

Clovis Oncology, Inc.
Form 424B5
June 12, 2013
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Filed pursuant to Rule 424(b)(5)
Registration No. 333-188063

Prospectus Supplement

(To Prospectus dated May 2, 2013)

2,424,242 shares

COMMON STOCK

We are offering 2,424,242 shares of our common stock as described in this prospectus supplement and the accompanying prospectus.

Our common stock is listed on the NASDAQ Global Select Market under the symbol *CLVS*. On June 11, 2013 the last reported sale price of our common stock on the NASDAQ Global Select Market was \$74.83 per share.

| | Per Share | Total |
|---|------------------|----------------|
| Public offering price | \$ 72.00 | \$ 174,545,424 |
| Underwriting discounts and commissions(1) | \$ 3.96 | \$ 9,599,999 |
| Proceeds to Clovis, before expenses | \$ 68.04 | \$ 164,945,425 |

(1) We refer you to *Underwriting* beginning on page S-18 of this prospectus for additional information regarding underwriting compensation.

As part of this offering, we have granted the underwriters an option for a period of 30 days to purchase up to 353,535 additional shares of our common stock.

Concurrently with the sale of shares of our common stock under this prospectus supplement, we are selling shares of our common stock under another prospectus supplement, as more fully described herein. The total proceeds to us, before expenses, and the total underwriting discounts and commissions and estimated offering expenses payable by us in connection with this offering and the concurrent offering, in the aggregate, will be \$240,000,048 and \$13,982,605, respectively.

Investing in our common stock involves risks. See Risk Factors on page S-7 of this prospectus supplement and any other risk factors included in the accompanying prospectus and in the documents incorporated by reference in this prospectus supplement or the accompanying prospectus for a discussion of the factors you should carefully consider before deciding to purchase shares of our common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares on or about June 17, 2013.

J.P. Morgan

Credit Suisse

Leerink Swann
June 11, 2013

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus dated May 2, 2013 are part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a shelf registration process. Under this shelf registration process, we may from time to time offer to sell shares of common stock in one or more offerings. We provide information to you about this offering of shares of our common stock in two separate documents that are bound together: (1) this prospectus supplement, which describes the specific details regarding this offering; and (2) the accompanying prospectus, which provides general information, some of which may not apply to this offering. Generally, when we refer to this prospectus, we are referring to both documents combined. If information in this prospectus supplement is inconsistent with the accompanying prospectus, you should rely on this prospectus supplement. However, if any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in the accompanying prospectus—the statement in the document having the later date modifies or supersedes the earlier statement as our business, financial condition, results of operations and prospects may have changed since the earlier dates. You should read both this prospectus supplement, the accompanying prospectus, the documents and information incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering when making your investment decision. You should also read and consider the information in the documents we have referred you to under the heading **Where You Can Find More Information; Incorporation by Reference**.

This prospectus supplement may not be used to consummate a sale of our common stock unless it is accompanied by the accompanying prospectus.

You should rely only on the information contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus or in any related free writing prospectus filed by us with the SEC. We have not authorized anyone to provide you with different information. This prospectus supplement and the accompanying prospectus do not constitute an offer to sell or the solicitation of an offer to buy our common stock other than our common stock described in this prospectus supplement or an offer to sell or the solicitation of an offer to buy our common stock in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference and any related free writing prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

Concurrently with the sale of shares of our common stock under this prospectus supplement, we are selling 909,092 shares of our common stock under another prospectus supplement, offered pursuant to Registration Statement No. 333-189234, or the June Registration Statement, and the prospectus dated June 11, 2013 included therein, or the June Base Prospectus. As part of the concurrent offering, we granted the underwriters an option for a period of 30 days to purchase up to an additional 132,575 shares of common stock.

Clovis Oncology® and the Clovis logo are trademarks of Clovis Oncology, Inc. in the United States and in other selected countries. All other brand names or trademarks appearing in this prospectus supplement are the property of their respective holders. Unless the context requires otherwise, references in this prospectus supplement to Clovis, the Company, we, us, and our refer to Clovis Oncology, Inc. together with its consolidated subsidiaries.

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WHERE YOU CAN FIND MORE INFORMATION

We file reports and proxy statements with the SEC. These filings include our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and proxy statements on Schedule 14A, as well as any amendments to those reports and proxy statements, and are available free of charge through our website as soon as reasonably practicable after we file them with, or furnish them to, the SEC. Once at www.clovisoncology.com, go to Investors & News/SEC Filings to locate copies of such reports and proxy statements. Our website and the information contained on, or that can be accessed through, the website will not be deemed to be incorporated by reference in, and are not considered part of, this prospectus supplement or the accompanying prospectus. You should not rely on any such information in making your decision whether to purchase our common stock. You may also read and copy materials that we file with SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website at www.sec.gov that contains reports, proxy and information statements and other information regarding us and other issuers that file electronically with the SEC.

We have filed with the SEC a registration statement on Form S-3 under the Securities Act of 1933, as amended, relating to the shares of our common stock being offered by this prospectus. This prospectus supplement and the accompanying prospectus, which constitutes part of that registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules which are part of the registration statement. For further information about us and the common stock offered, see the registration statement and the exhibits and schedules thereto. Statements contained in this prospectus supplement or the accompanying prospectus regarding the contents of any contract or any other document to which reference is made are not necessarily complete, and, in each instance where a copy of a contract or other document has been filed as an exhibit to the registration statement, reference is made to the copy so filed, each of those statements being qualified in all respects by the reference.

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INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus supplement the information we file with the SEC in other documents, which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus supplement. The information incorporated by reference is considered to be part of this prospectus supplement and the accompanying prospectus, and later information that we file with the SEC will automatically update and supersede such information. We incorporate by reference the documents listed below and any future information filed (rather than furnished) with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, between the date of this prospectus supplement and the date we close or otherwise terminate this offering, provided, however, that we are not incorporating any information furnished under Item 2.02 or Item 7.01 of any Current Report on Form 8-K:

our Annual Report on Form 10-K for the year ended December 31, 2012, as filed with the SEC on March 14, 2013;

our Quarterly Report on Form 10-Q for the quarter ended March 31, 2013, as filed with the SEC on May 8, 2013;

our Definitive Proxy Statement on Schedule 14A, as filed with the SEC on April 29, 2013, and the additional definitive proxy soliciting materials, as filed with the SEC on April 29, 2013;

our Current Reports on Form 8-K, as filed with the SEC on February 19, 2013 and June 3, 2013 (two); and

the description of our common stock contained in our registration statement on Form 8-A as filed with the SEC on November 10, 2011, including any amendments or reports filed for the purpose of updating the description.

We will furnish without charge to you a copy of any or all of the documents incorporated by reference, including exhibits to these documents, upon written or oral request. Direct your written request to: Investor Relations, Clovis Oncology, Inc., 2525 28th Street, Suite 100, Boulder, Colorado 80301, or contact Investor Relations at 303-625-5000.

A statement contained in a document incorporated by reference into this prospectus supplement or the accompanying prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this or any other prospectus supplement, or in any other subsequently filed document which is also incorporated in this prospectus supplement modifies or replaces such statement. Any statements so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement or the accompanying prospectus.

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PROSPECTUS SUPPLEMENT SUMMARY

*The following summary highlights information about us and this offering. This summary does not contain all of the information that may be important to you. You should read and carefully consider the following summary together with the entire prospectus supplement, the accompanying prospectus the information incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering, before deciding to invest in our common stock. Some of the statements in this prospectus supplement constitute forward-looking statements that involve risks and uncertainties. See *Cautionary Note Regarding Forward-Looking Statements*. Our actual results could differ materially from those anticipated in such forward-looking statements as a result of certain factors, including those discussed in the *Risk Factors* and other sections of this prospectus supplement.*

About Clovis

We are a biopharmaceutical company focused on acquiring, developing and commercializing innovative anti-cancer agents in the United States, Europe and additional international markets. We target our development programs for the treatment of specific subsets of cancer populations, and seek to simultaneously develop, with partners, companion diagnostics that direct our product candidates to the patients that are most likely to benefit from their use. We currently have two clinical development programs and one drug discovery program underway:

CO-1686 is a novel, oral, targeted covalent (irreversible) inhibitor of the cancer-causing mutant forms of epidermal growth factor receptor, or EGFR, currently being studied for the treatment of non-small cell lung cancer, or NSCLC. CO-1686 was designed to selectively target both the initial activating EGFR mutations as well as the T790M resistance mutation, while sparing wild-type, or normal EGFR at anticipated therapeutic doses. Accordingly, it has the potential to treat NSCLC patients with EGFR mutations both as a first-line or second-line treatment with a reduced toxicity profile compared to current EGFR inhibitor therapies. CO-1686 is currently in a Phase I/II study in the U.S. and France, which is currently in the dose escalation phase. Following the establishment of an appropriate dose, we intend to study CO-1686 in a Phase II expansion cohort of NSCLC patients with activating EGFR mutations who have failed initial EGFR-directed therapy and have developed the T790M mutation, as well as a second expansion cohort of first-line mutant EGFR NSCLC patients. Data from the expansion cohorts is expected in 2014 and 2015, respectively.

Rucaparib is an oral, potent inhibitor of poly (ADP-ribose) polymerase, or PARP, in development for the treatment of ovarian cancer and is designed to inhibit both the PARP-1 and PARP-2 genes. Rucaparib is currently in two Clovis-sponsored Phase I clinical studies; one to determine the maximum tolerated dose, or MTD, of oral rucaparib administered on a daily basis as monotherapy; and a second trial to determine the MTD of oral rucaparib that can be combined with intravenous platinum chemotherapy for the treatment of solid tumors. Once the optimal dose and schedule have been established in the Phase I portion of the monotherapy study, we will initiate a Phase II expansion cohort to assess efficacy in selected ovarian cancer patients. We expect to initiate a biomarker study in platinum-sensitive ovarian cancer patients in the third quarter of 2013, as well as the pivotal Phase III study in platinum-sensitive ovarian cancer patients in late 2013.

our mutant cKit inhibitor discovery program, targeting the resistance mutations that occur in the majority of gastrointestinal stromal tumor, or GIST, patients and result in disease progression.

