LA JOLLA PHARMACEUTICAL CO
Form POS AM
April 30, 2014

As filed with the Securities and Exchange Commission on April 30, 2014

Registration No. 333-192250

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Post-Effective Amendment No. 1 to
FORM S-1
REGISTRATION STATEMENT
On Form S-3
UNDER
THE SECURITIES ACT OF 1933

LA JOLLA PHARMACEUTICAL COMPANY
(Exact name of registrant as specified in its charter)

California (State or other jurisdiction of incorporation or organization)	1-36282 (Primary Standard Industrial Classification Code Number)	33-0361285 (I.R.S. Employer Identification No.)

4660 La Jolla Village Drive, Suite 1070
San Diego, California 92122
(858) 207-4264
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

George F. Tidmarsh, M.D., Ph.D.
President and Chief Executive Officer
La Jolla Pharmaceutical Company
4660 La Jolla Village Drive, Suite 1070
San Diego, California 92122
(858) 207-4264
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:
Ryan A. Murr, Esq.
Gibson, Dunn & Crutcher, LLP
555 Mission Street, Suite 3000
San Francisco, California 94105
Phone: (415) 393-8300
Fax: (415) 373-8430

Approximate date of commencement of proposed sale to public: From time to time after this registration statement becomes effective, as determined by the selling stockholders.

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

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act of 1933 registration statement number of the earlier effective registration statement for the same offering. ¨

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Securities Exchange Act of 1934. (Check one):

Large accelerated filer	¨		Accelerated filer	¨
Non-accelerated filer	¨	(Do not check if a smaller reporting company)	Smaller reporting company	x

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

EXPLANATORY NOTE

On November 8, 2013, La Jolla Pharmaceutical Company (the "Company") filed a registration statement with the Securities and Exchange Commission (the "Commission") on Form S-1 (Registration No. 333-192250), which was declared effective on November 19, 2013 (the "Registration Statement" or the "Form S-1"). This Post-Effective Amendment No. 1 to Form S-1 on Form S-3 is being filed by the registrant to convert the Form S-1 into a registration statement on Form S-3, and contains an updated prospectus relating to the offering and sale of the shares that were registered for resale on the Form S-1. All share and per-share numbers (other than the par value of the Company's capital stock) have been adjusted to give effect to a one-for-fifty reverse split of the Common Stock that was implemented on January 14, 2014.

All filing fees payable in connection with the registration of the shares of the Common Stock covered by the Registration Statement were paid by the registrant at the time of the initial filing of the Form S-1.

The information in this preliminary prospectus is not complete and may be changed. These securities may not be distributed until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, Dated April 30, 2014

PROSPECTUS
La Jolla Pharmaceutical Company

2,857,142 Shares of Common Stock

This prospectus covers the sale of an aggregate of up to 2,857,142 shares (the "Shares") of our common stock, $0.0001 par value per share (the "Common Stock"), by the selling stockholders identified in this prospectus (collectively with any such holder's transferee, pledgee, donee or successor, referred to below as the "Selling Stockholders"). The Shares were issued pursuant to a Securities Purchase Agreement dated as of September 24, 2013.

We will not receive any proceeds from the sale by the Selling Stockholders of the shares covered by this prospectus. We are paying the cost of registering the shares covered by this prospectus, as well as various related expenses. The shares included in this prospectus may be offered and sold directly by the Selling Stockholders in accordance with one or more of the methods described in the plan of distribution, which begins on page 5 of this prospectus. The Selling Stockholders are responsible for all selling commissions, transfer taxes and other costs related to the offer and sale of their shares under this prospectus. If required, the number of shares to be sold, the public offering price of those shares, the names of any broker-dealers and any applicable commission or discount will be included in a supplement to this prospectus, called a prospectus supplement.

Our Common Stock is quoted on the NASDAQ Capital Market under the symbol "LJPC". On April 28, 2014, the last reported sale price per share of our Common Stock on the NASDAQ Capital Market was $9.05. Our principal executive offices are located at 4660 La Jolla Village Drive, Suite 1070, San Diego, California 92122 and our telephone number is (858) 207-4264.

In reviewing this prospectus, you should carefully consider the matters described under the heading "Risk Factors" beginning on page 5.

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 , 2014

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All references to “La Jolla,” "the Company," “we,” “our,” “us” and similar terms in this prospectus refer to La Jolla Pharmaceutical Company.

You should rely only on the information contained in this prospectus or a prospectus supplement. We have not authorized anyone to provide you with different information. You should not assume that the information contained in this prospectus is accurate as of any date other than the date on the front of this prospectus.

Some of the industry data contained in this prospectus are derived from data from various third-party sources. While we are not aware of any misstatements regarding any industry data presented herein, such data are subject to change based on various factors, including those discussed under the heading “Risk Factors” in this prospectus.

PROSPECTUS SUMMARY

The following is a summary of some of the information contained in this prospectus. In addition to this summary, we urge you to read the entire prospectus carefully, especially the risks relating to our business and common stock discussed under the heading “Risk Factors” and our financial statements incorporated herein by reference.

