein by reference\).](#)

4.16** Form of Common Warrant

4.17**	Form of Pre-Funded Warrant.
5.1**	Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
<u>10.1†</u>	<u>Amended and Restated 2006 Equity Incentive Plan (previously filed as Exhibit 10.1 to Registrant's Current Report on Form 8-K, originally filed with the SEC on May 24, 2012, and incorporated herein by reference).</u>
<u>10.2†</u>	<u>2015 Equity Incentive Plan (previously filed as Exhibit 10.1 to Registrant's Current Report on Form 8-K, originally filed with the SEC on May 22, 2015, and incorporated herein by reference).</u>
<u>10.3†</u>	<u>Amended and Restated 2018 Equity Incentive Plan (previously filed as Exhibit 10.1 to Registrant's Current Report on Form 8-K, originally filed with the SEC on June 14, 2023, and incorporated herein by reference).</u>

<u>10.4#</u>	<u>Clinical Collaboration Agreement by and between Cyclacel Pharmaceuticals, Inc. and the University of Texas M.D. Anderson Cancer Center dated as of August 21, 2018 (previously filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2018 and incorporated herein by reference).</u>
<u>10.5</u>	<u>Cyclacel Pharmaceuticals, Inc. 2020 Inducement Equity Incentive Plan (previously filed as Exhibit 10.1 to the Registrant's Current Report on Form 10-Q, originally filed with the SEC on November 12, 2020, and incorporated herein by reference).</u>
<u>10.6</u>	<u>Form of Stock Option Grant Notice and Stock Option Agreement under the Cyclacel Pharmaceuticals, Inc. 2020 Inducement Equity Incentive Plan (previously filed as Exhibit 10.2 to the Registrant's Current Report on Form 10-Q, originally filed with the SEC on November 12, 2020, and incorporated herein by reference).</u>
<u>10.7†</u>	<u>Employment Agreement between Cyclacel Pharmaceuticals, Inc. and Spiro Rombotis (previously filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on May 4, 2023, and incorporated herein by reference).</u>
<u>10.8†</u>	<u>Employment Agreement between Cyclacel Pharmaceuticals, Inc. and Paul McBarron (previously filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on May 4, 2023, and incorporated herein by reference).</u>
<u>10.9</u>	<u>Form of Indemnification Agreement for directors (previously filed as Exhibit 10.16 to the Registrant's Annual Report on Form 10-K/A, originally filed with the SEC on November 29, 2023, and incorporated herein by reference).</u>
<u>10.10</u>	<u>Securities Purchase Agreement, dated December 21, 2023, by and among the Company and the Purchasers (previously filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on December 26, 2023, and incorporated herein by reference).</u>
<u>10.11</u>	<u>Securities Purchase Agreement, dated December 21, 2023, by and among the Company and Spiro Rombotis and Paul McBarron (previously filed as Exhibit 10.3 to the Registrant's Current Report on Form 8-K, originally filed with the SEC on December 26, 2023, and incorporated herein by reference).</u>
<u>10.12</u>	<u>Consulting Agreement by and between Cyclacel Pharmaceuticals, Inc. and Brian Schwartz, M.D., dated January 26, 2024 (previously filed as Exhibit 10.13 to the Registrant's Annual Report on Form 10-K, originally filed with the SEC on March 21, 2024, and incorporated herein by reference).</u>
<u>10.13</u>	<u>Securities Purchase Agreement, dated as of April 30, 2024, between the Company and the purchaser named therein</u>
<u>10.14</u>	<u>Registration Rights Agreement, dated as of April 30, 2024, between the Company and the purchaser named therein</u>
<u>10.15†</u>	<u>Cyclacel Pharmaceuticals, Inc. Amended and Restated 2018 Equity Incentive Plan (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on June 25, 2024).</u>
10.16**	Form of Securities Purchase Agreement.
<u>21</u>	<u>Subsidiaries of Cyclacel Pharmaceuticals, Inc. (previously filed as Exhibit 21 to the Registrant's Annual Report on Form 10-K, originally filed with the SEC on March 26, 2014, and incorporated herein by reference).</u>
<u>23.1*</u>	<u>Consent of Independent Registered Public Accounting Firm.</u>
23.2**	Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (included in Exhibit 5.1).
<u>107*</u>	<u>Filing Fee Table.</u>

Exhibits:

- † Indicates management compensatory plan, contract or arrangement.
- # Confidential treatment has been granted with respect to certain portions of this exhibit, which portions have been omitted and filed separately with the Securities and Exchange Commission as part of an application for confidential treatment pursuant to the Securities and Exchange Act of 1934, as amended.
- * Filed herewith.
- ** To be filed by amendment.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser: each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness; provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers, and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in Berkeley Heights, New Jersey, on October 8, 2024.