We hold global development and commercialization rights for each of our programs.

We believe that discovery productivity exceeds development capacity in oncology, and we have built our organization to meet the need for innovative patient-specific oncology drug development. To implement our strategy, we have assembled an experienced team with core competencies in global clinical development and

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regulatory operations in oncology, as well as conducting collaborative relationships with companies specializing in companion diagnostic development. As our product candidates mature, we intend to build our own commercial organizations in major global markets and partner with local distributors in smaller markets.

The most common anti-cancer drug therapies typically address cancers within a specific organ as a single disease as opposed to a collection of different disease subtypes, often resulting in poor response rates and minimal effect on overall survival. We believe the oncology community is increasingly recognizing that tumors in a particular organ have unique pathologic and molecular characteristics that may warrant different treatment strategies. By better understanding differences in tumor biology and underlying disease pathways, researchers are identifying biomarkers to guide development of targeted oncology therapies, with streamlined clinical trials, stratified patient populations and improved patient outcomes. We believe that targeted therapies and companion diagnostics offer a patient-tailored approach to the treatment of cancers with improved diagnosis and outcomes.

We were incorporated under the laws of the State of Delaware in April 2009. Our principal executive offices are located at 2525 28th Street, Suite 100, Boulder, Colorado 80301, and our telephone number is (303) 625-5000. Our website address is www.clovisoncology.com. Our website and the information contained on, or that can be accessed through, the website will not be deemed to be incorporated by reference in, and are not considered part of, this prospectus supplement or the accompanying prospectus. You should not rely on any such information in making your decision whether to purchase our common stock.

Recent Developments

CO-1686

On June 3, 2013, we announced initial findings from the Phase I portion of our ongoing Phase I/II clinical study of CO-1686. On June 4, 2013, initial results from the Phase I dose-escalation portion of this Phase I/II study were presented for the first time at a poster session during the American Society of Clinical Oncology, or ASCO, Annual Meeting 2013 in Chicago.

Four RECIST partial responses in T790M-positive patients have been observed to date, and the MTD has not yet been reached. RECIST is the acronym for the Response Evaluation Criteria In Solid Tumor, a set of published rules that define when cancer patients improve (response) or worsen (progress) during treatments. The Phase I dose escalation portion of the study is being conducted in patients with metastatic or unresectable recurrent NSCLC and a documented EGFR mutation. Patients were not required to be T790M-positive for the Phase I portion of the study but had to have progressed on prior EGFR-directed tyrosine kinase inhibitor, or TKI, therapy (prior chemotherapy was also allowed). Study objectives were typical for a Phase I trial: determining safety and tolerability, evaluating the pharmacokinetic profile, MTD and recommended Phase II dose, as well as identification of preliminary efficacy signals. Forty-two patients have been treated with CO-1686 as of May 2013, mostly in once-daily, or QD, and twice-daily, or BID, dosing cohorts up to 900mg QD and 900mg BID. Dose-escalation will continue with an improved formulation in the third quarter as the MTD has not yet been reached.

Evidence of Activity

Objective responses have been observed in heavily pretreated T790M-positive patients who are resistant to erlotinib. Additionally, metastasis shrinkage has been observed at multiple organ sites, including both brain and liver metastases.

Included in the poster were six T790M-positive-patients, including four with RECIST partial responses and two patients with tumor shrinkage of greater than 20%. Details on each patient follow:

One patient with a del19/T790M-positive tumor had progressed on erlotinib immediately before beginning CO-1686 therapy. The patient, enrolled in the 300mg BID cohort, is currently in cycle six of CO-1686 therapy, with a confirmed partial response.

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One patient with an L858R/T790M-positive tumor had received six previous lines of therapy, including two previous TKIs, dacomitinib and erlotinib, and had most recently progressed on a combination of erlotinib and gemcitabine immediately before beginning CO-1686 therapy. This patient has demonstrated tumor shrinkage in brain metastases (present at baseline), as well as lung and liver tumors. The patient, enrolled in the 900mg BID cohort, exhibited a partial response in cycle four of CO-1686 therapy; treatment is ongoing.

One patient with a del19/T790M-positive tumor had received two previous lines of therapy. This patient exhibited a partial response in cycle two and is currently being dosed in cycle three at 900mg BID.

One patient with a del19/T790M-positive tumor had received two lines of prior cytotoxic chemotherapy and had also progressed on erlotinib treatment. This patient exhibited a partial response in cycle two and is currently in cycle three, receiving 900mg BID.

Two additional T790M-positive patients have achieved greater than 20% target lesion shrinkage with stable non-target lesions. A total of six patients have been treated in the 900mg BID cohort (the highest dose evaluated to date): one of these patients is not evaluable for response and one patient is T790M-negative. Three of the four remaining patients achieved partial responses, as described above, and the fourth has stable disease at the end of cycle two.

Safety and Tolerability

CO-1686 appears to be well-tolerated with no evidence of dose-related diarrhea or rash. There were 26 patients (62%) with treatment-related adverse events. The most common adverse events attributed to CO-1686 therapy include fatigue (19%), nausea (17%), diarrhea (14%), muscle spasms (10%), and anemia (10%). These were all grade one/two in severity and did not lead to study drug discontinuation. There have been two dose limiting toxicities:

One event of hypoglycemia in the 150mg QD cohort in a diabetic patient who took oral hypoglycemic agents while fasting.

One acute illness in the 900mg BID cohort on day three of dosing with anorexia and asthenia (grade three), abnormal liver function tests (grade three) and diarrhea (grade two).

The incidence of adverse events did not increase with dose escalation and does not appear to be dose dependent. These data offer no evidence of dose-related adverse events related to wild-type EGFR inhibition by CO-1686.

Pharmacokinetics

The activity and safety data presented at ASCO, using the free base capsule formulation, demonstrated that plasma exposure of CO-1686 increases with dose and activity appears to correlate to drug exposure. Non-clinical data suggested that maintenance of trough concentrations over 200ng/mL for >12-18 hours was associated with optimal efficacy. In the Phase I portion of the Phase I/II study, T790M-positive patients who maintained minimum concentrations of CO-1686 in their plasma, or C_{min}, of 200 ng/mL or greater for 16 hours or more demonstrated improved progression-free survival, or PFS, compared to those with inferior exposures. Objective responses were observed exclusively in the higher-exposure group as well:

For T790M-positive patients with C_{min} greater than 200 ng/mL for 16 hours or longer, median PFS was 194 days; 50% had a 10% or greater tumor shrinkage.

For T790M-positive patients with C_{min} greater than 200 ng/mL for fewer than 16 hours, median PFS was 72.5 days; 8% of patients had a 10% or greater shrinkage.

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The ASCO poster also presented data with the hydrobromide salt tablet form of CO-1686 from a separate Phase I study in healthy human volunteers, which showed improved exposure and reduced pharmacokinetic variability compared with the current free base capsule formulation, which is being used in the Phase I study in patients with NSCLC. Specifically, in the ongoing Phase I study in healthy volunteers, the tablet form of CO-1686 demonstrated a two to three-fold improvement in absorption and a four-fold reduction in exposure variability relative to the free base capsule formulation.

We intend to transition development of CO-1686, including dose escalation in the ongoing Phase I study, to the tablet formulation in the third quarter of 2013. We plan to use the tablet formulation in all future clinical studies of CO-1686.

Rucaparib

On June 3, 2013, we announced initial findings from an ongoing Phase I/II monotherapy study of rucaparib, our oral, potent, small molecule PARP inhibitor being developed for the treatment of ovarian cancer. On June 4, 2013, initial results from the Phase I dose-escalation portion of this Phase I/II study were presented for the first time during the ASCO Annual Meeting 2013 in Chicago.

The Phase I dose escalation portion of the study is open to patients with all solid tumors. Study objectives were typical for a Phase I trial, including determining safety and tolerability, evaluating the pharmacokinetic profile, identifying the MTD and recommended Phase II dose, as well as the preliminary efficacy signals in various solid tumors.

Thirty-seven patients have been treated with rucaparib monotherapy in this study as of May 2013, in QD and BID dosing cohorts, up to 300 mg QD and 480mg BID. Dose-escalation continues and the MTD has not yet been reached.

Patients have received a median of four previous anticancer regimens and over half have received three or more previous therapies. Twenty-one patients (57%) have breast tumors, 10 patients (27%) have ovarian/peritoneal tumors and six patients (16%) have other solid tumors.

Evidence of Activity

Objective responses have been observed in ovarian, breast and pancreatic cancer patients with germline BRCA mutations. Durable disease control has been observed in heavily pre-treated ovarian cancer patients across all dose levels, with a disease control rate of 89% (stable disease or better beyond 12 weeks after study initiation in eight of nine ovarian cancer patients). The disease control rate for germline BRCA mutant ovarian cancer patients was 100% (seven of seven). Measurable disease was not a requirement for entry into the dose escalation phase of the study, precluding systematic response analysis.

Safety and Tolerability

Safety data to date shows rucaparib to be well-tolerated, which is important for a drug intended to be used in a maintenance setting. There were 19 patients (54%) with treatment-related adverse events. The most common adverse events attributed to rucaparib therapy include fatigue (23%), nausea (14%) and decreased appetite (11%). No patient experienced a treatment-related adverse event that led to study drug discontinuation and no grade three/four myelosuppression has been observed in any patient. There have been two treatment related grade three toxicities: one patient with grade three nausea and one patient with grade three fatigue.

