

Intrexon Corp

COMPANY AND PIPELINE OVERVIEW REPORT

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

Publication Date: 11-Dec-2012

THOMSON REUTERS

3 Times Square
New York, New York 10036
United States

Tel: +1 646 223 4000

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 over 400 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..... 7

Product Portfolio Drugs..... 11

[Return to Table of Contents](#)

Intrexon Corp

COMPANY OVERVIEW

Company Name	Intrexon Corp
Parent Company Name	Intrexon Corp
Website	http://www.dna.com
Country	US
Number of Drugs in Active Development	11
Number of Inactive Drugs	1
Number of Patents as Owner	18
Number of Patents as Third Party	1
Number of Deals	18
Key Indications	Influenza virus infection,Cancer,Melanoma,Alzheimers disease,Autoimmune disease,Diabetes mellitus,Infectious disease,MRSA infection,Respiratory disease,Solid tumor
Key Target-based Actions	IL-12 agonist,Alpha 1 antitrypsin stimulator,DDC gene stimulator,Ecdysone receptor modulator,ATP2A2 gene stimulator,Sarco endoplasmic calcium ATPase 2 modulator,Adiponectin receptor agonist,Beta defensin stimulator,Beta-galactosidase modulator,Bradykinin B2 receptor antagonist,CFTR stimulator,Casein modulator,Cyclooxygenase stimulator,Erythropoietin ligand,GSK3 gene modulator,Glucagon-like peptide 1 agonist,Glucagon-like peptide 2 agonist,Glycogen synthase kinase-3 modulator,IL agonist,IL-10 agonist,Interferon agonist,Interferon alpha ligand,Interferon beta ligand,Interferon gamma ligand modulator,Kallikrein inhibitor,Leptin agonist,MEK protein kinase modulator,Myelin basic protein stimulator,Plasma protease C1 inhibitor inhibitor,Plasminogen activator inhibitor 1 modulator,Protein kinase A modulator,Protein kinase C modulator,Protein phosphatase 1 inhibitor,RANTES ligand,Sarco endoplasmic calcium ATPase stimulator,TNF alpha ligand,TNF gene modulator,mTOR inhibitor,mTOR
Key Technologies	Biological therapeutic,Monoclonal antibody human,Parenteral formulation unspecified,Nanoparticle formulation,Protein recombinant,Peptide,Gene transfer system viral,Cell therapy,Antibody conjugated,Antibody polyclonal,Intratumoral formulation,Oral formulation,Subcutaneous formulation

COMPANY PROFILE

SUMMARY

Intrexon Corp (formerly Genomatix) is a privately-held life science company which researches and develops DNA control systems for the delivery, targeting, activation, regulation and location of biotherapeutics. The company changed its corporate name to Intrexon in August 2005.

COMPANY LOCATION

The company has its headquarters in Blacksburg, VA, with additional R&D operations in Valley Forge, PA.

In October 2011, Intrexon launched a cell engineering unit in San Diego, CA.

In February 2011, Intrexon launched its Agricultural Biotechnology Division in Research Triangle Park, North Carolina.

In April 2010, Intrexon relocated its Protein Production Division from San Francisco, CA to Foster City, CA.

ACQUISITIONS AND SPIN-OFFS

In October 2012, Intrexon entered into a definitive agreement to acquire an approximately 48% interest in AquaBounty Technologies by purchasing 48,631,444 shares for \$6 million in cash. Following the close of the transaction, Intrexon would be required to commence a tender offer for any and all of the other outstanding shares of AquaBounty.

[Return to Table of Contents](#)



In October 2011, Intrexon acquired Immunologix, a company focused on the production of fully human monoclonal antibodies.

In October 2011, Intrexon announced the acquisition of GT Life Sciences, and the purchase of assets comprising the LEAP cell-processing platform from Cytellect. Terms of the transactions were not disclosed.

In April 2011, the company acquired Neugenesis.

In February 2011, Intrexon acquired Agarigen a company which developed a mushroom-based expression platform for rapid, high-yield production of recombinant proteins.

In September 2009, Intrexon acquired certain assets and operations from Clinical Data's subsidiary Avalon Pharmaceutical, including a bioassay facility in Germantown, MD, for \$1.5 million in cash.

In December 2006, RheoGene and Intrexon agreed to merge. The combined company, Intrexon Corp, would be based in Blacksburg, VA, and the UPMC would have an ownership stake in the new company.

FINANCIAL

In May 2011, Intrexon raised \$100 million from a series E preferred financing round.

In May 2008, Intrexon raised \$25 million from a series C-2 financing. In June 2009, the company raised an additional \$10 million from the series C-2 financing round.

In May 2007, Intrexon raised \$25 million from a series C financing round.