La Jolla Pharmaceutical Company

Our Business

La Jolla Pharmaceutical Company is a biopharmaceutical company focused on the discovery, development and commercialization of innovative therapeutics intended to significantly improve outcomes in patients with life-threatening diseases. Our drug development efforts are focused on three product candidates: GCS-100, LJPC-501 and LJPC-401. GCS-100 targets the protein galectin-3, which, when overproduced by the human body, has been associated with chronic organ failure and cancer. In 2013, we conducted a Phase 1 clinical trial and a randomized, placebo-controlled phase 2 clinical trial with GCS-100 for the treatment of chronic kidney disease, or CKD. In March 2014, we announced positive top-line results from the Phase 2 clinical trial of GCS-100 in CKD. LJPC-501 is a peptide agonist of the renin-angiotensin system, which is designed to help restore kidney function in patients with hepatorenal syndrome, or HRS. The Food and Drug Administration, or FDA, accepted our Investigational New Drug Application, or IND, for LJPC-501 for the treatment of HRS and we plan to initiate a Phase 1 clinical trial in 2014. In February 2014, we announced the licensing of technology related to hepcidin (LJPC-401), which will be evaluated for the treatment of iron disorders. We also plan to continue to evaluate other opportunities for potential product candidates for the treatment of unmet medical needs.

Product Portfolio

We have a broad product portfolio consisting of both development-stage and discovery-stage products candidates. We strive to maintain a robust pipeline of product candidates to bring through development and to the market. Some of our product candidates may prove to be beneficial in disease indications beyond those we are now pursuing. We may out-license our product candidates to third parties or in-license other product candidates that are synergistic with our current programs.

GCS-100

Scientific Background

GCS-100 is a complex polysaccharide derived from pectin that binds to, and blocks the activity of galectin-3, a type of galectin. Galectins are a member of a family of proteins in the body called lectins. These proteins interact with carbohydrate sugars located in, on the surface of, and in between cells. This interaction causes the cells to change behavior, including cell movement, multiplication, and other cellular functions. The interactions between lectins and their target carbohydrate sugars occur via a carbohydrate recognition domain, or CRD, within the lectin. Galectins are a subfamily of lectins that have a CRD that bind specifically to ß-galactoside sugar molecules. Galectins have a broad range of functions, including regulation of cell survival and adhesion, promotion of cell-to-cell interactions, growth of blood vessels, regulation of the immune response and inflammation.

Over-expression of galectin-3 has been implicated in a number of human diseases, including chronic organ failure and cancer. This makes modulation of the activity of galectin-3 an attractive target for therapy in these diseases.

Chronic Kidney Disease (CKD)

The initial clinical focus of our development program for GCS-100 is CKD. The United States Renal Data System estimated that, in 2010, approximately 49 million adults in the United States suffered from CKD, 547,982 were being treated for end-stage renal disease ("ESRD"), and 88,630 died as a result of CKD. It was estimated that CKD costs the United States health care system $41 billion per year for Medicare patients alone.

Several recent studies have shown that increased circulating levels of galectin-3 are associated with poorer outcomes in patients with chronic organ failure, including kidney disease. Additionally, a number of preclinical studies using multiple animal models have demonstrated a direct, causal role of galectin-3 expression and secretion in the scar formation (tissue fibrosis) leading to kidney failure. Specifically, animals that have been genetically engineered to lack galectin-3 produce less harmful scar formation after kidney injury or transplantation and have reduced inflammatory cytokine expression and better kidney function. By blocking the activity of galectin-3 pharmacologically, GCS-100 has the potential to reduce the tissue fibrosis that leads to the worsening of kidney function.

Phase 1 Study of GCS-100 in Severe CKD

In May 2013, we announced the completion of a Phase 1 clinical trial in patients with severe CKD. This trial was designed to determine the maximum tolerated dose and safety of a single dose of GCS-100 in this patient population. A total of 29 patients were enrolled and treated in 6 dose cohorts. The maximum tolerated dose was determined by the study's independent data safety monitor to be 30 mg/m2 based on one of the six patients treated at that dose experiencing a Grade 3 adverse event. This event was defined as muscle cramps, which resolved without intervention and without any harm to the patient.

As a secondary endpoint, serum galectin-3 levels were evaluated prior to and for 14 days after the single dose. Baseline galectin-3 levels were inversely correlated with kidney function (defined as estimated glomerular filtration rate, or eGFR). This correlation was statistically significant with a p value of 0.003 and provides additional evidence that elevated levels of galectin-3 are involved in reduced kidney function. Data from this Phase 1 trial were presented at the American Society of Nephrology in November 2013.

Phase 2 Study of GCS-100 in Severe CKD

In March 2014, we announced positive top-line results from our randomized, placebo-controlled Phase 2 trial of GCS-100 in CKD. The trial met its primary efficacy endpoint of a statistically significant improvement in kidney function. Specifically, a dose of 1.5 mg/m2 led to a statistically significant (p=0.045) increase in eGFR compared to placebo between baseline and end of treatment. At the 30 mg/m2 dose, there was no statistically significant difference.

