Cyclacel Pharmaceuticals, Inc.
Form S-3/A
December 18, 2007

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As filed with the Securities and Exchange Commission on December 17, 2007

Registration No. 333-147997

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Pre-Effective Amendment No. 1
FORM S-3/A
REGISTRATION STATEMENT
UNDER THE SECURITIES ACT OF 1933

CYCLACEL PHARMACEUTICALS, INC.
(Exact name of registrant as specified in its charter)

Delaware 91-1707622 (State or other jurisdiction of incorporation or organization) (I.R.S. Employer Identification Number)
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
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)

With a copy to:
Joel I. Papernik, Esq.
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
The Chrysler Center
666 Third Avenue
New York, New York 10017
(212) 935-3000

Approximate date of commencement of proposed sale to the public: From time to time after this Registration Statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

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, other than securities offered only in connection with dividend or interest reinvestment plans, 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, please 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, please 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 registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

CALCULATION OF REGISTRATION FEE

Title of each Class of Securities to be Registered	Amount to be

	Registered (1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, $0.001 par value per share	4,084,590	$ 5.40 (2)	$ 22,056,786	$ 677.14
Common Stock, $0.001 par value per share, issuable upon exercise of warrants	175,000	$ 7.17 (3)	$ 1,254,750	$ 38.52
Total	4,259,590		$ 23,311,536	$ 715.66 *

* Previously Paid

(1) This Registration Statement shall also cover any additional shares of common stock which become issuable by reason of any stock divided, stock split or other similar transaction effected without the receipt of consideration that results in an increase in the number of the outstanding shares of common stock of the registrant. (2) In accordance with Rule 457(c), the aggregate offering price of our stock is estimated solely for the calculating of the registration fees due for this filing. For the initial filing of this Registration Statement, this estimate was based on the average of the high and low sales price of our stock reported by The NASDAQ Global Market on December 5, 2007, which was $5.40. (3) The proposed maximum offering price per share was determined in accordance with Rule 457(g) under the Securities Act of 1933, under which rule the per share price is estimated by reference to the exercise price of the securities.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the company 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 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), shall determine.

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THE INFORMATION IN THIS 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 PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND WE ARE NOT SOLICITING OFFERS TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED

Subject to Completion, Dated December 17, 2007

PROSPECTUS

CYCLACEL PHARMACEUTICALS, INC.

4,259,590 Shares

COMMON STOCK

This prospectus relates to the resale of up to 4,259,590 shares of our common stock that we may issue to the selling stockholder listed in the section beginning on page 33 of this prospectus. The shares of common stock offered under this prospectus by the selling stockholder are issuable to Kingsbridge Capital Limited, or Kingsbridge, pursuant to a common stock purchase agreement between Kingsbridge and ourselves dated December 10, 2007 and a warrant we issued to Kingsbridge on that date. We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of shares by the selling stockholder.

The selling stockholder may sell the shares of common stock described in this prospectus in a number of different ways and at varying prices. We provide more information about how the selling stockholder may sell its shares of common stock in the section titled ‘‘Plan of Distribution’’ on page 34. We will not be paying any underwriting discounts or commissions in this offering. We will pay the expenses incurred in registering the shares, including legal and accounting fees.

Our common stock is quoted on The Nasdaq Global Market under the symbol ‘‘CYCC.’’ On December 10, 2007, the last reported sale price of our common stock was $5.52 per share.

Investing in our securities involves risks.
See ‘‘Risk Factors’’ beginning on page 12 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

THE DATE OF THIS PROSPECTUS IS December , 2007.

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INFORMATION CONTAINED IN THIS PROSPECTUS

You should rely only on the information contained or incorporated by reference in this prospectus. We have not, and the selling stockholder has not, authorized anyone to provide you with additional or different information. These securities are not being offered in any jurisdiction where the offer is not permitted. You should assume that the information in this prospectus is accurate only as of the date on the front of the document and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or of any sale of our common stock. Unless the context otherwise requires, references to ‘‘we,’’ ‘‘our,’’ ‘‘us,’’ or the ‘‘company’’ in this prospectus mean Cyclacel Pharmaceuticals, Inc.

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PROSPECTUS SUMMARY

The following is only a summary. We urge you to read the entire prospectus, including the more detailed consolidated financial statements, notes to the consolidated financial statements and other information included herein or incorporated by reference from our other filings with the SEC. Investing in our securities involves risks. Therefore, please carefully consider the information provided under the heading ‘‘Risk Factors’’ starting on page 12.

Our Business

We are a development stage biopharmaceutical company dedicated to the discovery, development and commercialization of novel, mechanism-targeted drugs to treat human cancers and other serious disorders. We, through our wholly-owned subsidiary, ALIGN Pharmaceuticals, LLC (‘‘ALIGN’’) market directly in the U.S. Xclair® Cream for radiation dermatitis and Numoisyn® Liquid and Numoisyn® Lozenges for xerostomia. Three Cyclacel drugs are in clinical development. Sapacitabine, an orally-available, cell cycle modulating nucleoside analog, is in Phase II for the treatment of cutaneous T-cell lymphoma and in Phase I in patients with hematologic malignancies. Seliciclib, an orally-available CDK (cyclin dependent kinase) inhibitor, is in Phase II for the treatment of lung cancer and for nasopharyngeal cancer. CYC116, an orally-available, Aurora kinase and VEGFR2 inhibitor, is in Phase I in patients with solid tumors. Several additional programs are at an earlier stage. Our strategy is to build a diversified biopharmaceutical business focused in oncology, hematology and other therapeutic areas based on a portfolio of commercial products and a development pipeline of novel drug candidates.

