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MacroGenics Inc

COMPANY AND PIPELINE OVERVIEW REPORT

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

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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.

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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i.e. where the development status for the drug(s) is one of the following: No Development Reported, Discontinued, or Withdrawn.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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MacroGenics Inc

COMPANY OVERVIEW

Company Name	MacroGenics Inc
Parent Company Name	MacroGenics Inc
Website	http://www.macrogenics.com/
Country	US
Number of Drugs in Active Development	10
Number of Inactive Drugs	13
Number of Patents as Owner	55
Number of Patents as Third Party	0
Number of Deals	31
Key Indications	Cancer,Solid tumor,Autoimmune disease,Inflammatory disease,Insulin dependent diabetes,Transplant rejection,Variola virus infection,Chikungunya virus infection,Dengue virus infection,Influenza virus infection,West Nile virus infection
Key Target-based Actions	Immunoglobulin gamma Fc receptor III antagonist,Immunoglobulin gamma Fc receptor II antagonist,Erbb2 tyrosine kinase receptor inhibitor,B-lymphocyte antigen CD20 inhibitor,Insulin-like growth factor 1 antagonist,ADAM-9 modulator,B-lymphocyte antigen CD19 modulator,CD79b agonist,CD80 modulator,Carboxypeptidase inhibitor,Epidermal growth factor antagonist,Immunoglobulin gamma Fc receptor II agonist,Immunoglobulin kappa modulator,Immunoglobulin kappa stimulator,Oncostatin M receptor modulator,Transferrin modulator
Key Technologies	Biological therapeutic,Monoclonal antibody humanized,Antibody,Monoclonal antibody,Intravenous formulation,Parenteral formulation unspecified,Humanized antibody,Chimeric antibody,Drug

COMPANY PROFILE

SUMMARY

MacroGenics Inc, incorporated in August 2000 and based in Rockville, Maryland, is focused on the development of novel immunotherapeutics. Product candidates include monoclonal antibodies and vaccines for the treatment and prevention of cancer, autoimmune and infectious disease. Programs are derived from both in-house discoveries and in-licensed candidates.

COMPANY LOCATION

MacroGenics is headquartered in Rockville, Maryland. The company has developed platform technology at three sites. These include protein engineering and animal modeling in Rockville, proteomics and target discovery in Seattle, Washington and genetic immunization and vaccine development in Dallas, Texas. In October 2005, MacroGenics opened a cGMP manufacturing facility in Rockville, MD.

ACQUISITIONS AND SPIN-OFFS

In July 2008, MacroGenics acquired Raven Biotechnologies. The company would issue shares of its common stock in the transaction but further financial details were not disclosed.

In June 2002, MacroGenics acquired Eliance Biotechnology Inc, a private vaccine discovery company located in Dallas,TX, which was founded to exploit technology developed at The University of Texas Southwestern Medical Center at Dallas Center for Biomedical Inventions. The company and university also formed an alliance to discover and develop immunotherapeutics to prevent and treat cancer, autoimmune and infectious diseases. In the same month, MacroGenics raised $12.6 million in financing.

LICENSING AGREEMENTS

In October 2004, MacroGenics acquired exclusive rights to develop compounds against a cancer target identified using

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OriGene Technologies Inc's Rapid-Scan technology. MacroGenics was to focus on the development of therapeutic monoclonal antibody candidates against this molecule. OriGene would receive option fees, milestones and royalty payments.

In April 2004, Neose Technologies Inc and MacroGenics entered into a monoclonal antibodies research collaboration and license agreement. Neose was to apply its GlycoAdvance and GlycoPEGylation technologies to improve the therapeutic properties of MacroGenics compounds. MacroGenics had the right to take remodeled compounds into development. Following the initial research phase, MacroGenics was to be responsible for funding the further development of these licensed compounds. In exchange, Neose was to be entitled to receive option fee, milestone, and royalty payments as products were developed and commercialized.

In May 2002, MacroGenics licensed a therapeutic target induced by Epstein-Barr virus from EBVax Inc and Tufts University. MacroGenics was to launch a research program to identify treatments to reduce morbidity in patients suffering from the acute and chronic consequences of EBV infection. For a worldwide, exclusive license to the technology, MacroGenics agreed to certain upfront fees, milestone and royalty payments contingent on achieving specific preclinical and clinical objectives in different clinical indications.

