

## **Cerulean Pharma Inc**

### **COMPANY AND PIPELINE OVERVIEW REPORT**

A comprehensive coverage of the company and a summary of the drug pipeline portfolio.

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# ABOUT COMPANY AND PIPELINE OVERVIEW REPORT

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## GLOSSARY

### Number of Drugs in Active Development

Number of drugs associated with the company or subsidiary that are currently in active development, i.e. the development status for the drug(s) is one of the following: Discovery, Clinical, Phase I, Phase II, Phase III, Pre-registration, Registered, Launched, or Suspended.

### Number of Inactive Drugs

Number of drugs associated with the company or subsidiary that are currently classified as inactive, i.e. where the development status for the drug(s) is one of the following: No Development Reported, Discontinued, or Withdrawn.

### Number of Patents as Owner

Number of patents associated with the company where the company is listed as owner; i.e. the relationship type (or way the patent refers to the company) is: Patent Assignee/Owner, Patent owner (not assignee), Licensee for development and marketing, Licensee – marketing only (Distributor), Patent assignee of family member, Inferred assignee.

### Number of Patents as Third Party

Number of patents associated with the company where the company is listed as third party; i.e. the relationship type (or way the patent refers to the company) is: Patent assignee (not owner), Ex-Licensee for development and marketing, Ex-Licensee marketing only (Distributor), Customer of technology, Ex-Customer of technology, Patent opponent or infringer, Affiliate organization of inventor, Owner of underlying technology.

### Patents summary table

This table represents a summary of the core patent coverage for this company covering Therapeutic EP, US and WO patents since 1990 only.

### Number of Deals

A count of deals where the company or one of its subsidiaries is the primary company.

### Key Indications

Displays top ten key indications for the company and its subsidiaries based on frequency (indications occurring with high and identical frequency are always included, and this may result in more than ten Key Indications being listed). Includes both indications associated with patents where the company is patent owner and indications associated with drugs in active development. A drug is classified as 'active' if it features on a row (or rows) in the current development status table where the status is one of the following: Discovery, Clinical, Phase I, Phase II, Phase III, Pre-registration, Registered, Launched, or Suspended.

### Key Target-based Actions

Displays top ten key target-based actions for the company and its subsidiaries based on frequency (actions occurring with high and identical frequency are always included, and this may result in more than ten Key Target-based Actions being listed). Includes both target-based actions associated with patents where the company patent owner and target-based actions associated with drugs in active development. A drug is classified as 'active' if it features on a row (or rows) in the current development status table where the status is one of the following: Discovery, Clinical, Phase I, Phase II, Phase III, Pre-registration, Registered, Launched, or Suspended. A target-based action is one that is associated with a target.

### Key Technologies

Displays top ten key technologies for the company and its subsidiaries based on frequency (technologies occurring with high and identical frequency are always included, and this may result in more than ten Key Technologies being listed). Includes both key technologies associated with patents where the company relationship is patent owner and key technologies associated with drugs in active development. A drug is classified as 'active' if it features on a row (or rows) in the current development status table where the status is one of the following: Discovery, Clinical, Phase I, Phase II, Phase III, Pre-registration, Registered, Launched, or Suspended.

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**PLEASE NOTE:** the financials section where present in the report includes: Share Information, Stock Performance chart (including the consensus recommendation), and Major Shareholders. Financial Performance presents graphical and tabular data on Worldwide Sales, Operating Income and Net Income over time, together with a Quarterly earnings update. Balance Sheet lists Assets, Liabilities and Stockholders Equity, and Forecasts includes: EPS Forecast and Other Forecasts. The data reported in all sections (except share information and major stock holders) are correct as of the publication date of the report (and not the download date). For share information and major stock holders the data is correct for the date shown with these sections