Our core area of scientific expertise is in cell cycle biology, or the processes by which cells divide and multiply. We focus primarily on the discovery and development of orally available anticancer agents that target the cell cycle with the aim of slowing the progression or shrinking the size of tumors, and enhancing quality of life and improving survival rates of cancer patients. We are generating several families of anticancer drugs that act on the cell cycle including Cyclin Dependent kinase (CDK) and Aurora kinase (AK) inhibitors. We are advancing three of our anticancer drug candidates, sapacitabine, seliciclib and CYC116 through in-house research and development activities. Sapacitabine, our orally available nucleoside analog, has completed Phase I studies in approximately 160 patients at five centers in the United States including two Phase I studies evaluating 87 patients in refractory solid tumors. We are currently conducting a Phase Ib dose escalation clinical trial with sapacitabine for the treatment of patients with advanced hematologic malignancies with approximately 47 patients as of December 8, 2007. Interim results from this trial were presented in a poster at the 49th annual meeting of the American Society of Hematology, or ASH. We plan to open a multicenter randomized Phase II clinical trial during December 2007 of oral sapacitabine in elderly patients with acute myeloid leukemia who are previously untreated or in first relapse. We plan to evaluate sapacitabine in Phase II studies in both hematological cancers and solid tumors and we announced the first study on April 30, 2007, when we initiated a Phase II clinical trial in patients with advanced cutaneous T-cell lymphoma. Seliciclib is currently being studied in a Phase IIb, multi-center, randomized, double-blinded trial, called APPRAISE, to evaluate the efficacy and safety of seliciclib as a third line treatment in patients with non-small cell lung cancer, or NSCLC. The APPRAISE study builds on the observation of prolonged stable disease experienced by heavily-pretreated NSCLC patients enrolled in a Phase I study of single agent seliciclib. We commenced a Phase II multicenter, international, blinded, randomized study of oral seliciclib as a single agent in patients with previously treated nasopharyngeal cancer or NPC. We are also developing CYC116, a novel inhibitor of Aurora kinases A and B and VEGFR2 for the treatment of cancer. We began a multicenter Phase I pharmacologic clinical trial of orally-available CYC116 in patients with advanced solid tumors in June 2007. We have worldwide rights to commercialize sapacitabine, seliciclib and CYC116 and our business strategy is to enter into selective partnership arrangements with these programs. We are also progressing further novel drug series, principally for cancer, which are at earlier stages. Taken together, our pipeline covers all four phases of the cell cycle, which we believe will improve

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chances of successfully developing and commercializing novel drugs that work on their own or in combination with approved conventional chemotherapies or with other targeted drugs to treat human cancers.

Recent Developments

Acquisition of ALIGN Pharmaceuticals, LLC and ALIGN Holdings, LLC

On October 5, 2007, Achilles Acquisition, LLC (renamed immediately following the acquisition to ALIGN Pharmaceuticals, LLC (‘‘ALIGN’’)), a wholly-owned subsidiary of Cyclacel, entered into a definitive asset purchase agreement (the ‘‘Agreement’’) with ALIGN Pharmaceuticals, LLC and ALIGN Holdings, LLC (together, the ‘‘Sellers’’), to acquire substantially all of the Sellers’ assets (the ‘‘Transaction’’). The closing of the Transaction occurred simultaneously with the execution of the Agreement (the ‘‘Closing Date’’).

Cyclacel, through ALIGN, acquired the Sellers’ exclusive rights to sell and distribute three products in the United States used primarily to manage the effects of radiation or chemotherapy in cancer patients: Xclair® Cream, Numoisyn® Liquid and Numoisyn® Lozenges. The acquired business provides Cyclacel with the foundation to build a commercial organization focused on cancer that is complementary to Cyclacel’s oncology/hematology products in development and is part of Cyclacel’s strategy to build a diversified biopharmaceutical business.

As consideration for the Transaction and pursuant and subject to the terms of the Agreement, Cyclacel, through ALIGN, paid $3,331,428 in cash to the Sellers and shall pay an additional aggregate amount of $452,464 within 130 business days from the Closing Date, in cash, shares of the Company’s common stock, or a combination thereof, as further described in the Agreement. In addition, the Company may be required to issue to the Sellers a maximum number of shares of common stock, in an amount equal to $1,116,108, issuable at a price per share of $6.06 (the average closing price of Cyclacel’s common stock on the 90 trading days immediately before the Closing Date), which issuance is contingent upon the achievement of certain operational and financial milestones and subject to satisfaction of any outstanding indemnification obligations by the Sellers. The Company will issue the shares of common stock only to the extent that the milestones are achieved. The Company, as part of securing long term supply arrangements has commitments to make future payments of approximately $0.5 million in each of 2009 and 2010.