Key secondary endpoints were also met, and the effect on circulating galectin-3 levels was consistent with the effect on eGFR. For the 1.5 mg/m2 dose, there was a statistically significant (p=0.067) reduction in circulating levels of galectin-3, while there was no significant difference at the 30 mg/m2 dose level. Potassium, uric acid and blood urea nitrogen, or BUN, all improved at the 1.5 mg/m2 dose level.

GCS-100 was well-tolerated. Out of 121 patients enrolled, 117 completed treatment, including all 41 patients treated at the 1.5 mg/m2 dose. There were no serious adverse events, or SAEs, in the 1.5 mg/m2 dose group compared to two in the placebo group and two in the 30 mg/m2 group. All SAEs were deemed by the investigators as not drug-related.

Non-alcoholic steatohepatitis (NASH) and Chronic Liver Disease

GCS-100 also has the potential to treat various forms of chronic liver disease also characterized by tissue fibrosis. In 2006, The National Institute of Diabetes and Digestive and Kidney Diseases ("NIDDK") estimated that NASH affects between two and five percent of Americans. In 2004, NIDDK estimated that 5.5 million Americans had chronic liver disease or cirrhosis, and that $1.6 billion was spent annually on the treatment for chronic liver disease and cirrhosis. Chronic liver disease and cirrhosis were estimated to be the 12th leading cause of death in the United States, accounting for approximately 27,000 deaths annually.

We have conducted two preclinical studies examining the effect of GCS-100 on liver fibrosis in mice. The study, which was performed in collaboration with the Stelic Institute, was conducted in an established, benchmark preclinical model for non-alcoholic steatohepatitis-hepatocellular carcinoma, or NASH-HCC. When compared to placebo-treated control animals, GCS-100-treated animals showed a statistically significant reduction in liver fibrosis and a statistically significant improvement in the score of non-alcoholic fatty liver disease, or NAFLD. A statistically significant improvement in liver function was also observed, as measured by the liver enzyme alanine transaminase, or ALT, which in some cases returned to near normal levels.

Other Galectin-3 Inhibitors

Targeting galectin-3 with pectin-based therapeutics such as GCS-100 may be insufficiently specific for the treatment of certain disorders involving over-expression of galectin-3 such as cancer. Therefore, we are exploring alternatives to pectin-based inhibition of galectin-3 for diseases such as cancer. By modulating galectin-3's effects on cell survival, blood vessel growth and the immune response, specific inhibitors of galectin-3 have the potential to treat various forms of cancer. The American Cancer Society estimated that, in 2013, approximately 1.7 million new cases of cancer are expected to be diagnosed in the United States, and cancer will be the cause of death of approximately 600,000 Americans.

LJPC-501

LJPC-501 is a peptide agonist of the renin-angiotensin system that acts to help the kidneys balance body fluids and electrolytes. Studies have shown that LJPC-501 may improve renal function in patients with HRS. HRS is a life-threatening form of progressive renal failure in patients with liver cirrhosis or fulminant liver failure. In these patients, the diseased liver secretes vasodilator substances (e.g., nitric oxide and prostaglandins) into the bloodstream that cause under-filling of blood vessels. This low-blood-pressure state causes a reduction in blood flow to the kidneys. As a means to restore systemic blood pressure, the kidneys induce both sodium and water retention, which contribute to ascites, a major complication associated with HRS.

HRS is categorized into two types, based on the rapidity of the progression of renal failure as measured by a marker called serum creatinine. Type 1 HRS is the more rapidly progressing type and is characterized by a 100% increase in serum creatinine to > 2.5 mg/dL within two weeks. Fewer than 10% of people with Type 1 HRS survive hospitalization, and the median survival is only a few weeks. Type 2 HRS is slower progressing, with serum creatinine rising gradually; however, patients with Type 2 HRS can develop sudden renal failure and progress to Type 1 HRS. Although ascites occurs in both Type 1 and Type 2 HRS, recurrent ascites is a major clinical characteristic of Type 2 HRS patients, and median survival is only four to six months. We estimate that HRS affects an estimated 90,000 people in the United States, and most of these patients will die from this disease.

In February 2013, we conducted a meeting with the FDA to discuss the design for a clinical trial studying LJPC-501 in patients suffering from HRS. Based on this meeting we filed and received an IND for LJPC-501 for the treatment of HRS. We plan to initiate a Phase 1 clinical trial in HRS in 2014.

LJPC-401 (Hepcidin)

LJPC-401 is also known as hepcidin and we licensed intellectual property covering the composition of hepcidin from INSERM in February 2014. The use of hepcidin will be evaluated as a treatment for disorders of iron overload including hemolytic anemia. The active form of hepcidin is a 25 amino acid protein that serves as a master regulator of iron metabolism. Hepcidin synthesis in the liver is regulated by multiple signals including iron stores, erythropoietic activity (the production of red blood cells) and inflammatory cytokines. Iron levels control hepcidin synthesis via the coordinated activity of cell surface receptors.