Pharmacokinetics

Oral rucaparib has attractive pharmacokinetic properties as a potential oral cancer therapeutic. Patients receiving BID doses above 240mg experienced consistently high plasma drug concentrations throughout the 24-hour period, which is likely important for optimal activity. Intra- and inter-patient variability was also low, which is advantageous for uniform flat dosing strategies.

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THE OFFERING

Common stock offered by us in this offering 2,424,242 shares of common stock

Common stock offered by us in the concurrent offering 909,092 shares

Common stock to be outstanding immediately following this offering and the concurrent offering 29,551,943 shares

Underwriters' option pursuant to this offering Up to 353,535 shares of common stock

Use of proceeds We estimate that the net proceeds from this offering and the concurrent offering will be approximately \$226.0 million, or approximately \$259.1 million if the underwriters exercise their options pursuant to this offering and the concurrent offering in full, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We anticipate that we will use the net proceeds of this offering and the concurrent offering for general corporate purposes, including funding of our development programs, general and administrative expenses, acquisition or licensing of additional product candidates or businesses and working capital. See "Use of Proceeds" for a more complete description of the intended use of proceeds from this offering and the concurrent offering.

Risk factors You should read the "Risk Factors" section of this prospectus supplement and the accompanying prospectus and in the documents incorporated by reference in this prospectus supplement and the accompanying prospectus for a discussion of factors you should carefully consider before deciding to invest in our common stock.

NASDAQ Global Select Market symbol CLVS

The number of shares of our common stock to be outstanding after this offering and the concurrent offering set forth above is based on 26,218,609 shares of our common stock outstanding as of March 31, 2013.

The number of shares of our common stock to be outstanding after this offering and the concurrent offering set forth above excludes:

2,466,232 shares of our common stock issuable upon the exercise of stock options outstanding as of March 31, 2013 at a weighted-average exercise price of \$16.89 per share;

3,257,519 shares of our common stock reserved for future issuance under our 2011 Equity Incentive Plan, or the 2011 Plan, as of March 31, 2013, plus any annual increases in the number of shares of common stock reserved for future issuance under the 2011 Plan pursuant to an "evergreen provision" and any other shares that may become issuable under the 2011 Plan pursuant to its terms; and

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438,209 shares of our common stock reserved for future issuance under our 2011 Employee Stock Purchase Plan, or the ESPP, as of March 31, 2013, plus any annual increases in the number of shares of our common stock reserved for future issuance under the ESPP pursuant to an evergreen provision and any other shares that may become issuable under the ESPP pursuant to its terms.

Unless we specifically state otherwise, the information in this prospectus supplement assumes or gives effect to:

no exercise by the underwriters of their options pursuant to this offering or the concurrent offering to purchase additional shares of common stock from us.

Concurrent Offering

Concurrently with the sale of shares of our common stock under this prospectus supplement, we are selling 909,092 shares of our common stock under another prospectus supplement, offered pursuant to the June Registration Statement and the June Base Prospectus included therein. As part of the concurrent offering, we granted the underwriters an option for a period of 30 days to purchase up to an additional 132,575 shares of our common stock.

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RISK FACTORS

*Investing in our common stock involves significant risks. Please see the risk factors below and under the heading **Risk Factors** in our most recently filed Annual Report on Form 10-K, as revised or supplemented by our Quarterly Reports on Form 10-Q filed with the SEC since the filing of our most recent Annual Report on Form 10-K, all of which are incorporated by reference in this prospectus supplement. Before making an investment decision, you should carefully consider these risks as well as other information we include or incorporate by reference in this prospectus supplement and the accompanying prospectus. The risks and uncertainties we have described are not the only ones facing our Company. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business operations.*

Risks Related to This Offering

If you purchase our common stock in this offering or the concurrent offering, you will incur immediate and substantial dilution in the book value of your shares.

The public offering price is substantially higher than the net tangible book value per share of our common stock. Investors purchasing common stock in this offering or the concurrent offering will pay a price per share that substantially exceeds the book value of our tangible assets after subtracting our liabilities. As a result, investors purchasing common stock in this offering or the concurrent offering will incur immediate dilution of \$60.30 per share.

This dilution is due to our investors who purchased shares prior to this offering and the concurrent offering having paid substantially less than the price offered to the public in this offering and the concurrent offering when they purchased their shares. In addition, as of March 31, 2013, options to purchase 2,466,232 shares of our common stock at a weighted-average exercise price of \$16.89 per share were outstanding. The exercise of any of these options would result in additional dilution. As a result of the dilution to investors purchasing shares in this offering and the concurrent offering, investors may receive significantly less than the purchase price paid in this offering and the concurrent offering, if anything, in the event of our liquidation. Further, because we will need to raise additional capital to fund our clinical development programs, we may in the future sell substantial amounts of common stock or securities convertible into or exchangeable for common stock. These future issuances of common stock or common stock-related securities, together with the exercise of outstanding options and any additional shares issued in connection with acquisitions, if any, may result in further dilution to investors. For a further description of the dilution that you will experience immediately after this offering and the concurrent offering, see **Dilution**.

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

Our management will have broad discretion in the application of the net proceeds from this offering and the concurrent offering, and you will be relying on the judgment of our management regarding the application of these proceeds. You will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. Our management might not apply our net proceeds in ways that ultimately increase the value of your investment. We anticipate that we will use the net proceeds of this offering and the concurrent offering for general corporate purposes, including funding of our development programs, general and administrative expenses, acquisition or licensing of additional product candidates or businesses and working capital. Pending these uses, we may invest the net proceeds in short-term, interest-bearing investment grade securities, certificates of deposit or direct or guaranteed obligations of the U.S. government. These investments may not yield a favorable return to our stockholders. If we do not invest or apply the net proceeds from this offering and the concurrent offering in ways that enhance stockholder value, we may fail to achieve expected financial results, which could cause our stock price to decline.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the information incorporated herein by reference includes statements that are, or may be deemed, forward-looking statements. In some cases, these forward-looking statements can be identified by the use of forward-looking terminology, including the terms believes, estimates, anticipates, expects, plans, intends, may, could, might, will, should, approximate, negative or other variations thereon or comparable terminology, although not all forward-looking statements contain these words. They appear in a number of places throughout this prospectus supplement and include statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things, our ongoing and planned preclinical studies and clinical trials, the timing of and our ability to make regulatory filings and obtain and maintain regulatory approvals for our product candidates, the degree of clinical utility of our products, particularly in specific patient populations, expectations regarding clinical trial data, our results of operations, financial condition, liquidity, prospects, growth and strategies, the industry in which we operate and the trends that may affect the industry or us.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events, competitive dynamics, and industry change and depend on the economic circumstances that may or may not occur in the future or may occur on longer or shorter timelines than anticipated. We caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained herein.

Some of the factors that we believe could cause actual results to differ from those anticipated or predicted include:

the success and timing of our preclinical studies and clinical trials;

our ability to obtain and maintain regulatory approval of our product candidates, and the labeling under any approval we may obtain;

our plans to develop and commercialize our product candidates;

our ability, with partners, to validate, develop and obtain regulatory approval of companion diagnostics for our product candidates;

the loss of key scientific or management personnel;

the size and growth of the potential markets for our product candidates and our ability to serve those markets;

regulatory developments in the United States and foreign countries;

the rate and degree of market acceptance of any of our product candidates;

our use of the proceeds from this offering and the concurrent offering;

the accuracy of our estimates regarding expenses, future revenues, capital requirements and needs for additional financing;

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our ability to obtain and maintain intellectual property protection for our product candidates;

the successful development of our sales and marketing capabilities;

the success of competing drugs that are or become available; and

the performance of third-party manufacturers.

Any forward-looking statements that we make in this prospectus supplement speak only as of the date of such statement, and unless required by law, we undertake no obligation to update such statements to reflect events or circumstances after the date of this prospectus supplement or to reflect the occurrence of unanticipated events.

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Please refer to the section entitled "Risk Factors" of this prospectus supplement, and any other risk factors set forth in the accompanying prospectus and in any information incorporated by reference in this prospectus supplement or the accompanying prospectus to better understand the risks and uncertainties inherent in our business and underlying any forward-looking statements, as well as any other risk factors and cautionary statements described in the documents we file from time to time with the SEC, specifically our most recent Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K.

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USE OF PROCEEDS

We estimate that our net proceeds from the sale of the 3,333,334 shares of common stock that we are offering in this offering and the concurrent offering will be approximately \$226.0 million, or approximately \$259.1 million if the underwriters exercise in full their options pursuant to this offering and the concurrent offering to purchase an aggregate of 486,110 additional shares of common stock, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

We anticipate that we will use the net proceeds of this offering and the concurrent offering for general corporate purposes, including funding of our development programs, general and administrative expenses, acquisition or licensing of additional product candidates or businesses and working capital.

Pending these uses, we may invest the net proceeds in short-term, interest-bearing investment grade securities, certificates of deposit or direct or guaranteed obligations of the U.S. government. We have not determined the amount of net proceeds to be used specifically for such purposes. As a result, management will retain broad discretion over the allocation of net proceeds.