The transaction will be accounted for as a business combination and the results of operations of Cyclacel will include the results of operations from the Sellers’ from the Closing Date. The assets and certain agreed liabilities of ALIGN will be recorded as of the Closing Date at their estimated fair values. The transaction will qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code. William C. Collins, the former chief executive officer and manager of the Sellers, was appointed as the general manager of ALIGN.

Oncology development Programs

We are generating several families of anticancer drugs that act on the cell cycle including cyclin dependent kinase (CDK) and Aurora kinase inhibitors. Although a number of pharmaceutical and biotechnology companies are currently attempting to develop CDK inhibitor drugs, we believe that our lead drug candidate, seliciclib, is the only orally available CDK inhibitor drug candidate currently in Phase II trials.

We are advancing three of our anticancer drug candidates, sapacitabine, seliciclib and CYC116 through in-house research and development activities. In addition we are progressing further novel drug series, principally for cancer, which are at earlier stages. Taken together, our pipeline covers all four phases of the cell cycle, which we believe will improve the chances of successfully developing and commercializing novel drugs that work on their own or in

combination with approved conventional chemotherapies or with other targeted drugs to treat human cancers.

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Sapacitabine

Our lead drug candidate, sapacitabine, is an orally available prodrug of CNDAC, which is a novel nucleoside analog, or a compound with a structure similar to a nucleoside. A prodrug is a compound that has a therapeutic effect after it is metabolized within the body. CNDAC has a significantly longer residence time in the blood when it is produced in the body through metabolism of sapacitabine than when it is given directly. Sapacitabine acts through a dual mechanism whereby the compound interferes with DNA synthesis by causing single-strand DNA breaks and induces arrest of the cell division cycle at G2 phase. A number of nucleoside drugs, such as gemcitabine, or Gemzar®; Eli Lilly and cytarabine (Ara-C), are in wide use as conventional chemotherapies. Both sapacitabine and its major metabolite, CNDAC, have demonstrated potent anti-tumor activity in both blood and solid tumors in preclinical studies. In a liver metastatic mouse model, sapacitabine was shown to be superior to gemcitabine or 5-FU, two widely used nucleoside analogs, in delaying the onset and growth of liver metastasis.

Two Phase I studies of sapacitabine were completed in the United States by Sankyo, from which we in-licensed sapacitabine, evaluating 87 patients in refractory solid tumors. A Phase Ib dose escalation clinical trial is currently in progress in the United States for the treatment of patients with refractory solid tumors or lymphomas. Preliminary results from this study were reported at the meeting of the 18th EORTC-NCI-AACR Molecular Targets and Cancer Therapeutics in November 2006. The primary objective of the study was to evaluate the safety profile of sapacitabine administered twice daily for 14 consecutive days or 7 consecutive days every 21 days. Of the 37 treated patients, 28 received the drug twice daily for 14 days and 9 received the drug twice daily for 7 days. The dose-limiting toxicity was reversible myelosuppression. One patient treated at the maximum tolerated dose died of candida sepsis in the setting of grade 4 neutropenia and thrombocytopenia. Non-hematological toxicities were mostly mild to moderate. The best response by investigator assessment was stable disease in 13 patients, five with non-small cell lung cancer, two with breast cancer, two with ovarian cancer and one each with colorectal cancer, adenocarcinoma of unknown primary, gastrointestinal stroma tumor, and parotid acinar carcinoma. The primary toxicity was reversible myelosuppression.

In December 2007, at the 49th Annual Meeting of the American Society of Hematology, we reported updated interim results from a Phase I clinical trial of sapacitabine in patients with advanced leukemias and myelodysplastic syndromes or MDS. Data from this study demonstrated that sapacitabine had a favorable safety profile and promising anti-leukemic activity in patients with relapsed and refractory acute myelogenous leukemia (AML) and myelodysplastic syndromes (MDS) when administered by two different dosing schedules. The primary objective of the study is to determine the maximum tolerated dose (MTD) of sapacitabine administered twice daily for seven consecutive days every 21 days or three consecutive days per week for two weeks every 21 days. The MTD was reached at 375 mg on the seven-day schedule and 475 mg on the 3-day schedule. Dose-limiting toxicity was gastrointestinal which included abdominal pain, diarrhea, small bowel obstruction and neutropenic colitis. One patient treated at the MTD of 375 mg on the seven-day schedule died of complications from neutropenic colitis. Among 46 patients with AML (n=42) or MDS (n=4) in this dose escalating study, the best responses were complete remissions (CR) or complete remissions without platelet recovery (CRp) in six patients. In addition, 15 patients had a significant decrease in bone marrow blasts including seven with blast reduction to 5% or less. The study is ongoing at The University of Texas M. D. Anderson Cancer Center and is led by Dr. Hagop Kantarjian, Professor of Medicine and Chairman of the Leukemia Department and Dr. William Plunkett, Professor and Chief, Section of Molecular and Cellular Oncology, Department of Experimental Therapeutics. We plan to open a multicenter randomized Phase II clinical trial later this month of oral sapacitabine in elderly patients with acute myeloid leukemia who are previously untreated or in first relapse. The primary objective of this study is to evaluate the one-year survival rate of three dosing schedules. The study will use a selection design to identify a dosing schedule that produces a better one-year survival rate in the event that all three dosing schedules are active.

