

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i.e. where the development status for the drug(s) is one of the following: No Development Reported, Discontinued, or Withdrawn.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

COMPANY OVERVIEW

| Company Name | Achaogen Inc |
|--|--|
| Parent Company Name | Achaogen Inc |
| Website | http://www.achaogen.com/ |
| Country | US |
| Number of Drugs in Active Development | 5 |
| Number of Inactive Drugs | 3 |
| Number of Patents as Owner | 41 |
| Number of Patents as Third Party | 1 |
| Number of Deals | 13 |
| Key Indications | Gram negative bacterium infection,Bacterial infection,Pseudomonas aeruginosa infection,Enterobacteriaceae infection,Escherichia coli infection,Multidrug resistant infection,Bacterial pneumonia,Bacterial urinary tract infection,Pyelonephritis,Sepsis |
| Key Target-based Actions | LpxC inhibitor,Acetyl CoA carboxylase inhibitor,SOS gene inhibitor,Penicillin binding protein inhibitor |
| Key Technologies | Small molecule therapeutic,Antibiotic,Biological therapeutic,Monoclonal antibody,Oral formulation,Systemic formulation unspecified,Infusion,Intravenous formulation,Drug combination,Crystalline form,Formulation preservation,Pharmaceutical carrier |

COMPANY PROFILE

SUMMARY

Achaogen Inc is a biotechnology company, established by August 2004, focused on the development of small molecule compounds to combat multi-drug resistance in bacteria. It takes products to the early clinical development stage at which point it seeks worldwide external resources for late-stage clinical work. The company is pursuing several unique strategies to combat these pathogens, including the development of drugs (achaogens) against the induced mutation process that is upregulated in bacteria during antibiotic exposure and that leads to the introduction of mutations that may confer antibiotic resistance.

COMPANY LOCATION

Achaogen Inc is headquartered in San Francisco, CA where it has a state-of-the-art research facility.

LICENSING AGREEMENTS

In January 2008, ChemDiv entered into an agreement with Achaogen to discover and develop antibacterial compounds. Financial terms were not disclosed.

In June 2007, Albany Molecular Research (AMRI) agreed to screen its natural product libraries against Achaogen's therapeutic targets for antibiotic resistance. AMRI would also provide other discovery and follow-up services, and will receive upfront fees, milestones and royalties.

In August 2004, Achaogen entered into a small-molecule research and discovery collaboration with NeoGenesis Pharmaceuticals Inc. NeoGenesis would use its drug discovery technologies, including its ALIS (Automated Ligand Identification System) platform, NeoMorph compound libraries and lead optimization technologies to discover drug candidates against selected targets.

EARLY R&D

By April 2010, the company was investigating 'neoglycosides', next generation aminoglycosides, which have demonstrated broad-spectrum activity against multi-drug resistant gram-negative bacterial infections.



FINANCIAL

In January 2014, Achaogen filed a registration statement with the US SEC for a proposed initial public offering of its common stock shares. In March 2014, the company priced an IPO of 6 million shares of common stock at \$12.00 per share and granted the underwriters a 30-day option to buy up to an additional 900,000 shares to cover any overallotments. The shares were expected to begin trading on the NASDAQ Global Market under the ticker symbol "AKAO" on March 12, 2014. At that time, the offering was expected to close on March 17, 2014. Later that month, the offering was closed and the company raised gross proceeds of \$82.8 million and net proceeds of approximately \$73.9 million, from the IPO of 6.9 million shares, including full exercise of underwriters overallotment option. The shares had begun trading on the NASDAQ under the ticker symbol "AKAO".

In April 2010, the company raised \$56 million from the closing of a series C financing round.

In October 2006, Achaogen was awarded a 4-year, \$24.7 million contract from the Defense Threat Reduction Agency for the development of therapies for anthrax and other biothreat agents.

