

# **Auspex Pharmaceuticals Inc**

# **CORTELLIS COMPANY DETAILED PIPELINE REPORT**

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

Publication Date: 19-Jan-2015

### **THOMSON REUTERS**

3 Times Square New York, New York 10036 United States

Tel: +1 646 223 4000

thomsonreuters.com



## ABOUT CORTELLIS COMPANY DETAILED PIPELINE 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 Detailed Pipeline reports are the second in a series of that track pharmaceutical and biotechnology companies worldwide. 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.



## **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.



# **TABLE OF CONTENTS**

Company Overview	5
Company Profile	6
Product Portfolio Summary	7
Product Portfolio Drug Pipeline Detail	11
Phase 3 Clinical	12
Phase 2 Clinical	16
Phase 1 Clinical	20
Discovery	23



# **Auspex Pharmaceuticals Inc**

## **COMPANY OVERVIEW**

Company Name	Auspex Pharmaceuticals Inc
Parent Company Name	Auspex Pharmaceuticals Inc
Website	http://www.auspexpharma.com/
Country	US
Number of Drugs in Active Development	7
Number of Inactive Drugs	3
Number of Patents as Owner	151
Number of Patents as Third Party	0
Number of Deals	2
Key Indications	Depression,Rheumatoid arthritis,Parkinsons disease,Huntingtons chorea,Schizophrenia,Asthma,Tardive dyskinesia,Tourette syndrome,Cancer,Neuropathic pain
Key Target-based Actions	Synaptic vesicular amine transporter inhibitor, JAK tyrosine kinase inhibitor, P2Y12 purinoceptor antagonist, Retinoic acid receptor agonist, Dopamine D2 receptor antagonist, Histamine H1 receptor antagonist, FHT 3 receptor antagonist, Beta 3 adrenoceptor modulator, Dopamine D2 receptor modulator, Potassium channel inhibitor
Key Technologies	Small molecule therapeutic, Oral formulation, Systemic formulation unspecified, Tablet formulation, Dermatological formulation, Prodrug, Oral controlled release formulation, Pharmaceutical carrier, Salt synthesis

## **COMPANY PROFILE**

#### **SUMMARY**

Auspex Pharmaceuticals is a US pharmaceutical company that specializes in optimizing the chemo-physiological properties of existing drugs by converting them into deuterated analogs.

#### **MERGERS & ACQUISITIONS**

In January 2015, the company entered into a share purchase agreement to acquire the remaining rights to SD-1077, and related intellectual property, through the acquisition of Imphar AG. The company had previously granted Auspex exclusive US and select worldwide rights and retained European and additional worldwide rights, all of which were to be be transferred to Auspex, along with the related intellectual property, pursuant to the share purchase agreement.

#### **FINANCIAL**

In December 2014, Auspex was added to the NASDAQ Biotechnology Index.

In July 2014, Auspex priced an underwritten public offering of 30.15 million shares of common stock at \$19.25 each and planned to raise gross proceeds of approximately \$60.6 million. The underwriters were granted a 30-day option to purchase up to an additional 472,500 shares of its common stock. Later that month, the offering was completed and the company raised gross proceeds of approximately \$69.7 million through 3,622,500 shares of its common stock including full exercise of the optional shares granted.

In March 2014, Auspex was added to the Russell 2000, Russell 3000 and Russell Global Indexes, at the close of market on March 31, 2014.

In February 2014, Auspex priced its IPO of 7 million shares of common stock at \$12 per share and granted underwriters a 30-day option to purchase up to an aggregate of 1.05 million additional shares. Auspex stock was to trade on the NASDAQ Global Market under the symbol 'ASPX'. At that time, the offering was expected to close on February 10, 2014. Later in February 2014, the IPO was completed and 8,050,000 common stock shares were issued, including 1,050,000 shares from full exercise of underwriters' option.



In January 2014, Auspex raised a total of \$35 million in two seperate financings, including \$20 million in a series E equity financing and a \$15 million four-year venture loan from Oxford Finance LLC.

In November 2012, Auspex raised \$25 million in a series D venture financing.