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We plan to start Phase II evaluation of sapacitabine in solid tumors in the second half of 2008. During April 2007, we initiated a Phase II clinical trial in patients with advanced cutaneous T-cell lymphoma or CTCL. CTCL is a cancer of T-lymphocytes, or white blood cells, which causes disfiguring skin lesions and severe itching. The primary objective of the study is to evaluate tolerability and response rate of 50 mg and 100 mg regimens (both twice a day for three days per week for two weeks in a three week cycle) in approximately 32 patients with progressive, recurrent, or persistent CTCL on or following two systemic therapies. The study uses a selection design to choose an optimal dose if both are active. Secondary objectives are to assess response duration, time to response, time to progression and relief of pruritus or itching.

This study has enrolled five patients to date at two hospital centers. According to recently available and preliminarily analyzed data, the best response by investigator assessment is partial response in one and stable disease in four patients. The partial response patient was crossed over from the 50 mg to the 100 mg regimen. As both regimens are well tolerated with no grade 2 toxicities, the protocol is being amended to increase dosing to 100 mg and 200 mg respectively using the same schedule as that used previously. The study is being expanded to include additional centers.

We have retained worldwide rights to commercialize sapacitabine with the exception of Japan where Sankyo has a right of first refusal to market the drug under terms to be negotiated.

Seliciclib

Our second drug candidate, seliciclib, is a novel, first-in-class, orally available, CDK inhibitor. The compound selectively inhibits a spectrum of enzyme targets — CDK2/E, CDK2/A, CDK7 and CDK9 — that are central to the process of cell division and cell cycle control. Preclinical studies have shown that the drug works by inducing cell apoptosis, or cell suicide, in multiple phases of the cell cycle. To date, seliciclib has been evaluated in approximately 240 patients in several Phase I and II uncontrolled studies and has shown early signs of anti-cancer activity.

We have completed two Phase I trials that enrolled 24 healthy volunteers and three Phase I trials that enrolled a total of 84 cancer patients testing different doses and schedules. The primary toxicities observed were of a non-hematological nature including asthenia or weakness, elevation of liver enzymes, hypokalemia or decreased potassium levels, nausea and vomiting and elevation in creatinine. Although these trials were designed to test safety rather than efficacy of seliciclib given alone as monotherapy in patients with solid tumors who failed multiple previous treatments, several of these patients appeared to have benefited from seliciclib treatment.

Seliciclib was shown in a further Phase I study sponsored and conducted by independent investigators to have clinical antitumor activity in patients with nasopharyngeal cancer, measured as a decrease in the size of primary tumor and involved lymph nodes, as well as an increase in tumor cell deaths by biomarker analyses. Four Phase II trials have been conducted in cancer patients to evaluate the tolerability and antitumor activities of seliciclib alone or in combination with standard chemotherapies used in the treatment of advanced non-small cell lung cancer, or NSCLC, or breast cancer. Interim data from two Phase II open-label studies of a total of 54 patients with NSCLC, suggest that seliciclib treatment did not aggravate the known toxicities of standard first and second-line chemotherapies nor appear to cause unexpected toxicities, although these trials were not designed to provide statistically significant comparisons. The combination of seliciclib with standard dose of capecitabine was not well tolerated in patients with advanced breast cancer.

Seliciclib is currently being investigated in the Phase II APPRAISE study as a treatment for patients with advanced NSCLC. APPRAISE is a double-blinded, randomized study of single agent seliciclib versus best supportive care in

patients with NSCLC treated with at least two prior systemic therapies. The study's main objective is to learn the anti-tumor activity of seliciclib as a single agent in refractory NSCLC and help determine further development strategies. The study design is randomized discontinuation. All patients receive seliciclib (1200 mg twice a day for three days) for at least three cycles of two weeks each. Patients who achieve stable disease after three cycles will be randomized to

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continue on seliciclib or receive placebo with best supportive care. Patients in the placebo arm who progress will be given the option to cross-over and again receive seliciclib. The primary efficacy endpoint of APPRAISE is progression free survival (PFS) which will be measured in the randomized portion of the study. To detect a 100% increase in PFS from two to four months 80 randomized patients are required. An interim assessment of safety and efficacy will be performed after approximately 40 patients have been randomized. Approximately 160 patients will be enrolled. Calculation of the sample size was based on the assumption that approximately 50% will achieve stable disease during the initial six week treatment and undergo randomization.

According to recently available and preliminarily analyzed data 120 patients have been enrolled and 26 randomized. The major reason for discontinuation prior to randomization is progression of disease. In particular, 76% of enrolled patients have failed at least three prior treatment regimens and 75% progressed on the last treatment immediately prior to enrollment. A likely cause of the lower than assumed randomization rate may be that seliciclib does not have a high level of activity as a single agent in this population of patients with refractory NSCLC. Following consultation with the chair and co-chair of the study, Cyclacel intends to continue enrollment until 160 patients are enrolled or approximately 40 are randomized, whichever occurs first. A committee of independent experts will then be convened to review the blinded data and recommend whether the study should be continued in order to adequately assess the antitumor effect of seliciclib in this patient population. This will allow the Company to make an informed decision based on the study's objectives and available data. We have retained worldwide rights to commercialize seliciclib.