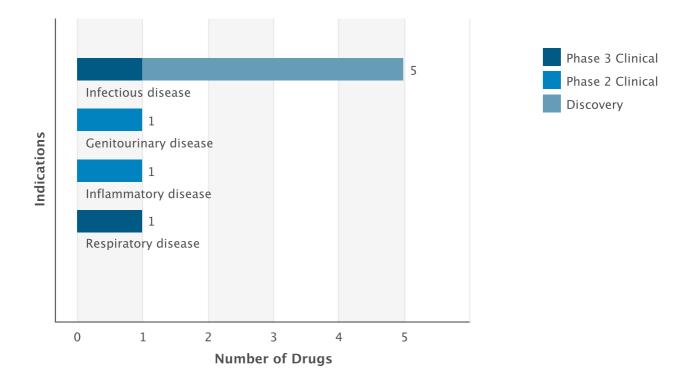
Earlier in October 2006, Achaogen raised over \$26 million from a series B financing round.

PRODUCT PORTFOLIO SUMMARY

DRUGS

Drugs by Indication

Active Drugs by Indication Chart



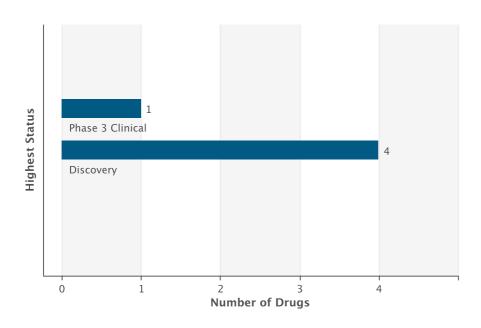


Drugs by Indication Table

| Indication | Active | Inactive | Total |
|-----------------------|--------|----------|-------|
| Infectious disease | 5 | 3 | 8 |
| Inflammatory disease | 1 | 0 | 1 |
| Respiratory disease | 1 | 0 | 1 |
| Genitourinary disease | 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 |
| Discovery | 4 |
| No Development Reported | 3 |

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DEALS

| Deal Type | Prin | cipal | Pai | tner | Total |
|--|--------|----------|--------|----------|-------|
| | Active | Inactive | Active | Inactive | |
| Drug - Discovery/Design | 0 | 0 | 3 | 0 | 3 |
| Technology - Other Proprietary | 0 | 0 | 1 | 0 | 1 |
| Patent - Exclusive Rights | 0 | 0 | 1 | 0 | 1 |
| Drug - Funding | 3 | 0 | 1 | 0 | 6 |
| Drug - Development/Commercialization License | 0 | 0 | 1 | 0 | 1 |
| Technology - Target Validation | 0 | 0 | 1 | 0 | 1 |

CLINICAL TRIALS

Trials by Condition Studied

| Condition Studied | Ongoing | All |
|-----------------------|---------|-----|
| Infectious disease | 1 | 5 |
| Respiratory disease | 1 | 2 |
| Inflammatory disease | 0 | 1 |
| Genitourinary disease | 0 | 1 |

Trials by Phase

| Phase | Ongoing | All |
|---------------------|---------|-----|
| Phase 3 | 1 | 3 |
| Phase 2 | 0 | 1 |
| Phase 1 | 0 | 7 |
| 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 |
|---------------------------|----------|----------------|-------|
| Gastrointestinal disease | 5 | 0 | 5 |
| Genitourinary disease | 1 | 0 | 1 |
| Neoplasm | 2 | 1 | 3 |
| Respiratory disease | 9 | 0 | 9 |
| Infectious disease | 36 | 1 | 37 |
| Toxicity and intoxication | 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.

PRODUCT PORTFOLIO DRUG PIPELINE DETAIL

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

plazomicin

plazomicin SNAPSHOT

| Drug Name | plazomicin |
|----------------------|--|
| Key Synonyms | plazomicin sulfate;plazomicin |
| Originator Company | Ibis Therapeutics |
| Active Companies | Achaogen Inc |
| Inactive Companies | Ibis Therapeutics |
| Highest Status | Phase 3 Clinical |
| Active Indications | Bacterial urinary tract infection;Bacterial pneumonia;Sepsis;Pyelonephritis;Enterobacteriaceae infection |
| Target-based Actions | |
| Other Actions | Aminoglycoside antibiotic;Antibacterial;Antibacterial multidrug resistance inhibitor |
| Technologies | Small molecule therapeutic;Intravenous formulation;Infusion;Antibiotic |
| Last Change Date | 01-Feb-2015 |

plazomicin DEVELOPMENT PROFILE

SUMMARY

Under license from Isis and its Ibis Therapeutics division, Achaogen is developing plazomicin (ACHN-490), the lead in a series of next-generation aminoglycoside antibiotics called neoglycosides, for the potential iv treatment of multi-drug resistant gram-negative bacterial infections,.