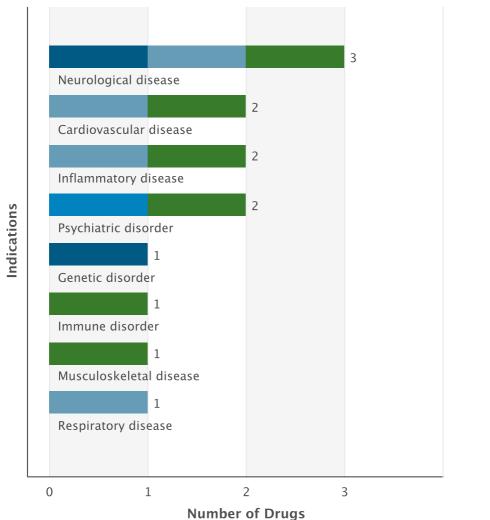
In May 2008, Auspex raised \$13.88 million from a series B financing round.

## PRODUCT PORTFOLIO SUMMARY

### **DRUGS**

## Drugs by Indication

Active Drugs by Indication Chart



Phase 3 Clinical Phase 2 Clinical

Phase 1 Clinical

Discovery

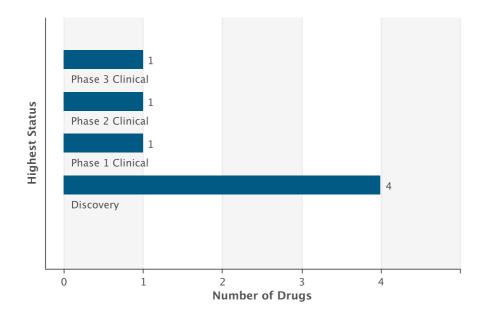


## Drugs by Indication Table

Indication	Active	Inactive	Total
Neurological disease	3	1	4
Cardiovascular disease	2	0	2
Psychiatric disorder	2	0	2
Inflammatory disease	2	0	2
Immune disorder	1	0	1
Respiratory disease	1	0	1
Genetic disorder	1	0	1
Musculoskeletal disease	1	0	1
Dermatological disease	0	1	1
Neoplasm	0	1	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
Phase 1 Clinical	1
Discovery	4
No Development Reported	3

## **DEALS**

Deal Type	Principal		Principal Partner		Total
	Active	Inactive	Active	Inactive	
Drug - Development/Commercialization License	1	0	1	0	2

#### **CLINICAL TRIALS**

## Trials by Condition Studied

Condition Studied	Ongoing	All
Neurological disease	3	6
Genetic disorder	0	2
Psychiatric disorder	0	1

# Trials by Phase

Phase	Ongoing	All
Phase 3	1	3
Phase 2	2	2
Phase 1	0	2
Phase not specified	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)

### 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	52	0	52
Endocrine disease	39	0	39
Gastrointestinal disease	63	0	63
Genitourinary disease	43	0	43
Growth disorder	9	0	9
Hematological disease	13	0	13
Degeneration	19	0	19
Andrology	18	0	18
Immune disorder	54	0	54
Psychiatric disorder	51	0	51
Musculoskeletal disease	38	0	38
Neoplasm	38	0	38
Ocular disease	25	0	25
Genetic disorder	24	0	24
Metabolic disorder	39	0	39
Mouth disease	2	0	2
Neurological disease	82	0	82
Nutritional disorder	20	0	20
Prophylaxis	1	0	1
Respiratory disease	46	0	46
Infectious disease	34	0	34
Injury	15	0	15
Toxicity and intoxication	18	0	18
Inflammatory disease	53	0	53
Fatigue	1	0	1



Otorhinolaryngological disease	12	0	12
Gynecology and obstetrics	20	0	20
Temperature disorder	1	0	1
Dermatological disease	30	0	30
Ulcer	4	0	4
Surgical procedure	1	0	1

<sup>\*</sup> 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

#### deutetrabenazine

#### deutetrabenazine SNAPSHOT

Drug Name	deutetrabenazine
Key Synonyms	deutetrabenazine
Originator Company	Auspex Pharmaceuticals Inc
Active Companies	Auspex Pharmaceuticals Inc
Inactive Companies	
Highest Status	Phase 3 Clinical
Active Indications	Tourette syndrome;Huntingtons chorea;Tardive dyskinesia;Heart disease
Target-based Actions	Synaptic vesicular amine transporter inhibitor
Other Actions	Monoamine release modulator;CNS modulator
Technologies	Tablet formulation;Oral formulation;Small molecule therapeutic
Last Change Date	15-Jan-2015