In September 2001, MacroGenics reported the completion of several key license agreements relating to its core intellectual property.

EARLY R&D

IN OCTOBER 2010, BOEHRINGER INGELHEIM AND MACROGENICS ENTERED A GLOBAL ALLIANCE TO DISCOVER, DEVELOP AND COMMERCIALIZE ANTIBODY THERAPEUTICS, BASED ON MACROGENICS' DUAL-AFFINITY RE-TARGETING (DART) PLATFORM, WHICH WOULD BE DIRECTED AGAINST UP TO TEN COMBINATIONS OF MOLECULAR TARGETS. THERAPEUTIC AREAS FOR THE DRUG CANDIDATES COULD INCLUDE IMMUNOLOGY, ONCOLOGY, RESPIRATORY, CARDIOMETABOLIC AND INFECTIOUS DISEASES. THE COMPANIES WOULD SHARE DISCOVERY AND CERTAIN PRECLINICAL ACTIVITY RESPONSIBILITY. AFTERWHICH, BOEHRINGER INGELHEIM WOULD BE SOLELY RESPONSIBLE FOR FURTHER PRECLINICAL, CLINICAL, REGULATORY, COMMERCIAL AND MANUFACTURING ACTIVITIES OF ANY RESULTING PRODUCTS. MACROGENICS WAS EXPECTED TO RECEIVE $60 MILLION, COMPRISED OF AN UPFRONT CASH PAYMENT, ANNUAL MAINTENANCE FEES, R&D FUNDING, AND NEAR-TERM RESEARCH-BASED MILESTONES, DURING THE FIRST THREE YEARS OF THE ALLIANCE. BOEHRINGER INGELHEIM ALSO EXPECTED TO MAKE A FUTURE EQUITY INVESTMENT IN MACROGENICS. FURTHERMORE, MACROGENICS COULD RECEIVE DEVELOPMENT, REGULATORY AND COMMERCIAL MILESTONE PAYMENTS OF UP TO $210 MILLION FOR EACH OF THE TEN DART PROGRAMS, PLUS TIERED ROYALTIES. MACROGENICS WOULD HAVE AN OPTION TO COPROMOTE CERTAIN DART PRODUCTS IN THE US.

FINANCIAL

In September 2008, MacroGenics raised $25 million from a series D-2 financing round.

In May 2006, MacroGenics raised $45 million from a series C financing round. The proceeds were to be used to fund development of the company's anti-CD3 antibody; in phase II trials for type 1 diabetes and to advance drug programs in autoimmune diseases and cancer.