Hepcidin synthesis in hepatocytes is suppressed by erythropoietic activity by signaling to hepatocytes to decrease hepcidin production. This suppressive effect is particularly strong in diseases of ineffective erythropoiesis such as thalassemia and sickle cell disease. Circulating hepcidin levels are below normal in thalassemia patients despite significant iron overload. In addition, Hereditary Hemochromatosis and the more severe form, juvenile hemochromatosis, are both inherited disorders of reduced hepcidin production and consequently iron overload. Patients with iron accumulate iron in critical organs such as the heart, and pancreas leading to heart failure and diabetes. Patients with iron overlaod are often treated with iron chelators such as deferasirox. Iron chelators are often ineffective or poorly tolerated leading to the need for other technologies, such as hepcidin, for the treatment of iron overload.

Corporate Information

Our principal executive offices are located at 4660 La Jolla Village Drive, Suite 1070, San Diego, California 92122 and our telephone number is (858) 207-4264. Our Internet address is www.ljpc.com. Our website and the information contained on that site, or connected to that site, is not part of or incorporated by reference into this prospectus.

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THE OFFERING

Common stock covered by this prospectus:	Up to 2,857,142 shares of Common Stock
Common stock outstanding as of April 29, 2014:	7,867,199 shares
Use of proceeds:	The Selling Stockholders will receive all of the proceeds from the sale of the shares offered for sale by them under this prospectus. We will not receive proceeds from the sale of the shares by the Selling Stockholders. See “Use of Proceeds.”
Risk factors:	The shares offered hereby involve a high degree of risk. See “Risk Factors” beginning on page 5.
Dividend policy:	We currently intend to retain any future earnings to fund the development activities and operation of our business. Therefore, we do not currently anticipate paying cash dividends on our Common Stock.
Trading Symbol:	Our Common Stock currently trades on the NASDAQ Capital Market under the symbol “LJPC.”

RISK FACTORS

A purchase of our shares of Common Stock is an investment in our securities and involves a high degree of risk. You should carefully consider the risks and uncertainties and all other information contained in or incorporated by reference in this prospectus, including the risks and uncertainties discussed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2013, as updated in our subsequent periodic reports filed with the Securities and Exchange Commission. All of these risk factors are incorporated by reference herein in their entirety. If any of these risks actually occur, our business, financial condition and results of operations would likely suffer. In that case, the market price of the Common Stock could decline, and you may lose part or all of your investment in our company. Additional risks of which we are not presently aware or that we currently believe are immaterial may also harm our business and results of operations.

PLAN OF DISTRIBUTION

The 2,857,142 shares of our Common Stock (the "Shares") offered by this prospectus may be sold by the Selling Stockholders. Such sales may be made in one or more transactions at fixed prices that may be changed, at market prices prevailing at the time of sale, at prices related to such prevailing market prices, or at negotiated prices, and may be made in the over-the-counter market or any exchange on which our Common Stock may then be listed, or otherwise. In addition, the Selling Stockholders may sell some or all of the Shares through:

- a block trade in which a broker-dealer may resell a portion of the block, as principal, in order to facilitate the transaction;
- purchases by a broker-dealer, as principal, and resale by the broker-dealer for its account;
- ordinary brokerage transactions and transactions in which a broker solicits purchasers;
- in negotiated transactions;
- in a combination of any of the above methods of sale; or
- any other method permitted under applicable law.

The Selling Stockholders may also engage in short sales against the box, puts and calls and other hedging transactions in the Shares or derivatives of the Shares and may sell or deliver the Shares in connection with these trades. For example, the Selling Stockholders may:

- enter into transactions involving short sales of our Common Stock by broker-dealers;
- sell our Common Stock short themselves and redeliver any portion of the Shares to close out their short positions;
- enter into option or other types of transactions that require the Selling Stockholder to deliver Shares to a broker-dealer, who will then resell or transfer the Shares under this prospectus; or
- loan or pledge Shares to a broker-dealer, who may sell the loaned Shares or, in the event of default, sell the pledged Shares.

There is no assurance that any of the Selling Stockholders will sell any or all of the Shares offered by them.

The Selling Stockholders may negotiate and pay broker-dealers commissions, discounts or concessions for their services. Broker-dealers engaged by the Selling Stockholders may allow other broker-dealers to participate in resales. However, the Selling Stockholders and any broker-dealers involved in the sale or resale of the Shares may qualify as "underwriters" within the meaning of the Section 2(a)(11) of the Securities Act. In addition, the broker-dealers' commissions, discounts or concessions may qualify as underwriters' compensation under the Securities Act.

The Selling Stockholders will be subject to the prospectus delivery requirements of the Securities Act, unless exempted therefrom.

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In addition to selling the Shares under this prospectus, the Selling Stockholders may:

- transfer their Shares in other ways not involving market makers or established trading markets, including, but not limited to, directly by gift, distribution, privately negotiated transactions in compliance with applicable law or other transfer; or
- sell their Shares under Rule 144 of the Securities Act rather than under this prospectus, if the transaction meets the requirements of Rule 144. Each Selling Stockholder will bear all expenses with respect to the offering of the Shares by such Selling Stockholder.

