

## Argos Therapeutics Inc

### COMPANY AND PIPELINE OVERVIEW REPORT

Coverage of the company and a summary of the drug pipeline portfolio.

Publication Date: 19-Feb-2014

#### THOMSON REUTERS

3 Times Square  
New York, New York 10036  
United States

Tel: +1 646 223 4000

[thomsonreuters.com](http://thomsonreuters.com)

[Return to Table of Contents](#)



## ABOUT COMPANY AND PIPELINE OVERVIEW REPORT

Thomson Reuters provides the knowledge, tools, and expertise to help support drug discovery and development activities, IP portfolio optimization, identification of licensing and partnering opportunities, delivery of successful regulatory submissions, and the ability to keep current with the rapidly-changing pharmaceutical and chemical markets, supporting informed, early decisions.

This report was created by Thomson Reuters, using information from *Thomson Reuters Cortellis™ for Competitive Intelligence*; a comprehensive, proven intelligence solution that leverages the most accurate, complete, and widely respected drug pipeline information. From drug discovery and development activities to patent reports, the latest deals, and partnering opportunities, *Cortellis* can provide the confidence to make the most informed business decisions, faster. *Cortellis for Competitive Intelligence* provides accurate and validated information on pharmaceutical and biotechnology companies globally, their drug pipelines, deals, patents, and clinical trials, plus breaking industry news and conference coverage. All contained in one simple, highly intuitive research platform.

*Cortellis* Company and Pipeline Overview reports are the first in a series of reports that track pharmaceutical and biotechnology companies worldwide. Further report offerings planned to follow include: Company Detailed Pipeline and Company Competitive Landscape reports. All *Cortellis for Competitive Intelligence* content is subject to the most comprehensive editorial review process available, conducted by scientists, pharma professionals, regulatory experts, and generics specialists. Featuring timely drug pipeline information expertly uncovered and integrated from a significant number of global meetings each year, you'll always be on top of the latest developments.

Chosen by leading life sciences companies, their executives and investors, *Cortellis for Competitive Intelligence* accelerates your deal-making and gives you timely insights on the development landscape.

**Discover undiscovered opportunities in drug development and licensing faster with *Thomson Reuters Cortellis™ for Competitive Intelligence***

## DISCLAIMER

The information contained in this report is based on sources believed to be correct but Thomson Reuters does not guarantee the accuracy, timeliness, or completeness of this information. Opinions, if any, are those held by the author of any individual report or article at the time of initial publication and do not necessarily reflect the views of Thomson Reuters.

Information in this report on companies is intended for reference use only, and does not constitute a recommendation to buy or sell any particular security or other investment and does not constitute an offer to buy from or sell to any particular investor. Any company or securities mentioned in this report may not be suitable for any particular investor, depending on that investor's financial position and needs.

[Return to Table of Contents](#)



## 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.

[Return to Table of Contents](#)



TABLE OF CONTENTS

Company Overview..... 5

Company Profile..... 6

Subsidiary Companies..... 7

Product Portfolio Summary..... 8

Product Portfolio Drugs..... 11

[Return to Table of Contents](#)

# Argos Therapeutics Inc

## COMPANY OVERVIEW

Company Name	Argos Therapeutics Inc
Parent Company Name	Argos Therapeutics Inc
Website	<a href="http://www.argostherapeutics.com/">http://www.argostherapeutics.com/</a>
Country	US
Number of Drugs in Active Development	4
Number of Inactive Drugs	5
Number of Patents as Owner	17
Number of Patents as Third Party	2
Number of Deals	11
Key Indications	Autoimmune disease, Transplant rejection, Systemic lupus erythematosus, HIV infection, Inflammatory disease, Renal cell carcinoma, Allergy, Insulin dependent diabetes, Myasthenia gravis, Asthma, Diabetes mellitus, Graves disease, Hashimoto's disease, Multiple sclerosis, Pemphigus, Psoriasis
Key Target-based Actions	Interferon alpha ligand inhibitor, CD83 antagonist, CD40 ligand receptor antagonist, IL-12 antagonist, SL cytokine ligand inhibitor, CD80 antagonist, CD86 antagonist, HLA class II antigen inhibitor, IL-10 antagonist, IL-2 receptor alpha subunit inhibitor, IL-23 antagonist, IL-4 agonist, Proteasome inhibitor, TNF antagonist
Key Technologies	Biological therapeutic, Cell therapy, Injectable formulation, Intradermal formulation, Parenteral formulation unspecified, Immunoglobulin-G, Infusion, Intravenous formulation, Monoclonal antibody humanized, Small molecule therapeutic, Subcutaneous formulation, T-lymphocyte

## COMPANY PROFILE

### SUMMARY

Argos Therapeutics (formerly Merix Bioscience Inc) is a venture-backed, start-up immunotherapy company dedicated to the treatment of metastatic cancers and chronic infectious diseases resistant to current therapies. In October 2004, the company changed its name from Merix Bioscience Inc to Argos Therapeutics Inc.