We recently commenced a Phase II multicenter, international, blinded randomized study of oral seliciclib as a single agent in patients with NPC. The primary objective is to evaluate 6 month progression-free survival (PFS) of two dosing schedules of seliciclib in approximately 75 patients with previously treated nasopharyngeal carcinoma. Secondary objectives are overall survival, response rate, response duration, safety and tolerability. The first part of the study is designed to confirm safety and tolerability of 400 mg twice a day for four days per week or 800 mg once a day for four days per week of seliciclib. It is open to approximately 12 to 24 patients with advanced solid tumors as well as patients with NPC. The second part of the study is designed to detect major differences between the two dosing schedules of seliciclib and a placebo group in terms of 6 month PFS in approximately 51 patients. The study uses a selection design to choose an optimal dosing schedule if both seliciclib dosing schedules are active versus placebo.

CYC116

We submitted in December 2006 an Investigational New Drug, or IND application, with the Food and Drug Administration, or FDA, to begin clinical trials of CYC116, an orally-active inhibitor of Aurora kinases A & B and VEGFR2, for the treatment of cancer. In June 2007, we initiated a multicenter Phase I pharmacologic clinical trial of CYC116, an orally-available inhibitor of Aurora kinases A and B, and VEGFR2, in patients with advanced solid tumors. The study is being conducted by Nithya Ramnath, M.D., Alex A. Adjei, M.D. and colleagues at Roswell Park Cancer Institute in Buffalo, New York, and Anthony Tolcher, M.D. and colleagues at South Texas Accelerated Research Therapeutics (START) in San Antonio, Texas. The multicenter Phase I trial is designed to examine the safety and tolerability of CYC116 in patients with advanced solid tumors. The primary objective of the study is to determine the maximum tolerated dose. Secondary objectives are to evaluate the pharmacokinetic and pharmacodynamic effects of the drug and to document anti-tumor activity. We expect to report data from this Phase I pharmacologic clinical trial during the first half of 2008. During the first half of 2008, we expect to initiate a Phase I trial of CYC116 in hematological cancers. Aurora kinases are a family of serine/threonine protein kinases that are only expressed in actively dividing cells and are crucial for the process of cell division, or mitosis. These proteins, which have been found to be over-expressed in many types of cancer, have generated significant scientific and commercial interest as cancer drug targets. Aurora kinases were discovered by Professor David Glover, Chief

Scientist of Cyclacel's Polgen Division. VEGFR2 is a receptor protein that is part of an

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important and validated pathway in angiogenesis, or blood vessel formation. We have retained worldwide rights to commercialize CYC116.

In our development programs, we have been an early adopter in the use of biomarker analysis to help evaluate whether our drug candidates are having their intended effect through their assumed mechanisms. Biomarkers are proteins or other substances whose presence in the blood can serve as an indicator or marker of diseases. Biomarker data from early clinical trials may also enable us to design subsequent trials more efficiently and to monitor patient compliance with trial protocols. We believe that in the longer term biomarkers may allow the selection of patients more likely to respond to its drugs for clinical trial and marketing purposes and increase the benefit to patients.

Our approach to drug discovery and development relies on proprietary genomic technology to identify gene targets, which are then progressed by means of structure-based design techniques through to the development stage. This approach is exemplified by our Aurora kinase and Plk, or Polo-like kinase, inhibitor programs. Fundamentally, this approach to drug discovery and design aims to improve our ability to select promising drug targets in the early stages of the process so as to decrease compound attrition rates during the later, more expensive stages of drug development. We devote more resources initially to enrich the target selection process, so that we focus our efforts on targets that have a higher probability of yielding successful drug candidates. To this end, we have assembled an integrated suite of sophisticated discovery and design technologies, together with highly skilled personnel.

Equity Financing Facility With Kingsbridge Capital

On December 10, 2007, we entered into a Committed Equity Financing Facility, or CEFF, with Kingsbridge, pursuant to which Kingsbridge committed to purchase, subject to certain conditions, up to $60 million of our common stock. As part of the CEFF, we entered into a common stock purchase agreement and a registration rights agreement with Kingsbridge, both dated December 10, 2007, and on that date we also issued a warrant to Kingsbridge to purchase up to 175,000 shares of our common stock at a price of $7.17 per share. This warrant is fully exercisable beginning six months after December 10, 2007 and for a period of five years thereafter, subject to certain conditions.

The common stock purchase agreement entitles us to sell and obligates Kingsbridge to purchase, from time to time over a period of three years, shares of our common stock for cash consideration up to an aggregate of $60 million, subject to certain conditions and restrictions. The shares of common stock that may be issued to Kingsbridge under the common stock purchase agreement and the warrant will be issued pursuant to an exemption from registration under the Securities Act of 1933, as amended, or the Securities Act. Pursuant to the registration rights agreement, we have filed a registration statement of which this prospectus is a part, covering the possible resale by Kingsbridge of any shares that we may issue to Kingsbridge under the common stock purchase agreement or upon exercise of the warrant. Through this prospectus, the selling stockholder may offer to the public for resale shares of our common stock that we may issue to Kingsbridge pursuant to the common stock purchase agreement or that Kingsbridge may acquire upon exercise of the warrant.

