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Atara Biotherapeutics Inc

CORTELLIS COMPANY DETAILED PIPELINE REPORT

A comprehensive coverage of the the company's drug pipeline portfolio including detailed product records.

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ABOUT CORTELLIS COMPANY DETAILED PIPELINE 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i.e. where the development status for the drug(s) is one of the following: No Development Reported, Discontinued, or Withdrawn.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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Atara Biotherapeutics Inc

COMPANY OVERVIEW

Company Name	Atara Biotherapeutics Inc
Parent Company Name	Atara Biotherapeutics Inc
Website	http://www.atarabio.com/
Country	US
Number of Drugs in Active Development	6
Number of Inactive Drugs	0
Number of Patents as Owner	2
Number of Patents as Third Party	0
Number of Deals	1
Key Indications	Cancer,Cachexia,End stage renal disease,Protein energy deficiency,Acute lymphoblastic leukemia,Cytomegalovirus infection,Lymphoproliferative disease
Key Target-based Actions	GDF-8 antagonist
Key Technologies	Peptide,Intravenous formulation,Antibody fragment,Biological therapeutic,Infusion,Antibody,Liquid formulation

COMPANY PROFILE

SUMMARY

Atara Biotherapeutics Inc, which was formed by Amgen and Kleiner Perkins Caufield & Byers, is a drug development company focused on treatments for chronic diseases in areas such as nephrology and oncology.

FINANCIAL

In February 2015, the company initiated an underwritten public offering of 3 million shares of its common stock and expected to grant the underwriters a 30-day option to purchase up to an additional 0.45 million shares. Later in February 2015, the company priced the public offering of 3,638,333 common stock shares at $18.00, each. At that time, the underwriters were granted a 30-day option to buy up to an additional 545,749 shares of common stock. The offering was expected to close on February 18, 2015; later that month, the offering was closed. A total of 4,147,358 shares of its common stock were sold including the 509,025 shares, which were pursuant to the partial exercise by the underwriters.

In October 2014, Atara announced the pricing of its initial public offering of 5 million shares of its common stock at a price of $11 per share. The shares began trading on the NASDAQ global select market under the ticker symbol "ATRA" . The company had granted the underwriters a 30-day option to buy up to an additional 750,000 shares of common stock to cover over-allotments, if any. The offering was expected to close on October 21, 2014. Altara began trading on the NASDAQ market on October 16, 2014.

In December 2013, Atara raised $38.5 million from a series B financing round. In January 2014, a second tranche of the series B financing was closed which bought the total raised in the financing round to $52 million.

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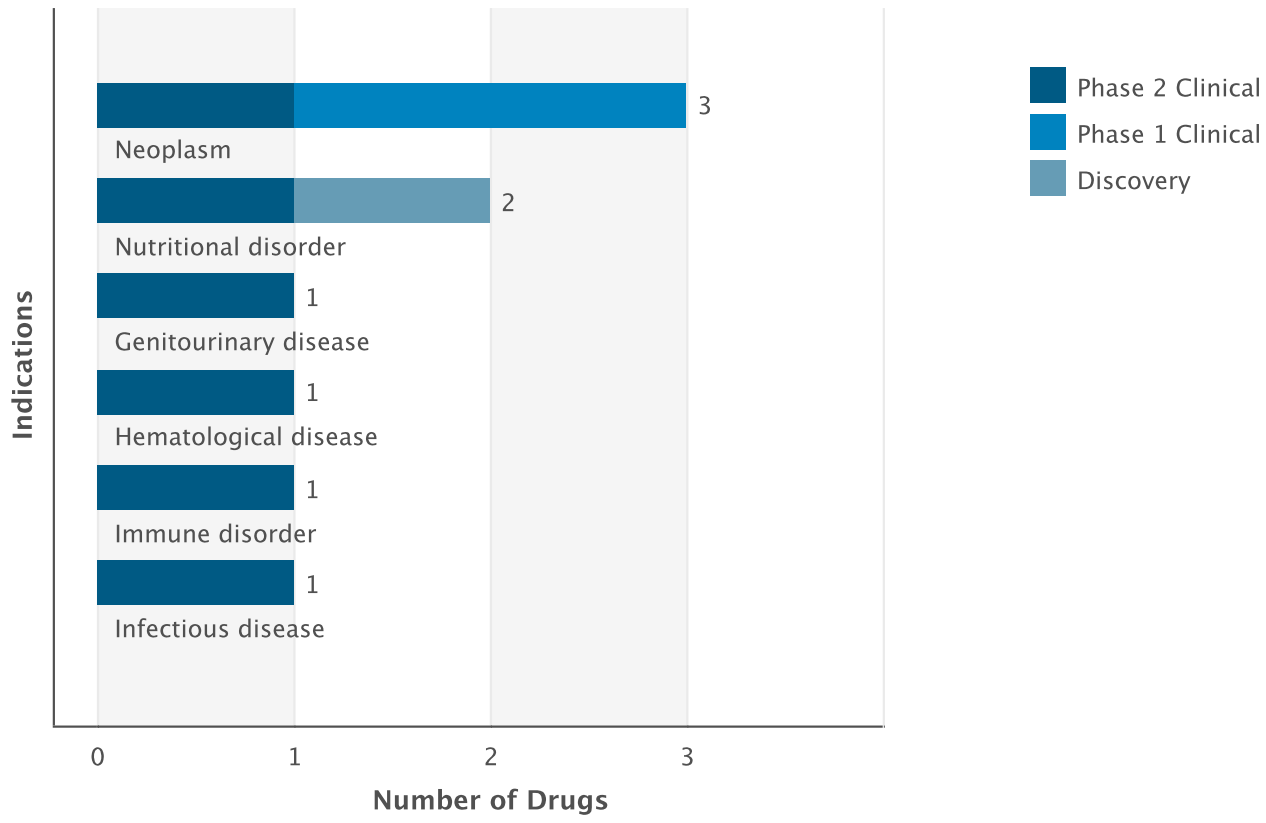
PRODUCT PORTFOLIO SUMMARY

DRUGS

Drugs by Indication

Active Drugs by Indication Chart



Drugs by Indication Table

Indication	Active	Inactive	Total
Neoplasm	3	0	3
Nutritional disorder	2	0	2
Immune disorder	1	0	1
Hematological disease	1	0	1
Infectious disease	1	0	1
Genitourinary disease	1	0	1

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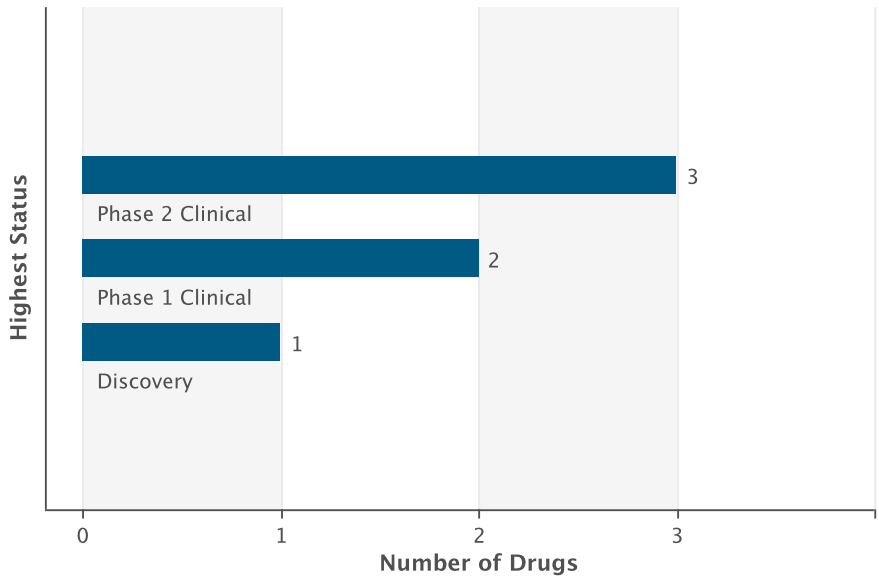
Drugs by Highest Status

Active Drugs by Highest Status Chart



Drugs by Highest Status Table

Development Status	Number of Drugs
Phase 2 Clinical	3
Phase 1 Clinical	2
Discovery	1