### COMPANY LOCATION

In October 2001, Merix established a wholly owned subsidiary, Merix Germany GmbH, in Erlangen, Germany, to conduct dendritic cell research focusing on Merix's RNA platform. This subsidiary was renamed Argos Therapeutics GmbH, when the parent company changed its name in October 2004.

### LICENSING AGREEMENTS

Argos Therapeutics and Therakos, a subsidiary of Johnson & Johnson, have entered an agreement to research and develop regulatory T cell technology-based treatments. The technology was previously developed by Argos.

In April 2006, Argos licensed exclusive rights to use the soluble protein, CD83, for autoimmune disorders and transplant rejection, from Beckman Coulter. Beckman Coulter licensed rights to the protein from the Dana-Farber Cancer Institute, and retained rights to diagnostic use of CD83.

In June 2004, Merix and Kirin Brewery Co Ltd signed an agreement for the development of therapies using dendritic cells, initially for the treatment of cancer and HIV. The companies would jointly conduct research and development and share profits worldwide. Merix would commercialize in the US and Canada and Kirin in Asia. Opportunities in Europe and the rest of the world were to be decided jointly. Kirin made an equity investment in Merix and appointed a member to Merix's board. Each company was to contribute \$45-65 million during the first three years of the collaboration..

In March 2004, Geron Corp and Merix entered into second agreement, in which Geron acquired exclusive rights to use Merix's platform technology in therapeutic cancer vaccines using telomerase as an antigen. Geron and Merix also gained coexclusive rights to use the Merix technology in cancer vaccines using antigens other than telomerase, while

[Return to Table of Contents](#)



Merix retained exclusive rights to use it with total tumor RNA and other uncharacterized antigens. The companies also agreed to a cross licensing arrangement with respect to a new technology in the same field. Geron issued 5 million shares of its common stock to Merix in connection with the deal. The companies entered the first agreement in August 2000, to assess the clinical and commercial potential of hTERT RNA as an antigen for cancer immunotherapy using Merix's delivery system. Geron provided expertise and proprietary rights in the field of telomerase. Under the terms of the collaboration, Geron would sponsor preclinical studies at Duke University to confirm the safety and efficacy of hTERT RNA-modified dendritic cells to mediate immune responses against tumors. Studies would be performed in parallel with Merix. Geron and Merix would jointly determine the clinical development plan for the combined technology platform.

## EARLY R&D

In June 2009, the company reported results from studies investigating the progression of HIV infection. The HIV viral protein R (Vpr) was believed to be required for the establishment of HIV infection. Some known C terminal VPr mutations did not reduce the block of IL-12 production by the virus, but an amino acid substitution, R90K, completely reversed this suppression.

In October 2008, data were published showing that the company's RNA-electroporated dendritic cells generated high-avidity cytotoxic T cells in vitro. Later that month, further results published showed that the company's dendritic cells could improve dendritic cells-based immunotherapy.

## IP NEWS

In November 2001, the USPTO issued Merix a core patent, which had previously been licensed on an exclusive worldwide basis from Duke University, and which provides the company with substantially more options for treating cancer and infectious diseases. Using defined RNA antigens Merix could target certain cancers and infectious diseases, such as hepatitis C, with autologous dendritic cell vaccines.

## R&D GRANTS

In October 2006, the NIH awarded Argos Therapeutics a 5-year, \$21 million contract to develop novel HIV immunotherapy candidates. The goal of the contract was to determine the immunogenicity of Argos' HIV immunotherapy candidate and then develop more potent next-generation product candidates. Optimized therapies would then be tested in a multicenter, randomized, placebo-controlled clinical trial. Argos teamed up with several leading institutions which would participate in the development program. The award would cover all of the costs associated with the development of the next-generation HIV immunotherapies, plus portions of costs related to Argos' existing HIV candidate development. Argos would retain commercial rights to any candidates that were developed.

## FINANCIAL

In February 2014, the company planned to issue 5.625 million shares of common stock at a price of \$8 per share through an initial public offering. Underwriters were granted 30-day option to purchase 843,750 additional shares of common stock. At that time, Argos shares were traded under the symbol "ARGS" on the NASDAQ Global Market.