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Table of Contents**CAPITALIZATION**

The following table sets forth our consolidated cash and cash equivalents and our consolidated capitalization as of March 31, 2013 on:

an actual basis; and

an as adjusted basis giving additional effect to the sale of 3,333,334 shares of our common stock offered in this offering and the concurrent offering, at a public offering price of \$72.00 per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this table in conjunction with the entire prospectus supplement, the accompanying prospectus and information incorporated by reference in this prospectus supplement and the accompanying prospectus.

| | As of March 31, 2013 | |
|--|-------------------------------|--------------------|
| | Actual | As Adjusted |
| | (unaudited) | |
| | (dollars in thousands) | |
| Cash and cash equivalents | \$ 129,634 | \$ 355,651 |
| Stockholders' equity: | | |
| Preferred stock, par value \$0.001 per share; 10,000,000 shares authorized and no shares issued and outstanding, actual and as adjusted | | |
| Common stock, par value \$0.001 per share; 100,000,000 shares authorized and 26,218,609 shares issued and outstanding, actual; 29,551,943 shares issued and outstanding, as adjusted | 26 | 30 |
| Additional paid-in capital | 319,817 | 545,830 |
| Accumulated other comprehensive income | 44 | 44 |
| Accumulated deficit | (200,150) | (200,150) |
| Total stockholders' equity | 119,737 | 345,754 |
| Total capitalization | \$ 119,737 | \$ 345,754 |

The number of shares of our common stock to be outstanding after this offering and the concurrent offering set forth above excludes:

2,466,232 shares of our common stock issuable upon the exercise of stock options outstanding as of March 31, 2013 at a weighted-average exercise price of \$16.89 per share;

3,257,519 shares of our common stock reserved for future issuance under the 2011 Plan, as of March 31, 2013, plus any annual increases in the number of shares of common stock reserved for future issuance under the 2011 Plan pursuant to an evergreen provision and any other shares that may become issuable under the 2011 Plan pursuant to its terms; and

438,209 shares of our common stock reserved for future issuance under the ESPP, as of March 31, 2013, plus any annual increases in the number of shares of our common stock reserved for future issuance under the ESPP pursuant to an evergreen provision and any other shares that may become issuable under the ESPP pursuant to its terms.

Table of Contents**PRICE RANGE OF COMMON STOCK**

Our common stock is traded on the NASDAQ Global Select Market under the symbol **CLVS** . Trading of our common stock commenced on November 16, 2011, following the completion of our initial public offering. The following table sets forth, for the periods indicated, the high and low sales prices for our common stock as reported on the NASDAQ Global Select Market:

| | HIGH | LOW |
|--|-------------|------------|
| Year Ended December 31, 2011 | | |
| Fourth Quarter (beginning November 16, 2011) | \$ 14.85 | \$ 11.45 |
| Year Ended December 31, 2012 | | |
| First Quarter | \$ 27.55 | \$ 13.41 |
| Second Quarter | \$ 25.18 | \$ 16.91 |
| Third Quarter | \$ 23.42 | \$ 13.24 |
| Fourth Quarter | \$ 23.34 | \$ 11.19 |
| Year Ended December 31, 2013 | | |
| First Quarter | \$ 29.30 | \$ 15.96 |
| Second Quarter (through June 11, 2013) | \$ 86.29 | \$ 27.17 |

On June 11, 2013, the reported last sale price of our common stock on the NASDAQ Global Select Market was \$74.83. On April 15, 2013, there were approximately 38 holders of record of our common stock.

Table of Contents**DILUTION**

If you invest in our common stock in this offering or the concurrent offering, your ownership interest will be diluted to the extent of the difference between the public offering price per share of our common stock and the as adjusted net tangible book value per share of our common stock upon completion of this offering and the concurrent offering. Net tangible book value per share of our common stock is determined at any date by subtracting our total liabilities from the amount of our total tangible assets (total assets less intangible assets) and dividing the difference by the number of shares of our common stock deemed to be outstanding at that date.

Our historical net tangible book value as of March 31, 2013 was approximately \$119.7 million, or \$4.57 per share, based on 26,218,609 shares of common stock outstanding as of March 31, 2013.

Investors participating in this offering or the concurrent offering will incur immediate, substantial dilution. After giving effect to our receipt of approximately \$226.0 million of estimated net proceeds (after deducting underwriting discounts and commissions and estimated offering expenses payable by us) from our sale of common stock in this offering and the concurrent offering, our as adjusted net tangible book value as of March 31, 2013 would have been \$345.8 million, or \$11.70 per share. This amount represents an immediate increase in net tangible book value of \$7.13 per share of our common stock to existing stockholders and an immediate dilution in net tangible book value of \$60.30 per share of our common stock to new investors purchasing shares of common stock in this offering and the concurrent offering.

The following table illustrates this dilution on a per share basis:

| | |
|--|----------|
| Public offering price per share | \$ 72.00 |
| Historical net tangible book value per share as of March 31, 2013 | \$ 4.57 |
| As adjusted increase in net tangible book value per share attributable to investors participating in this offering and the concurrent offering | \$ 7.13 |
| As adjusted net tangible book value per share after this offering and the concurrent offering | \$ 11.70 |
| Dilution of as adjusted net tangible book value per share to new investors | \$ 60.30 |

The number of shares of our common stock to be outstanding immediately following this offering and the concurrent offering set forth above excludes:

2,466,232 shares of our common stock issuable upon the exercise of stock options outstanding as of March 31, 2013 at a weighted-average exercise price of \$16.89 per share;

3,257,519 shares of our common stock reserved for future issuance under the 2011 Plan, as of March 31, 2013, plus any annual increases in the number of shares of common stock reserved for future issuance under the 2011 Plan pursuant to an evergreen provision and any other shares that may become issuable under the 2011 Plan pursuant to its terms; and

438,209 shares of our common stock reserved for future issuance under the ESPP, as of March 31, 2013, plus any annual increases in the number of shares of our common stock reserved for future issuance under the ESPP pursuant to an evergreen provision and any other shares that may become issuable under the ESPP pursuant to its terms.

If the underwriters' options are exercised in full, the as adjusted net tangible book value per share after giving effect to this offering and the concurrent offering would be \$12.61 per share, which amount represents an immediate increase in as adjusted net tangible book value of \$8.04 per share of our common stock to existing stockholders and an immediate dilution in net tangible book value of \$59.39 per share of our common stock to new investors purchasing shares of common stock in this offering and the concurrent offering.

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If all our outstanding stock options had been exercised as of March 31, 2013, assuming the treasury stock method, our as adjusted net tangible book value would have been \$11.31 per share, representing dilution in our as adjusted net tangible book value per share to new investors of \$60.69.

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 we raise additional capital by issuing equity securities or convertible debt, your ownership will be further diluted.

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MATERIAL U.S. FEDERAL INCOME AND ESTATE TAX CONSIDERATIONS

The following is a general discussion of the material U.S. federal income and estate tax consequences of the acquisition, ownership and disposition of our common stock, but is not a complete analysis of all the potential U.S. federal income and estate tax consequences relating thereto. Except where noted, this summary deals only with common stock that is purchased by a non-U.S. holder pursuant to this offering or the concurrent offering and is held as a capital asset by the non-U.S. holder. A non-U.S. holder means a person (other than a partnership) that is for U.S. federal income tax purposes any of the following:

a nonresident alien individual;

a corporation (or any other entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of a jurisdiction other than the United States, any state thereof or the District of Columbia;

an estate other than one the income of which is subject to U.S. federal income taxation regardless of its source; or

a trust other than a trust if it (A) is subject to the primary supervision of a court within the United States and the control of one or more U.S. persons having the authority to control all substantial decisions of the trust, or (B) has a valid election in effect to be treated as a U.S. person.

If an entity treated as a partnership for U.S. federal income tax purposes holds common stock, the tax treatment of a partner will generally depend on the status of the partner and upon the activities of the partnership. Accordingly, partnerships that hold common stock and partners in such partnerships should consult their respective tax advisors with respect to the U.S. federal income and estate tax consequences of the ownership and disposition of common stock.

For purposes of this discussion, a non-U.S. holder does not include an individual who is present in the United States for 183 days or more in the taxable year of disposition and is not otherwise a resident of the United States for U.S. federal income tax purposes. Such an individual is urged to consult his or her own tax advisor regarding the U.S. federal income and estate tax consequences of the ownership and disposition of common stock.

This discussion does not address all aspects of U.S. federal income and estate taxation that may be relevant in light of a non-U.S. holder's special tax status or special circumstances. U.S. expatriates, controlled foreign corporations, passive foreign investment companies, corporations that accumulate earnings to avoid U.S. federal income tax and investors that hold common stock as part of a hedge, straddle or conversion transaction are among those categories of potential investors that may be subject to special rules not covered in this discussion. This discussion does not address any U.S. federal tax consequences other than income and estate tax consequences or any tax consequences arising under the laws of any state, local or non-U.S. taxing jurisdiction. Furthermore, the following discussion is based on current provisions of the Code, Treasury Regulations and administrative and judicial interpretations thereof, all as in effect on the date hereof, and all of which are subject to change, possibly with retroactive effect. Accordingly, each non-U.S. holder should consult its tax advisors regarding the U.S. federal, state, local and non-U.S. income, estate and other tax consequences of acquiring, holding and disposing of shares of our common stock.

THIS SUMMARY IS FOR GENERAL INFORMATION ONLY AND IS NOT TAX ADVICE. INVESTORS CONSIDERING THE PURCHASE OF SECURITIES PURSUANT TO THIS OFFERING OR THE CONCURRENT OFFERING ARE ENCOURAGED TO CONSULT THEIR OWN TAX ADVISORS REGARDING THE APPLICATION OF THE U.S. FEDERAL INCOME AND ESTATE TAX LAWS TO THEIR PARTICULAR SITUATIONS AND THE APPLICATION OF OTHER FEDERAL TAX LAWS, FOREIGN, STATE AND LOCAL LAWS, AND TAX TREATIES.

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Dividends

Distributions in cash or other property on our common stock will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and will first be applied against and reduce a holder's adjusted basis in the common stock, but not below zero, and then the excess, if any, will be treated as gain from the sale of common stock, as described below.

We do not intend to pay cash dividends on our common stock for the foreseeable future. In the event that we do make distributions on our common stock, amounts paid to a non-U.S. holder of common stock that are treated as dividends for U.S. federal income tax purposes generally will be subject to U.S. withholding tax at a rate of 30% of the gross amount of the dividends or such lower rate as may be specified by an applicable tax treaty. In order to receive a reduced treaty rate, a non-U.S. holder generally must provide a valid Internal Revenue Service, or IRS, Form W-8BEN or other successor form certifying qualification for the reduced rate.