#### deutetrabenazine DEVELOPMENT PROFILE

#### **SUMMARY**

Auspex is developing a novel inhibitor of the vesicular monoamine transporter 2 (VMAT-2), deutetrabenazine (d6-tetrabenazine; SD-809), a hexadeuterated tetrabenazine analog (a monoamine depleter), for the potential oral treatment of Huntington's disease (HD), Tourette syndrome, tardive dyskinesia and cardiac diseases including cardiac arrhythmia .. In June 2013, phase III studies began in Huntington's disease; in June 2014, interim data from ARC-HD Switch study were reported. In July 2014, a phase II/III trial was initiated for drug-induced tardive dyskinesia; at that time, an additional phase III trial was planned for later that year. By August 2014, a phase Ib trial for Tourette syndrome had been initiated. In October 2014, an NDA for tardive dyskinesia was planned to be filed in 2016. In December 2014, an NDA was planned to be submitted in mid-2015 for HD. In January 2015, the company planned filing an NDA in mid-2015 for cardiac diseases.

### deutetrabenazine DEVELOPMENT STATUS

# **CURRENT DEVELOPMENT STATUS**

OUTIVE IN DEVELOR	ILITI OTATOO			
Company	Indication	Country	<b>Development Status</b>	Date
Auspex Pharmaceuticals Inc	Huntingtons chorea	US	Phase 3 Clinical	14-Jun-2013
Auspex Pharmaceuticals Inc	Tardive dyskinesia	Europe	Phase 3 Clinical	17-Jul-2014
Auspex Pharmaceuticals Inc	Tardive dyskinesia	US	Phase 3 Clinical	17-Jul-2014



Company	Indication	Country	<b>Development Status</b>	Date
Auspex Pharmaceuticals Inc	Heart disease	US	Phase 1 Clinical	30-Oct-2014
Auspex Pharmaceuticals Inc	Tourette syndrome	US	Phase 1 Clinical	07-Aug-2014

# deutetrabenazine CHEMICAL STRUCTURES

CAS Registry Number:	Confidence Level:
1392826-25-3	2
D O H	
Name	Туре
deutetrabenazine	USAN
SD-809	Research Code

## deutetrabenazine DRUG NAMES

Names	Туре
d6-tetrabenazine	
deuterated tetrabenazine analog (Huntington's disease/Tourette syndrome/tardive dyskinesia), Auspex	
deutetrabenazine	USAN
SD-809	Research Code

## deutetrabenazine CLINICAL TRIALS

# Trials by Phase and Condition Studied

Phase 4 Phase 3 Clinical 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
Tardive dyskinesia											
0	0	1	1	2	2	0	0	0	0	3	3



Huntingtons chorea											
0	0	0	2	0	0	0	0	0	0	0	2
Chorea	Chorea										
0	0	0	1	0	0	0	0	0	0	0	1
Tourette	Tourette syndrome										
0	0	0	0	0	0	0	1	0	0	0	1

## Total Trials by Phase and Status

	Phase 4 Phase 3 Clinical 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	1	3	2	2	0	1	0	3	3	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

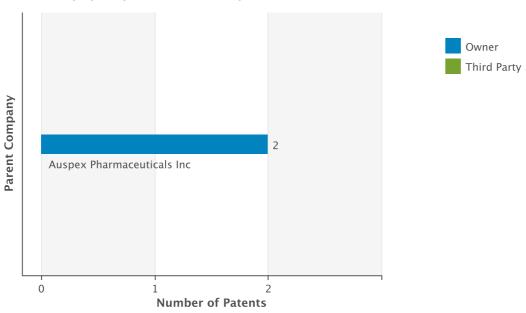
Includes Phase 1, Phase 1a, Phase 1, Phase 1/2 (where enrolment count is under 100 or not specified), Phase 0