In August 2013, the company raised \$42.5 million in a series E financing. At that time, Pharmstandard International SA, a subsidiary of Pharmstandard OJSC had purchased 9,214,233 preferred shares and 1,417,571 warrants for US \$12 million, in a total consideration of US \$30 million in the series E financing round. At that time, the company planned for three tranches including the conditional last tranche of US \$6 million, following phase III positive data in AGS-003. In November 2013, the company increased the size of the series E financing of \$17.5 million for a total consideration of \$60 million.

In April 2012, the company raised \$25 million in a series D financing.

In July 2011, the company filed a registration statement with the SEC for an IPO of shares.

In April 2008, Argos raised \$35.2 million from series C financing. In November 2008, the company raised \$35.2 million from the second tranche of series C financing round.

In April 2007, Argos raised \$5 million in a 3-year debt financing.

In September 2001, Merix completed a \$39.5 million round of private financing. This second included previous and new domestic and international institutions. The funds would be used to advance clinical trials of a cancer vaccine and to expand the Merix platform for immunostimulation.

[Return to Table of Contents](#)



SUBSIDIARY COMPANIES

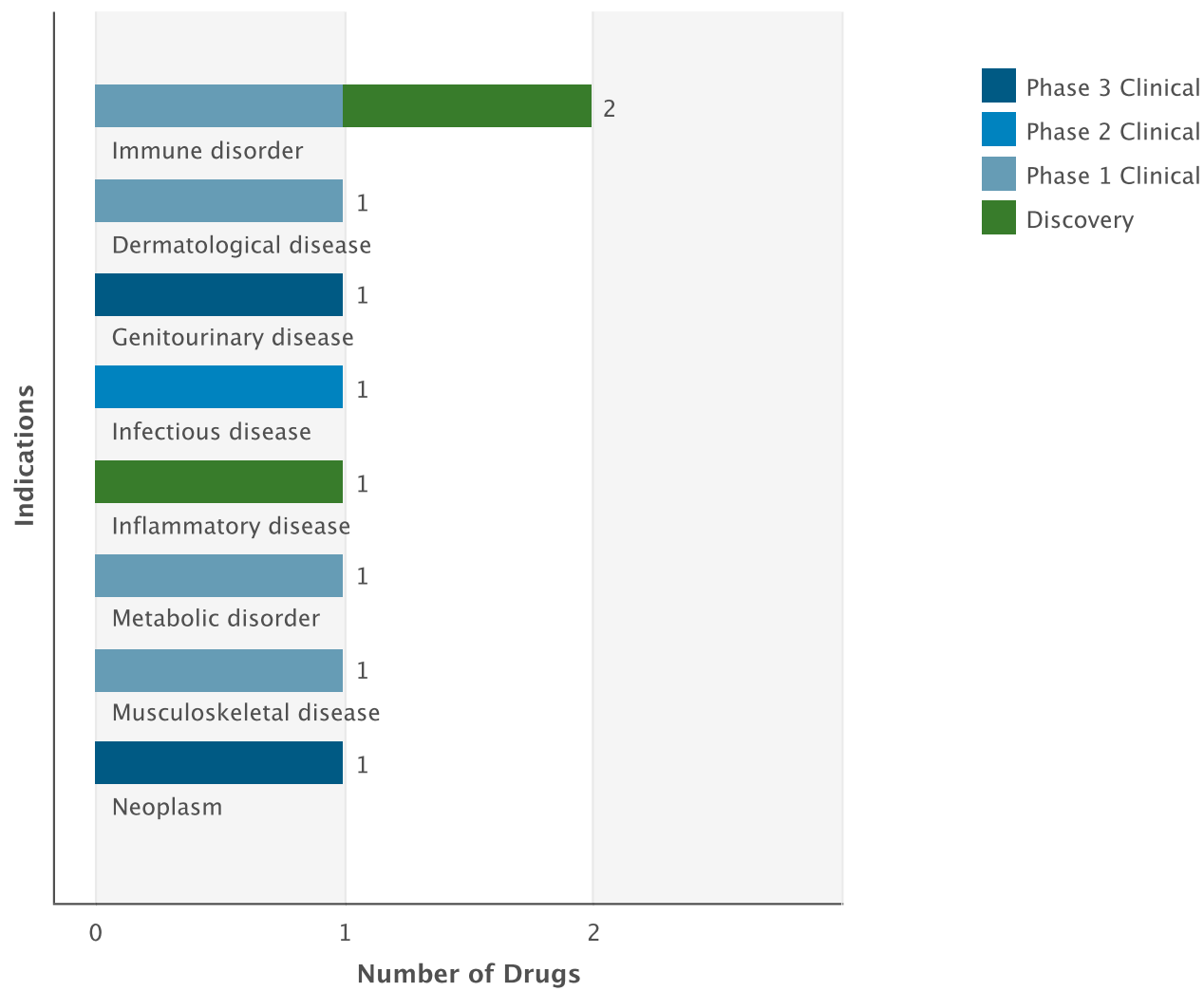
Names
Argos Therapeutics GmbH

PRODUCT PORTFOLIO SUMMARY

DRUGS

Drugs by Indication

Active Drugs by Indication Chart



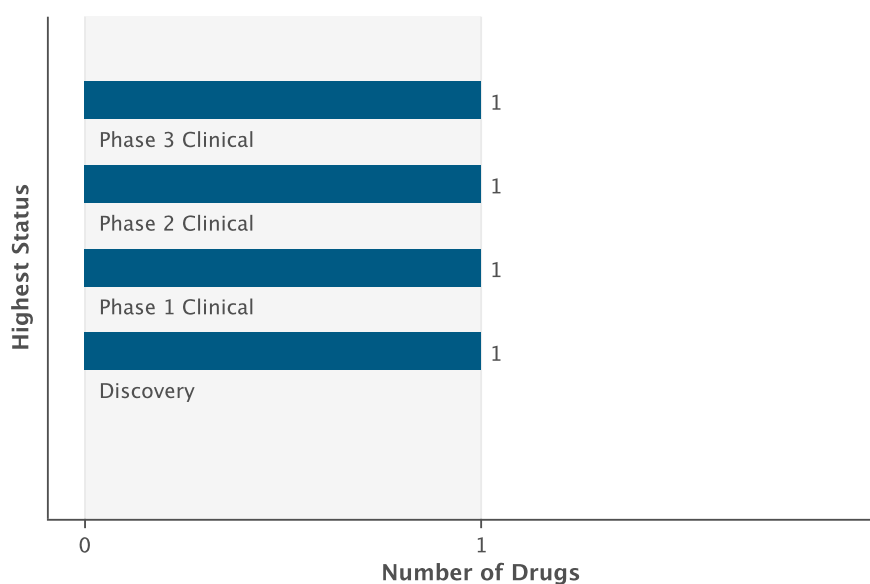
[Return to Table of Contents](#)

## Drugs by Indication Table

Indication	Active	Inactive	Total