Dividends received by a non-U.S. holder that are effectively connected with a U.S. trade or business conducted by the non-U.S. holder (and, if required by an applicable income tax treaty, are attributable to a U.S. permanent establishment) are exempt from such withholding tax. In order to obtain this exemption, a non-U.S. holder must provide a valid IRS Form W-8ECI or other applicable form properly certifying such exemption. Such effectively connected dividends, although not subject to withholding tax, will generally be subject to regular U.S. federal income tax as if the non-U.S. holder were a U.S. resident, unless an applicable income tax treaty provides otherwise. A non-U.S. corporation receiving effectively connected dividends may also be subject to an additional branch profits tax imposed at a rate of 30% (or a lower treaty rate) on the earnings and profits attributable to its effectively connected income.

Gain on Disposition of Common Stock

A non-U.S. holder generally will not be subject to U.S. federal income tax on any gain realized upon the sale or other disposition of common stock unless:

the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States (and, if required by an applicable income tax treaty, is attributable to a U.S. permanent establishment); or

our common stock constitutes a U.S. real property interest by reason of our status as a U.S. real property holding corporation for U.S. federal income tax purposes.

Unless an applicable treaty provides otherwise, gain described in the first bullet point above generally will be subject to regular U.S. federal income tax as if the non-U.S. holder were a U.S. resident and, in the case of non-U.S. holders taxed as corporations, the branch profits tax described above.

Generally, a corporation is a U.S. real property holding corporation, orUSRPHC, if the fair market value of its U.S. real property interests, as defined in the Code and applicable Treasury regulations, equals or exceeds 50% of the aggregate fair market value of its worldwide real property interests and its other assets used or held for use in a trade or business.

We believe that we are not, and currently do not anticipate becoming, a USRPHC. However, there can be no assurance that our current analysis is correct or that we will not become a USRPHC in the future. Even if we are or become a USRPHC, as long as our common stock is regularly traded on an established securities market, within the meaning of applicable Treasury regulations, such common stock will be treated as U.S. real property interests only if the non-U.S. holder actually or constructively held more than 5% of such regularly traded common stock at some time during the shorter of the five year period preceding the disposition or the non-U.S. holder's holding period.

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Backup Withholding and Information Reporting

Information returns will be filed with the IRS in connection with payments of dividends and the proceeds from a sale or other disposition of common stock. A non-U.S. holder may have to comply with certification procedures to establish that it is not a U.S. person in order to avoid information reporting and backup withholding tax requirements. The certification procedures required to claim a reduced rate of withholding under a treaty generally will satisfy the certification requirements necessary to avoid the backup withholding tax as well. The amount of any backup withholding from a payment to a non-U.S. holder will be allowed as a credit against its U.S. federal income tax liability and may entitle it to a refund, provided that the required information is timely furnished to the IRS. Copies of these information returns may also be made available under the provisions of a specific treaty or agreement to the tax authorities of the country in which the non-U.S. holder resides or is established.

U.S. Federal Estate Tax

Shares of common stock held (or deemed held) by an individual who is a non-U.S. holder at the time of his or her death will be included in such non-U.S. holder's gross estate for U.S. federal estate tax purposes, unless an applicable estate tax treaty provides otherwise.

Legislation Relating to Foreign Accounts

Legislation enacted in 2010 will generally impose a U.S. federal withholding tax of 30% on dividends and the gross proceeds of a disposition of our common stock paid to a foreign financial institution unless such institution enters into an agreement with the U.S. government to withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding U.S. account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners). A foreign financial institution located in a jurisdiction that has an intergovernmental agreement with the United States governing these rules may be subject to different rules. The legislation will also generally impose a U.S. federal withholding tax of 30% on dividends and the gross proceeds of a disposition of our common stock paid to a foreign entity (other than a financial institution) unless such entity provides the withholding agent with a certification that it does not have any substantial United States owners (as defined in the Code) or furnishing identifying information regarding each substantial United States owner. Under certain circumstances, a holder might be eligible for refunds or credits of such taxes. Non-U.S. holders are urged to consult their own tax advisors regarding this legislation as it applies to the common stock.

U.S. Treasury Regulations provide that such withholding would generally apply only to dividends paid on or after January 1, 2014, and to other withholdable payments (including payments of gross proceeds from a sale or other disposition of our common stock) made on or after January 1, 2017. Investors are encouraged to consult with their own tax advisors regarding the possible impact of these rules on their investment in our common stock.

Table of Contents**UNDERWRITING**

We are offering the shares of common stock described in this prospectus supplement through a number of underwriters. J.P. Morgan Securities LLC and Credit Suisse Securities (USA) LLC are acting as sole book-running managers of this offering and the concurrent offering and as representatives of the underwriters. We have entered into an underwriting agreement with the underwriters. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters in this offering, and each underwriter has severally agreed to purchase, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus supplement, the number of shares of common stock listed next to its name in the following table:

| Name | Number of Shares |
|------------------------------------|-------------------------|
| J.P. Morgan Securities LLC | 1,090,909 |
| Credit Suisse Securities (USA) LLC | 848,485 |
| Leerink Swann LLC | 484,848 |
| Total | 2,424,242 |

The underwriting agreement into which we have entered with the underwriters also covers the sale of 909,092 shares of our common stock in the concurrent offering under another prospectus supplement. The underwriters are committed to purchase all the common shares offered by us if they purchase any shares. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or this offering and the concurrent offering may be terminated.

The underwriters propose to offer the common shares directly to the public at the public offering price set forth on the cover page of this prospectus supplement and to certain dealers at that price less a concession not in excess of \$2.376 per share. After the initial public offering of the shares, the offering price and other selling terms may be changed by the underwriters. Sales of shares made outside of the United States may be made by affiliates of the underwriters.

In this offering, the underwriters have an option to buy up to 353,535 additional shares of common stock from us. The underwriters have 30 days from the date of the underwriting agreement to exercise this option. If any shares are purchased with this option, the underwriters will purchase shares in approximately the same proportion as shown in the table above. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered. In the concurrent offering, the underwriters also have an option to buy up to 132,575 additional shares of our common stock.

The underwriting fee is equal to the public offering price per share of common stock less the amount paid by the underwriters to us per share of common stock. The underwriting fee is \$3.96 per share. The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters assuming both no exercise and full exercise of the underwriters' option to purchase additional shares in this offering.

| | Without option exercise | With full option exercise |
|------------------|------------------------------------|--------------------------------------|
| Per Share | \$ 3.96 | \$ 3.96 |
| Total | \$ 9,599,999 | \$ 10,999,997 |

We estimate that the total expenses of this offering and the concurrent offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding the underwriting discounts and commissions, will be approximately \$0.8 million. We have also agreed to reimburse the underwriters for certain of their expenses in an amount up to \$10,000 as set forth in the underwriting agreement.

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A prospectus in electronic format may be made available on the web sites maintained by one or more underwriters, or selling group members, if any, participating in this offering or the concurrent offering. The underwriters may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters and selling group members that may make Internet distributions on the same basis as other allocations.

We have agreed, subject to limited exceptions, that we will not: (i) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, or file with the Securities and Exchange Commission a registration statement under the Securities Act relating to, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock, or (ii) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of any shares of our common stock or such other securities (regardless of whether any of these transactions are to be settled by the delivery of shares of common stock, or such other securities, in cash or otherwise), in each case without the prior written consent of J.P. Morgan Securities LLC and Credit Suisse Securities (USA) LLC for a period of 45 days after the date of this prospectus supplement. Notwithstanding the foregoing, if (1) during the last 17 days of the 45-day restricted period, we issue an earnings release or material news or a material event relating to our company occurs; or (2) prior to the expiration of the 45-day restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 45-day period, the restrictions described above shall continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event.

Our directors and executive officers have entered into lock-up agreements with the underwriters prior to the commencement of this offering and the concurrent offering pursuant to which each of these persons, with limited exceptions, for a period of 60 days after the date of this prospectus supplement, may not, without the prior written consent of J.P. Morgan Securities LLC and Credit Suisse Securities (USA) LLC, (1) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock (including, without limitation, common stock which may be deemed to be beneficially owned by such directors and executive officers in accordance with the rules and regulations of the SEC and securities which may be issued upon exercise of a stock option or warrant), (2) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of any shares of our common stock or such other securities, whether any such transaction described in clause (1) above or this clause (2) is to be settled by delivery of common stock or such other securities, in cash or otherwise or (3) make any demand for or exercise any right with respect to the registration of any shares of our common stock or any security convertible into or exercisable or exchangeable for our common stock. Notwithstanding the foregoing, if (1) during the last 17 days of the 60-day restricted period, we issue an earnings release or material news or a material event relating to our company occurs; or (2) prior to the expiration of the 60-day restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 60-day period, the restrictions described above shall continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event. Each of the lock-up agreements contain certain exceptions, including transfers of shares as a gift or by will or intestacy; transfers of shares to any trust, the sole beneficiaries of which are the transferor and/or its immediate family members; or transfers to certain entities or persons affiliated with the stockholder; provided that in the case of each of the above (except transfers by will or intestacy), each donee, distributee, transferee and recipient agrees to be subject to the restrictions described in this paragraph, and no transaction includes a disposition for value.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933.

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Our common stock is listed on the NASDAQ Global Select Market under the symbol CLVS .

In connection with this offering and the concurrent offering, the underwriters may engage in stabilizing transactions, which involves making bids for, purchasing and selling shares of common stock in the open market for the purpose of preventing or retarding a decline in the market price of the common stock while this offering and the concurrent offering are in progress. These stabilizing transactions may include making short sales of the common stock, which involves the sale by the underwriters of a greater number of shares of common stock than they are required to purchase in this offering and the concurrent offering, and purchasing shares of common stock on the open market to cover positions created by short sales. Short sales may be covered shorts, which are short positions in an amount not greater than the underwriters' options referred to above, or may be naked shorts, which are short positions in excess of that amount. The underwriters may close out any covered short position either by exercising their options, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market compared to the price at which the underwriters may purchase shares through the options. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market that could adversely affect investors who purchase in this offering or the concurrent offering. To the extent that the underwriters create a naked short position, they will purchase shares in the open market to cover the position.