## deutetrabenazine DEALS AND PATENTS

## **PATENTS**

# **Patents by Parent Company Chart**

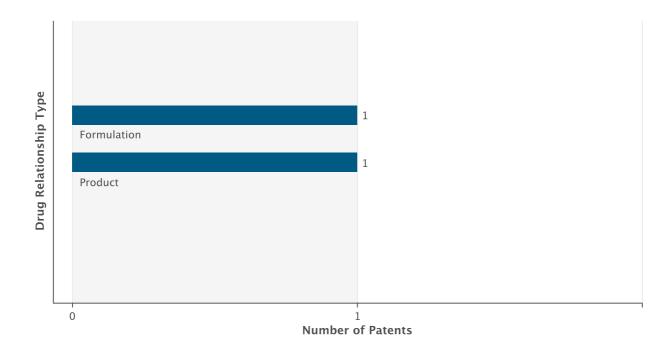
Chart displayed by Owner/Third Party



## **Patents by Parent Company Table**

Company Name	As Owner	As Third Party	Total
Auspex Pharmaceuticals Inc	2	0	2

# **Patents by Drug Relationship Type Chart**



# **Patents by Drug Relationship Type Table**

Drug Relationship	Total
Product	1
Formulation	1

# deuterated venlafaxine (neuropathic pain), Auspex

## deuterated venlafaxine (neuropathic pain), Auspex SNAPSHOT

Drug Name	deuterated venlafaxine (neuropathic pain), Auspex
Key Synonyms	
Originator Company	Auspex Pharmaceuticals Inc
Active Companies	Auspex Pharmaceuticals Inc
Inactive Companies	
Highest Status	Phase 2 Clinical
Active Indications	Depression;Neuropathic pain
Target-based Actions	
Other Actions	5-HT uptake inhibitor;Antidepressant;Analgesic;Radiopharmaceutical;Norepinephrine
Technologies	Small molecule therapeutic;Systemic formulation unspecified
Last Change Date	09-Apr-2014

## deuterated venlafaxine (neuropathic pain), Auspex DEVELOPMENT PROFILE

#### **SUMMARY**

Auspex Pharmaceuticals is developing SD-254, a deuterium-substituted formulation of venlafaxine, a selective serotonin-norepinephrine reuptake inhibitor, for the potential treatment of neuropathic pain and major depression disorder. By July 2012, phase I development had been completed for neuropathic pain. In March 2014, the drug was in phase II development for mood disorder. At that time, the company was seeking to outlicense the drug.

## deuterated venlafaxine (neuropathic pain), Auspex DEVELOPMENT STATUS

#### **CURRENT DEVELOPMENT STATUS**

Company	Indication	Country	<b>Development Status</b>	Date
Auspex Pharmaceuticals Inc	Depression	US	Phase 2 Clinical	12-Mar-2014
Auspex Pharmaceuticals Inc	Neuropathic pain	US	Phase 1 Clinical	02-Jul-2012

deuterated venlafaxine (neuropathic pain), Auspex CHEMICAL STRUCTURES

CAS Registry Number:	Confidence Level:
	4
	D OH
Name	Туре
SD-254	Research Code

# deuterated venlafaxine (neuropathic pain), Auspex DRUG NAMES

Names	Туре
serotonin-norepinephrine reuptake inhibitor (major depression disorder), Auspex	
SD-254	Research Code
deuterated venlafaxine (depression), Auspex	
deuterated venlafaxine (neuropathic pain), Auspex	

# deuterated venlafaxine (neuropathic pain), Auspex CLINICAL TRIALS

# Trials by Phase and Condition Studied

	Phase 4 Phase 3 Clinical 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
Depression											
0	0	0	0	0	0	0	1	0	0	0	1

### Total Trials by Phase and Status

Phase 4 Clinical			se 3 nical		se 2 nical		se 1 nical		ase ecified	То	tal
On- going	All	On- going	All	On- going	All	On- going	All	On- going	All	On- going	All
Total by	Total by Phase and Status										
0	0	0	0	0	0	0	1	0	0	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

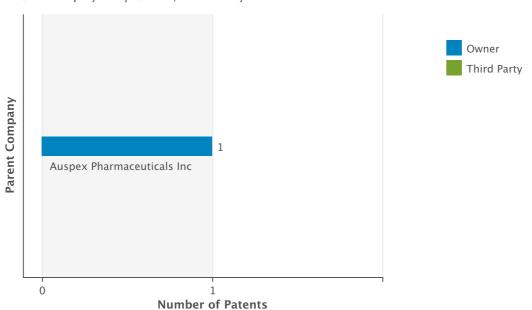
Includes Phase 1, Phase 1, Phase 1, Phase 1/2 (where enrolment count is under 100 or not specified), Phase 0