DEALS

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

CLINICAL TRIALS

Trials by Condition Studied

Condition Studied	Ongoing	All
Genitourinary disease	1	1

Trials by Phase

Phase	Ongoing	All
Phase 1	1	1

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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	1	0	1
Endocrine disease	2	0	2
Gastrointestinal disease	1	0	1
Genitourinary disease	2	0	2
Growth disorder	2	0	2
Andrology	1	0	1
Immune disorder	1	0	1
Musculoskeletal disease	2	0	2
Neoplasm	3	0	3
Metabolic disorder	2	0	2
Neurological disease	1	0	1
Nutritional disorder	3	0	3
Injury	1	0	1
Inflammatory disease	1	0	1
Gynecology and obstetrics	1	0	1
Dermatological disease	1	0	1

* 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 DRUG PIPELINE DETAIL

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

anti-CD19 EBV-CTL therapy (ALL/lymphoproliferative disease), MSKCC/Atara Biotherapeutics

anti-CD19 EBV-CTL therapy (ALL/lymphoproliferative disease), MSKCC/Atara Biotherapeutics SNAPSHOT

Drug Name	anti-CD19 EBV-CTL therapy (ALL/lymphoproliferative disease), MSKCC/Atara Biotherapeutics
Key Synonyms	
Originator Company	Memorial Sloan-Kettering Cancer Center
Active Companies	Atara Biotherapeutics Inc;Memorial Sloan-Kettering Cancer Center
Inactive Companies	
Highest Status	Phase 2 Clinical
Active Indications	Acute lymphoblastic leukemia;Lymphoproliferative disease
Target-based Actions	B-lymphocyte antigen CD19 inhibitor
Other Actions	T-lymphocyte modulator;Anticancer
Technologies	T-lymphocyte;Cell therapy;Systemic formulation unspecified;Infusion;Small molecule therapeutic;Parenteral formulation unspecified
Last Change Date	03-Apr-2015

anti-CD19 EBV-CTL therapy (ALL/lymphoproliferative disease), MSKCC/Atara Biotherapeutics DEVELOPMENT PROFILE

SUMMARY

Memorial Sloan-Kettering Cancer Center (MSKCC) in collaboration with Atara Biotherapeutics, is developing antigen receptor-expressing allogeneic Epstein-Barr virus-specific cytotoxic T lymophocytes (EBV-CTLs), targeting CD19, for the potential treatment of acute lymphoblastic leukemia (ALL) and EBV-associated lymphoproliferative disease (EBV-LPD),. By September 2014, phase II development was underway and the program had been dosed in > 100 patients.

In September 2014, Atara Biotherapeutics had a license option to the program.

anti-CD19 EBV-CTL therapy (ALL/lymphoproliferative disease), MSKCC/Atara Biotherapeutics DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

Company	Indication	Country	Development Status	Date
Atara Biotherapeutics Inc	Acute lymphoblastic leukemia	US	Phase 2 Clinical	03-Apr-2015
Atara Biotherapeutics Inc	Lymphoproliferative disease	US	Phase 2 Clinical	03-Apr-2015
Memorial Sloan-Kettering Cancer Center	Acute lymphoblastic leukemia	US	Phase 2 Clinical	23-Sep-2014

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Company	Indication	Country	Development Status	Date
Memorial Sloan-Kettering Cancer Center	Lymphoproliferative disease	US	Phase 2 Clinical	31-Dec-2011

anti-CD19 EBV-CTL therapy (ALL/lymphoproliferative disease), MSKCC/Atara Biotherapeutics DRUG NAMES

Names	Type
anti-CD19 EBV-CTL therapy (acute lymphoblastic leukemia), MSKCC	
anti-CD19 EBV-CTL therapy (ALL/lymphoproliferative disease), MSKCC/Atara Biotherapeutics	
anti-CD19 antigen receptor-expressing allogeneic cytotoxic T lymphocytes (ALL), Memorial Sloan-Kettering Cancer Center	
allogeneic anti-CD19 EBV-CTL therapy (acute lymphoblastic leukemia), Memorial Sloan-Kettering Cancer Center	

anti-CD19 EBV-CTL therapy (ALL/lymphoproliferative disease), MSKCC/Atara Biotherapeutics CLINICAL TRIALS

Trials by Phase and Condition Studied

Phase 4 Clinical		Phase 3 Clinical		Phase 2 Clinical		Phase 1 Clinical		Phase Unspecified		Total	
On-going	All	On-going	All	On-going	All	On-going	All	On-going	All	On-going	All
Acute lymphoblastic leukemia											
0	0	0	0	0	0	1	1	0	0	1	1

Total Trials by Phase and Status

Phase 4 Clinical		Phase 3 Clinical		Phase 2 Clinical		Phase 1 Clinical		Phase Unspecified		Total	
On-going	All	On-going	All	On-going	All	On-going	All	On-going	All	On-going	All
Total by Phase and Status											
0	0	0	0	0	0	1	1	0	0	1	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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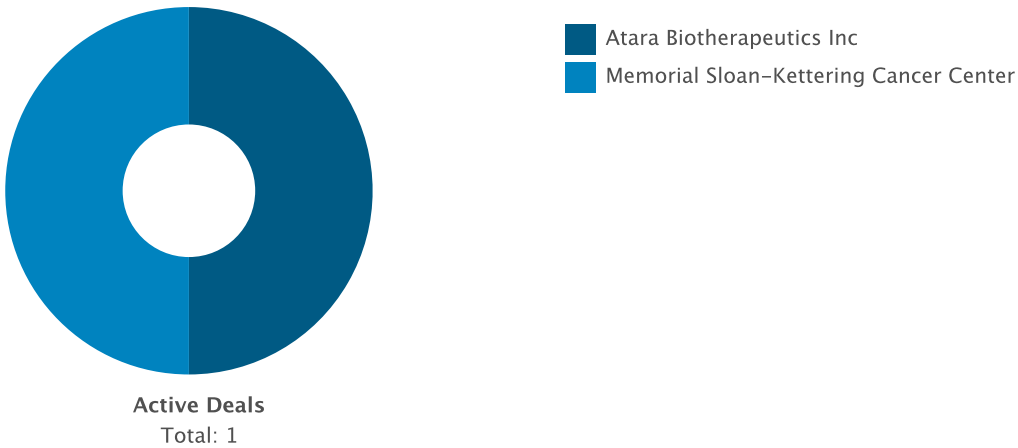
DEALS

Deals by Parent Company Chart



Deals by Parent Company Table

Company Name	Principal		Partner		Total
	Active	Inactive	Active	Inactive	
Memorial Sloan-Kettering Cancer Center	1	0	0	0	1
Atara Biotherapeutics Inc	0	0	1	0	1

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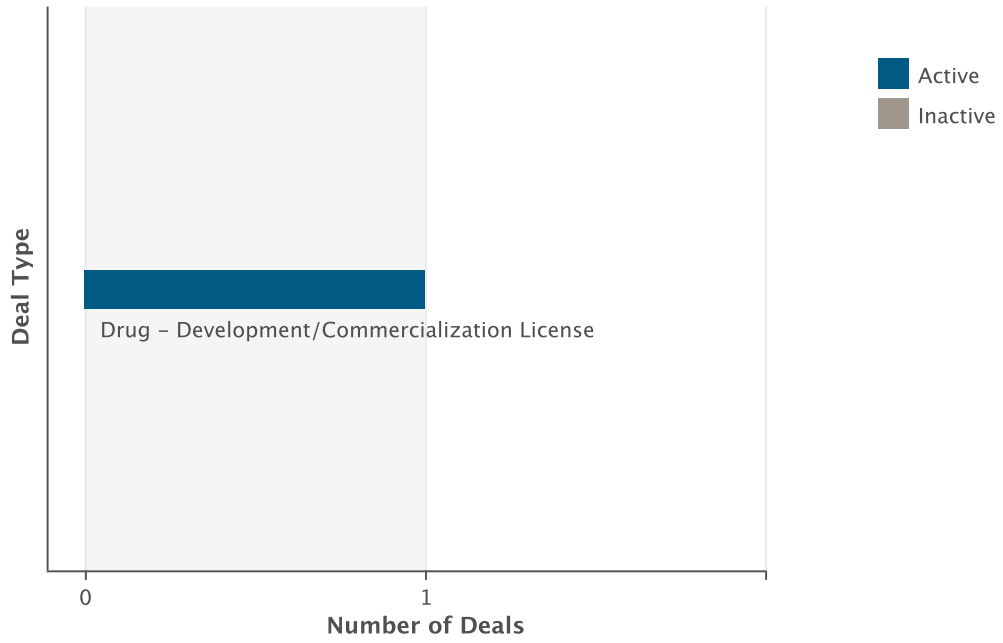
Deals by Type Chart