The underwriters have advised us that, pursuant to Regulation M of the Securities Act of 1933, they may also engage in other activities that stabilize, maintain or otherwise affect the price of the common stock, including the imposition of penalty bids. This means that if the representatives of the underwriters purchase common stock in the open market in stabilizing transactions or to cover short sales, the representatives can require the underwriters that sold those shares as part of this offering or the concurrent offering to repay the underwriting discount received by them.

These activities may have the effect of raising or maintaining the market price of the common stock or preventing or retarding a decline in the market price of the common stock, and, as a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on the NASDAQ Global Select Market, in the over-the-counter market or otherwise.

In addition, in connection with this offering or the concurrent offering certain of the underwriters (and selling group members) may engage in passive market making transactions in our common stock on the NASDAQ Global Select Market prior to the pricing and completion of this offering or the concurrent offering. Passive market making consists of displaying bids on the NASDAQ Global Select Market no higher than the bid prices of independent market makers and making purchases at prices no higher than these independent bids and effected in response to order flow. Net purchases by a passive market maker on each day are generally limited to a specified percentage of the passive market maker's average daily trading volume in the common stock during a specified period and must be discontinued when such limit is reached. Passive market making may cause the price of our common stock to be higher than the price that otherwise would exist in the open market in the absence of these transactions. If passive market making is commenced, it may be discontinued at any time.

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus supplement in any jurisdiction where action for that purpose is required. The securities offered by this prospectus supplement may not be offered or sold, directly or indirectly, nor may this prospectus supplement or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus supplement comes are advised to inform themselves about and to observe any restrictions relating to this offering and the distribution of this prospectus supplement. This prospectus supplement does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus supplement in any jurisdiction in which such an offer or a solicitation is unlawful.

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This document is only being distributed to and is only directed at (i) persons who are outside the United Kingdom or (ii) to investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the Order) or (iii) high net worth entities, and other persons to whom it may lawfully be communicated, falling with Article 49(2)(a) to (d) of the Order (all such persons together being referred to as Relevant Persons). The securities are only available to, and any invitation, offer or agreement to subscribe, purchase or otherwise acquire such securities will be engaged in only with, Relevant Persons. Any person who is not a Relevant Person should not act or rely on this document or any of its contents.

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), from and including the date on which the European Union Prospectus Directive (the EU Prospectus Directive) was implemented in that Relevant Member State (the Relevant Implementation Date) an offer of securities described in this prospectus supplement may not be made to the public in that Relevant Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the EU Prospectus Directive, except that, with effect from and including the Relevant Implementation Date, an offer of securities described in this prospectus supplement may be made to the public in that Relevant Member State at any time:

to any legal entity which is a qualified investor as defined under the EU Prospectus Directive;

to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150 natural or legal persons (other than qualified investors as defined in the EU Prospectus Directive); or

in any other circumstances falling within Article 3(2) of the EU Prospectus Directive, provided that no such offer of securities described in this prospectus supplement shall result in a requirement for the publication by us of a prospectus pursuant to Article 3 of the EU Prospectus Directive.

For the purposes of this provision, the expression an offer of securities to the public in relation to any securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe for the securities, as the same may be varied in that Member State by any measure implementing the EU Prospectus Directive in that Member State. The expression EU Prospectus Directive means Directive 2003/71/EC (and any amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State) and includes any relevant implementing measure in each Relevant Member State, and the expression 2010 PD Amending Directive means Directive 2010/73/EU.

Certain of the underwriters and their affiliates have provided in the past to us and our affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

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LEGAL MATTERS

The validity of shares of our common stock offered by this prospectus supplement will be passed upon for us by Willkie Farr & Gallagher LLP, New York, New York. Certain legal matters in connection with this offering will be passed upon for the underwriters by Latham & Watkins LLP, San Diego, California.

EXPERTS

The consolidated financial statements of Clovis Oncology, Inc. appearing in Clovis Oncology, Inc.'s Annual Report (Form 10-K) for the year ended December 31, 2012, and the effectiveness of Clovis Oncology, Inc.'s internal control over financial reporting as of December 31, 2012, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon, and incorporated herein by reference. Such financial statements are, and audited financial statements to be included in subsequently filed documents will be, incorporated herein in reliance upon the reports of Ernst & Young LLP pertaining to such financial statements and the effectiveness of our internal control over financial reporting as of the respective dates (to the extent covered by consents filed with the Securities and Exchange Commission) given on the authority of such firm as experts in accounting and auditing.

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Prospectus

\$200,000,000

COMMON STOCK

We may issue shares of our common stock from time to time in one or more offerings. This prospectus describes the general terms of our common stock and the general manner in which our common stock will be offered. We will describe the specific manner in which these shares will be offered in supplements to this prospectus, which may also supplement, update or amend information contained in this prospectus. You should read this prospectus and any applicable prospectus supplement before you invest.

We may offer our shares of common stock in amounts, at prices and on terms determined at the time of offering. The shares may be sold directly to you, through agents, or through underwriters and dealers. If agents, underwriters or dealers are used to sell the shares, we will name them and describe their compensation in a prospectus supplement.

Our common stock is listed on the NASDAQ Global Select Market under the symbol **CLVS** . On April 19, 2013 the last reported sale price of our common stock on the NASDAQ Global Select Market was \$32.00 per share.

Investing in our common stock involves risks. See Risk Factors on page 5 of this prospectus and any other risk factors included in any accompanying prospectus supplement and in the documents incorporated by reference in this prospectus or any prospectus supplement for a discussion of the factors you should carefully consider before deciding to purchase shares of our common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is May 2, 2013

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a shelf registration process. Under this shelf process, we may from time to time offer to sell up to \$200,000,000 of our shares of common stock in one or more offerings.

This prospectus provides you with a general description of our common stock. Each time we sell shares of our common stock, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement, or information incorporated by reference in this prospectus or any prospectus supplement that is of a more recent date, may also add, update or change information contained in this prospectus. To the extent that any statement that we make in a prospectus supplement is inconsistent with statements made in this prospectus, the statements made in this prospectus will be deemed modified or superseded by those made in the prospectus supplement. You should read both this prospectus and any prospectus supplement together with the additional information described below under the heading **Where You Can Find More Information**. This prospectus may not be used to consummate a sale of our common stock unless it is accompanied by a prospectus supplement. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings.

You should rely only on the information contained in or incorporated by reference in this prospectus, any accompanying prospectus supplement or in any related free writing prospectus filed by us with the SEC. We have not authorized anyone to provide you with different information. This prospectus and any accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy our common stock other than our common stock described in such accompanying prospectus supplement or an offer to sell or the solicitation of an offer to buy our common stock in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus, any prospectus supplement, the documents incorporated by reference and any related free writing prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

Clovis Oncology® and the Clovis logo are trademarks of Clovis Oncology, Inc. in the United States and in other selected countries. All other brand names or trademarks appearing in this prospectus are the property of their respective holders. Unless the context requires otherwise, references in this prospectus to Clovis, the Company, we, us, and our refer to Clovis Oncology, Inc. together with its consolidated subsidiaries.

WHERE YOU CAN FIND MORE INFORMATION

We file reports and proxy statements with the SEC. These filings include our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and proxy statements on Schedule 14A, as well as any amendments to those reports and proxy statements, and are available free of charge through our website as soon as reasonably practicable after we file them with, or furnish them to, the SEC. Once at www.clovisoncology.com, go to Investors & News/SEC Filings to locate copies of such reports and proxy statements. Our website and the information contained on, or that can be accessed through, the website will not be deemed to be incorporated by reference in, and are not considered part of, this prospectus. You should not rely on any such information in making your decision whether to purchase our common stock. You may also read and copy materials that we file with SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website at www.sec.gov that contains reports, proxy and information statements and other information regarding us and other issuers that file electronically with the SEC.

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We have filed with the SEC a registration statement on Form S-3 under the Securities Act of 1933, as amended, relating to the shares of our common stock being offered by this prospectus. This prospectus, which constitutes part of that registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules which are part of the registration statement. For further information about us and the common stock offered, see the registration statement and the exhibits and schedules thereto. Statements contained in this prospectus regarding the contents of any contract or any other document to which reference is made are not necessarily complete, and, in each instance where a copy of a contract or other document has been filed as an exhibit to the registration statement, reference is made to the copy so filed, each of those statements being qualified in all respects by the reference.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus the information we file with the SEC in other documents, which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede such information. We incorporate by reference the documents listed below and any future information filed (rather than furnished) with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act between the date of this prospectus and the date all securities to which this prospectus relates have been sold or the offering is otherwise terminated and also between the date of the initial registration statement and prior to effectiveness of the registration statement, provided, however, that we are not incorporating any information furnished under Item 2.02 or Item 7.01 of any Current Report on Form 8-K:

our Annual Report on Form 10-K for the year ended December 31, 2012, as filed with the SEC on March 14, 2013;

our Current Report on Form 8-K, as filed with the SEC on February 19, 2013;

the description of our common stock contained in our registration statement on Form 8-A as filed with the SEC on November 10, 2011, including any amendments or reports filed for the purpose of updating the description.

We will furnish without charge to you a copy of any or all of the documents incorporated by reference, including exhibits to these documents, upon written or oral request. Direct your written request to: Investor Relations, Clovis Oncology, Inc., 2525 28th Street, Suite 100, Boulder, Colorado 80301, or contact Investor Relations at 303-625-5000.