For a period of 36 months from the first trading day following the effective date of this prospectus, we may, from time to time, at our discretion, and subject to certain conditions that we must satisfy, draw down funds under the CEFF by selling shares of our common stock to Kingsbridge. The purchase price of these shares will be at a discount of up to 10 percent from the volume weighted average of the price of our common stock for each of the eight trading days following our election to sell shares, or ‘‘draw down,’’ under the CEFF. The discount on each of these eight trading days will be determined as follows:

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VWAP* Percent of VWAP (Applicable Discount) Greater than $11.00 per share 94 % (6)% Less than or equal to $11.00 per share but greater than $6.50 per share 92 % (8)% Less than or equal to $6.50 per share but greater than or equal to $2.50 per share 90 % (10)%

* As set forth in the common stock purchase agreement, ‘‘VWAP’’ means the volume weighted average price (the aggregate sales price of all trades of our common stock during each trading day divided by the total number of shares of common stock traded during that trading day) of our common stock during any trading day as reported by Bloomberg, L.P. using the AQR function. The VWAP and corresponding discount will be determined for each of the eight trading days during a draw down pricing period.

During the eight trading day pricing period for a draw down, if the VWAP for any one trading day is less than the greater of (i) $2.50 or (ii) 90 percent of the closing price of our common stock for the trading day immediately preceding the beginning of the draw down period, the VWAP from that trading day will not be used in calculating the number of shares to be issued in connection with that draw down, and the draw down amount for that pricing period will be reduced by one-eighth of the draw down amount we had initially specified. In addition, if trading in our common stock is suspended for any reason for more than three consecutive or non-consecutive hours during any trading day during a draw down pricing period, that trading day will not be used in calculating the number of shares to be issued in connection with that draw down, and the draw down amount for that pricing period will be reduced by one-eighth of the draw down amount we had initially specified.

The maximum number of shares of common stock that we can issue pursuant to the CEFF is the lesser of 4,084,590 shares and $60 million of our common stock. An additional 175,000 shares of common stock are issuable if Kingsbridge exercises the warrant that we issued to it in connection with the CEFF. We intend to exercise our right to draw down amounts under the CEFF, if and to the extent available, at such times as we have a need for additional capital and when we believe that sales of stock under the CEFF provide an appropriate means of raising capital. We may exercise our right to draw down shortly after the effective date of the registration statement of which this prospectus is a part.

Our ability to require Kingsbridge to purchase our common stock is subject to various limitations. We can make draw downs up to 2.0 percent of the closing price market value of our outstanding shares of common stock at the time of the draw down. Alternatively, we can make drawdowns to a maximum of the lesser of 3.0 percent of the closing price market value of our outstanding shares of common stock at the time of the draw down and the alternative draw down amount calculated pursuant to the common stock purchase agreement. Unless Kingsbridge agrees otherwise, a minimum of three trading days must elapse between the expiration of any draw down pricing period and the beginning of the next draw down pricing period. Kingsbridge is not obligated to purchase shares at prices below $2.50 per share.

During the term of the CEFF, without Kingsbridge’s prior written consent, we may not issue securities that are, or may become, convertible or exchangeable into shares of common stock where the purchase, conversion or exchange price for our common stock is determined using a floating discount or other post-issuance adjustable discount to the market price of the common stock, including pursuant to an equity line or other financing that is substantially similar to the arrangement provided for in the CEFF, with certain exceptions.

The issuance of our common stock under the CEFF or upon exercise of the Kingsbridge warrant will have no effect on the rights or privileges of existing holders of common stock except that the economic and voting interests of each stockholder will be diluted as a result of any such issuance.

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Although the number of shares of common stock that stockholders presently own will not decrease, these shares will represent a smaller percentage of our total shares that will be outstanding after any issuances of shares of common stock to Kingsbridge. If we draw down amounts under the CEFF when our share price is decreasing, we will need to issue more shares to raise the same amount than if our stock price was higher. Such issuances will have a dilutive effect and may further decrease our stock price.

Kingsbridge agreed in the common stock purchase agreement that during the term of the CEFF, neither Kingsbridge nor any of its affiliates, nor any entity managed or controlled by it, will enter into any short sale of any shares of our common stock as defined in Regulation SHO promulgated under the Securities Exchange Act of 1934, as amended.

Before Kingsbridge is obligated to buy any shares of our common stock pursuant to a draw down, the following conditions, none of which is in Kingsbridge's control, must be met:

- Each of our representations and warranties in the common stock purchase agreement shall be true and correct in all material respects as of the date when made and as of the draw down exercise date as though made at that time, except for representations and warranties that are expressly made as of a particular date.
- We shall have performed, satisfied and complied in all material respects with all covenants, agreements and conditions required by the common stock purchase agreement, the registration rights agreement and the warrant to be performed, satisfied or complied with by us.
- We shall have complied in all material respects with all applicable federal, state and local governmental laws, rules, regulations and ordinances in connection with the execution, delivery and performance of the common stock purchase agreement and the consummation of the transactions it contemplates.
- The registration statement, which includes this prospectus, shall have previously become effective and shall remain effective.
- We shall not have knowledge of any event that could reasonably be expected to have the effect of causing the registration statement applicable to Kingsbridge's resale of shares of our common stock to be suspended or otherwise ineffective.
- Trading in our common stock shall not have been suspended by the Securities and Exchange Commission, or SEC, The NASDAQ Global Market or the Financial Industry Regulatory Authority and trading in securities generally on The NASDAQ Global Market shall not have been suspended or limited.
- No statute, rule, regulation, executive order, decree, writ, ruling or injunction shall have been enacted, entered, promulgated or endorsed by any court or governmental authority which prohibits the consummation of or would materially modify or delay any of the transactions contemplated by the common stock purchase agreement.
- No action, suit or proceeding before any arbitrator or any governmental authority shall have been commenced, and to our knowledge no investigation by any governmental authority shall have been threatened, against us or any of our officers, directors or affiliates seeking to enjoin, prevent or change the transactions contemplated by the common stock purchase agreement.
- We shall have sufficient shares of common stock, calculated using the closing trade price of the common stock as of the trading day immediately preceding a draw down, registered under the registration statement to issue and sell such shares in accordance with such draw down.
- The warrant to