Deals by Type Table

Deal Type	Active	Inactive	Total
Drug - Development/Commercialization License	1	0	1

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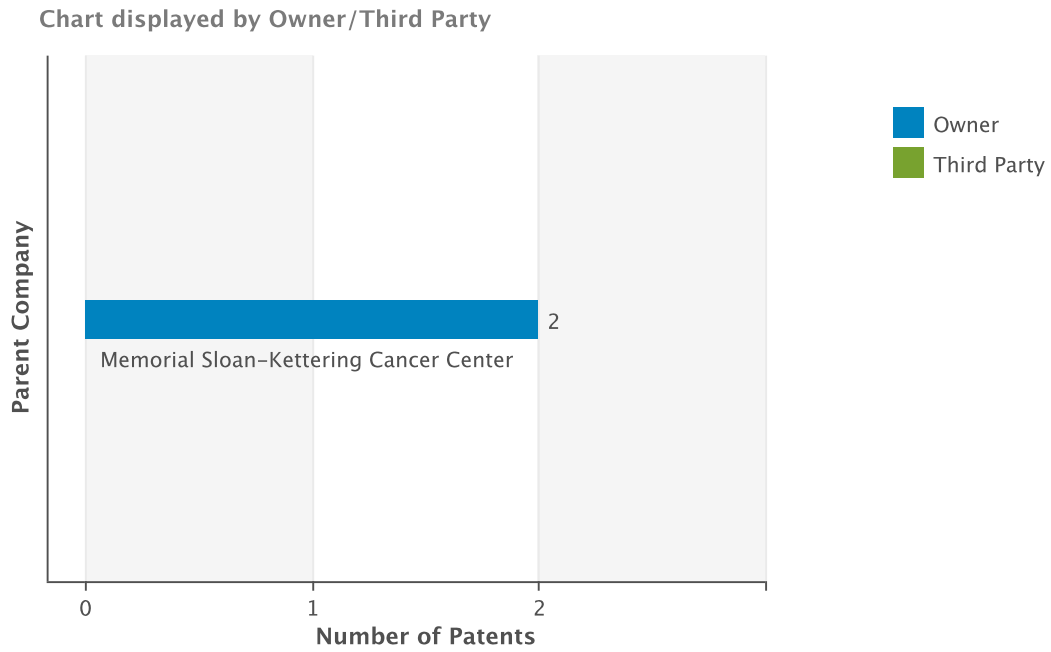
PATENTS

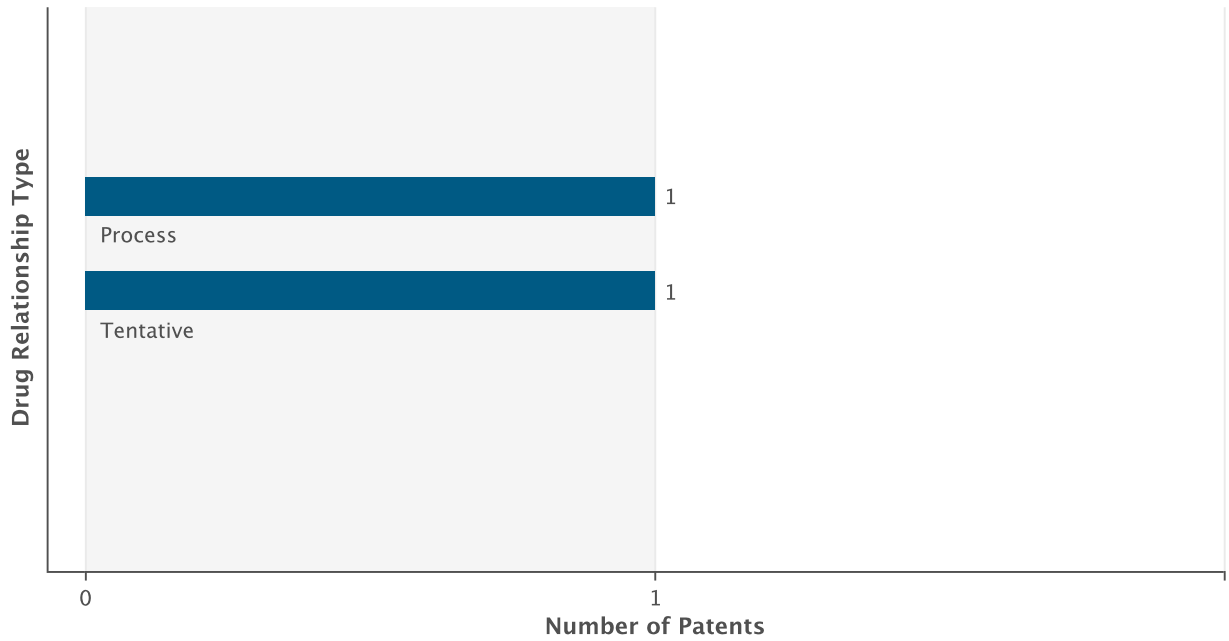
Patents by Parent Company Chart



Patents by Parent Company Table

Company Name	As Owner	As Third Party	Total
Memorial Sloan-Kettering Cancer Center	2	0	2

Patents by Drug Relationship Type Chart



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Patents by Drug Relationship Type Table

Drug Relationship	Total
Tentative	1
Process	1

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PINTA-745

PINTA-745 SNAPSHOT

Drug Name	PINTA-745
Key Synonyms	
Originator Company	Atara Biotherapeutics Inc
Active Companies	Atara Biotherapeutics Inc;Pinta Biotherapeutics
Inactive Companies	
Highest Status	Phase 2 Clinical
Active Indications	Protein energy deficiency;End stage renal disease
Target-based Actions	GDF-8 antagonist
Other Actions	
Technologies	Biological therapeutic;Intravenous formulation;Infusion;Antibody fragment;Peptide
Last Change Date	03-Apr-2015

PINTA-745 DEVELOPMENT PROFILE

SUMMARY

Atara Biotherapeutics (through its company Pinta Biotherapeutics), is developing PINTA-745, a peptibody that inhibits myostatin, for the potential iv infusion treatment of end stage renal disease and protein energy wasting. In November 2013, a phase I/II trial was initiated ; in April 2015, the phase II study was ongoing.

PINTA-745 DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

Company	Indication	Country	Development Status	Date
Atara Biotherapeutics Inc	End stage renal disease	US	Phase 2 Clinical	12-Feb-2015
Atara Biotherapeutics Inc	Protein energy deficiency	US	Phase 2 Clinical	12-Feb-2015
Pinta Biotherapeutics	End stage renal disease	US	Phase 2 Clinical	30-Nov-2013
Pinta Biotherapeutics	Protein energy deficiency	US	Phase 2 Clinical	30-Nov-2013

PINTA-745 DRUG NAMES

Names	Type
PINTA-745	Research Code

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PINTA-745 CLINICAL TRIALS

Trials by Phase and Condition Studied

Phase 4 Clinical		Phase 3 Clinical		Phase 2 Clinical		Phase 1 Clinical		Phase Unspecified		Total	
On-going	All	On-going	All	On-going	All	On-going	All	On-going	All	On-going	All
End stage renal disease											
0	0	0	0	0	0	1	1	0	0	1	1