A statement contained in a document incorporated by reference into this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, any prospectus supplement or in any other subsequently filed document which is also incorporated in this prospectus modifies or replaces such statement. Any statements so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the information incorporated herein by reference includes statements that are, or may be deemed, forward-looking statements. In some cases, these forward-looking statements can be identified by the use of forward-looking terminology, including the terms believes, estimates, anticipates, expects, plans, intends, may, could, might, will, should, approximately or, in each case, variations thereon or comparable terminology, although not all forward-looking statements contain these

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words. They appear in a number of places throughout this prospectus and include statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things, our ongoing and planned preclinical studies and clinical trials, the timing of and our ability to make regulatory filings and obtain and maintain regulatory approvals for our product candidates, the degree of clinical utility of our products, particularly in specific patient populations, expectations regarding clinical trial data, our results of operations, financial condition, liquidity, prospects, growth and strategies, the industry in which we operate and the trends that may affect the industry or us.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events, competitive dynamics, and industry change and depend on the economic circumstances that may or may not occur in the future or may occur on longer or shorter timelines than anticipated. We caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained herein.

Any forward-looking statements that we make in this prospectus speak only as of the date of such statement, and unless required by law, we undertake no obligation to update such statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events.

Please refer to the section entitled **Risk Factors** of this prospectus, and any other risk factors set forth in any accompanying prospectus supplement and in any information incorporated by reference in this prospectus or any accompanying prospectus supplement to better understand the risks and uncertainties inherent in our business and underlying any forward-looking statements, as well as any other risk factors and cautionary statements described in the documents we file from time to time with the SEC, specifically our most recent Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K.

ABOUT CLOVIS

We are a biopharmaceutical company focused on acquiring, developing and commercializing innovative anti-cancer agents in the United States, Europe and additional international markets. We target our development programs for the treatment of specific subsets of cancer populations, and seek to simultaneously develop, with partners, companion diagnostics that direct our product candidates to the patients that are most likely to benefit from their use. We currently have two clinical development programs and one drug discovery program underway: **CO-1686**, an oral epidermal growth factor receptor (EGFR), mutant-selective covalent inhibitor that is currently the subject of a development program for the treatment of non-small cell lung cancer (NSCLC), in patients with activating EGFR mutations, as well as the primary resistance mutation, T790M; **rucaparib**, an oral inhibitor of poly (ADP-ribose) polymerase (PARP), currently the subject of a development program for ovarian cancer patients with BRCA mutations and other DNA repair deficiencies; and lastly, our **mutant cKit inhibitor discovery program**, targeting the resistance mutations that occur in the majority of gastrointestinal stromal tumor (GIST) patients and result in disease progression. We hold global development and commercialization rights for each of our programs.

We believe that discovery productivity exceeds development capacity in oncology, and we have built our organization to meet the need for innovative patient-specific oncology drug development. To implement our strategy, we have assembled an experienced team with core competencies in global clinical development and regulatory operations in oncology, as well as conducting collaborative relationships with companies specializing in companion diagnostic development. As our product candidates mature, we intend to build our own commercial organizations in major global markets and partner with local distributors in smaller markets.

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The most common anti-cancer drug therapies typically address cancers within a specific organ as a single disease as opposed to a collection of different disease subtypes, often resulting in poor response rates and minimal effect on overall survival. We believe the oncology community is increasingly recognizing that tumors in a particular organ have unique pathologic and molecular characteristics that may warrant different treatment strategies. By better understanding differences in tumor biology and underlying disease pathways, researchers are identifying biomarkers to guide development of targeted oncology therapies, with streamlined clinical trials, stratified patient populations and improved patient outcomes. We believe that targeted therapies and companion diagnostics offer a patient-tailored approach to the treatment of cancers with improved diagnosis and outcomes.

We were incorporated under the laws of the State of Delaware in April 2009. Our principal executive offices are located at 2525 28th Street, Suite 100, Boulder, Colorado 80301, and our telephone number is (303) 625-5000. Our website address is www.clovisoncology.com. Our website and the information contained on, or that can be accessed through, the website will not be deemed to be incorporated by reference in, and are not considered part of, this prospectus. You should not rely on any such information in making your decision whether to purchase our common stock.

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RISK FACTORS

Investing in our common stock involves significant risks. Please see the risk factors under the heading "Risk Factors" in our most recently filed Annual Report on Form 10-K, as revised or supplemented by our Quarterly Reports on Form 10-Q filed with the SEC since the filing of our most recent Annual Report on Form 10-K, all of which are incorporated by reference in this prospectus. Before making an investment decision, you should carefully consider these risks as well as other information we include or incorporate by reference in this prospectus and any prospectus supplement. The risks and uncertainties we have described are not the only ones facing our company. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business operations.

USE OF PROCEEDS

Unless otherwise indicated in any applicable prospectus supplement, we intend to use the net proceeds from the sale of any shares of common stock offered under this prospectus for general corporate purposes, including funding of our development programs, general and administrative expenses, acquisition or licensing of additional product candidates or businesses and working capital. Pending these uses, we may invest the net proceeds in short-term, interest-bearing investment grade securities, certificates of deposit or direct or guaranteed obligations of the U.S. government. We have not determined the amount of net proceeds to be used specifically for such purposes. As a result, management will retain broad discretion over the allocation of net proceeds.

DILUTION

If there is a material dilution of the purchasers' equity interest from the sale of our common stock offered under this prospectus, we will set forth in any prospectus supplement the following information regarding any such material dilution of the equity interests of purchasers purchasing shares of our common stock in an offering under this prospectus:

the net tangible book value per share of our common stock before and after the offering;

the amount of the increase in such net tangible book value per share attributable to the cash payments made by the purchasers in the offering; and

the amount of the immediate dilution from the public offering price which will be absorbed by such purchasers.

DESCRIPTION OF CAPITAL STOCK

The following summary describes our capital stock and the material provisions of our amended and restated certificate of incorporation and our amended and restated bylaws, the registration rights set forth in the investor rights agreement to which we and certain of our stockholders are parties and of the Delaware General Corporation Law. Because the following is only a summary, it does not contain all of the information that may be important to you. For a complete description, you should refer to our amended and restated certificate of incorporation, amended and restated bylaws and registration rights provisions set forth in the investor rights agreement, copies of which are on file with the SEC. See [Where You Can Find More Information](#).

General

Our amended and restated certificate of incorporation authorizes us to issue up to 100 million shares of common stock, par value \$0.001 per share, and 10 million shares of preferred stock, par value \$0.001 per share.

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Common Stock

The holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of stockholders and are not entitled to cumulative votes with respect to the election of directors. The holders of common stock are entitled to receive dividends ratably, if, as and when dividends are declared from time to time by our board of directors out of legally available funds, after payment of dividends required to be paid on outstanding preferred stock, if any. Any decision to declare and pay dividends in the future will be made at the discretion of our board of directors and will depend on, among other things, our results of operations, cash requirements, financial condition, contractual restrictions and other factors that our board of directors may deem relevant. Upon our liquidation, dissolution or winding up, the holders of common stock are entitled to share ratably in all assets that are legally available for distribution after payment of all debts and other liabilities, subject to the prior rights of any holders of preferred stock then outstanding. The holders of common stock have no other preemptive, subscription, redemption, sinking fund or conversion rights. All outstanding shares of our common stock are fully paid and nonassessable. The shares of common stock to be issued upon closing of an offering will also be fully paid and nonassessable. The rights, preferences and privileges of holders of common stock are subject to, and may be negatively impacted by, the rights of the holders of shares of any series of preferred stock which we may designate and issue in the future.

As of December 31, 2012, there were 26,207,190 shares of our common stock outstanding.

As of December 31, 2012, options to purchase 1,599,044 shares of our common stock at a weighted average exercise price of \$14.05 per share were outstanding.

Undesignated Preferred Stock

Under our amended and restated certificate of incorporation, our board of directors has the authority, without action by our stockholders, to designate and issue up to 10 million shares of preferred stock in one or more series and to designate the rights, preferences and privileges of each series, any or all of which may be greater than the rights of our common stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock upon the rights of holders of our common stock until our board of directors determines the specific rights of the holders of preferred stock. However, the effects might include, among other things, restricting dividends on the common stock, diluting the voting power of the common stock, impairing the liquidation rights of the common stock and delaying or preventing a change in control of our common stock without further action by our stockholders and may adversely affect the market price of our common stock. As of December 31, 2012, no shares of our preferred stock were outstanding.

Registration Rights

Certain holders of our common stock are entitled to rights with respect to the registration of their shares under the Securities Act. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock.

In the event that we propose to register any of our securities under the Securities Act, either for our own account or for the account of other security holders, these holders will be entitled to notice of such registration and will be entitled to include their shares in such registration, subject to certain marketing and other limitations. Certain of these holders have the right to require us, on not more than two occasions, to file a registration statement on Form S-1 under the Securities Act in order to register the resale of shares of their common stock. We may, in certain circumstances, defer such registrations and the underwriters have the right, subject to certain limitations, to limit the number of shares included in such registrations. Further, these holders may require us to register the resale of all or a portion of their shares on a registration statement on Form S-3, subject to certain conditions and limitations. In an underwritten offering, the managing underwriter, if any, has the right, subject to

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specified conditions, to limit the number of registrable securities such holders may include. Generally, we are required to bear all registration and related expenses incurred in connection with the demand and piggyback registrations described above. If we are required to file a registration statement, we must use our best efforts to cause the registration statement to become effective. These rights will terminate on the earlier of: (i) five years after the closing of our initial public offering and (ii) with respect to an individual holder, when such holder is able to sell all of its shares pursuant to Rule 144 under the Securities Act in any three month period.