SUBSIDIARY COMPANIES

Names
RheoGene Inc
Neugenesis Corp
Immunologix
Agarigen Inc

[Return to Table of Contents](#)

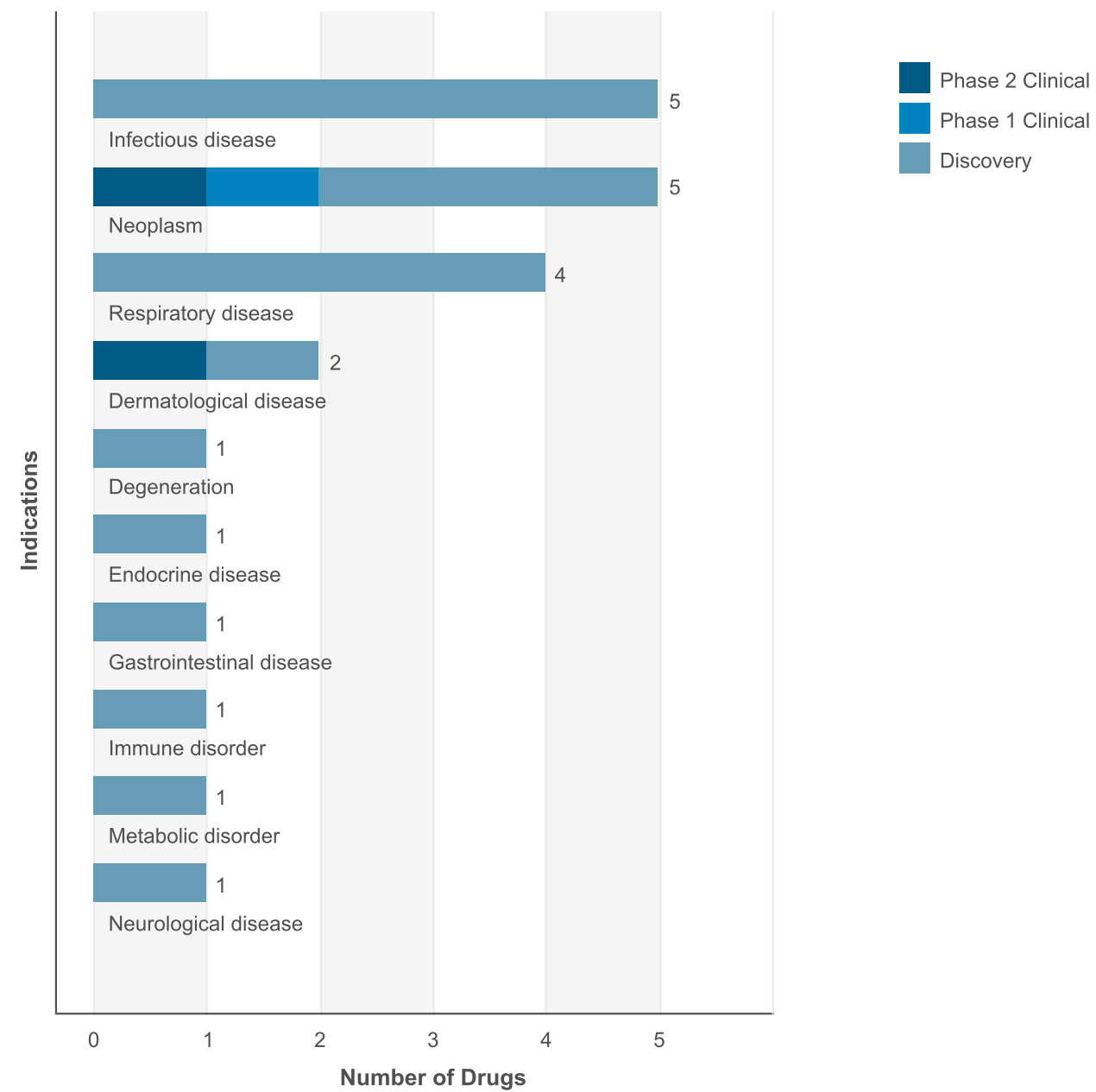


PRODUCT PORTFOLIO SUMMARY

DRUGS

Drugs by Indication

Active Drugs by Indication Chart



Drugs by Indication Table

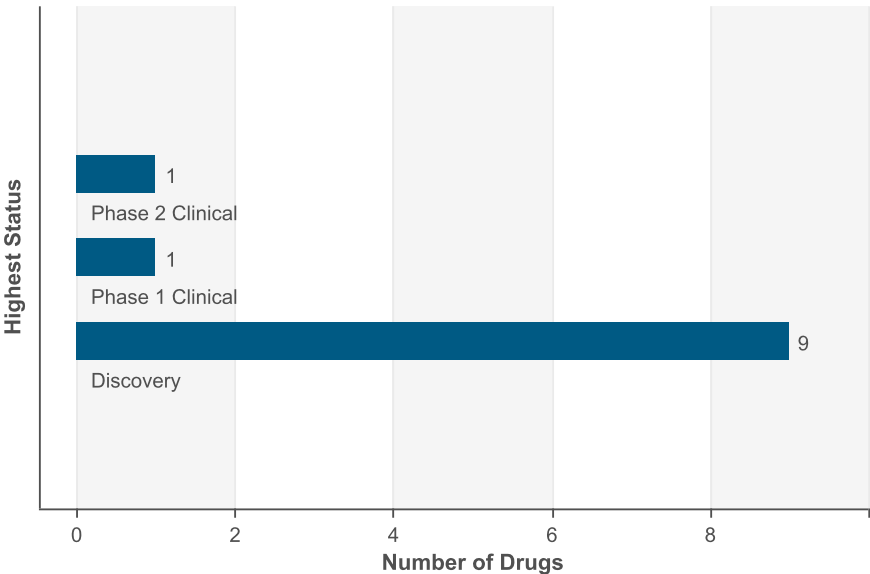
Indication	Active	Inactive	Total
Neoplasm	5	0	5

[Return to Table of Contents](#)

Infectious disease	5	0	5
Respiratory disease	4	0	4
Neurological disease	1	1	2
Dermatological disease	2	0	2
Degeneration	1	0	1
Immune disorder	1	0	1
Gastrointestinal disease	1	0	1
Endocrine disease	1	0	1
Metabolic disorder	1	0	1

Drugs by Highest Status

Active Drugs by Highest Status Chart



Drugs by Highest Status Table

Development Status	Number of Drugs
Phase 2 Clinical	1
Phase 1 Clinical	1
Discovery	9
No Development Reported	1

[Return to Table of Contents](#)

DEALS

Deal Type	Principal		Partner		Total
	Active	Inactive	Active	Inactive	
Technology - Other Proprietary	10	0	0	0	10
Drug - Funding	2	0	0	0	2
Drug - Early Research/Development	2	0	0	0	2
Drug - Commercialization License	1	0	0	0	1
Drug - Development Services	1	0	0	0	1
Technology - Delivery/Formulation	0	0	2	0	2

CLINICAL TRIALS

Trials by Condition Studied

Condition Studied	Ongoing	All
Neoplasm	0	1

Trials by Phase

Phase	Ongoing	All
Phase 1	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
Immune disorder	5	0	5
Neoplasm	11	1	12
Genetic disorder	3	0	3
Metabolic disorder	3	0	3
Neurological disease	3	0	3
Degeneration	1	0	1

[Return to Table of Contents](#)



Cardiovascular disease	6	1	7
Endocrine disease	1	0	1
Genitourinary disease	0	1	1
Dermatological disease	3	1	4
Surgical procedure	1	0	1
Gastrointestinal disease	1	0	1