Total Trials by Phase and Status

Phase 4 Clinical		Phase 3 Clinical		Phase 2 Clinical		Phase 1 Clinical		Phase Unspecified		Total	
On-going	All	On-going	All	On-going	All	On-going	All	On-going	All	On-going	All
Total by Phase and Status											
0	0	0	0	0	0	1	1	0	0	1	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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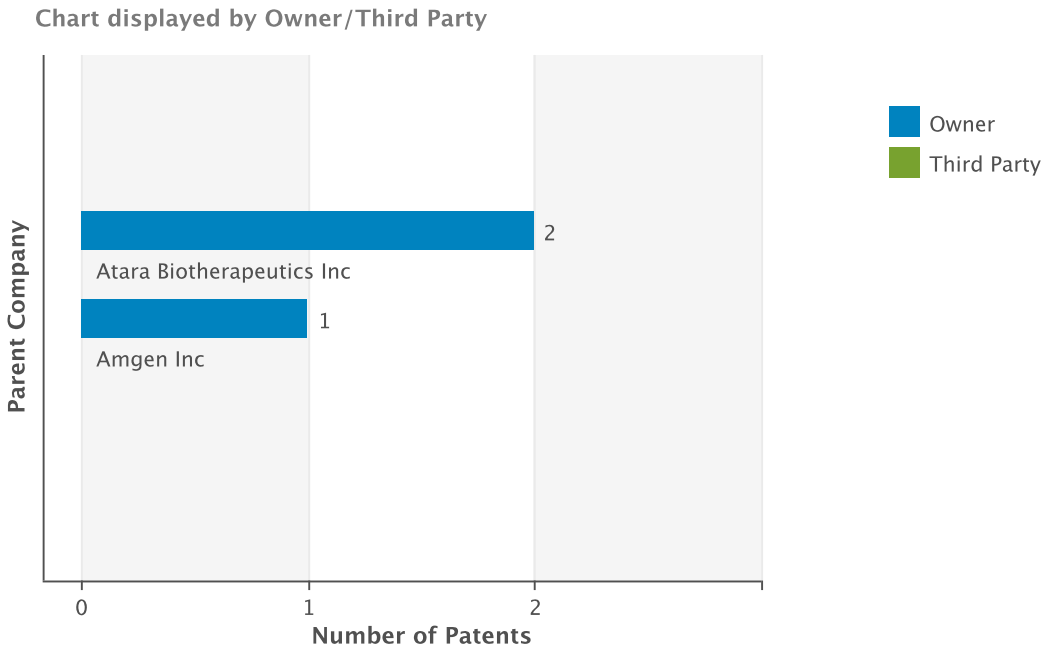
PINTA-745 DEALS AND PATENTS

PATENTS

Patents by Parent Company Chart



Patents by Parent Company Table

Company Name	As Owner	As Third Party	Total
Atara Biotherapeutics Inc	2	0	2
Amgen Inc	1	0	1

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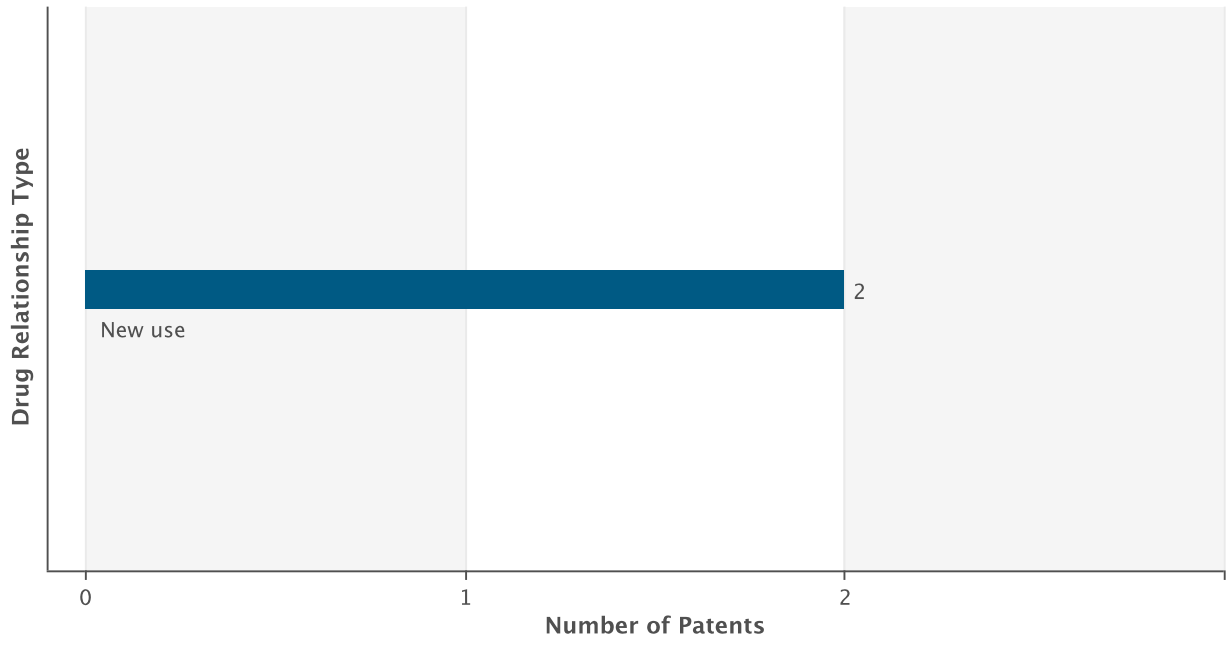
Patents by Drug Relationship Type Chart



Patents by Drug Relationship Type Table

Drug Relationship	Total
New use	2

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WT1-CTL

WT1-CTL SNAPSHOT

Drug Name	WT1-CTL
Key Synonyms	
Originator Company	Memorial Sloan-Kettering Cancer Center
Active Companies	Sellas Biopharma;Formula Pharmaceuticals Inc;Atara Biotherapeutics Inc
Inactive Companies	Memorial Sloan-Kettering Cancer Center
Highest Status	Phase 2 Clinical
Active Indications	Ovary tumor;Acute myelogenous leukemia;Cancer;Lung tumor;Mesothelioma;Multiple myeloma;Prostate tumor
Target-based Actions	Wilms tumor protein inhibitor
Other Actions	T-lymphocyte modulator;Therapeutic vaccine;Anticancer
Technologies	T-lymphocyte;Tumor antigen therapeutic;Biological therapeutic;Parenteral formulation unspecified;Peptide
Last Change Date	03-Apr-2015

WT1-CTL DEVELOPMENT PROFILE

SUMMARY

Sellas, under license from Memorial Sloan-Kettering Cancer Center (MSKCC), is developing a synthetic, multi-peptide immunotherapeutic T-cell vaccine targeting Wilms' tumor 1(WT1) antigen, for the potential treatment of first-remission acute myeloid leukemia (AML), mesothelioma and multiple myeloma. The company is also investigating the vaccine for other malignant tumors including ovarian cancer, elderly acute lymphocytic leukemia (ALL), melanoma, post-bone marrow transplantation leukemia, lung and prostate cancer, ,. Atara Biotherapeutics is also developing the therapy for the potential treatment of AML and multiple myeloma. In April 2015, two phase I studies were being conducted by Atara, for AML and multiple myeloma. In September 2014, Sellas was planning to begin larger phase II studies in early 2015. In March 2015, further studies for lung, ovarian and prostate cancers were expected in 2016 and at that time, a phase III trial for AML was planned in the third or fourth quarter of 2015.

Formula Pharmaceuticals, under license from MSKCC, is also developing the WT1 vaccine as FPI-01, for the potential treatment of first-remission AML, mesothelioma and multiple myeloma. The company is also investigating the vaccine for other malignant tumors including ovarian cancer, ,. By December 2011, phase II trials were initiated for AML and mesothelioma . In April 2013, a pilot phase I trial was initiated in the US in patients with multiple myeloma following autologous stem cell transplantation. The trial was expected to complete in April 2015. In February 2012, the company was planning to initiate phase II trials for ovarian cancer and post-bone marrow transplantation leukemia, and also phase I trial for melanoma in combination with an approved drug. In February 2015, development was ongoing. In November 2011, the company was seeking to outlicense the drug.

Formula Pharmaceuticals, was also investigating the vaccine for other malignant tumors elderly ALL, melanoma and post-bone marrow transplantation leukemia, ,. However in September 2014, no development was reported for these indications.