Anti-Takeover Provisions of Delaware Law

We are subject to 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 following the date the person became an interested stockholder, unless the business combination or the transaction in which the person became an interested stockholder is approved in a prescribed manner. Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. Generally, an interested stockholder is a person who, together with affiliates and associates, owns or, in the case of affiliates or associates of the corporation, within three years prior to the determination of interested stockholder status, owned 15% or more of a corporation's voting stock. The existence of this provision could have anti-takeover effects with respect to transactions not approved in advance by our board of directors, such as discouraging takeover attempts that might result in a premium over the market price of our common stock. The foregoing provisions of the Delaware General Corporation Law may have the effect of deterring or discouraging hostile takeovers or delaying changes in control of our company.

Charter and Bylaws Anti-Takeover Provisions

Classified Board of Directors

Our amended and restated certificate of incorporation provides that our board of directors is divided into three classes of directors, with the number of directors in each class to be as nearly equal as possible. Our classified board of directors staggers terms of the three classes and has been implemented through one, two and three-year terms for the initial three classes, followed in each case by full three-year terms. With a classified board of directors, only one-third of the members of our board of directors is elected each year. This classification of directors has the effect of making it more difficult for stockholders to change the composition of our board of directors.

Size of Board of Directors and Removal of Directors

Our amended and restated certificate of incorporation and amended and restated bylaws provide that:

the number of directors will be fixed from time to time exclusively pursuant to a resolution adopted by our board of directors, but must consist of not less than three directors, which will prevent stockholders from circumventing the provisions of our classified board of directors;

directors may be removed only for cause; and

vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum.

Authorized Preferred Stock

Our amended and restated certificate of incorporation provides for the issuance by our board of directors, without stockholder approval, of shares of preferred stock, with voting power, designations, preferences and other special rights as may be determined in the discretion of our board of directors. The issuance of preferred stock could decrease the amount of earnings and assets available for distribution to the holders of common stock or could adversely affect the rights and powers, including voting rights, of holders of common stock. In certain

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circumstances, such issuance could have the effect of decreasing the market price of the common stock. Preferred stockholders could also make it more difficult for a third party to acquire our company.

No Stockholder Action by Written Consent

Our amended and restated certificate of incorporation and amended and restated bylaws require that any action required or permitted to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and may not be effected by a consent in writing.

Calling of Special Meetings of Stockholders

Our amended and restated bylaws provide that special stockholder meetings for any purpose may only be called by our board of directors, our chairman or our chief executive officer.

Advance Notice Requirements for Stockholder Proposals and Director Nominations

Our amended and restated bylaws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of candidates for election to the board of directors. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of the board of directors, or by a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our secretary of the stockholder's intention to bring such business before the meeting. These provisions could have the effect of delaying until the next stockholder meeting stockholder actions that are favored by the holders of a majority of our outstanding voting stock. These provisions also could discourage a third party from making a tender offer for our common stock, because even if it acquired a majority of our outstanding voting stock, it would be able to take action as a stockholder, such as electing new directors or approving a merger, only at a duly called stockholders meeting and not by written consent.

Limitation on Liability and Indemnification of Directors and Officers

Our amended and restated certificate of incorporation and amended and restated bylaws limit our directors' and officers' liability to the fullest extent permitted under Delaware corporate law. Specifically, our directors and officers are not liable to us or our stockholders for monetary damages for any breach of fiduciary duty by a director or officer, except for liability:

for any breach of the director's or officer's duty of loyalty to us or our stockholders;

for 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 (unlawful dividends or stock repurchases); or

for any transaction from which a director or officer derives an improper personal benefit.

If the Delaware General Corporation Law is amended to authorize corporate action further eliminating or limiting the personal liability of directors or officers, then the liability of our directors or officers shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended.

The provision regarding indemnification of our directors and officers in our amended and restated certificate of incorporation will generally not limit liability under state or federal securities laws.

Delaware law and our amended and restated certificate of incorporation and amended and restated bylaws provide that we will, in certain situations, indemnify any person made or threatened to be made a party to a

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proceeding by reason of that person's former or present official capacity with us against judgments, penalties, fines, settlements and reasonable expenses. Any person is also entitled, subject to certain limitations, to payment or reimbursement of reasonable expenses (including attorneys fees and disbursements and court costs) in advance of the final disposition of the proceeding.

We maintain a directors' and officers' insurance policy pursuant to which our directors and officers are insured against liability for actions taken in their capacities as directors and officers. We believe that these indemnification provisions and insurance are useful to attract and retain qualified directors and officers.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duty. These provisions may also have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. In addition, your investment may be adversely affected to the extent that, in a class action or direct suit, we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

In addition, we have entered into indemnification agreements with each of our directors and named executive officers, which also provide, subject to certain exceptions, for indemnification for related expenses, including, among others, reasonable attorney's fees, judgments, fines and settlements incurred in any action or proceeding.

Transfer Agent and Registrar

Our transfer agent and registrar for our common stock is Continental Stock Transfer & Trust Company.

Listing

Our common stock is listed on the NASDAQ Global Select Market under the symbol "CLVS".

PLAN OF DISTRIBUTION

We may sell shares of our common stock from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell shares of our common stock separately or together:

through one or more underwriters or dealers;

through agents; and/or

directly to one or more purchasers.

We may distribute shares of our common stock from time to time in one or more transactions:

at a fixed price or prices, which may be changed;

at market prices prevailing at the time of sale;

at prices related to such prevailing market prices; or

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at negotiated prices.

We may solicit directly offers to purchase shares of our common stock being offered by this prospectus. We may also designate agents to solicit offers to purchase shares of our common stock from time to time. We may

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sell shares of our common stock being offered by this prospectus by any method permitted by law, including sales deemed to be an at the market offering as defined in Rule 415(a)(4) under the Securities Act, including without limitation sales made directly on the Nasdaq Global Select Market, on any other existing trading market for shares of our common stock or to or through a market maker. We will name in a prospectus supplement any agent involved in the offer or sale of shares of our common stock.

If we utilize a dealer in the sale of shares of our common stock being offered by this prospectus, we will sell shares of our common stock to the dealer, as principal. The dealer may then resell shares of our common stock to the public at varying prices to be determined by the dealer at the time of resale.

If we utilize an underwriter in the sale of shares of our common stock being offered by this prospectus, we will execute an underwriting agreement with the underwriter at the time of sale and we will provide the name of any underwriter in the prospectus supplement that the underwriter will use to make resales of shares of our common stock to the public. In connection with the sale of shares of our common stock, we or the purchasers of shares of our common stock for whom the underwriter may act as agent may compensate the underwriter in the form of underwriting discounts or commissions. The underwriter may sell shares of our common stock to or through dealers, and the underwriter may compensate those dealers in the form of discounts, concessions or commissions.

We will provide in the applicable prospectus supplement any compensation we will pay to underwriters, dealers or agents in connection with the offering of shares of our common stock, and any discounts, concessions or commissions allowed by underwriters to participating dealers. In compliance with guidelines of the Financial Industry Regulatory Authority, or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate amount of shares of our common stock offered pursuant to this prospectus and any applicable prospectus supplement. Underwriters, dealers and agents participating in the distribution of shares of our common stock may be deemed to be underwriters within the meaning of the Securities Act, and any discounts and commissions received by them and any profit realized by them on resale of shares of our common stock may be deemed to be underwriting discounts and commissions. We may enter into agreements to indemnify underwriters, dealers and agents against civil liabilities, including liabilities under the Securities Act, or to contribute to payments they may be required to make in respect thereof. In the event that an offering made pursuant to this prospectus is subject to FINRA Rule 5121, the prospectus supplement will comply with the prominent disclosure provisions of that rule.

Shares of our common stock may or may not be listed on a national securities exchange. To facilitate the offering of shares of our common stock, certain persons participating in the offering may engage in transactions that stabilize, maintain or otherwise affect the price of shares of our common stock. This may include over-allotments or short sales of shares of our common stock, which involves the sale by persons participating in the offering of more shares of our common stock than we sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option. In addition, these persons may stabilize or maintain the price of shares of our common stock by bidding for or purchasing shares of our common stock in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if shares of our common stock sold by them is repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of shares of our common stock at a level above that which might otherwise prevail in the open market. These transactions may be discontinued at any time.

We may authorize underwriters, dealers or agents to solicit offers by certain purchasers to purchase shares of our common stock from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The contracts will be subject only to those conditions set forth in the prospectus supplement, and the prospectus supplement will set forth any commissions we pay for solicitation of these contracts.

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We may enter into derivative transactions with third parties, or sell shares of our common stock not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement so indicates, in connection with any derivative transaction, the third parties may sell shares of our common stock covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use shares of our common stock pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use shares of our common stock received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and will be identified in the applicable prospectus supplement or a post-effective amendment to the registration statement of which this prospectus is a part. In addition, we may otherwise loan or pledge shares of our common stock to a financial institution or other third party that in turn may sell shares of our common stock short using this prospectus. Such financial institution or other third party may transfer its economic short position to investors in shares of our common stock or in connection with a concurrent offering of other securities.

The underwriters, dealers and agents may engage in transactions with us, or perform services for us, in the ordinary course of business.

LEGAL MATTERS

The validity of shares of our common stock offered by this prospectus will be passed upon for us by Willkie Farr & Gallagher LLP, New York, New York.

EXPERTS

The consolidated financial statements of Clovis Oncology, Inc. incorporated by reference in Clovis Oncology, Inc.'s Annual Report (Form 10-K) for the year ended December 31, 2012, and the effectiveness of Clovis Oncology, Inc.'s internal control over financial reporting as of December 31, 2012, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon, and incorporated herein by reference. Such financial statements are, and audited financial statements to be included in subsequently filed documents will be, incorporated herein in reliance upon the reports of Ernst & Young LLP pertaining to such financial statements and the effectiveness of our internal control over financial reporting as of the respective dates (to the extent covered by consents filed with the Securities and Exchange Commission) given on the authority of such firm as experts in accounting and auditing.

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2,424,242 shares

Common stock

Prospectus Supplement

J.P. Morgan

Credit Suisse

Leerink Swann

June 11, 2013