In In February 2014, a phase III study was initiated in patients with bloodstream infection or nosocomial pneumonia due to carbapenem-resistant enterobacteriaceae (CRE). In March 2010, a phase II trial began in patients with complicated urinary tract infection (cUTI) or acute pyelonephritis.

In March 2012, the company was seeking to outlicense the drug.

Achaogen is also investigating a second series of expanded-spectrum neoglycosides for gram-negative bacterial infections.

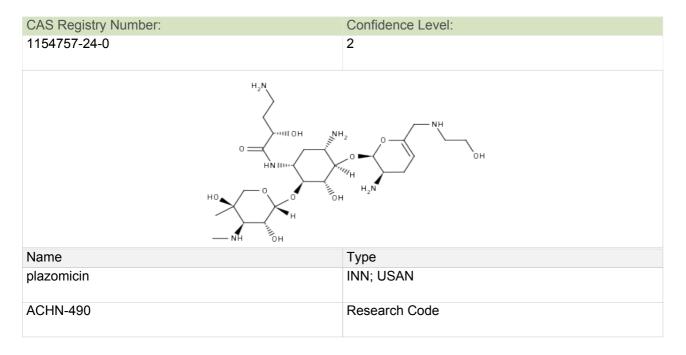
plazomicin DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS



| Company | Indication | Country | Development Status | Date |
|-------------------|-----------------------------------|---------------|---------------------------|-------------|
| Achaogen Inc | Bacterial pneumonia | Asia | Phase 3 Clinical | 21-Feb-2014 |
| Achaogen Inc | Bacterial pneumonia | Europe | Phase 3 Clinical | 21-Feb-2014 |
| Achaogen Inc | Bacterial pneumonia | South America | Phase 3 Clinical | 21-Feb-2014 |
| Achaogen Inc | Bacterial pneumonia | US | Phase 3 Clinical | 21-Feb-2014 |
| Achaogen Inc | Enterobacteriaceae infection | Asia | Phase 3 Clinical | 21-Feb-2014 |
| Achaogen Inc | Enterobacteriaceae infection | Europe | Phase 3 Clinical | 21-Feb-2014 |
| Achaogen Inc | Enterobacteriaceae infection | South America | Phase 3 Clinical | 21-Feb-2014 |
| Achaogen Inc | Enterobacteriaceae infection | US | Phase 3 Clinical | 21-Feb-2014 |
| Achaogen Inc | Sepsis | Asia | Phase 3 Clinical | 21-Feb-2014 |
| Achaogen Inc | Sepsis | Europe | Phase 3 Clinical | 21-Feb-2014 |
| Achaogen Inc | Sepsis | South America | Phase 3 Clinical | 21-Feb-2014 |
| Achaogen Inc | Sepsis | US | Phase 3 Clinical | 21-Feb-2014 |
| Achaogen Inc | Bacterial urinary tract infection | US | Phase 2 Clinical | 31-Mar-2010 |
| Achaogen Inc | Pyelonephritis | US | Phase 2 Clinical | 31-Mar-2010 |
| Ibis Therapeutics | Bacterial infection | US | Discontinued | 31-Jan-2006 |

plazomicin CHEMICAL STRUCTURES





| CAS Registry Number: | Confidence Level: |
|---|-------------------|
| 1380078-95-4 | 2 |
| HO H ₂ N H ₂ | NH ₂ |
| Name | Туре |
| plazomicin sulfate | USAN |