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WT1-CTL DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

Company	Indication	Country	Development Status	Date
Formula Pharmaceuticals Inc	Acute myelogenous leukemia	US	Phase 2 Clinical	23-Dec-2011
Formula Pharmaceuticals Inc	Mesothelioma	US	Phase 2 Clinical	23-Dec-2011
Sellas Biopharma	Acute myelogenous leukemia	US	Phase 2 Clinical	04-Sep-2014
Sellas Biopharma	Mesothelioma	US	Phase 2 Clinical	04-Sep-2014
Atara Biotherapeutics Inc	Cancer	US	Phase 1 Clinical	03-Apr-2015
Formula Pharmaceuticals Inc	Multiple myeloma	US	Phase 1 Clinical	04-Apr-2013
Sellas Biopharma	Multiple myeloma	US	Phase 1 Clinical	04-Sep-2014
Formula Pharmaceuticals Inc	Ovary tumor	US	Discovery	31-Dec-2010
Sellas Biopharma	Lung tumor	US	Discovery	19-Mar-2015
Sellas Biopharma	Ovary tumor	US	Discovery	19-Mar-2015
Sellas Biopharma	Prostate tumor	US	Discovery	19-Mar-2015
Memorial Sloan-Kettering Cancer Center	Acute myelogenous leukemia	US	Discontinued	23-Dec-2011
Memorial Sloan-Kettering Cancer Center	Mesothelioma	US	Discontinued	23-Dec-2011
Memorial Sloan-Kettering Cancer Center	Multiple myeloma	US	Discontinued	04-Sep-2014

WT1-CTL DRUG NAMES

Names	Type
WT1-CTL	Research Code
WT-1 therapeutic vaccine (cancer), Sellas	
FPI-01	Research Code
WT-1 therapeutic vaccine (cancer), Sellas/Atara	
WT-1 therapeutic vaccine (cancer), Formula Pharmaceuticals	
WT-1 analog peptide vaccine (acute myeloid leukemia/mesothelioma/cancer), Formula Pharmaceuticals Inc(US)/ Memorial Sloan-Kettering Cancer Center	

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WT1-CTL CLINICAL TRIALS

Trials by Phase and Condition Studied

Phase 4 Clinical		Phase 3 Clinical		Phase 2 Clinical		Phase 1 Clinical		Phase Unspecified		Total	
On-going	All	On-going	All	On-going	All	On-going	All	On-going	All	On-going	All
Mesothelioma											
0	0	0	0	2	2	0	0	0	0	2	2
Acute myelogenous leukemia											
0	0	0	0	1	1	0	0	0	0	1	1
Multiple myeloma											
0	0	0	0	0	0	0	0	1	1	1	1
Acute lymphoblastic leukemia											
0	0	0	0	1	1	0	0	0	0	1	1

Total Trials by Phase and Status

Phase 4 Clinical		Phase 3 Clinical		Phase 2 Clinical		Phase 1 Clinical		Phase Unspecified		Total	
On-going	All	On-going	All	On-going	All	On-going	All	On-going	All	On-going	All
Total by Phase and Status											
0	0	0	0	3	3	0	0	1	1	4	4

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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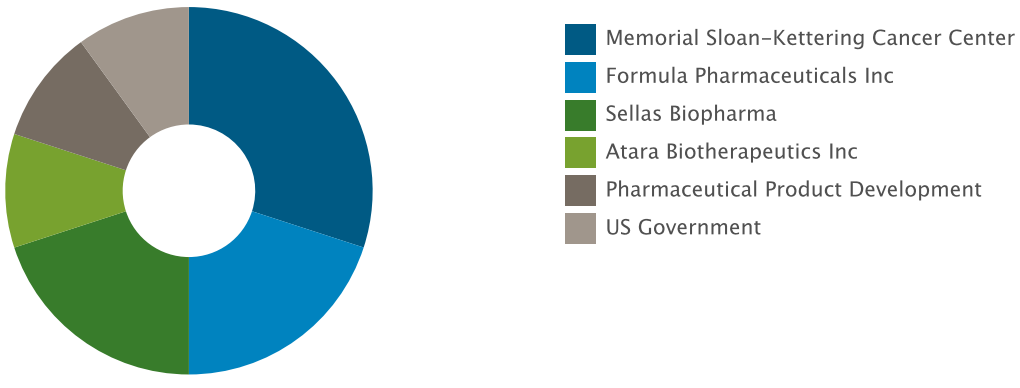
WT1-CTL DEALS AND PATENTS

DEALS

Deals by Parent Company Chart



Active Deals
Total: 5

Deals by Parent Company Table

Company Name	Principal		Partner		Total
	Active	Inactive	Active	Inactive	
Memorial Sloan-Kettering Cancer Center	3	0	0	0	3
Sellas Biopharma	0	0	2	0	2
Formula Pharmaceuticals Inc	1	0	1	0	2
Pharmaceutical Product Development	1	0	0	0	1
Atara Biotherapeutics Inc	0	0	1	0	1
US Government	0	0	1	0	1

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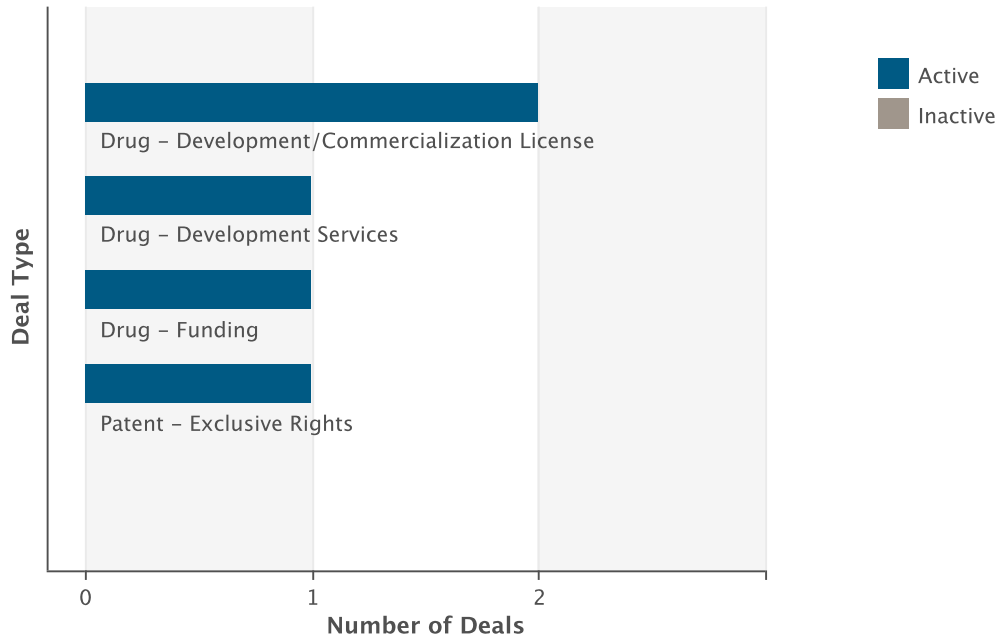
Deals by Type Chart



Deals by Type Table

Deal Type	Active	Inactive	Total
Drug - Development/Commercialization License	2	0	2
Patent - Exclusive Rights	1	0	1
Drug - Funding	1	0	1
Drug - Development Services	1	0	1

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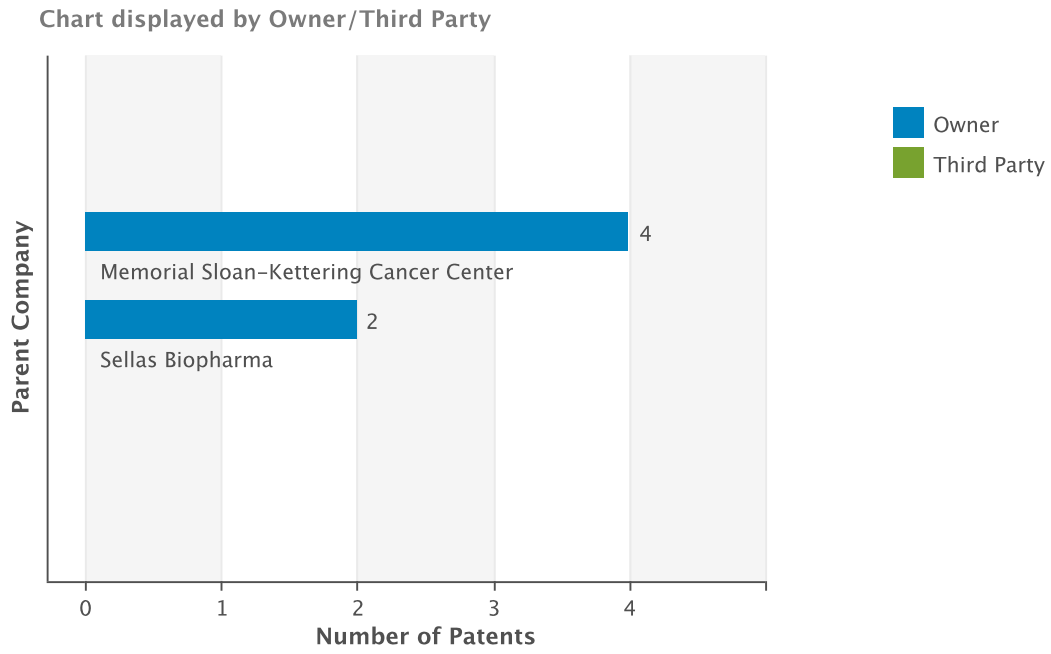
PATENTS