SUBSIDIARY COMPANIES

Names
Raven Biotechnologies Inc

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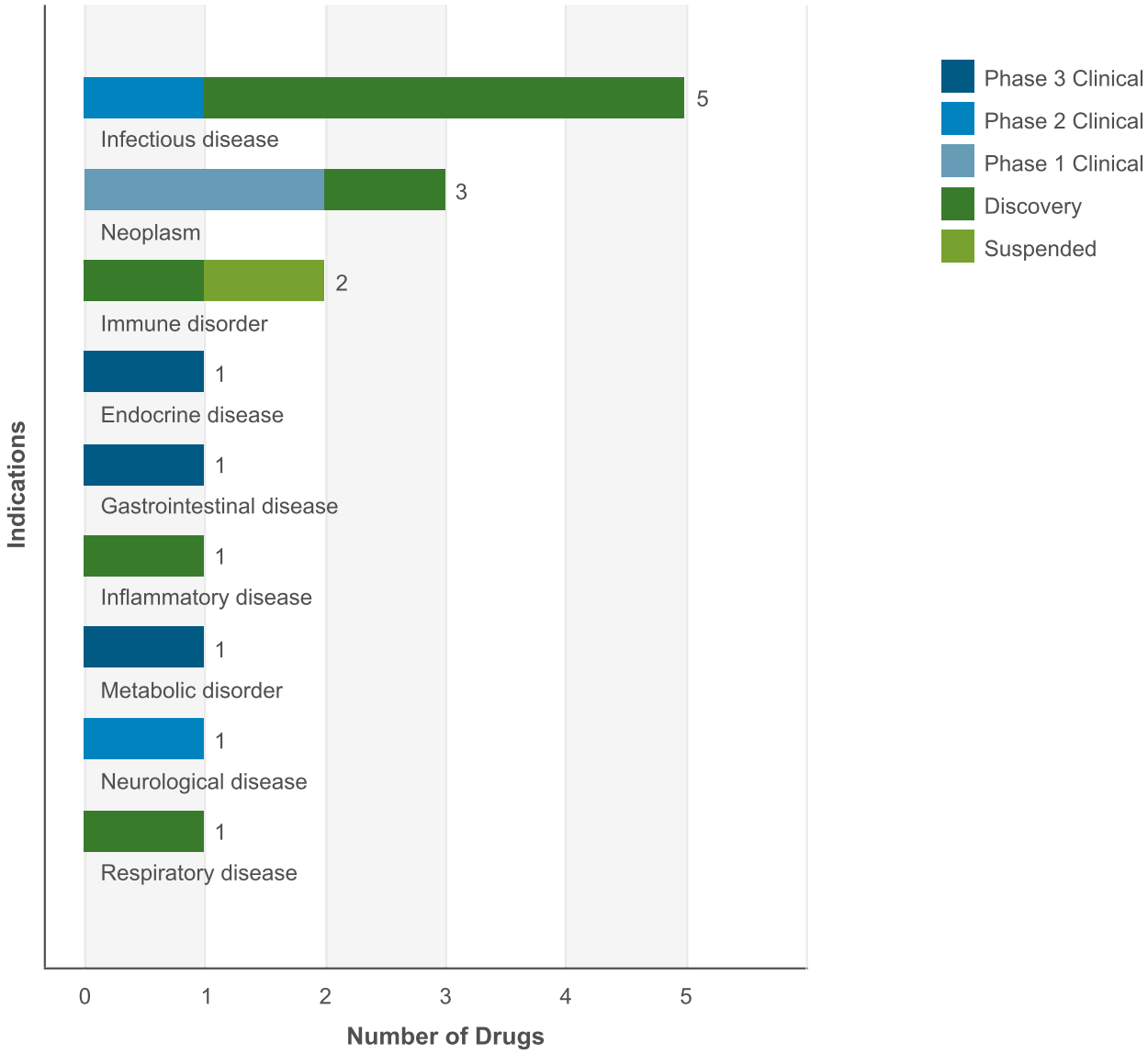
PRODUCT PORTFOLIO SUMMARY

DRUGS

Drugs by Indication

Active Drugs by Indication Chart



Drugs by Indication Table

Indication	Active	Inactive	Total
Neoplasm	3	10	13
Immune disorder	2	4	6
Infectious disease	5	1	6

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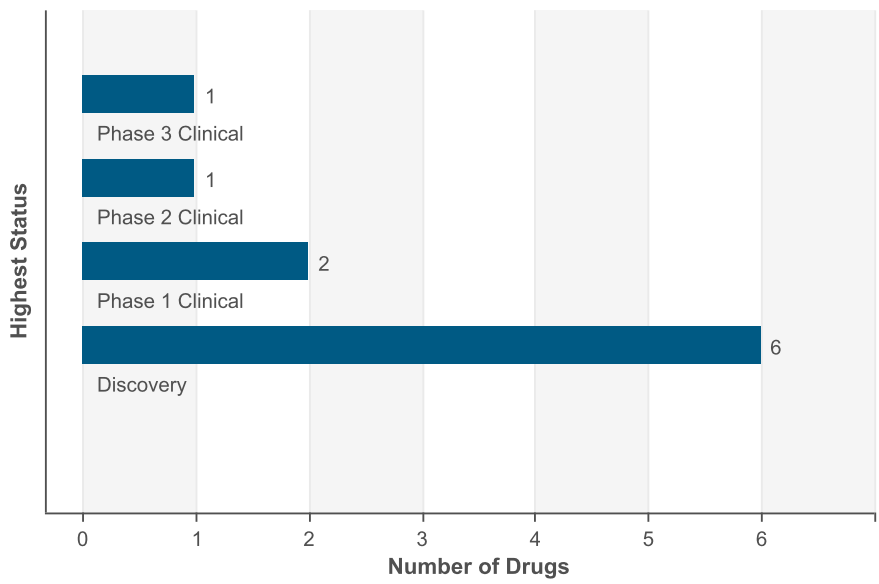
Respiratory disease	1	3	4
Gastrointestinal disease	1	3	4
Genitourinary disease	0	3	3
Inflammatory disease	1	1	2
Endocrine disease	1	1	2
Neurological disease	1	1	2
Hematological disease	0	2	2
Andrology	0	1	1
Dermatological disease	0	1	1
Gynecology and obstetrics	0	1	1
Musculoskeletal disease	0	1	1
Metabolic 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 3 Clinical	1
Phase 2 Clinical	1