CYCLACEL PHARMACEUTICALS, INC.

By: /s/ Paul McBarron

Paul McBarron

Chief Operating Officer, Chief Financial Officer & Executive Vice President, Finance

POWER OF ATTORNEY

We, the undersigned officers and directors of Cyclacel Pharmaceuticals, Inc., hereby severally constitute and appoint Spiro Rombotis and Paul McBarron, and each of them singly, our true and lawful attorneys, with full power to them, and to each of them singly, to sign for us and in our names in the capacities indicated below, the registration statement on Form S-1 filed herewith, and any and all pre-effective and post-effective amendments to said registration statement, and any registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, in connection with the registration under the Securities Act of 1933, as amended, of equity securities of the Company, and to file or cause to be filed the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as each of us might or could do in person, and hereby ratifying and confirming all that said attorneys, and each of them, or their substitute or substitutes, shall do or cause to be done by virtue of this Power of Attorney.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement on Form S-1 has been signed below by the following persons in the capacities and on the dates indicated.

/s/ Spiro Rombotis President & Chief Executive Officer and Director October 8, 2024
Spiro Rombotis (Principal Executive Officer)

/s/ Paul McBarron Chief Operating Officer, Chief Financial Officer & Executive Vice President, Finance and Director October 8, 2024
Paul McBarron (Principal Financial and Accounting Officer)

/s/ Dr. Samuel L. Barker Chairman October 8, 2024
Dr. Samuel L. Barker

/s/ Dr. Robert Spiegel Vice Chairman October 8, 2024

Dr. Robert Spiegel

<u>/s/ Kenneth Ferguson</u> Kenneth Ferguson	Director	October 8, 2024
<u>/s/ Dr. Christopher Henney</u> Dr. Christopher Henney	Director	October 8, 2024
<u>/s/ Dr. Brian Schwartz</u> Dr. Brian Schwartz	Director	October 8, 2024
<u>/s/ Karin L. Walker</u> Karin L. Walker	Director	October 8, 2024

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in this Registration Statement on Form S-1 and related Prospectus of Cyclacel Pharmaceuticals, Inc. of our report dated March 21, 2024, relating to the consolidated financial statements, of Cyclacel Pharmaceuticals, Inc. and subsidiaries, appearing in the Annual Report on Form 10-K of Cyclacel Pharmaceuticals, Inc. for the year ended December 31, 2023.

We also consent to the reference to our firm under the heading "Experts" in such Prospectus.

/s/ RSM US LLP

New York, New York
October 8, 2024

Calculation of Filing Fee Tables

FORM S-1
(Form Type)Cyclacel Pharmaceuticals, Inc.
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered and Carry Forward Securities

Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price ⁽¹⁾⁽²⁾	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial effective date	Filing Fee Previously Paid In Connection with Unsold Securities to be Carried Forward
Newly Registered Securities											
Fees to Be Paid	Equity	Common stock, par value \$0.001	457(o)		\$ 5,000,000	\$ 0.0001531	\$ 765.50				
Fees to Be Paid	Equity	Common Stock Warrants to purchase shares of common stock ⁽³⁾	457(g)		—	—	\$ 0				
Fees to Be Paid	Equity	Common stock issuable upon exercise of the Common Stock Warrants	457(o)		\$ 5,000,000	\$ 0.0001531	\$ 765.50				
Fees to Be Paid	Equity	Pre-funded warrants to purchase shares of common stock ⁽³⁾⁽⁴⁾	457(g)		—	—	\$ 0				
Fees to Be Paid	Equity	Common Stock issuable upon exercise of the pre-funded warrants ⁽⁴⁾	457(g)		—	—	\$ 0				
Carry Forward Securities											
Carry Forward Securities	—	—	—	—	—	—	—	—	—	—	—
Total Offering Amounts											
Total Fees Previously Paid											
Total Fee Offsets											
Net Fee Due											
\$ 1,531											

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933.

(2) Pursuant to Rule 416, the securities being registered hereunder include such indeterminate number of additional securities as may be issued after the date hereof as a result of stock splits, stock dividends or similar transactions.

(3) In accordance with Rule 457(g) under the Securities Act, because the shares of the common stock underlying the warrants are registered hereby, no separate registration fee is required with respect to the warrants registered hereby.

(4) The proposed maximum aggregate offering price of the common stock will be reduced on a dollar-for-dollar basis based on the offering price of any pre-funded warrants sold in the offering, and the proposed maximum aggregate offering price of the pre-funded warrants to be sold in the offering will be reduced on a dollar-for-dollar basis based on the offering price of any common stock sold in the offering. Accordingly, the proposed maximum aggregate offering price of the common stock and pre-funded warrants (including the common stock issuable upon exercise of the pre-funded warrants), if any, is \$5,000,000.