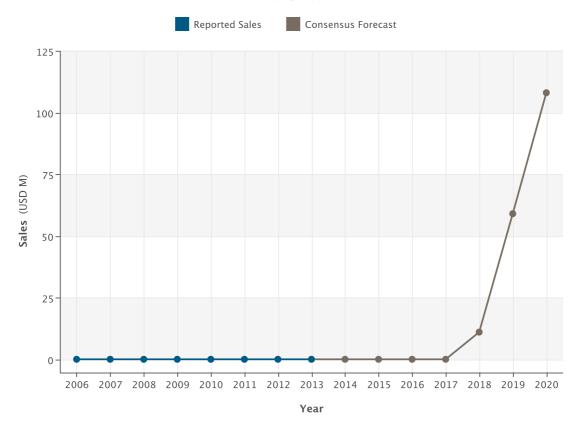
plazomicin DRUG NAMES

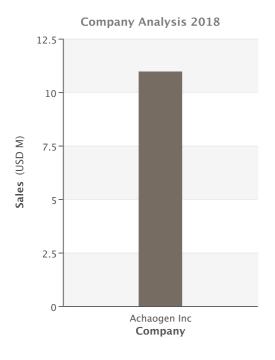
| Names | Туре |
|--|---------------|
| aminoglycosides (bacterial infection), Achaogen | |
| neoglycosides (Gram-negative bacterial infection), Achaogen) | |
| IBIS-363012 | Research Code |
| IBIS-345539 | Research Code |
| RNA-targeted antibiotics, Achaogen | |
| ACHN-490 | Research Code |
| RNA-targeted antibiotics, Ibis Therapeutics | |
| plazomicin sulfate | USAN |
| plazomicin | INN, USAN |
| IBIS-346377 | Research Code |

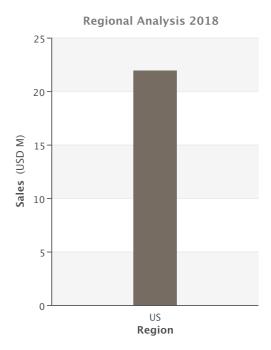
plazomicin SALES AND FORECASTS

CHARTS

Total Sales









COMMENTARY

CONSENSUS SALES INFORMATION

Consensus forecast data for Achaogen are presented.

REGIONAL DEVELOPMENT AND MARKETING RIGHTS

In January 2006, Isis licensed exclusive worldwide rights for its Ibis aminoglycosides program to Achaogen [647677].

plazomicin CLINICAL TRIALS

Trials by Phase and Condition Studied

| Pha Clir | se 4 lical | | se 3 iical | | se 2 nical | | se 1 nical | | ase ecified | То | tal |
|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|----------------|--------------|-----|
| On- going | All | On- going | All |
| Enteroba | cteriaceae | einfection | | | | | | | | | |
| 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Pneumor | nia | | | | | | | | | | |
| 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Gram ne | gative bac | terium infe | ection | | | | | | | | |
| 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| Urinary tr | act infection | on | | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Pyelonep | hritis | | | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Bacterial | infection | | | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |

Total Trials by Phase and Status

| | se 4 nical | | se 3 nical | | se 2 nical | | se 1 nical | | ase ecified | То | otal |
|---------------------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|----------------|--------------|------|
| 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 | 1 | 3 | 0 | 1 | 0 | 4 | 0 | 1 | 1 | 9 |

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)