## deuterated venlafaxine (neuropathic pain), Auspex DEALS AND PATENTS

### **PATENTS**

## **Patents by Parent Company Chart**

Chart displayed by Owner/Third Party

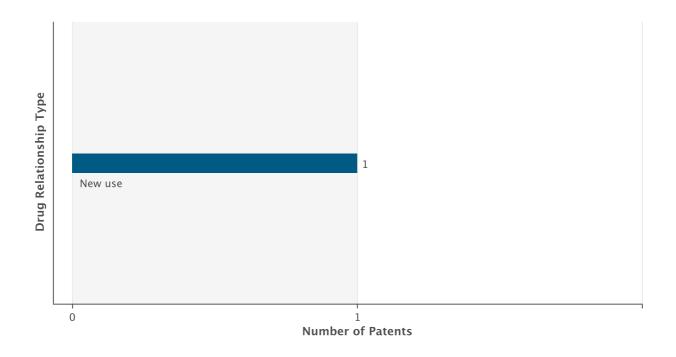


## **Patents by Parent Company Table**

Company Name	As Owner	As Third Party	Total
Auspex Pharmaceuticals Inc	1	0	1



# **Patents by Drug Relationship Type Chart**



# **Patents by Drug Relationship Type Table**

Drug Relationship	Total
New use	1

# deuterated pirfenidone analog (idiopathic pulmonary fibrosis), Auspex

## deuterated pirfenidone analog (idiopathic pulmonary fibrosis), Auspex SNAPSHOT

Drug Name	deuterated pirfenidone analog (idiopathic pulmonary fibrosis), Auspex
Key Synonyms	
Originator Company	Auspex Pharmaceuticals Inc
Active Companies	Auspex Pharmaceuticals Inc
Inactive Companies	
Highest Status	Phase 1 Clinical
Active Indications	Idiopathic pulmonary fibrosis
Target-based Actions	
Other Actions	Unspecified drug target;Fibrosuppressant
Technologies	Small molecule therapeutic;Systemic formulation unspecified
Last Change Date	11-Nov-2014

## deuterated pirfenidone analog (idiopathic pulmonary fibrosis), Auspex DEVELOPMENT PROFILE

### **SUMMARY**

Auspex is developing SD-560, a deuterated pirfenidone analog, for the potential treatment of idiopathic pulmonary fibrosis. By August 2014, a phase I trial had begun. In November 2014, the company planned to initiate a phase I pharmacokinetic trial, and at that time, top-line data were expected by mid-2015. In March 2014, the company was seeking to outlicense the drug.

## deuterated pirfenidone analog (idiopathic pulmonary fibrosis), Auspex DEVELOPMENT STATUS

#### **CURRENT DEVELOPMENT STATUS**

Company	Indication	Country	<b>Development Status</b>	Date
Auspex Pharmaceuticals Inc	Idiopathic pulmonary fibrosis	US	Phase 1 Clinical	07-Aug-2014

## deuterated pirfenidone analog (idiopathic pulmonary fibrosis), Auspex DRUG NAMES

Names	Туре
deuterated pirfenidone analog (idiopathic pulmonary fibrosis), Auspex	
SD-560	Research Code