Neoplasm	1	3	4
Immune disorder	2	1	3
Metabolic disorder	1	1	2
Gastrointestinal disease	0	2	2
Dermatological disease	1	1	2
Genitourinary disease	1	1	2
Infectious disease	1	0	1
Endocrine disease	0	1	1
Hematological disease	0	1	1
Andrology	0	1	1
Inflammatory disease	1	0	1
Musculoskeletal disease	1	0	1

## Drugs by Highest Status

### Active Drugs by Highest Status Chart



[Return to Table of Contents](#)



## Drugs by Highest Status Table

Development Status	Number of Drugs
Phase 3 Clinical	1
Phase 2 Clinical	1
Phase 1 Clinical	1
Discovery	1
Discontinued	2
No Development Reported	3

## DEALS

Deal Type	Principal		Partner		Total
	Active	Inactive	Active	Inactive	
Technology - Other Proprietary	1	0	0	0	1
Drug - Funding	2	0	0	0	2
Drug - Early Research/Development	3	0	0	0	3
Drug - Development/Commercialization License	3	0	1	0	4
Drug - Development Services	0	0	1	0	1

## CLINICAL TRIALS

### Trials by Condition Studied

Condition Studied	Ongoing	All
Neoplasm	1	7
Infectious disease	2	4
Genitourinary disease	1	4
Metabolic disorder	0	1
Immune disorder	0	1
Dermatological disease	0	1
Gastrointestinal disease	0	1
Hematological disease	0	1
Musculoskeletal disease	0	1

[Return to Table of Contents](#)



## Trials by Phase

Phase	Ongoing	All
Phase 3	1	1
Phase 2	1	4
Phase 1	1	6
Phase not specified	0	1

### 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	2	0	2
Endocrine disease	5	1	6
Gastrointestinal disease	9	1	10
Immune disorder	11	1	12
Musculoskeletal disease	4	0	4
Neoplasm	12	1	13
Metabolic disorder	5	1	6
Neurological disease	5	1	6
Prophylaxis	2	0	2
Respiratory disease	2	1	3
Infectious disease	11	0	11
Inflammatory disease	8	1	9
Dermatological disease	4	1	5