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# Cerulean Pharma Inc

## COMPANY OVERVIEW

|  |   |
|--|---|
| <b>Company Name</b>                          | Cerulean Pharma Inc   |
| <b>Parent Company Name</b>                   | Cerulean Pharma Inc   |
| <b>Website</b>                               | <a href="http://ceruleanrx.com/">http://ceruleanrx.com/</a>   |
| <b>Country</b>                               | US  |
| <b>Number of Drugs in Active Development</b> | 4   |
| <b>Number of Inactive Drugs</b>              | 1   |
| <b>Number of Patents as Owner</b>            | 28  |
| <b>Number of Patents as Third Party</b>      | 4   |
| <b>Number of Deals</b>                       | 2   |
| <b>Key Indications</b>                       | Cancer,Breast tumor,Non-small-cell lung cancer,Ovary tumor,Stomach tumor,Renal tumor,Cardiovascular disease,Rectal tumor,Advanced solid tumor,Small-cell lung cancer  |
| <b>Key Target-based Actions</b>              | Topoisomerase I inhibitor,Hypoxia inducible factor-1 alpha inhibitor,Proteasome inhibitor,Topoisomerase II inhibitor,DHFR inhibitor,DNA polymerase inhibitor,Ferritin stimulator,Hemagglutinin inhibitor,Hemagglutinin modulator,JAK tyrosine kinase inhibitor,PLK1 gene inhibitor,Respiratory syncytial virus protein F stimulator,Thymidylate synthase inhibitor,Transferase inhibitor,VEGF receptor antagonist |
| <b>Key Technologies</b>                      | Nanoparticle formulation,Small molecule therapeutic,PEGylated formulation,Intravenous formulation,Nanoparticle formulation injectable,Oligonucleotide,Biological therapeutic,Infusion,Formulation   |

## COMPANY PROFILE

### SUMMARY

Cerulean Pharma (formerly Tempo Pharmaceuticals Inc) is a biopharmaceutical company specializing in the development of nanoparticle-based therapeutics for oncology, autoimmune and inflammatory diseases, based on its Nanocell technology that was exclusively licensed from the Massachusetts Institute of Technology. In October 2008, the company changed its name to Cerulean Pharma.

### FINANCIAL

In March 2015, the company initiated an underwritten public offering of approximately \$50 million of shares of its common stock. The company intended to grant the underwriters a 30-day option to buy up to an additional 15% of the shares of common stock sold in the offering. In April 2015, the company priced an underwritten public offering of 5,840,000 common stock shares at \$6.00 per share. At that time, the company granted the underwriters a 30-day option to purchase an additional 876,000 shares of common stock; later that month, the company closed an underwritten public offering of 6,716,000 shares of common stock, including 876,000 shares at \$6.00 per share. The gross proceeds from the offering were \$40.3 million.

In January 2015, the company entered into a loan and security agreement with Hercules Technology Growth Capital for a term loan of up to \$26.0 million and completed a private placement for \$1.0 million of Cerulean common stock with Hercules. Cerulean issued Hercules a warrant to purchase 171,901 shares of Cerulean common stock at an exercise price of \$6.05 per share. At that time, Hercules purchased 135,501 shares of unregistered Cerulean common stock at \$7.38 per share for an aggregate purchase price of \$1.0 million.

In April 2014, Cerulean priced its IPO of 8,500,000 shares of its common stock US \$7.00 per share. Underwriters were granted a 30-day option to purchase an additional 1,275,000 shares. Stock to be listed on the NASDAQ Global Market under the ticker symbol 'CERU'. At that time, the offering was expected to close on April 15, 2014. Later that month, the offering was closed. In May 2014, underwriters for the IPO exercised their over-allotment option and purchased an additional 1,069,715 shares, bringing total number of shares sold to 9,569,715 shares and total gross proceeds to \$67 million.

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In December 2011, Cerulean raised \$15 million from a series D financing.

In November 2010, Cerulean raised \$24 million from a series C financing.

In July 2009, Cerulean raised \$10 million from a series B-1 financing.

In January 2008, Tempo raised \$8.1 million from a series B financing.

In May 2007, Tempo raised \$12.1 million from a series A financing round.

In December 2006, Tempo raised \$2 million from a seed round.