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Phase 1 Clinical	2
Discovery	6
Discontinued	3
No Development Reported	10

DEALS

Deal Type	Principal		Partner		Total
	Active	Inactive	Active	Inactive	
Technology - Other Proprietary	3	0	1	0	4
Drug - Funding	6	0	0	0	6
Drug - Screening/Evaluation	2	0	0	0	2
Drug - Early Research/Development	1	0	3	0	4
Drug - Development/Commercialization License	7	0	4	0	12
Drug - Manufacturing/Supply	0	0	1	0	1
Drug - Development Services	0	0	1	0	1
Technology - Delivery/Formulation	0	0	1	0	1

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CLINICAL TRIALS

Trials by Condition Studied

Condition Studied	Ongoing	All
Gastrointestinal disease	1	8
Endocrine disease	1	7
Metabolic disorder	0	6
Neoplasm	2	4
Neurological disease	0	3
Inflammatory disease	0	3
Infectious disease	0	3
Immune disorder	0	3
Musculoskeletal disease	0	2
Gynecology and obstetrics	1	1
Dermatological disease	0	1
Genitourinary disease	1	1
Respiratory disease	1	1

Trials by Phase

Phase	Ongoing	All
Phase 3	0	2
Phase 2	0	4
Phase 1	2	9
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

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PATENTS *

Indication	As Owner	As Third Party	Total
Immune disorder	31	0	31
Neoplasm	43	0	43
Ocular disease	3	0	3
Metabolic disorder	10	0	10
Mouth disease	1	0	1
Neurological disease	10	0	10
Andrology	8	0	8
Cardiovascular disease	2	0	2
Endocrine disease	20	0	20
Genitourinary disease	13	0	13
Dermatological disease	13	0	13
Otorhinolaryngological disease	1	0	1
Surgical procedure	1	0	1
Gastrointestinal disease	19	0	19
Hematological disease	9	0	9
Musculoskeletal disease	13	0	13
Respiratory disease	11	0	11
Infectious disease	18	0	18
Injury	1	0	1
Toxicity and intoxication	1	0	1
Inflammatory disease	23	0	23
Gynecology and obstetrics	14	0	14

* 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

teplizumab

Drug Name	teplizumab
Key Synonyms	teplizumab
Originator Company	Tolera Therapeutics Inc
Active Companies	MacroGenics Inc
Inactive Companies	Tolera Therapeutics Inc, Eli Lilly & Co
Highest Status	Phase 3 Clinical
Active Indications	Transplant rejection, Insulin dependent diabetes
Target-based Actions	
Other Actions	Immunosuppressant, Anti-inflammatory, Hypoglycemic agent, CD3 antagonist
Technologies	Monoclonal antibody, Subcutaneous formulation, Intravenous formulation, Infusion, Biological therapeutic
Last Change Date	05-Oct-2012

MGAWN-1

Drug Name	MGAWN-1
Key Synonyms	
Originator Company	Washington University in St Louis
Active Companies	MacroGenics Inc
Inactive Companies	Washington University in St Louis
Highest Status	Phase 2 Clinical
Active Indications	West Nile virus infection
Target-based Actions	
Other Actions	Antiviral, Unspecified drug target
Technologies	Monoclonal antibody humanized, Intravenous formulation, Infusion, Biological therapeutic
Last Change Date	06-Jun-2011

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MGAH-22

Drug Name	MGAH-22
Key Synonyms	
Originator Company	MacroGenics Inc
Active Companies	MacroGenics Inc, Green Cross Corp
Inactive Companies	
Highest Status	Phase 1 Clinical
Active Indications	Solid tumor
Target-based Actions	Erbb2 tyrosine kinase receptor inhibitor
Other Actions	Anticancer monoclonal antibody, Anticancer protein kinase inhibitor
Technologies	Monoclonal antibody, Intravenous formulation, Infusion, Biological therapeutic
Last Change Date	16-Nov-2012