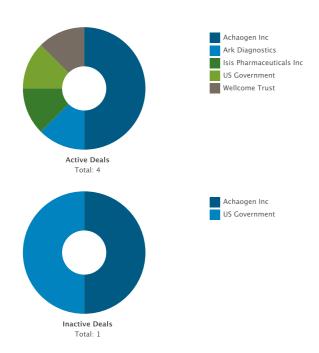
Phase 1 Clinical

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

plazomicin DEALS AND PATENTS

DEALS

Deals by Parent Company Chart

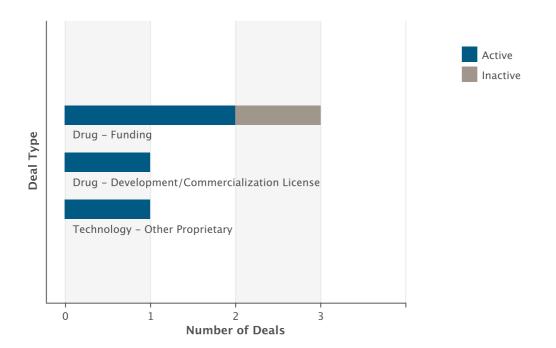


Deals by Parent Company Table

| Company Name | | icipal Inactive | | tner Inactive | Total |
|--------------------------|---|--------------------|---|------------------|-------|
| Achaogen Inc | 1 | 1 | 3 | 0 | 5 |
| US Government | 0 | 0 | 1 | 1 | 2 |
| Wellcome Trust | 1 | 0 | 0 | 0 | 1 |
| Isis Pharmaceuticals Inc | 1 | 0 | 0 | 0 | 1 |
| Ark Diagnostics | 1 | 0 | 0 | 0 | 1 |



Deals by Type Chart



Deals by Type Table

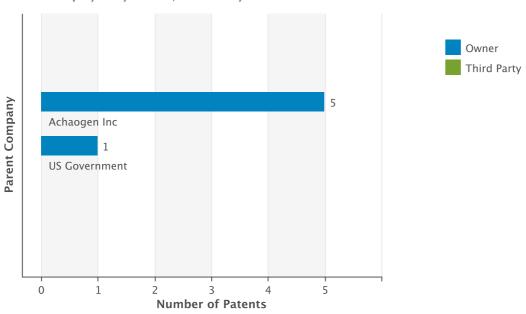
| Deal Type | Active | Inactive | Total |
|--|--------|----------|-------|
| Drug - Funding | 2 | 1 | 3 |
| Technology - Other Proprietary | 1 | 0 | 1 |
| Drug - Development/Commercialization License | 1 | 0 | 1 |



PATENTS

Patents by Parent Company Chart

Chart displayed by Owner/Third Party

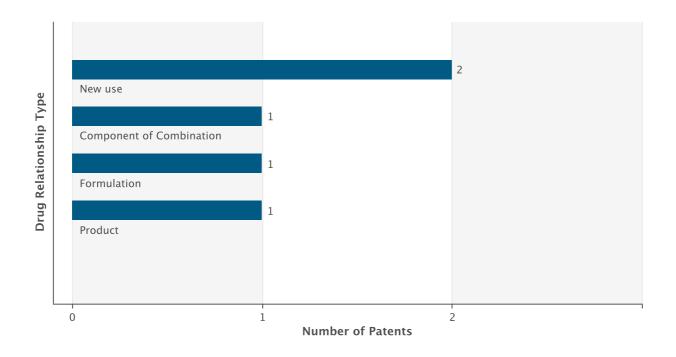


Patents by Parent Company Table

| Company Name | As Owner | As Third Party | Total |
|---------------|----------|----------------|-------|
| Achaogen Inc | 5 | 0 | 5 |
| US Government | 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 |
| Product | 1 |
| Formulation | 1 |
| Component of Combination | 1 |



therapeutic mAbs (gram-negative infections), Achaogen

therapeutic mAbs (gram-negative infections), Achaogen SNAPSHOT

| Drug Name | therapeutic mAbs (gram-negative infections), Achaogen |
|----------------------|---|
| Key Synonyms | |
| Originator Company | Achaogen Inc |
| Active Companies | Achaogen Inc |
| Inactive Companies | |
| Highest Status | Discovery |
| Active Indications | Gram negative bacterium infection |
| Target-based Actions | |
| Other Actions | Unspecified drug target;Antibacterial |
| Technologies | Biological therapeutic;Monoclonal antibody |
| Last Change Date | 03-Feb-2015 |

therapeutic mAbs (gram-negative infections), Achaogen DEVELOPMENT PROFILE

SUMMARY

Achaogen is investigating therapeutic monoclonal antibodies (mAbs) for the potential treatment of multidrugresistant, gram-negative bacterial infection including Pseudomonas aeruginosa infection. In January 2015, the program was listed as being in preclinical development.