## COMPANY FINANCIALS

### SHARE INFORMATION

|                                      |                   |
|--------------------------------------|-------------------|
| Close Price (USD)                    | 5.94              |
| Change (USD)                         | -0.33 (-5.26%)    |
| Previous Close Price (USD)           | 6.27              |
| Volume                               | 319,686           |
| 52-Week High (USD)                   | 10.87             |
| 52-Week Low (USD)                    | 3.35              |
| Date                                 | 27-Apr-2015       |
| Exchange                             | NASDAQ(COMPOSITE) |
| Current Number of Shares Outstanding | 20,375,987        |
| Current Market Capitalization        | 127,757,438       |
| EPS (Date Reported)                  | -1.60442          |

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STOCK PERFORMANCE

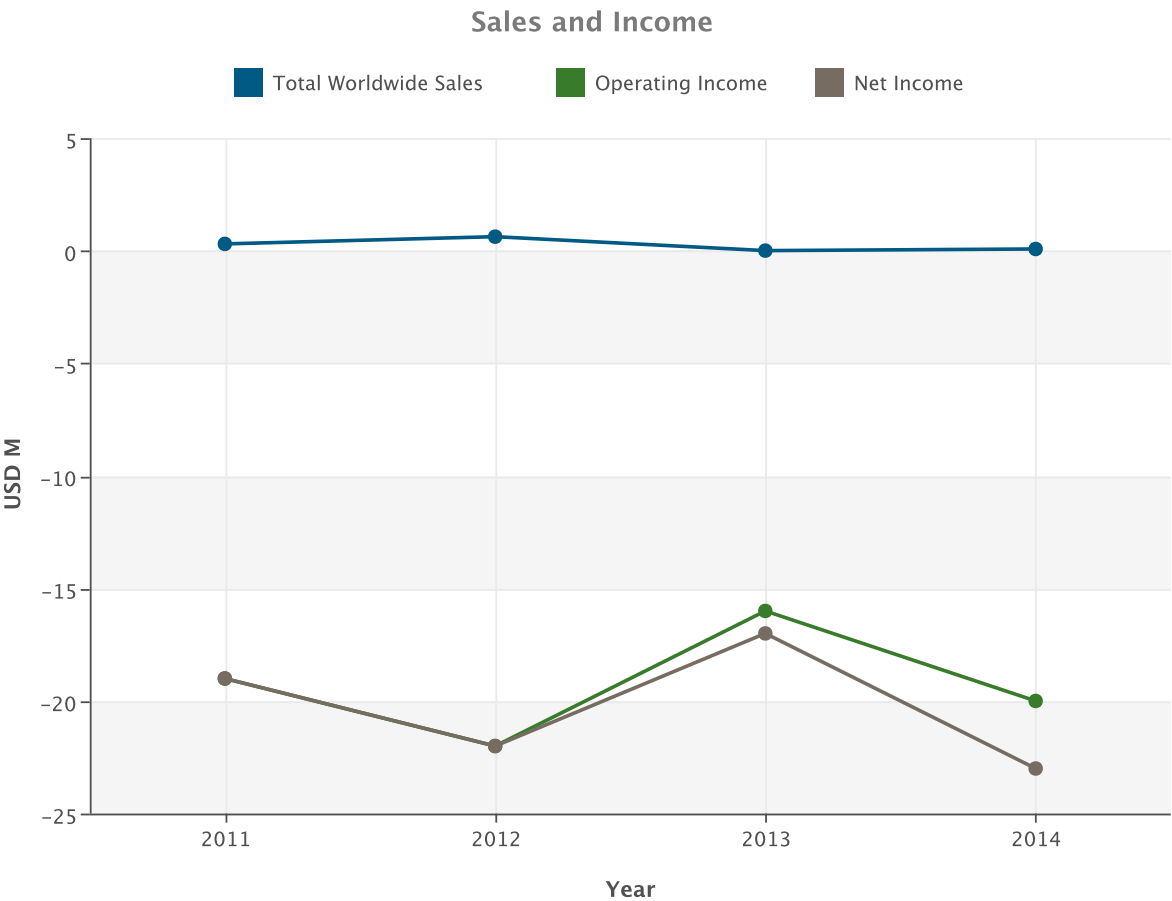


MAJOR SHAREHOLDERS

| Shareholder                       | Type               | Country       | Shares held | % of shares held | Change in holding | % changes in shares held | Date        |
|-----------------------------------|--------------------|---------------|-------------|------------------|-------------------|--------------------------|-------------|
| Longview Asset Management, L.L.C. | Investment Advisor | United States | 2,592,577   | 9.57             | 333,333           | 0.15                     | 07-Apr-2015 |

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|                          | 2011    | 2012    | 2013    | 2014    |  |
|--------------------------|---------|---------|---------|---------|--|
| Sales (USD M)            | 0.305   | 0.625   | 0.006   | 0.08    |  |
| Operating Income (USD M) | -18.878 | -21.575 | -15.86  | -20.279 |  |
| Net Income (USD M)       | -18.942 | -22.101 | -17.143 | -23.342 |  |