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

[Return to Table of Contents](#)

## PRODUCT PORTFOLIO DRUGS

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

### AGS-003

<b>Drug Name</b>	AGS-003
<b>Key Synonyms</b>	
<b>Originator Company</b>	Argos Therapeutics Inc
<b>Active Companies</b>	Medinet Co Ltd, Argos Therapeutics Inc
<b>Inactive Companies</b>	Kirin Pharma Co Ltd, Kyowa Hakko Kirin Co Ltd, Kirin Brewery Co Ltd
<b>Highest Status</b>	Phase 3 Clinical
<b>Active Indications</b>	Renal cell carcinoma
<b>Target-based Actions</b>	
<b>Other Actions</b>	Genetically engineered autologous cell vaccine, Therapeutic vaccine, Anticancer
<b>Technologies</b>	Cell therapy, Biological therapeutic, Intradermal formulation
<b>Last Change Date</b>	29-Jan-2014

### AGS-004

<b>Drug Name</b>	AGS-004
<b>Key Synonyms</b>	
<b>Originator Company</b>	Argos Therapeutics Inc
<b>Active Companies</b>	Argos Therapeutics Inc
<b>Inactive Companies</b>	Kyowa Hakko Kirin Co Ltd
<b>Highest Status</b>	Phase 2 Clinical
<b>Active Indications</b>	HIV infection
<b>Target-based Actions</b>	
<b>Other Actions</b>	Therapeutic vaccine, Genetically engineered autologous cell vaccine, Antiviral
<b>Technologies</b>	Cell therapy, Biological therapeutic, Intradermal formulation
<b>Last Change Date</b>	21-Nov-2013

[Return to Table of Contents](#)

**AGS-009**

<b>Drug Name</b>	AGS-009
<b>Key Synonyms</b>	
<b>Originator Company</b>	Argos Therapeutics Inc
<b>Active Companies</b>	Argos Therapeutics Inc
<b>Inactive Companies</b>	Novo Nordisk A/S
<b>Highest Status</b>	Phase 1 Clinical
<b>Active Indications</b>	Systemic lupus erythematosus
<b>Target-based Actions</b>	Interferon alpha ligand inhibitor
<b>Other Actions</b>	Immunosuppressant
<b>Technologies</b>	Monoclonal antibody humanized, Immunoglobulin-G, Subcutaneous formulation, Intravenous formulation, Infusion, Biological therapeutic
<b>Last Change Date</b>	07-Sep-2012

**AGS-010**

<b>Drug Name</b>	AGS-010
<b>Key Synonyms</b>	
<b>Originator Company</b>	Dana-Farber Cancer Institute Inc
<b>Active Companies</b>	Argos Therapeutics Inc
<b>Inactive Companies</b>	Beckman Coulter Inc, Dana-Farber Cancer Institute Inc
<b>Highest Status</b>	Discovery
<b>Active Indications</b>	Inflammatory disease, Transplant rejection, Autoimmune disease
<b>Target-based Actions</b>	CD83 agonist
<b>Other Actions</b>	Anti-inflammatory, Immunosuppressant
<b>Technologies</b>	Glycoprotein, Biological therapeutic, Parenteral formulation unspecified
<b>Last Change Date</b>	16-Aug-2013

[Return to Table of Contents](#)


This report was created by Thomson Reuters, using information from *Thomson Reuters Cortellis™ for Competitive Intelligence*; a comprehensive, proven intelligence solution that leverages the most accurate, complete, and widely respected drug pipeline information.

For more information about *Cortellis for Competitive Intelligence*, visit:

[http://cortellis.thomsonreuters.com/cortellis\\_for\\_you/?cid=thomsonone](http://cortellis.thomsonreuters.com/cortellis_for_you/?cid=thomsonone).

For subscription information, e-mail [scientific.lifesciences@thomsonreuters.com](mailto:scientific.lifesciences@thomsonreuters.com).

© 2012 Thomson Reuters. All rights reserved.  
Republication or redistribution of Thomson Reuters content, including by framing or similar means, is prohibited without the prior written consent of Thomson Reuters. 'Thomson Reuters' and the Thomson Reuters logo are registered trademarks and trademarks of Thomson Reuters and its affiliated companies.

[Return to Table of Contents](#)