Patents by Parent Company Chart



Patents by Parent Company Table

Company Name	As Owner	As Third Party	Total
Memorial Sloan-Kettering Cancer Center	4	0	4
Sellas Biopharma	2	0	2

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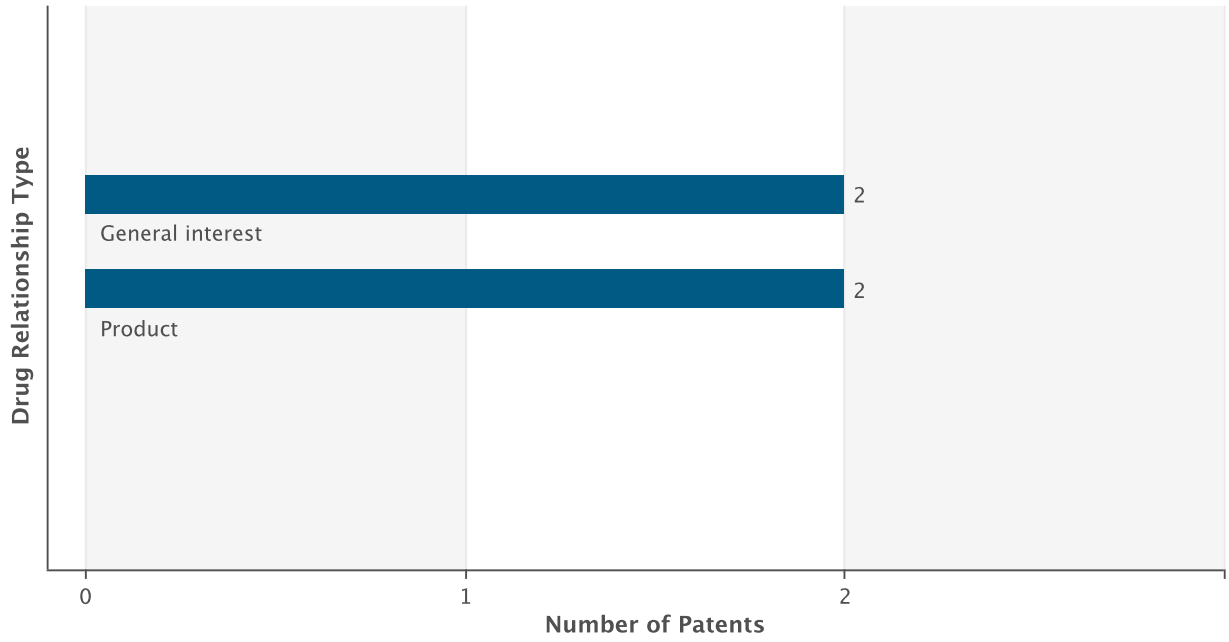
Patents by Drug Relationship Type Chart



Patents by Drug Relationship Type Table

Drug Relationship	Total
Product	2
General interest	2

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CMVpp65 specific cytotoxic T-cell therapy (CMV infection), Memorial Sloan-Kettering Cancer Center/Atara

CMVpp65 specific cytotoxic T-cell therapy (CMV infection), Memorial Sloan-Kettering Cancer Center/Atara SNAPSHOT

Drug Name	CMVpp65 specific cytotoxic T-cell therapy (CMV infection), Memorial Sloan-Kettering Cancer Center/Atara
Key Synonyms	
Originator Company	Memorial Sloan-Kettering Cancer Center
Active Companies	Atara Biotherapeutics Inc;Memorial Sloan-Kettering Cancer Center
Inactive Companies	
Highest Status	Phase 2 Clinical
Active Indications	Cytomegalovirus infection
Target-based Actions	
Other Actions	CMV replication inhibitor;T-lymphocyte modulator;Antiviral
Technologies	Biological therapeutic;Intravenous formulation;Infusion;T-lymphocyte;Cell therapy
Last Change Date	03-Apr-2015

CMVpp65 specific cytotoxic T-cell therapy (CMV infection), Memorial Sloan-Kettering Cancer Center/Atara DEVELOPMENT PROFILE

SUMMARY

The Memorial Sloan-Kettering Cancer Center (MSKCC) in collaboration with Atara Biotherapeutics, is developing a donor derived CMVpp65 specific cytotoxic T-cell therapy (CMV-CTL) for the potential treatment of cytomegalovirus (CMV) infection following allogeneic hematopoietic stem cell transplantation,. In July 2012, a phase II trial was initiated ; in April 2015, the study was ongoing.

CMVpp65 specific cytotoxic T-cell therapy (CMV infection), Memorial Sloan-Kettering Cancer Center/Atara DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

Company	Indication	Country	Development Status	Date
Atara Biotherapeutics Inc	Cytomegalovirus infection	US	Phase 2 Clinical	03-Apr-2015
Memorial Sloan-Kettering Cancer Center	Cytomegalovirus infection	US	Phase 2 Clinical	18-Jul-2012

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CMVpp65 specific cytotoxic T-cell therapy (CMV infection), Memorial Sloan-Kettering Cancer Center/Atara DRUG NAMES

Names	Type
CMVpp65 specific cytotoxic T-cell therapy (CMV infection), Memorial Sloan-Kettering Cancer Center	
CMV-CTL	Research Code
CMVpp65 specific cytotoxic T-cell therapy (CMV infection), Memorial Sloan-Kettering Cancer Center/Atara	

CMVpp65 specific cytotoxic T-cell therapy (CMV infection), Memorial Sloan-Kettering Cancer Center/Atara CLINICAL TRIALS

Trials by Phase and Condition Studied

Phase 4 Clinical		Phase 3 Clinical		Phase 2 Clinical		Phase 1 Clinical		Phase Unspecified		Total	
On-going	All	On-going	All	On-going	All	On-going	All	On-going	All	On-going	All
Cytomegalovirus infection											
0	0	0	0	2	2	0	1	0	0	2	3

Total Trials by Phase and Status

Phase 4 Clinical		Phase 3 Clinical		Phase 2 Clinical		Phase 1 Clinical		Phase Unspecified		Total	
On-going	All	On-going	All	On-going	All	On-going	All	On-going	All	On-going	All
Total by Phase and Status											
0	0	0	0	2	2	0	1	0	0	2	3

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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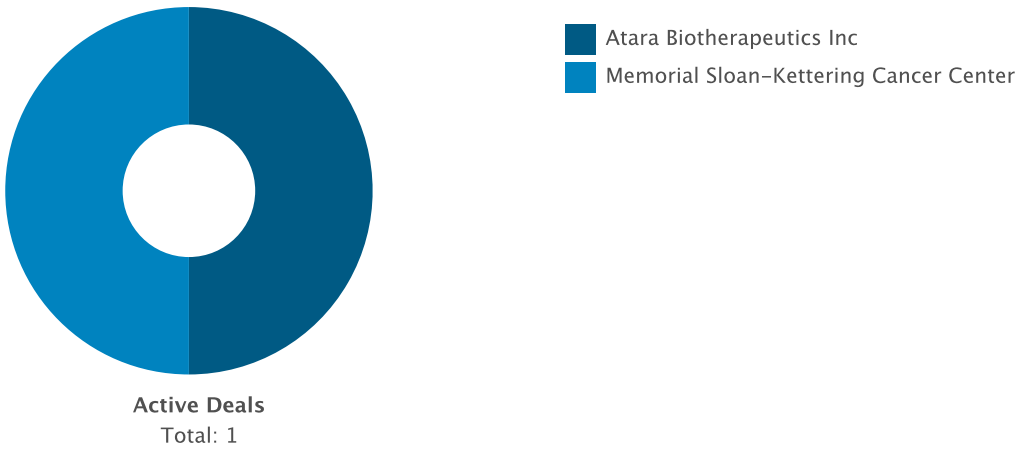
CMVpp65 specific cytotoxic T-cell therapy (CMV infection), Memorial Sloan-Kettering Cancer Center/Atara DEALS AND PATENTS