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## Quarterly earnings update

| Period  | Sales (USD M) | Operating Income (USD M) | Net Income (USD M) |
|---------|---------------|--------------------------|--------------------|
| 2014 Q4 | 0             | -7.308                   | -7.467             |
| 2014 Q3 | 0             | -5.369                   | -5.558             |
| 2014 Q2 | 0.033         | -4.644                   | -7.403             |
| 2014 Q1 | 0.047         | -2.958                   | -2.914             |
| 2013 Q4 | 0.006         | -3.009                   | -3.48              |
| 2013 Q3 | 0             | -2.813                   | -3.198             |
| 2013 Q2 | 0             | -4.587                   | -4.893             |
| 2013 Q1 | 0             | -5.451                   | -5.572             |
| 2012 Q4 | 0             | -5.188                   | -5.526             |

## BALANCE SHEET

### Assets (USD M)

|                                     | 2011   | 2012   | 2013  | 2014   |  |
|-------------------------------------|--------|--------|-------|--------|--|
| Cash & Short Term Investments       | 15.345 | 16.707 | 5.488 | 51.174 |  |
| Inventories - Total                 | 0      | 0      | 0     | 0      |  |
| Current Assets - Total              | 15.677 | 17.064 | 6.447 | 52.836 |  |
| Property, Plant And Equipment - Net | 0.611  | 0.442  | 0.245 | 0.342  |  |
| Other Assets - Total                | 0.402  | 0.155  | 0.135 | 0.215  |  |
| Total Assets                        | 16.69  | 17.661 | 6.827 | 53.393 |  |

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## Liabilities (USD M)

|   | 2011  | 2012   | 2013   | 2014  |  |
|---|-------|--------|--------|-------|--|
| Accounts Payable                                    | 1.063 | 0.9    | 0.914  | 1.255 |  |
| Short Term Debt & Current Portion Of Long Term Debt | 0.127 | 2.869  | 11.958 | 3.124 |  |
| Current Liabilities - Total                         | 3.514 | 6.524  | 15.146 | 8.061 |  |
| Long Term Debt                                      | 0     | 6.258  | 3.124  | 0     |  |
| Deferred Taxes                                      | 0     | 0      | 0      |       |  |
| Other Liabilities                                   | 0.822 | 1.167  | 1.331  | 0.007 |  |
| Total Liabilities                                   | 4.336 | 13.949 | 19.601 | 8.068 |  |

## Stockholders Equity (USD M)

|  | 2011   | 2012   | 2013   | 2014   |  |
|--|--------|--------|--------|--------|--|
| Minority Interest                        | 0      | 0      | 0      | 0      |  |
| Preferred Stock                          | 70.751 | 83.751 | 81.525 | 0      |  |
| Common Stock                             | 0.001  | 0.001  | 0      | 0.002  |  |
| Treasury Stock                           | 0      |        | 0      |        |  |
| Total Liabilities & Shareholders' Equity | 16.69  | 17.661 | 6.827  | 53.393 |  |

## FORECASTS

### EPS Forecast

| Year ending | Current Forecast | 1 month ago | 3 months ago |
|-------------|------------------|-------------|--------------|
| 31-Dec-2015 | -2.04            | -2.18       | -2.16        |
| 31-Dec-2016 | -2.22            | -2.35       | -2.36        |
| 31-Dec-2017 | -2.91            | -3.27       | -3.31        |

### Other Forecasts

| Year ending | DPS | CPS | Pretax | Sales |
|-------------|-----|-----|--------|-------|
| 31-Dec-2015 |     |     | -47.51 | 0     |
| 31-Dec-2016 |     |     | -60.76 | 0     |
| 31-Dec-2017 |     |     | -79.44 | 0     |