therapeutic mAbs (gram-negative infections), Achaogen DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

| Company | Indication | Country | Development Status | Date |
|--------------|-----------------------------------|---------|---------------------------|-------------|
| Achaogen Inc | Gram negative bacterium infection | US | Discovery | 20-Jan-2015 |

therapeutic mAbs (gram-negative infections), Achaogen DRUG NAMES

| Names | Туре |
|---|------|
| therapeutic mAbs (gram-negative infections), Achaogen | |



biotin carboxylase inhibitors (gram-negative bacterial infection), Achaogen

biotin carboxylase inhibitors (gram-negative bacterial infection), Achaogen SNAPSHOT

| Drug Name | biotin carboxylase inhibitors (gram-negative bacterial infection), Achaogen |
|----------------------|---|
| Key Synonyms | |
| Originator Company | Achaogen Inc |
| Active Companies | Achaogen Inc |
| Inactive Companies | |
| Highest Status | Discovery |
| Active Indications | Gram negative bacterium infection |
| Target-based Actions | Acetyl CoA carboxylase inhibitor |
| Other Actions | Antibacterial |
| Technologies | Small molecule therapeutic |
| Last Change Date | 20-Jan-2015 |

biotin carboxylase inhibitors (gram-negative bacterial infection), Achaogen DEVELOPMENT PROFILE

SUMMARY

Achaogen is investigating biotin carboxylase or acetyl-CoA carboxylase (AccC) inhibitors for the potential treatment of gram-negative bacterial infection. In July 2014, development was ongoing.

biotin carboxylase inhibitors (gram-negative bacterial infection), Achaogen DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

| Company | Indication | Country | Development Status | Date |
|--------------|-----------------------------------|---------|---------------------------|-------------|
| Achaogen Inc | Gram negative bacterium infection | US | Discovery | 15-Jul-2014 |

biotin carboxylase inhibitors (gram-negative bacterial infection), Achaogen DRUG NAMES

| Names | Туре |
|---|------|
| biotin carboxylase inhibitors (gram-negative bacterial infection), Achaogen | |

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DEALS

Deals by Parent Company Chart



Deals by Parent Company Table

| Company Name | | cipal Inactive | | tner Inactive | Total |
|---------------|---|--------------------------|---|------------------|-------|
| US Government | 0 | 0 | 1 | 0 | 1 |
| Achaogen Inc | 1 | 0 | 0 | 0 | 1 |

Deals by Type Chart



Deals by Type Table

| Deal Type | Active | Inactive | Total |
|----------------|--------|----------|-------|
| Drug - Funding | 1 | 0 | 1 |

expanded-spectrum neoglycosides (Gram-negative bacterial infection), Achaogen

expanded-spectrum neoglycosides (Gram-negative bacterial infection), Achaogen SNAPSHOT

| expanded-spectrum neoglycosides (Gram-negative bacterial infection), Achaogen |
|--|
| |
| Achaogen Inc |
| Achaogen Inc |
| |
| Discovery |
| Gram negative bacterium infection |
| |
| Aminoglycoside antibiotic;Antibacterial multidrug resistance inhibitor;RNA nodulator |
| Small molecule therapeutic;Antibiotic |
| 0-Jan-2015 |
| |

expanded-spectrum neoglycosides (Gram-negative bacterial infection), Achaogen DEVELOPMENT PROFILE

SUMMARY

Achaogen is investigating a series of next-generation, expanded-spectrum aminoglycoside antibiotics, termed neoglycosides, presumed to include ACHN-978, for the potential treatment of multidrug-resistant, Gram-negative bacterial infections including Acinetobacter baumannii, Pseudomonas aeruginosa, Yersinia pestis and Francisella tularensis infections,. In January 2009, the company was investigating different formulations including inhaled, intramuscular and topical. In July 2011, the program was listed as being in preclinical development; in October 2013, lead optimization was ongoing; in January 2015, development was presumed to be ongoing. In March 2012, the company was seeking to outlicense ACHN-978.