DEALS

Deals by Parent Company Chart



Deals by Parent Company Table

Company Name	Principal		Partner		Total
	Active	Inactive	Active	Inactive	
Memorial Sloan-Kettering Cancer Center	1	0	0	0	1
Atara Biotherapeutics Inc	0	0	1	0	1

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Deals by Type Chart

Deals by Type Table

Deal Type	Active	Inactive	Total
Drug - Development/Commercialization License	1	0	1

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STM-434

STM-434 SNAPSHOT

Drug Name	STM-434
Key Synonyms	
Originator Company	Amgen Inc
Active Companies	Amgen Inc;Atara Biotherapeutics Inc
Inactive Companies	
Highest Status	Phase 1 Clinical
Active Indications	Cancer
Target-based Actions	Activin type-IIB receptor antagonist
Other Actions	Anticancer protein kinase inhibitor;Synergist
Technologies	Biological therapeutic;Parenteral formulation unspecified;Protein fusion;Antibody fragment
Last Change Date	23-Oct-2014

STM-434 DEVELOPMENT PROFILE

SUMMARY

Amgen in collaboration with Atara Biotherapeutics are developing STM-434 (STM-217), a recombinant human soluble activin type 2B receptor Fc fusion protein (sActR2B-Fc) inhibiting activin A and myostatin signaling, for the potential treatment of cancers, including ovarian cancer and solid tumors,,. In October 2014, a phase I trial was initiated in the US.

STM-434 DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

Company	Indication	Country	Development Status	Date
Amgen Inc	Cancer	US	Phase 1 Clinical	07-Oct-2014
Atara Biotherapeutics Inc	Cancer	US	Phase 1 Clinical	07-Oct-2014

STM-434 DRUG NAMES

Names	Type
STM-434	Research Code
STM-217	Research Code
recombinant human soluble activin type 2B receptor Fc fusion protein (cancer), Amgen/Atara Biotherapeutics	

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STM-434 CLINICAL TRIALS

Trials by Phase and Condition Studied

Phase 4 Clinical		Phase 3 Clinical		Phase 2 Clinical		Phase 1 Clinical		Phase Unspecified		Total	
On-going	All	On-going	All	On-going	All	On-going	All	On-going	All	On-going	All
Advanced solid tumor											
0	0	0	0	0	0	1	1	0	0	1	1
Ovary tumor											
0	0	0	0	0	0	1	1	0	0	1	1

Total Trials by Phase and Status

Phase 4 Clinical		Phase 3 Clinical		Phase 2 Clinical		Phase 1 Clinical		Phase Unspecified		Total	
On-going	All	On-going	All	On-going	All	On-going	All	On-going	All	On-going	All
Total by Phase and Status											
0	0	0	0	0	0	1	1	0	0	1	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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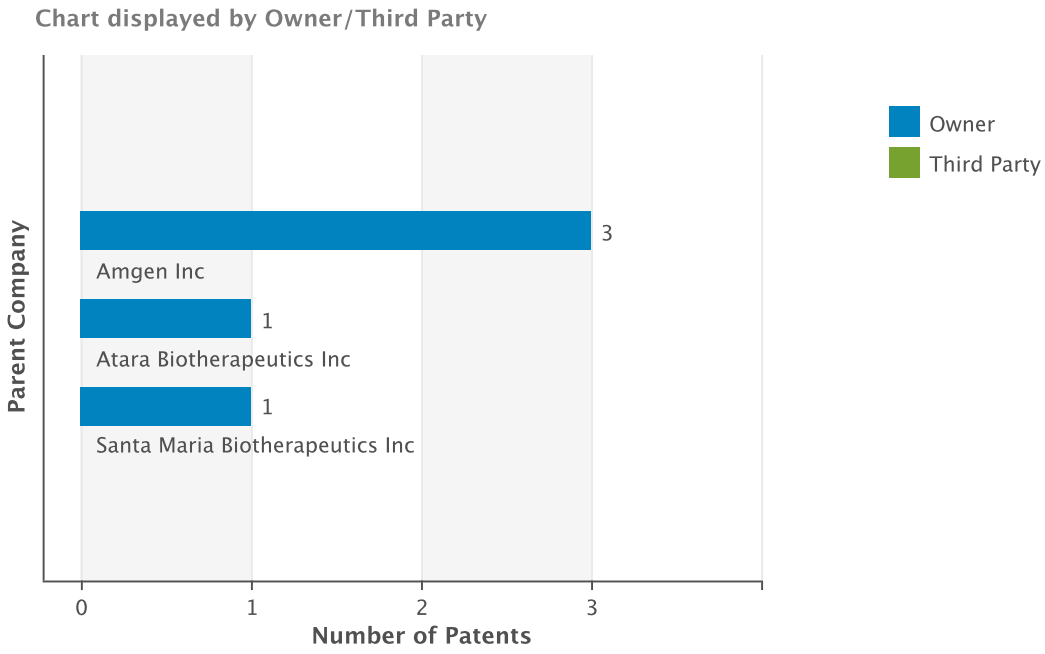
PATENTS

Patents by Parent Company Chart



Patents by Parent Company Table

Company Name	As Owner	As Third Party	Total
Amgen Inc	3	0	3
Atara Biotherapeutics Inc	1	0	1
Santa Maria Biotherapeutics Inc	1	0	1

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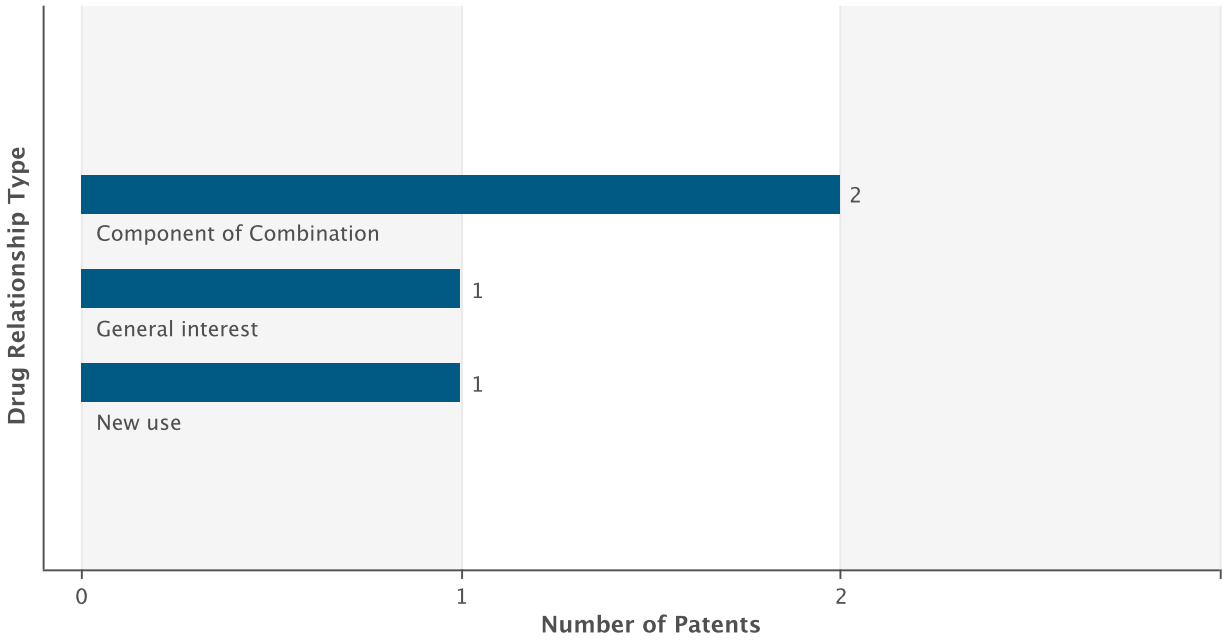
Patents by Drug Relationship Type Chart