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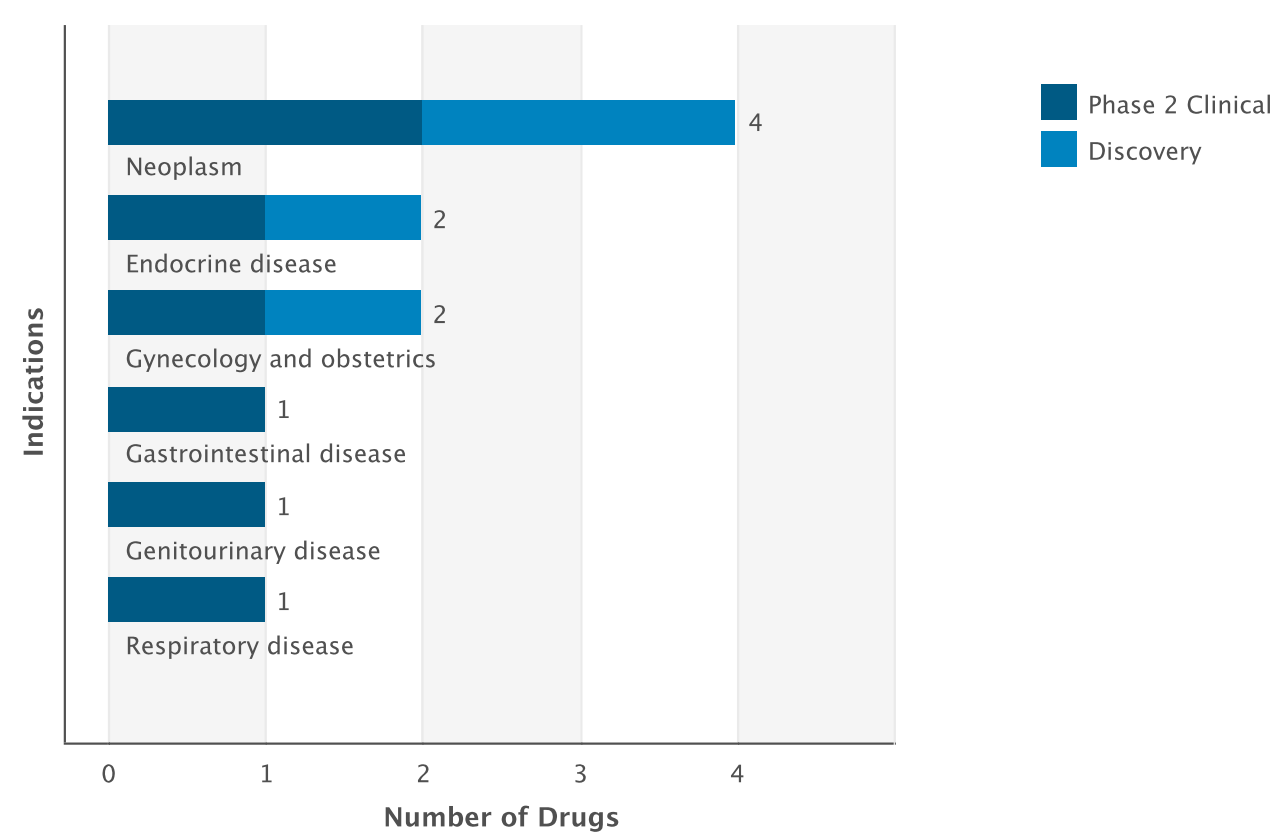