Hematological disease	1	0	1
Musculoskeletal disease	1	1	2
Respiratory disease	2	1	3
Infectious disease	3	1	4
Toxicity and intoxication	1	0	1
Unidentified indication	3	0	3
Inflammatory disease	3	1	4

* 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

Ad-RTS-IL-12

Drug Name	Ad-RTS-IL-12
Key Synonyms	
Originator Company	ZIOPHARM Oncology Inc
Active Companies	ZIOPHARM Oncology Inc, Intrexon Corp
Inactive Companies	
Highest Status	Phase 2 Clinical
Active Indications	Melanoma, Metastatic breast cancer
Target-based Actions	IL-12 agonist
Other Actions	Anticancer, Immunostimulant, Adenovirus based gene therapy
Technologies	Intratumoral formulation, Oral formulation, Virus recombinant, Biological therapeutic
Last Change Date	26-Oct-2012

DC-RTS-IL-12

Drug Name	DC-RTS-IL-12
Key Synonyms	
Originator Company	Intrexon Corp
Active Companies	ZIOPHARM Oncology Inc, Intrexon Corp
Inactive Companies	
Highest Status	Phase 1 Clinical
Active Indications	Solid tumor
Target-based Actions	IL-12 agonist
Other Actions	Anticancer, Immunostimulant, Genetically engineered autologous cell therapy
Technologies	Intratumoral formulation, Cell therapy, Oral formulation, Biological therapeutic
Last Change Date	10-May-2012

[Return to Table of Contents](#)

rHuA1AT (sc Enhanze, A1AT deficiency), Intrexon

Drug Name	rHuA1AT (sc Enhanze, A1AT deficiency), Intrexon
Key Synonyms	
Originator Company	Intrexon Corp
Active Companies	Intrexon Corp
Inactive Companies	
Highest Status	Discovery
Active Indications	Diabetes mellitus, Respiratory disease
Target-based Actions	Alpha 1 antitrypsin stimulator
Other Actions	Hypoglycemic agent
Technologies	Subcutaneous formulation, Biological therapeutic, Protein recombinant
Last Change Date	28-Mar-2012