Patents by Drug Relationship Type Table

Drug Relationship	Total
Component of Combination	2
General interest	1
New use	1

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ATA-842

ATA-842 SNAPSHOT

Drug Name	ATA-842
Key Synonyms	
Originator Company	Amgen Inc
Active Companies	Atara Biotherapeutics Inc
Inactive Companies	Amgen Inc
Highest Status	Discovery
Active Indications	Cachexia
Target-based Actions	GDF-8 antagonist
Other Actions	
Technologies	Humanized antibody;Systemic formulation unspecified;Biological therapeutic
Last Change Date	12-Feb-2015

ATA-842 DEVELOPMENT PROFILE

SUMMARY

Atara Biotherapeutics, under license from Amgen, is investigating ATA-842 (NINA-842; previously AMG-745), a humanized antibody that targets myostatin (GDF-8), for the potential treatment of cachexia,,. In December 2013, preclinical development was ongoing ; IND enabling studies were still ongoing in February 2015.

ATA-842 DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

Company	Indication	Country	Development Status	Date
Atara Biotherapeutics Inc	Cachexia	US	Discovery	25-Oct-2012
Amgen Inc	Cachexia	US	Discontinued	25-Oct-2012

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ATA-842 DRUG NAMES

Names	Type
growth differentiation factor-8 antagonist (cachexia), Amgen	
AMG-745	Research Code
NINA-842	Research Code
myostatin antagonist (cachexia), Amgen	
ATA-842	Research Code
GDF-8 antagonist (cachexia), Amgen	

ATA-842 CLINICAL TRIALS

Trials by Phase and Condition Studied

Phase 4 Clinical		Phase 3 Clinical		Phase 2 Clinical		Phase 1 Clinical		Phase Unspecified		Total	
On-going	All	On-going	All	On-going	All	On-going	All	On-going	All	On-going	All
Cachexia											
0	0	0	0	0	1	0	0	0	0	0	1
Sarcopenia											
0	0	0	0	0	1	0	0	0	0	0	1
Prostate tumor											
0	0	0	0	0	0	0	1	0	0	0	1

Total Trials by Phase and Status

Phase 4 Clinical		Phase 3 Clinical		Phase 2 Clinical		Phase 1 Clinical		Phase Unspecified		Total	
On-going	All	On-going	All	On-going	All	On-going	All	On-going	All	On-going	All
Total by Phase and Status											
0	0	0	0	0	2	0	1	0	0	0	3

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)

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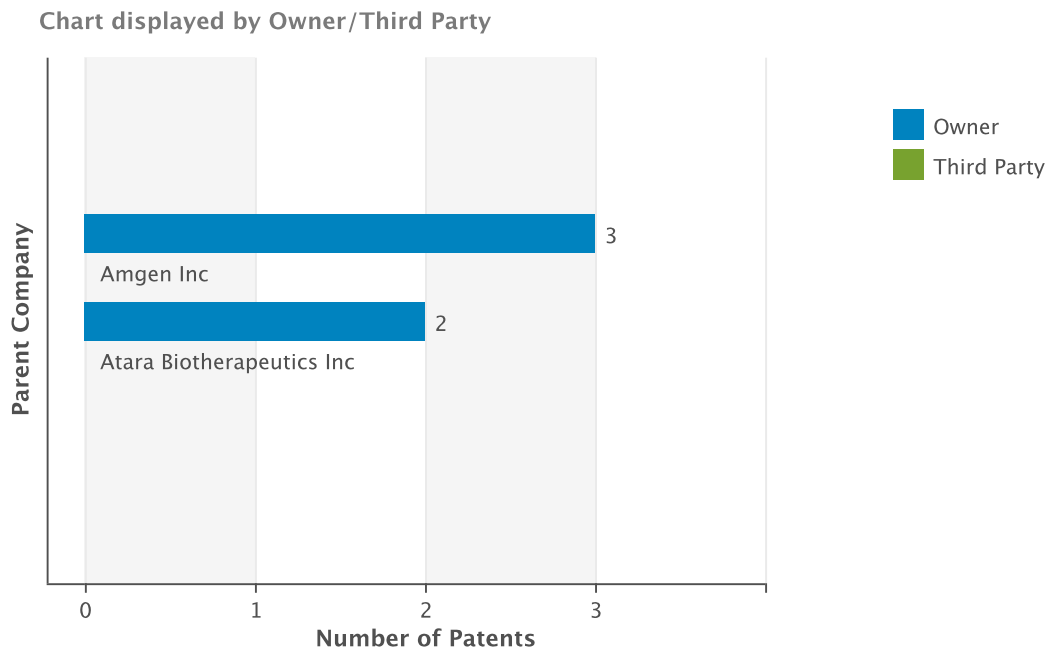
Phase 1 Clinical
Includes Phase 1, Phase 1a, Phase 1, Phase 1/2 (where enrolment count is under 100 or not specified), Phase 0

ATA-842 DEALS AND PATENTS

PATENTS

Patents by Parent Company Chart



Patents by Parent Company Table

Company Name	As Owner	As Third Party	Total
Amgen Inc	3	0	3
Atara Biotherapeutics Inc	2	0	2

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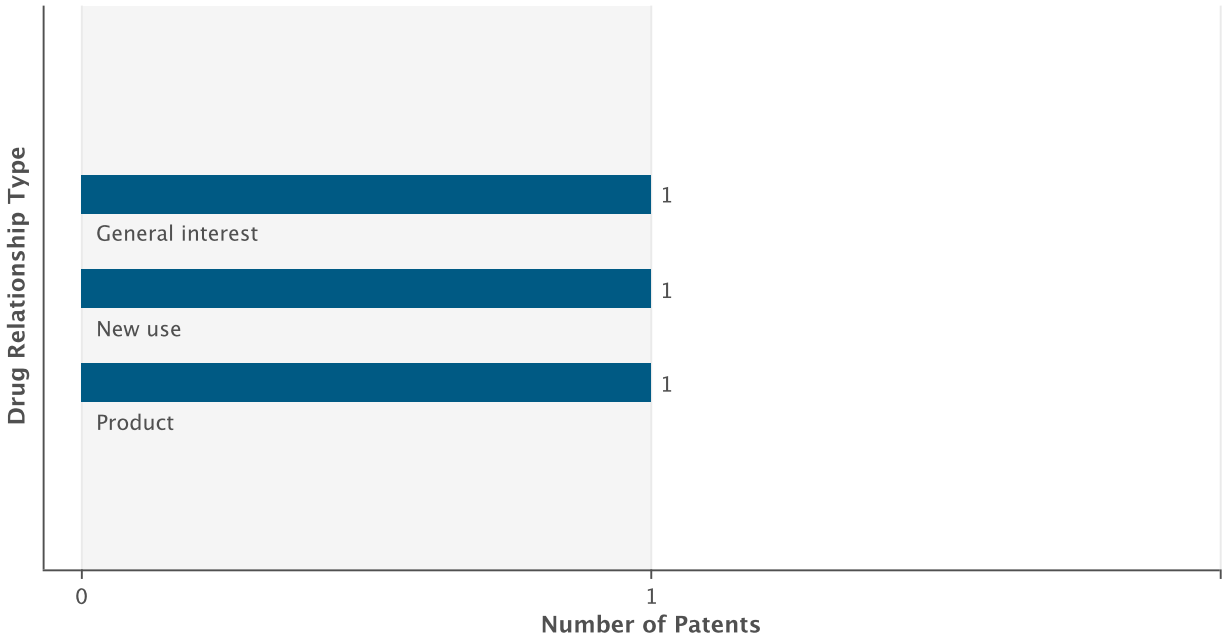
Patents by Drug Relationship Type Chart



Patents by Drug Relationship Type Table

Drug Relationship	Total
Product	1
New use	1
General interest	1

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