PRODUCT PORTFOLIO SUMMARY

DRUGS

Drugs by Indication

Active Drugs by Indication Chart



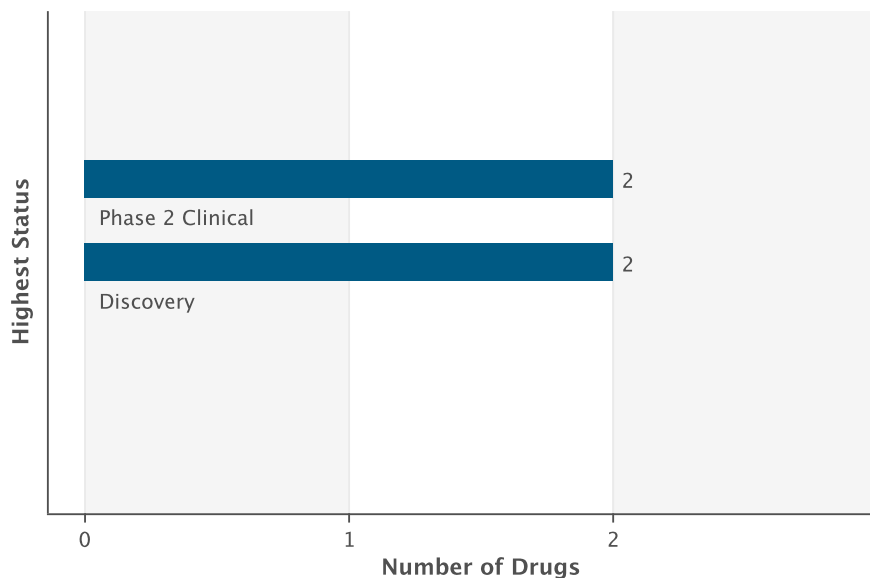
Drugs by Indication Table

| Indication                | Active | Inactive | Total |
|---------------------------|--------|----------|-------|
| Neoplasm                  | 4      | 1        | 5     |
| Endocrine disease         | 2      | 0        | 2     |
| Gynecology and obstetrics | 2      | 0        | 2     |
| Gastrointestinal disease  | 1      | 0        | 1     |
| Respiratory disease       | 1      | 0        | 1     |
| Genitourinary disease     | 1      | 0        | 1     |

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## Drugs by Highest Status

Active Drugs by Highest Status Chart



Drugs by Highest Status Table

| Development Status      | Number of Drugs |
|-------------------------|-----------------|
| Phase 2 Clinical        | 2               |
| Discovery               | 2               |
| No Development Reported | 1               |

## DEALS

| Deal Type                                    | Principal |          | Partner |          | Total |
|--|-----------|----------|---------|----------|-------|
|  | Active    | Inactive | Active  | Inactive |       |
| Drug - Development/Commercialization License | 0         | 0        | 1       | 0        | 1     |
| Drug - Development Services                  | 0         | 0        | 1       | 0        | 1     |

## CLINICAL TRIALS

Trials by Condition Studied

| Condition Studied        | Ongoing | All |
|--------------------------|---------|-----|
| Neoplasm                 | 5       | 8   |
| Genitourinary disease    | 2       | 3   |
| Gastrointestinal disease | 2       | 2   |

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|                           |   |   |
|---------------------------|---|---|
| Gynecology and obstetrics | 1 | 2 |
| Endocrine disease         | 1 | 2 |
| Respiratory disease       | 0 | 1 |

### Trials by Phase

| Phase   | Ongoing | All |
|---------|---------|-----|
| Phase 2 | 1       | 3   |
| Phase 1 | 4       | 5   |

### Phase Definitions

#### Phase 3 Clinical

Includes Phase 3, Phase 3b, Phase 3a, Phase 2/3 (where enrolment count is 300 or over)

#### Phase 2 Clinical

Includes Phase 2, Phase 2a, Phase 2b, Phase 1/2 (where enrolment count is 100 or over), Phase 2/3 (where enrolment count is under 300 or not specified)

#### Phase 1 Clinical

Includes Phase 1, Phase 1a, Phase 1, Phase 1/2 (where enrolment count is under 100 or not specified), Phase 0

### PATENTS \*

| Indication               | As Owner | As Third Party | Total |
|--------------------------|----------|----------------|-------|
| Cardiovascular disease   | 10       | 1              | 11    |
| Endocrine disease        | 12       | 0              | 12    |
| Gastrointestinal disease | 14       | 0              | 14    |
| Genitourinary disease    | 8        | 0              | 8     |
| Growth disorder          | 1        | 0              | 1     |
| Hematological disease    | 4        | 0              | 4     |
| Degeneration             | 2        | 0              | 2     |
| Andrology                | 2        | 0              | 2     |
| Immune disorder          | 15       | 1              | 16    |
| Psychiatric disorder     | 1        | 0              | 1     |
| Musculoskeletal disease  | 6        | 0              | 6     |
| Neoplasm                 | 26       | 1              | 27    |
| Ocular disease           | 2        | 0              | 2     |
| Genetic disorder         | 2        | 0              | 2     |

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|                                |    |   |    |
|--------------------------------|----|---|----|
| Metabolic disorder             | 11 | 0 | 11 |
| Neurological disease           | 6  | 0 | 6  |
| Nutritional disorder           | 3  | 0 | 3  |
| Respiratory disease            | 6  | 3 | 9  |
| Infectious disease             | 5  | 3 | 8  |
| Inflammatory disease           | 14 | 1 | 15 |
| Otorhinolaryngological disease | 1  | 0 | 1  |
| Gynecology and obstetrics      | 8  | 0 | 8  |
| Dermatological disease         | 6  | 0 | 6  |

\* This table represents a summary of the core patent coverage for this company covering Therapeutic EP, US and WO patents since 1990 only.