Achaogen is also investigating the neoglycoside compound ACHN-490 for Gram-negative bacterial infections.

expanded-spectrum neoglycosides (Gram-negative bacterial infection), Achaogen DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

| Company | Indication | Country | Development Status | Date |
|--------------|-----------------------------------|---------|---------------------------|-------------|
| Achaogen Inc | Gram negative bacterium infection | US | Discovery | 08-Jan-2009 |

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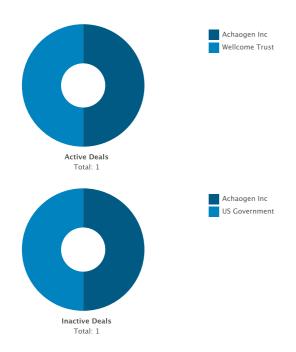
expanded-spectrum neoglycosides (Gram-negative bacterial infection), Achaogen DRUG NAMES

| Names | Туре |
|--|---------------|
| expanded-spectrum neoglycosides (Gram-negative bacterial infection), Achaogen | |
| expanded-spectrum aminoglycosides (Gramnegative bacterial infection), Achaogen | |
| ACHN-978 | Research Code |

expanded-spectrum neoglycosides (Gram-negative bacterial infection), Achaogen DEALS AND PATENTS

DEALS

Deals by Parent Company Chart

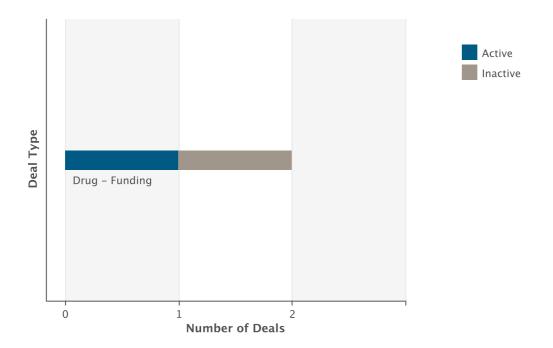


Deals by Parent Company Table

| Company Name | | cipal Inactive | | tner Inactive | Total |
|----------------|---|--------------------------|---|------------------|-------|
| Achaogen Inc | 0 | 1 | 1 | 0 | 2 |
| Wellcome Trust | 1 | 0 | 0 | 0 | 1 |
| US Government | 0 | 0 | 0 | 1 | 1 |



Deals by Type Chart



Deals by Type Table

| Deal Type | Active | Inactive | Total |
|----------------|--------|----------|-------|
| Drug - Funding | 1 | 1 | 2 |

LpxC membrane biosynthesis inhibitors (multidrug-resistant bacterial infection), Achaogen

LpxC membrane biosynthesis inhibitors (multidrug-resistant bacterial infection), Achaogen SNAPSHOT

| Drug Name | LpxC membrane biosynthesis inhibitors (multidrug-resistant bacterial infection), Achaogen |
|----------------------|---|
| Key Synonyms | |
| Originator Company | Achaogen Inc |
| Active Companies | Achaogen Inc |
| Inactive Companies | |
| Highest Status | Discovery |
| Active Indications | Gram negative bacterium infection; Multidrug resistant infection |
| Target-based Actions | LpxC inhibitor |
| Other Actions | Antibacterial multidrug resistance inhibitor |
| Technologies | Small molecule therapeutic;Systemic formulation unspecified;Antibiotic |
| Last Change Date | 30-Jan-2015 |

LpxC membrane biosynthesis inhibitors (multidrug-resistant bacterial infection), Achaogen DEVELOPMENT PROFILE

SUMMARY

Achaogen is investigating a program of membrane biosynthesis inhibitors targeting LpxC, for the potential treatment of multidrug-resistant (MDR) gram-negative bacterial infections (including Yersinia pestis infection) such as Pseudomonas aeruginosa (P aeruginosa), enterobacteriaceae and Yersinia pestis,. In October 2013, the program was in preclinical development; in January 2015, this was still the case.

The company was previously developing ACHN-975 (structure shown) for the potential treatment of multidrug-resistant (MDR) gram-negative bacterial infections (including Yersinia pestis infection) such as Pseudomonas aeruginosa (P aeruginosa), enterobacteriaceae and Yersinia pestis,. In May 2012, a phase I study was initiated in healthy volunteers. In June 2013, the trial was completed; however, by October 2013, development of ACHN-975 had presumed to be discontinued.