Each Selling Stockholder will be subject to the applicable provisions of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and the associated rules and regulations under the Exchange Act, including Regulation M, which provisions may limit the timing of purchases and sales of shares of our Common Stock by the Selling Stockholders.

The Selling Stockholders may from time to time pledge or grant a security interest in some or all of the Shares owned by them and, if they default in the performance of their secured obligations, the pledges or secured parties may offer and sell the Shares from time to time under this prospectus after an amendment has been filed under Rule 424(b) or other applicable provision of the Securities Act amending the list of Selling Stockholders to include the pledge, transferee or other successors in interest as "Selling Stockholders" under this prospectus.

The Selling Stockholders also may transfer the Shares in other circumstances, in which case the respective pledgees, donees, transferees or other successors in interest may be the selling beneficial owners for purposes of this prospectus and may sell such Shares from time to time under this prospectus after an amendment or supplement has been filed under Rule 424(b) or other applicable provision of the Securities Act amending or supplementing the list of Selling Stockholders to include the pledge, transferee or other successors in interest as "Selling Stockholders" under this prospectus.

We will make copies of this prospectus available to the Selling Stockholders and have informed them of the need to deliver copies of this prospectus to purchasers at or prior to the time of any sale of the Shares.

We will bear all costs, expenses and fees in connection with the registration of the Shares. The Selling Stockholders will bear all commissions and discounts, if any, attributable to the resale of the Shares. The Selling Stockholders may agree to indemnify any broker-dealer or agent that participates in transactions involving sales of the Shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the Selling Stockholders against certain liabilities, including liabilities under the Securities Act, the Exchange Act and state securities laws, relating to the registration of the Shares offered by this prospectus.

Once sold under the registration statement of which this prospectus is a part, the Shares will be freely tradable in the hands of persons other than our affiliates.

USE OF PROCEEDS

The Selling Stockholders will receive all of the proceeds from the sale of the Shares offered for sale under this prospectus. We will not receive any proceeds from the sale of the Shares by the Selling Stockholders.

SELLING STOCKHOLDERS

This prospectus covers the sale of an aggregate of up to 2,857,142 shares of our Common Stock, $0.0001 par value per share, by the Selling Stockholders.

Each Selling Stockholder represented to us that it was an accredited investor and that it was acquiring the Common Stock for investment only and not with a view towards, or for resale in connection with, the public sale or distribution thereof in a manner that would violate the Securities Act or any applicable state securities laws.

Beneficial ownership is determined in accordance with Securities and Exchange Commission (the "SEC") rules, and generally includes voting or investment power with respect to our Common Stock, Shares of Common Stock subject to options, our Series C-1[2] Convertible Preferred Stock and Series F Convertible Preferred Stock that are currently exercisable or convertible within 60 days of the Measurement Date (defined below) are deemed to be outstanding and to be beneficially owned by the person holding the options or convertible securities for the purpose of computing the percentage ownership of the person, but are not treated as outstanding for the purpose of computing the percentage ownership of any other person.

The following table sets forth certain information regarding the Selling Stockholders, the Shares that may be offered by this prospectus and other shares of Common Stock beneficially owned by them as of November 1, 2013 (the "Measurement Date"). Selling Stockholders may offer Shares under this prospectus from time to time and may elect to sell none, some or all of the Shares set forth below. As a result, we cannot estimate the number of shares of Common Stock that a Selling Stockholder will beneficially own after termination of sales under this prospectus. However, for the purposes of the table below, we have assumed that, after completion of the offering, none of the Shares covered by this prospectus will be held by the Selling Stockholders. In addition, a Selling Stockholder may have sold, transferred or otherwise disposed of all or a portion of that holder's Shares since the date on which they provided information for this table. We are relying on the Selling Stockholders to notify us of any changes in their beneficial ownership after the date they originally provided this information. See "Plan of Distribution" beginning on page 5. Unless otherwise disclosed elsewhere in this Prospectus, except for the ownership of the Common Stock, the Selling Stockholders have not had any material relationship with us within the past three years.

Selling Stockholder (1)	Number of Shares Beneficially Owned Before Offering	Number of Shares Covered by This Prospectus	Number of Shares Beneficially Owned After Offering (2)	Percentage of Shares Beneficially Owned after Offering (3)
Tang Capital Partners, L.P. (4)	444,082	409,801	801,456	9.99%
The Kevin C. Tang Foundation, Inc (5)	383,429	18,768	364,660	4.80%
Boxer Capital Group (6)	481,456	428,571	591,708	9.99%
RTW Investments, LLC (7)	442,009	428,571	588,171	9.99%
Baker Entities (8)	450,726	1,142,857	—	—%
David S. Hunt (9)	190,000	190,000	—	—%
Colt Ventures, Ltd. (10)	114,286	114,286	—	—%
DAFNA (11)	71,430	71,430	—	—%
George F. Tidmarsh, M.D. Ph.D. (12)	1,388,086	21,429	1,366,657	31.00%
MTS Securities, LLC (13)	17,141	17,141	—	—%
Jeffrey Benison IRA (14)	14,286	14,286	—	—%

(1) If required, information about other selling stockholders, except for any future transferees, pledgees, donees or successors of Selling Stockholders named in this table, will be set forth in a prospectus supplement or amendment to the registration statement of which this prospectus is a part. Additionally, post-effective amendments to the registration statement will, to the extent necessary, be filed to disclose any material changes to the plan of distribution from the description contained in the final prospectus. Information regarding beneficial ownership is presented as of the Measurement Date.