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## PRODUCT PORTFOLIO DRUGS

**PLEASE NOTE:** Highest status refers to highest development of that drug for one of the active companies

### camptothecin nanoparticle (cancer), Cerulean Pharma

|                             |  |
|-----------------------------|--|
| <b>Drug Name</b>            | camptothecin nanoparticle (cancer), Cerulean Pharma  |
| <b>Key Synonyms</b>         |  |
| <b>Originator Company</b>   | Calando Pharmaceuticals Inc  |
| <b>Active Companies</b>     | Cerulean Pharma Inc  |
| <b>Inactive Companies</b>   | Calando Pharmaceuticals Inc  |
| <b>Highest Status</b>       | Phase 2 Clinical   |
| <b>Active Indications</b>   | Small-cell lung cancer, Non-small-cell lung cancer, Breast tumor, Renal tumor, Ovary tumor, Stomach tumor, Rectal tumor  |
| <b>Target-based Actions</b> | Topoisomerase I inhibitor, Hypoxia inducible factor-1 alpha inhibitor  |
| <b>Other Actions</b>        | Anticancer, Synergist  |
| <b>Technologies</b>         | Nanoparticle formulation injectable, Controlled release formulation, Intravenous formulation, Small molecule therapeutic |
| <b>Last Change Date</b>     | 14-Apr-2015  |

### docetaxel (Cyclodextrin Nanoparticle Technology), Cerulean

|                             |  |
|-----------------------------|--|
| <b>Drug Name</b>            | docetaxel (Cyclodextrin Nanoparticle Technology), Cerulean   |
| <b>Key Synonyms</b>         | docetaxel  |
| <b>Originator Company</b>   | Cerulean Pharma Inc  |
| <b>Active Companies</b>     | Cerulean Pharma Inc  |
| <b>Inactive Companies</b>   |  |
| <b>Highest Status</b>       | Phase 2 Clinical   |
| <b>Active Indications</b>   | Advanced solid tumor, Cancer   |
| <b>Target-based Actions</b> |  |
| <b>Other Actions</b>        | Microtubule inhibitor, Anticancer, Cell cycle inhibitor  |
| <b>Technologies</b>         | Nanoparticle formulation injectable, Intravenous formulation, Infusion, Small molecule therapeutic |
| <b>Last Change Date</b>     | 19-Mar-2015  |

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## siRNA-containing polymeric nanoparticle technology (cancer), Cerulean

|                             |   |
|-----------------------------|---|
| <b>Drug Name</b>            | siRNA-containing polymeric nanoparticle technology (cancer), Cerulean |
| <b>Key Synonyms</b>         |   |
| <b>Originator Company</b>   | Cerulean Pharma Inc   |
| <b>Active Companies</b>     | Cerulean Pharma Inc   |
| <b>Inactive Companies</b>   |   |
| <b>Highest Status</b>       | Discovery   |
| <b>Active Indications</b>   | Breast tumor  |
| <b>Target-based Actions</b> |   |
| <b>Other Actions</b>        | Anticancer, siRNA agent   |
| <b>Technologies</b>         | Oligonucleotide, Nanoparticle formulation, Biological therapeutic     |
| <b>Last Change Date</b>     | 24-Sep-2014   |

## CRLX-522

|                             |  |
|-----------------------------|--|
| <b>Drug Name</b>            | CRLX-522   |
| <b>Key Synonyms</b>         |  |
| <b>Originator Company</b>   | Cerulean Pharma Inc                                  |
| <b>Active Companies</b>     | Cerulean Pharma Inc                                  |
| <b>Inactive Companies</b>   |  |
| <b>Highest Status</b>       | Discovery  |
| <b>Active Indications</b>   | Cancer   |
| <b>Target-based Actions</b> |  |
| <b>Other Actions</b>        | Anticancer   |
| <b>Technologies</b>         | Nanoparticle formulation, Small molecule therapeutic |
| <b>Last Change Date</b>     | 17-Apr-2014  |

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