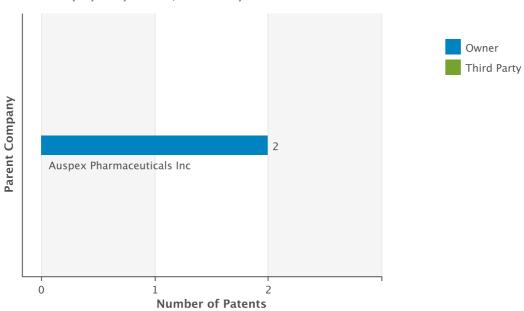


# deuterated pirfenidone analog (idiopathic pulmonary fibrosis), Auspex DEALS AND PATENTS

### **PATENTS**

## **Patents by Parent Company Chart**

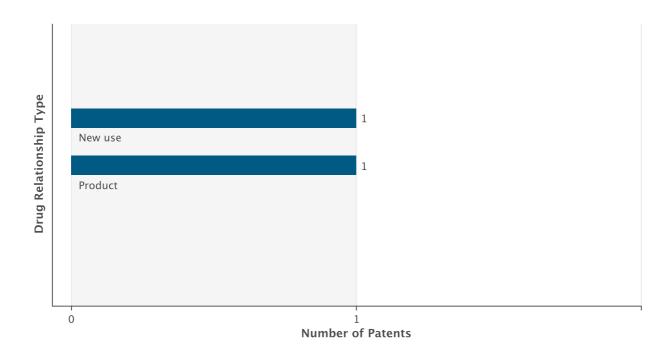
Chart displayed by Owner/Third Party



## **Patents by Parent Company Table**

Company Name	As Owner	As Third Party	Total
Auspex Pharmaceuticals Inc	2	0	2

# **Patents by Drug Relationship Type Chart**



# **Patents by Drug Relationship Type Table**

Drug Relationship	Total
Product	1
New use	1

# deuterated tofacitinib analog (rheumatoid arthritis), Auspex

## deuterated tofacitinib analog (rheumatoid arthritis), Auspex SNAPSHOT

Drug Name	deuterated tofacitinib analog (rheumatoid arthritis), Auspex
Key Synonyms	
Originator Company	Auspex Pharmaceuticals Inc
Active Companies	Auspex Pharmaceuticals Inc
Inactive Companies	
Highest Status	Discovery
Active Indications	Rheumatoid arthritis
Target-based Actions	JAK tyrosine kinase inhibitor
Other Actions	Anti-inflammatory
Technologies	Small molecule therapeutic
Last Change Date	09-Apr-2014

### deuterated tofacitinib analog (rheumatoid arthritis), Auspex DEVELOPMENT PROFILE

## **SUMMARY**

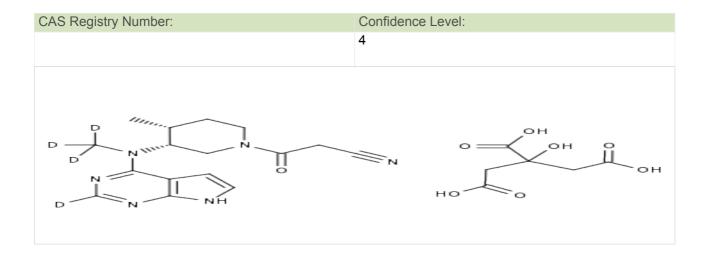
Auspex is investigating SD-900, a deuterated analog of tofacitinib, an oral JAK inhibitor, as a once-daily formulation for the potential treatment of rheumatoid arthritis. In July 2012, development was ongoing ; in March 2014, this was still the case.

## deuterated tofacitinib analog (rheumatoid arthritis), Auspex DEVELOPMENT STATUS

### **CURRENT DEVELOPMENT STATUS**

Company	Indication	Country	<b>Development Status</b>	Date
Auspex Pharmaceuticals Inc	Rheumatoid arthritis	US	Discovery	02-Jul-2012

deuterated tofacitinib analog (rheumatoid arthritis), Auspex CHEMICAL STRUCTURES



## deuterated tofacitinib analog (rheumatoid arthritis), Auspex DRUG NAMES

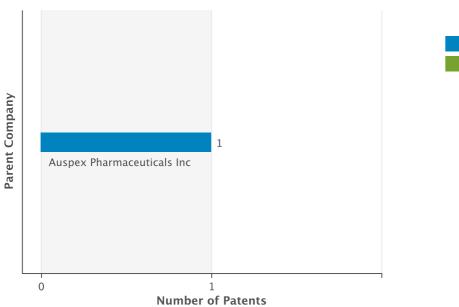
Names	Туре
SD-900	Research Code
deuterated tofacitinib analog (rheumatoid arthritis), Auspex	