H5N1 influenza vaccine (virus-like particle), Intrexon

Drug Name	H5N1 influenza vaccine (virus-like particle), Intrexon
Key Synonyms	
Originator Company	Neugenes Corp
Active Companies	Intrexon Corp
Inactive Companies	Neugenes Corp
Highest Status	Discovery
Active Indications	Influenza virus infection
Target-based Actions	
Other Actions	Vaccine
Technologies	Nanoparticle formulation, Protein recombinant
Last Change Date	16-Aug-2011

[Return to Table of Contents](#)



polyclonal antibodies (MRSA), Intrexon

Drug Name	polyclonal antibodies (MRSA), Intrexon
Key Synonyms	
Originator Company	Neugenesi Corp
Active Companies	Intrexon Corp
Inactive Companies	Neugenesi Corp
Highest Status	Discovery
Active Indications	MRSA infection
Target-based Actions	
Other Actions	Antibacterial
Technologies	Antibody polyclonal, Peptide
Last Change Date	16-Aug-2011

trivalent seasonal influenza vaccine (virus-like particle), Intrexon

Drug Name	trivalent seasonal influenza vaccine (virus-like particle), Intrexon
Key Synonyms	
Originator Company	Neugenesi Corp
Active Companies	Intrexon Corp
Inactive Companies	Neugenesi Corp
Highest Status	Discovery
Active Indications	Influenza virus infection
Target-based Actions	
Other Actions	Vaccine
Technologies	Nanoparticle formulation
Last Change Date	16-Aug-2011

[Return to Table of Contents](#)

antibody drug conjugates (cancer), Intrexon

Drug Name	antibody drug conjugates (cancer), Intrexon
Key Synonyms	
Originator Company	Intrexon Corp
Active Companies	Intrexon Corp
Inactive Companies	
Highest Status	Discovery
Active Indications	Cancer
Target-based Actions	
Other Actions	Anticancer
Technologies	Antibody conjugated, Biological therapeutic
Last Change Date	28-Mar-2012

fully human monoclonal antibodies (cancer/infection/autoimmune disease), Intrexon

Drug Name	fully human monoclonal antibodies (cancer/infection/autoimmune disease), Intrexon
Key Synonyms	
Originator Company	Immunologix
Active Companies	Intrexon Corp
Inactive Companies	Immunologix
Highest Status	Discovery
Active Indications	Autoimmune disease, Cancer, Infectious disease
Target-based Actions	
Other Actions	Antimicrobial, Anticancer monoclonal antibody, Immunomodulator
Technologies	Monoclonal antibody human, Biological therapeutic, Parenteral formulation unspecified
Last Change Date	15-Jun-2012

[Return to Table of Contents](#)



fully human mAbs (Alzheimers disease), Intrexon

Drug Name	fully human mAbs (Alzheimers disease), Intrexon
Key Synonyms	
Originator Company	Immunologix
Active Companies	Intrexon Corp
Inactive Companies	Immunologix
Highest Status	Discovery
Active Indications	Alzheimers disease
Target-based Actions	
Other Actions	Neuroprotectant
Technologies	Monoclonal antibody human, Biological therapeutic, Parenteral formulation unspecified
Last Change Date	12-Jun-2012

fully human monoclonal antibodies (H5N1 influenza), Intrexon

Drug Name	fully human monoclonal antibodies (H5N1 influenza), Intrexon
Key Synonyms	
Originator Company	Immunologix
Active Companies	Intrexon Corp
Inactive Companies	Immunologix
Highest Status	Discovery
Active Indications	Influenza virus infection
Target-based Actions	
Other Actions	Unspecified drug target, Antiviral
Technologies	Monoclonal antibody human, Biological therapeutic, Parenteral formulation unspecified
Last Change Date	13-Jun-2012

[Return to Table of Contents](#)



interferon-alpha plasmid transgene therapy (melanoma), ZIOPHARM/Intrexon

Drug Name	interferon-alpha plasmid transgene therapy (melanoma), ZIOPHARM/Intrexon
Key Synonyms	
Originator Company	ZIOPHARM Oncology Inc
Active Companies	ZIOPHARM Oncology Inc, Intrexon Corp
Inactive Companies	
Highest Status	Discovery
Active Indications	Melanoma
Target-based Actions	IFNA gene modulator
Other Actions	Anticancer, Immunostimulant, Plasmid based gene therapy
Technologies	DNA technology, Intramuscular formulation
Last Change Date	08-Nov-2012

[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.

For subscription information, e-mail 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](#)