(2) This number assumes the sale of all shares offered by this prospectus.

(3) This percentage is based upon 4,404,407 shares of Common Stock outstanding as of the Measurement Date.

(4) Tang Capital Partners, LP ("TCP") shares voting and dispositive power over such shares with Tang Capital Management, LLC and Kevin C. Tang (collectively, "Tang Entities"). The beneficial holdings reported herein include shares of Common Stock underlying various series of convertible preferred stock beneficially owned by TCP. Such preferred stock is convertible into shares of the Company's Common Stock, subject to a limitation such that TCP may only convert such preferred stock to the extent that, after such conversion, the Tang Entities do not beneficially own more than 9.999% of the Company's common stock ("Conversion Limit"). When calculating the Conversion Limit, the Tang Entities are aggregated with the Kevin C. Tang Foundation, Inc., however, for the purpose of the table above, such holdings have not been aggregated for purposes of determining the applicable Conversion Limit. Mr. Tang disclaims beneficial ownership of all shares reported herein except to the extent of his pecuniary interest therein. The address of TCP is 4747 Executive Drive, Suite 510, San Diego, CA 92121.

(5) Kevin C. Tang has sole voting and dispositive power over the shares beneficially owned by The Kevin C. Tang Foundation, Inc. The beneficial holdings reported herein include shares of Common Stock underlying various series of convertible preferred stock beneficially owned by The Kevin C. Tang Foundation, Inc. Such preferred stock is convertible into shares of the Company's Common Stock, subject to the Conversion Limit. When calculating the Conversion Limit, the Tang Entities are aggregated with the Kevin C. Tang Foundation, Inc., however, for the purpose of the table above, such holdings have not been aggregated for purposes of determining the applicable Conversion Limit. The address of The Kevin C. Tang Foundation, Inc. is 4747 Executive Drive, Suite 510, San Diego, CA 92121.

(6) Boxer Asset Management Inc. ("Boxer Management") is the managing member and majority owner of Boxer Capital, LLC ("Boxer Capital"). Joseph Lewis is the sole indirect owner and controls Boxer Management. MVA Investors, LLC ("MVA" and collectively with Boxer Capital, "Boxer Capital Group") is the independent, personal investment vehicle of certain employees of Boxer Capital and Tavistock Life Sciences Company, which is a Delaware corporation and an affiliate of Boxer Capital. As such, MVA is not controlled by Boxer Capital, Boxer Management and Joseph Lewis. The principal business address of both Boxer Capital and MVA is: 440 Stevens Avenue, Suite 100, Solana Beach, CA 92075. The principal business address of both Boxer Management and Joseph Lewis is: c/o Cay House P.O. Box N-7776 E.P. Taylor Drive Lyford Cay, New Providence, Bahamas.

(7) The address of RTW Investments, LLC is 1350 Avenue of the Americas, 28th Floor, New York, NY 10019. Roderick Wong is the Managing Member of RTW Investments, LLC.

(8) The number of shares beneficially owned before the offering includes 297,652 shares of Common Stock directly owned by Baker Brothers Life Sciences, L.P. ("Life Sciences"), a limited partnership the sole general partner of which is Baker Brothers Life Sciences Capital, L.P., a limited partnership the sole general partner of which is Baker Brothers Life Sciences Capital (GP), LLC, 7,457 shares of Common Stock directly owned by 14159, L.P. ("14159"), a limited partnership the sole general partner of which is 14159 Capital, L.P., a limited partnership the sole general partner of which is 14159 Capital (GP), LLC, 22,688 shares of Common Stock directly owned by 667, L.P. (Account #1) ("667 #1") and 778,247 shares of Common Stock owned by 667, L.P. (Account #2) ("667 #2," and together with Life Sciences and 14159, the "Baker Entities"). In addition, the Baker Entities beneficially own, subject to the 9.99% limitation discussed below, up to 107,365 shares of Common Stock that may be acquired upon the conversion of shares of our Series F convertible preferred stock before the offering. The shares of Series F convertible preferred stock have a limit on the ability of the holder to convert, to the extent that the holder would beneficially own greater than 9.99% of the Company's Common Stock following the conversion, provided

that the holder has the ability to increase or decrease this limitation on conversion upon providing the Company with 61 days' prior written notice.Mr. Julian Baker and Mr. Felix Baker share voting and dispositive power over the shares held by the Baker Entities. Mr. Julian Baker and Mr. Felix Baker disclaim beneficial ownership over all shares held by the Baker Entities, except to the extent of their pecuniary interest in such shares. The address for the Baker Entities is 667 Madison Avenue, New York, NY 10065.