LpxC membrane biosynthesis inhibitors (multidrug-resistant bacterial infection), Achaogen DEVELOPMENT STATUS

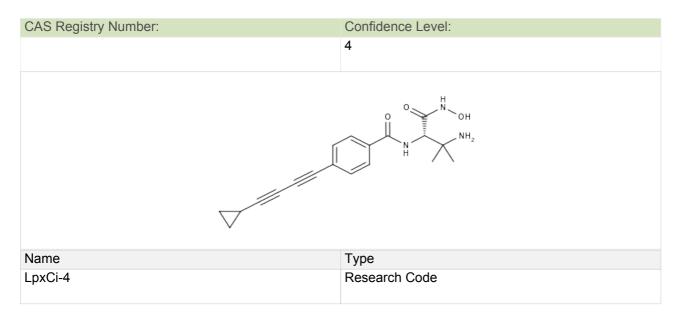
CURRENT DEVELOPMENT STATUS

| Company | Indication | Country | Development Status | Date |
|--------------|-----------------------------------|---------|---------------------------|-------------|
| Achaogen Inc | Gram negative bacterium infection | US | Discovery | 08-Jan-2009 |
| Achaogen Inc | Multidrug resistant infection | US | Discovery | 08-Jan-2009 |

LpxC membrane biosynthesis inhibitors (multidrug-resistant bacterial infection), Achaogen CHEMICAL STRUCTURES



| CAS Registry Number: | Confidence Level: |
|----------------------|------------------------------------|
| | 4 |
| ОН | O O OH HN NH NH ₂ |
| Name | Туре |
| ACHN-975 | Research Code |



LpxC membrane biosynthesis inhibitors (multidrug-resistant bacterial infection), Achaogen DRUG NAMES

| Names | Туре |
|---|---------------|
| LpxC membrane biosynthesis inhibitors (multidrug-resistant bacterial infection), Achaogen | |
| LpxCi-4 | Research Code |
| ACHN-975 | Research Code |

LpxC membrane biosynthesis inhibitors (multidrug-resistant bacterial infection), Achaogen CLINICAL TRIALS

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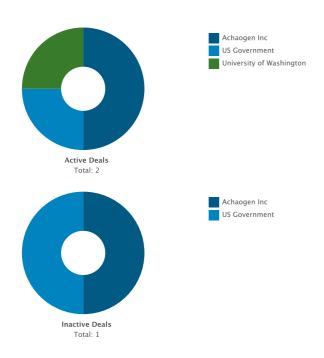
Total Trials by Phase and Status

| 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 | 0 | 3 | 0 | 0 | 0 | 3 |

LpxC membrane biosynthesis inhibitors (multidrug-resistant bacterial infection), Achaogen DEALS AND PATENTS

DEALS

Deals by Parent Company Chart

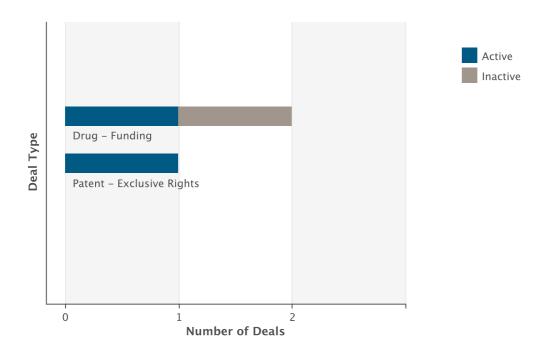


Deals by Parent Company Table

| Company Name | | cipal Inactive | | tner Inactive | Total |
|--------------------------|---|--------------------------|---|------------------|-------|
| Achaogen Inc | 1 | 1 | 1 | 0 | 3 |
| US Government | 0 | 0 | 1 | 1 | 2 |
| University of Washington | 1 | 0 | 0 | 0 | 1 |



Deals by Type Chart



Deals by Type Table

| Deal Type | Active | Inactive | Total |
|---------------------------|--------|----------|-------|
| Drug - Funding | 1 | 1 | 2 |
| Patent - Exclusive Rights | 1 | 0 | 1 |

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