MGA-271

Drug Name	MGA-271
Key Synonyms	
Originator Company	MacroGenics Inc
Active Companies	Servier, MacroGenics Inc
Inactive Companies	
Highest Status	Phase 1 Clinical
Active Indications	Solid tumor
Target-based Actions	CD80 modulator, Immunoglobulin kappa modulator, Immunoglobulin kappa stimulator
Other Actions	Anticancer monoclonal antibody, Immunostimulant
Technologies	Monoclonal antibody humanized, Immunoglobulin-G, Intravenous formulation, Biological therapeutic
Last Change Date	16-Nov-2012

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monoclonal antibody cocktail (DART, smallpox), MacroGenics

Drug Name	monoclonal antibody cocktail (DART, smallpox), MacroGenics
Key Synonyms	
Originator Company	MacroGenics Inc
Active Companies	MacroGenics Inc
Inactive Companies	
Highest Status	Discovery
Active Indications	Variola virus infection
Target-based Actions	
Other Actions	Unspecified drug target, Antiviral
Technologies	Monoclonal antibody humanized, Drug combination, Biological therapeutic, Parenteral formulation unspecified
Last Change Date	02-Jun-2011

H5N1 influenza mAb therapy, MacroGenics

Drug Name	H5N1 influenza mAb therapy, MacroGenics
Key Synonyms	
Originator Company	MacroGenics Inc
Active Companies	MacroGenics Inc
Inactive Companies	
Highest Status	Discovery
Active Indications	Influenza virus infection
Target-based Actions	
Other Actions	Antiviral, Unspecified drug target
Technologies	Monoclonal antibody humanized, Biological therapeutic, Parenteral formulation unspecified
Last Change Date	07-Jun-2011

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CD32BxCD79B DART antibody (autoimmune disease), MacroGenics

Drug Name	CD32BxCD79B DART antibody (autoimmune disease), MacroGenics
Key Synonyms	
Originator Company	MacroGenics Inc
Active Companies	MacroGenics Inc
Inactive Companies	
Highest Status	Discovery
Active Indications	Inflammatory disease, Autoimmune disease
Target-based Actions	Immunoglobulin gamma Fc receptor II agonist, CD79b agonist
Other Actions	Anticancer, Anti-inflammatory
Technologies	Antibody, Biological therapeutic
Last Change Date	19-Nov-2012

monoclonal antibody (DART, dengue virus infection), MacroGenics

Drug Name	monoclonal antibody (DART, dengue virus infection), MacroGenics
Key Synonyms	
Originator Company	MacroGenics Inc
Active Companies	MacroGenics Inc
Inactive Companies	
Highest Status	Discovery
Active Indications	Dengue virus infection
Target-based Actions	
Other Actions	Unspecified drug target, Antiviral
Technologies	Immunoglobulin, Monoclonal antibody, Biological therapeutic, Parenteral formulation unspecified
Last Change Date	02-Jun-2011

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bispecific antibodies (DART, cancer), MacroGenics/ Pfizer

Drug Name	bispecific antibodies (DART, cancer), MacroGenics/ Pfizer
Key Synonyms	
Originator Company	MacroGenics Inc
Active Companies	Pfizer Inc, MacroGenics Inc
Inactive Companies	
Highest Status	Discovery
Active Indications	Cancer
Target-based Actions	Epidermal growth factor antagonist, B-lymphocyte antigen CD19 modulator, Insulin-like growth factor 1 antagonist
Other Actions	CD3 agonist, Anticancer antibody, Anticancer protein kinase inhibitor
Technologies	Multivalent antibody, Biological therapeutic
Last Change Date	19-Nov-2012

humanized mAbs (Chikungunya virus infection), MacroGenics/Washington University

Drug Name	humanized mAbs (Chikungunya virus infection), MacroGenics/Washington University
Key Synonyms	
Originator Company	MacroGenics Inc
Active Companies	Washington University in St Louis, MacroGenics Inc
Inactive Companies	
Highest Status	Discovery
Active Indications	Chikungunya virus infection
Target-based Actions	
Other Actions	Antiviral, Unspecified drug target
Technologies	Monoclonal antibody humanized, Biological therapeutic, Parenteral formulation unspecified
Last Change Date	17-Jun-2011

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