(9) The address of David S. Hunt is 1601 Elm Street, Suite 3400, Dallas, TX 75201.

(10) The address of Colt Ventures, Ltd. is 2101 Cedar Springs Road, Suite 1230, Dallas, TX 75201. Darren Blanton is the managing member of Colt Ventures Ltd.

(11) The address of DAFNA Lifescience Select, LTD DAFNA Lifescience, Market Neutral Ltd. and DAFNA Lifescience, Select Ltd. (collectively, "DAFNA") is 10990 Wilshire Blvd., Suite 1400, Los Angeles, CA 90024. Nathan Fiscltel is the managing member of DAFNA.

(12) George F. Tidmarsh, M.D. Ph.D. has served as our President and Chief Executive Officer and one of our directors since January 2012.

(13) The address of MTS Securities, LLC is 623 Fifth Avenue, 14th Floor, New York, NY 10022. Mark Epstein is the Senior Managing Director of MTS Securities, LLC.

(14) The address of Jeffrey Benison is c/o Benjamin Partners, 589 Broadway, 4th Floor, New York, NY 10012.

LEGAL MATTERS

Certain legal matters relating to the validity of the Common Stock offered by this prospectus have been passed upon for us by Ropes & Gray LLP, San Francisco, California.

EXPERTS

Our audited financial statements as of December 31, 2013 and 2012 appearing in this Prospectus and Registration Statement have been audited by Squar, Milner, Peterson, Miranda & Williamson, LLP, an independent registered public accounting firm, as set forth in their report thereon appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We are required to file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document filed by us at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Our filings with the SEC are also available to the public at the SEC's Internet web site at http://www.sec.gov.

We have filed a registration statement, of which this prospectus is a part, covering the securities offered hereby. As allowed by SEC rules, this prospectus does not include all of the information contained in the registration statement and the included exhibits, financial statements and schedules. You are referred to the registration statement, the included exhibits, financial statements and schedules for further information. This prospectus is qualified in its entirety by such other information.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus.

We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below that we have filed with the SEC:

- our Annual Report on Form 10-K for the year ended December 31, 2013;
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2014;
- our current reports on Form 8-K filed with the SEC on January 15, 2014, March 4, 2014, March 11, 2014, and April 9, 2014; and
- the description of our common stock contained in our Registration Statement on Form 8-A, filed on January 28, 2014.

All documents we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, except as to any portion of any report or documents that is not deemed filed under such provisions, (1) on or after the date of filing of the registration statement containing this prospectus and prior to the effectiveness of the registration statement and (2) on or after the date of this prospectus until the earlier of the date on which all of the securities registered hereunder have been sold or the registration statement of which this prospectus is a part has been withdrawn, shall be deemed incorporated by reference in this prospectus and to be a part of this prospectus from the date of filing of those documents.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents. You should direct any requests for documents to Corporate Secretary, La Jolla Pharmaceutical Company, 4660 La Jolla Village Drive, Suite 1070, San Diego, California 92122. Copies of the above reports may also be accessed from our web site at www.ljpc.com. We have authorized no one to provide you with any information that differs from that contained in this prospectus. Accordingly, you should not rely on any information that is not contained in this prospectus. You should not assume that the information in this prospectus is accurate as of any date other than the date of the front cover of this prospectus.

Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus will be deemed modified, superseded or replaced for purposes of this prospectus to the extent that a statement contained in this prospectus modifies, supersedes or replaces such statement.

* * *

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

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

	Amount to be paid
SEC registration fee	$3,128
Printing expense	15,000
Legal fees and expenses	20,000
Accounting fees and expenses	15,000
Transfer Agent Fees	5,000
Miscellaneous Fees	1,872
Total	$60,000

Item 15. Indemnification of Directors and Officers.

The registrant's Articles provide that the liability of the directors of the Company for monetary damages is eliminated to the fullest extent permitted by California law. The Articles and Bylaws provide that the registrant shall fully indemnify its directors and officers who were or are a party or are threatened to be made a party to any threatened, pending or completed action, suit or proceeding (whether civil, criminal, administrative or investigative) by reason of the fact that such person is or was a director or officer of the registrant, or is or was serving at the request of the registrant as a director or officer of another corporation or other enterprise or was a director or officer of a corporation that was a predecessor corporation of the registrant, against expenses (including attorneys' fees), judgments, fines, settlements and other amounts actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person acted in good faith and in a manner such person reasonably believed to be in the best interests of the registrant and, in the case of a criminal proceeding, had no reasonable cause to believe the conduct of such person was unlawful. To indemnify expenses, judgments, etc., California law requires a determination by (a) majority vote of a quorum of disinterested directors, (b) independent legal counsel in a written opinion if such a quorum of directors is not obtainable (c) stockholders, with the shares owned by the person to be indemnified not being entitled to vote thereon, if any, or (d) the court in which the proceeding is or was pending upon application made by the registrant, agent or other person rendering services in connection with the defense, whether or not the application by such person is opposed by the registrant, that the person seeking indemnification has satisfied the applicable standard of conduct. The registrant has also entered into indemnification agreements with its directors and officers that provide indemnification to the fullest extent permitted by California law.