# deuterated tofacitinib analog (rheumatoid arthritis), Auspex DEALS AND PATENTS

## **PATENTS**

## **Patents by Parent Company Chart**

Chart displayed by Owner/Third Party



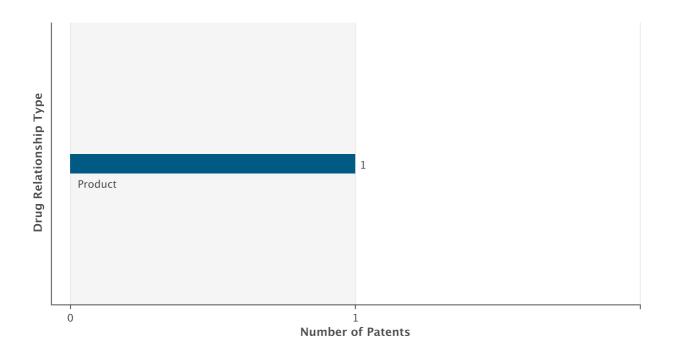




# **Patents by Parent Company Table**

Company Name	As Owner	As Third Party	Total
Auspex Pharmaceuticals Inc	1	0	1

# **Patents by Drug Relationship Type Chart**



# **Patents by Drug Relationship Type Table**

<b>Drug Relationship</b>	Т	Γotal
Product	1	l

# deuterated ticagrelor analog (acute coronary syndrome), Auspex

## deuterated ticagrelor analog (acute coronary syndrome), Auspex SNAPSHOT

Drug Name	deuterated ticagrelor analog (acute coronary syndrome), Auspex
Key Synonyms	
Originator Company	Auspex Pharmaceuticals Inc
Active Companies	Auspex Pharmaceuticals Inc
Inactive Companies	
Highest Status	Discovery
Active Indications	Acute coronary syndrome
Target-based Actions	P2Y12 purinoceptor antagonist
Other Actions	Platelet aggregation inhibitor
Technologies	Small molecule therapeutic
Last Change Date	09-Apr-2014

deuterated ticagrelor analog (acute coronary syndrome), Auspex DEVELOPMENT PROFILE

### **SUMMARY**

Auspex is investigating SD-970, an analog of deuterated ticagrelor (Brilinta), an anti-platelet drug, for the potential treatment of cardiovascular diseases including acute coronary syndrome . In April 2010, the drug was listed as being in preclinical development. In July 2012, development was ongoing ; in March 2014, this was still the case.

deuterated ticagrelor analog (acute coronary syndrome), Auspex DEVELOPMENT STATUS

#### **CURRENT DEVELOPMENT STATUS**

Company	Indication	Country	<b>Development Status</b>	Date
Auspex Pharmaceuticals Inc	Acute coronary syndrome	US	Discovery	02-Jul-2012

deuterated ticagrelor analog (acute coronary syndrome), Auspex CHEMICAL STRUCTURES

CAS Registry Number:	Confidence Level:
	4
F D D D D D D D D D D D D D D D D D D D	HOME HOME HOME HOME HOME HOME HOME HOME

# deuterated ticagrelor analog (acute coronary syndrome), Auspex DRUG NAMES

Names	Туре
deuterated undisclosed cardiovascular agent, Auspex	
SD-970	Research Code
deuterated ticagrelor analog (acute coronary syndrome), Auspex	
cardiovascular therapeutic (deuterated), Auspex	