purchase up to 175,000 shares of our common stock shall have been duly executed, delivered and issued to Kingsbridge, and we shall not be in default in any material respect under the warrant.

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- Kingsbridge shall have received an opinion in the form previously agreed to.

There is no guarantee that we will be able to meet the foregoing conditions or any other conditions under the common stock purchase agreement or that we will be able to draw down any portion of the amounts available under the CEFF.

We also entered into a registration rights agreement with Kingsbridge. Pursuant to the registration rights agreement, we have filed a registration statement, which includes this prospectus, with the SEC relating to Kingsbridge's resale of any shares of common stock purchased by Kingsbridge under the common stock purchase agreement or issued to Kingsbridge as a result of the exercise of the Kingsbridge warrant. The effectiveness of this registration statement is a condition precedent to our ability to sell common stock to Kingsbridge under the common stock purchase agreement. In the event that we fail to maintain the effectiveness of the registration statement of which this prospectus is a part (other than during a blackout period as discussed below), and such failure was within our reasonable control, we must pay to Kingsbridge certain amounts based on the change in market price of our common stock during the period of ineffectiveness of the registration statement or offer to repurchase our shares from Kingsbridge at a price based on the market price of our common stock on the trading day prior to the first day of ineffectiveness of the registration statement. We are entitled in certain circumstances, including the existence of certain kinds of nonpublic information, to deliver a blackout notice to Kingsbridge to suspend the use of this prospectus and prohibit Kingsbridge from selling shares under this prospectus. If we deliver a blackout notice in the 15 trading days following the settlement of a draw down, then we must pay amounts to Kingsbridge, or issue Kingsbridge additional shares in lieu of payment, calculated by means of a varying percentage of an amount based on the number of shares held by Kingsbridge that were purchased pursuant to the draw down and the change in the market price of our common stock between the date the blackout notice is delivered and the date the prospectus again becomes available.

The foregoing summary of the CEFF does not purport to be complete and is qualified by reference to the common stock purchase agreement, the registration rights agreement and the warrant, copies of which have been filed as exhibits to the registration statement of which this prospectus is a part.

Our corporate headquarters are located at 200 Connell Drive, Suite 1500, Berkeley Heights, NJ 07922; telephone number (908) 517-7330, where our medical and regulatory functions are also located. Our primary research facility is located in Dundee, Scotland which is the center of our structure-based drug design and development programs. A second research facility is located in Cambridge, England and is home to our Polgen division, which is focused on discovering the function of new cancer genes and validating their use as potential druggable targets.

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RISK FACTORS

The following factors should be considered carefully in evaluating whether to purchase shares of Cyclacel common stock. These factors should be considered in conjunction with any other information included or incorporated by reference herein, including in conjunction with forward-looking statements made herein. See ‘‘Where You Can Find More Information’’ on page 47.

We are at an early stage of development as a company and we do not have, and may never have, any products that generate significant revenues.

We are at an early stage of development as a company and have a limited operating history on which to evaluate our business and prospects. While we expect to receive modest product revenues from the ALIGN business acquired in October 2007, since beginning operations in 1996 we have not generated any product revenues from our product candidates currently in development. We cannot guarantee that any of our product candidates currently in development will ever become marketable products. We must demonstrate that our drug candidates satisfy rigorous standards of safety and efficacy for their intended uses before the Food and Drug Administration, or FDA, and other regulatory authorities in the United States, the European Union and elsewhere. Significant additional research, preclinical testing and clinical testing is required before we can file applications with the FDA or other regulatory authorities for premarket approval of our drug candidates. In addition, to compete effectively, our drugs must be easy to administer, cost-effective and economical to manufacture on a commercial scale. We may not achieve any of these objectives. Seliciclib and sapacitabine, our most advanced drug candidates for the treatment of cancer, are currently our only drug candidates in clinical trials and we cannot be certain that the clinical development of these or any other drug candidates in preclinical testing or clinical development will be successful, that we will receive the regulatory approvals required to commercialize them or that any of our other research and drug discovery programs will yield a drug candidate suitable for investigation through clinical trials. Our commercial revenues from our product candidates currently in development, if any, will be derived from sales of drugs that will not become marketable for several years, if at all.

We have a history of operating losses and we may never become profitable. Our stock is a highly speculative investment.