Item 16. Exhibits.

See Exhibit Index set forth on page II-4 to this Registration Statement.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

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

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

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

Provided however, that paragraphs (1)(i), (1)(ii) and (1)(iii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser: each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness; provided, however , that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers, and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such

director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in San Diego, California, on April 30, 2014.

LA JOLLA PHARMACEUTICAL COMPANY

By: /s/ George F. Tidmarsh, M.D., Ph.D.
George F. Tidmarsh, M.D., Ph.D.
President, Chief Executive Officer and Secretary

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature		Date
/s/ George F. Tidmarsh, M.D., Ph.D. George F. Tidmarsh, M.D., Ph.D.	President, Chief Executive Officer and Secretary (Principal Executive Officer, Principal Financial Officer and Principal Accounting Officer) and Director	April 30, 2014
* Saiid Zarrabian	Director	April 30, 2014
* Craig Johnson	Director	April 30, 2014
* Laura Douglass	Director	April 30, 2014

* By /s/ George F. Tidmarsh, M.D., Ph.D.
Attorney-in-fact

EXHIBIT INDEX

Exhibit No.	Description	Source
2.1	Agreement and Plan of Merger of La Jolla Pharmaceutical Company, a Delaware corporation and LJPC Merger Sub, Inc., a California corporation	Incorporated by reference from the Company's Current Report on Form 8-K, filed June 20, 2012
2.2	Asset Purchase Agreement by and among La Jolla Pharmaceutical Company and Solana Therapeutics, Inc., dated as of January 19, 2012	Incorporated by reference from the Company's Current Report on Form 8-K, filed January 20, 2012
3.1	Amended & Restated Articles of Incorporation	Incorporated by reference from the Company's Current Report on Form 8-K, filed September 25, 2013
3.2	Bylaws	Incorporated by reference from the Company's Current Report on Form 8-K, filed June 20, 2012
3.3	Certificate of Determination of Series F Convertible Preferred Stock	Incorporated by reference from the Company's Current Report on Form 8-K, filed September 25, 2013
4.1	Form of Warrant Agreement	Incorporated by reference from the Company's Current Report on Form 8-K filed May 7, 2008 .
4.2	Form of Series C-2 Preferred Stock Purchase Warrant	Incorporated by reference from the Company's Current Report on Form 8-K filed May 28, 2010
4.3	Form of Series D-1 Preferred Stock Purchase Warrant	Incorporated by reference from the Company's Current Report on Form 8-K filed May 28, 2010
5.1	Opinion of Ropes & Gray, LLP	Previously Filed
10.1	Form of Indemnification Agreement	Incorporated by reference from the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2005
10.2	La Jolla Pharmaceutical Company 2010 Equity Incentive Plan, as amended *	Incorporated by reference from Appendix A to the Company's Definitive Revised Proxy Statement filed April 23, 2012
10.3	La Jolla Pharmaceutical Company 2013 Equity Incentive Plan	Incorporated by reference from the Company's Current Report on Form 8-K, filed September 25, 2013
10.4	Form of Restricted Stock Agreement	Incorporated by reference from the Company's Current Report on Form 8-K, filed September 25, 2013
10.5	La Jolla Pharmaceutical Company Retirement Savings Plan	Incorporated by reference from the Company's Current Report on Form 10-Q for the quarter ended September 30, 2010
10.6	Employment Offer Letter by and between La Jolla Pharmaceutical Company and George Francis Tidmarsh, M.D., Ph.D., dated as of January 19, 2012	Incorporated by reference from the Company's Current Report on Form 8-K, filed January 20, 2012
10.7	Consent and Waiver Agreement, dated December 7, 2012	Incorporated by reference from the Company's Current Report on Form 8-K, filed December 10, 2012

10.8	Consent, Waiver and Amendment Agreement, dated March 28, 2013	Incorporated by reference from the Company’s Current Report on Form 10-K, filed April 1, 2013
10.9	Consent and Waiver Agreement, dated as of September 24, 2013	Incorporated by reference from the Company's Current Report on Form 8-K, filed September 25, 2013
10.10	Exchange Agreement, dated as of September 25, 2013	Incorporated by reference from the Company's Current Report on Form 8-K, filed September 25, 2013

10.11	Securities Purchase Agreement, dated September 24, 2013, by and among the Company and the purchasers named therein	Incorporated by reference from the Company's Current Report on Form 8-K, filed September 25, 2013
23.1	Consent of Independent Registered Public Accounting Firm Squar, Milner, Peterson, Miranda & Williamson LLP	Filed herewith
23.2	Consent of Ropes & Gray, LLP	Previously filed
24.1	Powers of Attorney	Previously filed