We have incurred operating losses in each year since beginning operations in 1996 due to costs incurred in connection with our research and development activities and general and administrative costs associated with our operations, and we may never achieve profitability. As of September 30, 2007, our accumulated deficit was $150.9 million. Our net loss attributable to ordinary shareholders for the three months ended September 30, 2006 and 2007 was $5.4 million and $4.2 million respectively. Our net loss attributable to ordinary shareholders from inception through September 30, 2007 was $189.1 million. Our initial drug candidates are in the early stages of clinical testing and we must conduct significant additional clinical trials before we can seek the regulatory approvals necessary to begin commercial sales of its drugs. We expect to incur continued losses for several years, as we continue our research and development of our initial drug candidates, seek regulatory approvals, commercialize any approved drugs and market and promote Xclair® Cream, Numoisyn® Liquid and Numoisyn® Lozenges. If our initial drug candidates are unsuccessful in clinical trials or we are unable to obtain regulatory approvals, or if our drugs are unsuccessful in the market, we will not be profitable. If we fail to become and remain profitable, or if we are unable to fund our continuing losses, you could lose all or part of your investment.

We will need to raise substantial additional capital to fund our operations and if we fail to obtain additional funding, we may be unable to complete the development and commercialization of our drug candidates or continue our

research and development programs.

We have funded all of our operations and capital expenditures with proceeds from the issuance of public equity securities, private placements of our securities, interest on investments, government grants and research and development tax credits. In order to conduct the lengthy and expensive

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research, preclinical testing and clinical trials necessary to complete the development and marketing of our drug candidates, we will require substantial additional funds. Based on our current operating plans, we expect our existing resources to be sufficient to fund our planned operations for at least the next 12 months. To meet these financing requirements, we may raise funds through public or private equity offerings, debt financings or strategic alliances. Raising additional funds by issuing equity or convertible debt securities will cause our shareholders to experience substantial dilution in their ownership interests and new investors may have rights superior to the rights of our other stockholders. Raising additional funds through debt financing, if available, may involve covenants that restrict our business activities and options. To the extent that we raise additional funds through collaborations and licensing arrangements, we may have to relinquish valuable rights to our drug discovery and other technologies, research programs or drug candidates, or grant licenses on terms that may not be favorable to us. Additional funding may not be available to us on favorable terms, or at all. If we are unable to obtain additional funds, we may be forced to delay or terminate our clinical trials and the development and marketing of our drug candidates.

Clinical trials are expensive, time consuming and subject to delay.

Clinical trials are expensive and complex and can take many years and have uncertain outcomes. We estimate that clinical trials of our most advanced drug candidates will continue for several years, but may take significantly longer to complete. The designs used in some of our trials have not been used widely by other pharmaceutical companies. Failure can occur at any stage of the testing and we may experience numerous unforeseen events during, or as a result of, the clinical trial process that could delay or prevent commercialization of our current or future drug candidates, including but not limited to:

- delays in securing clinical investigators or trial sites for our clinical trials;
- delays in obtaining institutional review board, or IRB, and other regulatory approvals to commence a clinical trial;
- slower than anticipated rates of patient recruitment and enrollment, or reaching the targeted number of patients;
- negative or inconclusive results from clinical trials;
- unforeseen safety issues;
- uncertain dosing issues;
- introduction of new therapies or changes in standards of practice or regulatory guidance that render our clinical trial endpoints or the targeting of our proposed indications obsolete;
- inability to monitor patients adequately during or after treatment or problems with investigator or patient compliance with the trial protocols;
- inability to replicate in large controlled studies safety and efficacy data obtained from a limited number of patients in uncontrolled trials; and
- inability or unwillingness of medical investigators to follow our clinical protocols.

If we suffer any significant delays, setbacks or negative results in, or termination of, our clinical trials, we may be unable to continue development of our drug candidates or generate revenue and our development costs could increase significantly.

Adverse events have been observed in our clinical trials and may force us to stop development of our product candidates or prevent regulatory approval of our product candidates.

Adverse or inconclusive results from our clinical trials may substantially delay, or halt entirely, any further development of our drug candidates. Many companies have failed to demonstrate the safety or effectiveness of drug candidates in later stage clinical trials notwithstanding favorable results in early stage clinical trials. Previously unforeseen and unacceptable side effects could interrupt, delay

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or halt clinical trials of our drug candidates and could result in the FDA or other regulatory authorities denying approval of our drug candidates. We will need to demonstrate safety and efficacy for specific indications of use, and monitor safety and compliance with clinical trial protocols throughout the development process. To date, long-term safety and efficacy has not been demonstrated in clinical trials for any of our drug candidates. Toxicity and 'severe adverse effects' as defined in trial protocols have been noted in preclinical and clinical trials involving certain of our drug candidates. For example, elevations of liver enzymes and decrease in potassium levels have been observed in some patients receiving our lead drug candidate, seliciclib and neutropenia was observed in patients receiving sapacitabine. In addition, we may pursue clinical trials for seliciclib in more than one indication. There is a risk that severe toxicity observed in a trial for one indication could result in the delay or suspension of all trials involving the same drug candidate. We are currently conducting Phase IIb clinical trials to test the safety and efficacy of seliciclib in the treatment of non small cell lung cancer. Independent investigators are conducting Phase I clinical trials to test the safety of sapacitabine in patients with advanced cancers. If these trials or any future trials are unsuccessful, our business and reputation could be harmed and our share price could be negatively affected.