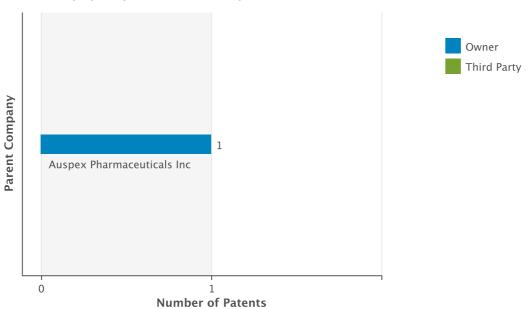


# deuterated ticagrelor analog (acute coronary syndrome), Auspex DEALS AND PATENTS

### **PATENTS**

## **Patents by Parent Company Chart**

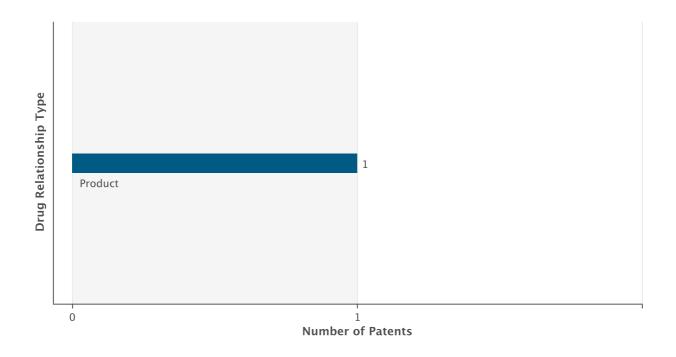
Chart displayed by Owner/Third Party



## **Patents by Parent Company Table**

Company Name	As Owner	As Third Party	Total
Auspex Pharmaceuticals Inc	1	0	1

# **Patents by Drug Relationship Type Chart**



# **Patents by Drug Relationship Type Table**

Drug Relationship	Total
Product	1

# deuterated levodopa (Parkinson's disease), Auspex/Imphar

## deuterated levodopa (Parkinson's disease), Auspex/Imphar SNAPSHOT

Drug Name	deuterated levodopa (Parkinson's disease), Auspex/Imphar
Key Synonyms	
Originator Company	Imphar AG
Active Companies	Auspex Pharmaceuticals Inc;Imphar AG
Inactive Companies	
Highest Status	Discovery
Active Indications	Parkinsons disease
Target-based Actions	
Other Actions	Antiparkinsonian;Unspecified drug target
Technologies	Small molecule therapeutic
Last Change Date	13-Jan-2015

## deuterated levodopa (Parkinson's disease), Auspex/Imphar DEVELOPMENT PROFILE

### **SUMMARY**

Auspex Pharmaceuticals in collaboration with Imphar, is investigating SD-1077, a deuterium containing levodopa, for the potential treatment of Parkinson's disease. In January 2015, development was ongoing and at that time, the company was planning for clinical development by that year end and planned to announce proof-of-concept data in 2016.

## deuterated levodopa (Parkinson's disease), Auspex/Imphar DEVELOPMENT STATUS

#### **CURRENT DEVELOPMENT STATUS**

Company	Indication	Country	<b>Development Status</b>	Date
Auspex Pharmaceuticals Inc	Parkinsons disease	US	Discovery	12-Jan-2015
Imphar AG	Parkinsons disease	Germany	Discovery	12-Jan-2015

## deuterated levodopa (Parkinson's disease), Auspex/Imphar DRUG NAMES

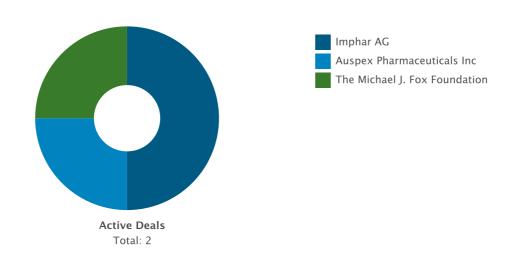
Names	Туре
SD-1077	Research Code
deuterated levodopa (Parkinson's disease), Auspex/Imphar	



## deuterated levodopa (Parkinson's disease), Auspex/Imphar DEALS AND PATENTS

DEALS

Deals by Parent Company Chart



# **Deals by Parent Company Table**

Company Name		cipal Inactive		tner Inactive	Total
Imphar AG	2	0	0	0	2
Auspex Pharmaceuticals Inc	0	0	1	0	1
The Michael J. Fox Foundation	0	0	1	0	1

# **Deals by Type Chart**



# **Deals by Type Table**

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



# deuterated ketamine (oral, mood disorder), Auspex Pharmaceuticals

## deuterated ketamine (oral, mood disorder), Auspex Pharmaceuticals SNAPSHOT

Drug Name	deuterated ketamine (oral, mood disorder), Auspex Pharmaceuticals
Key Synonyms	
Originator Company	Auspex Pharmaceuticals Inc
Active Companies	Auspex Pharmaceuticals Inc
Inactive Companies	
Highest Status	Discovery
Active Indications	Mood disorder
Target-based Actions	
Other Actions	Unspecified drug target;Antipsychotic
Technologies	Oral formulation;Small molecule therapeutic
Last Change Date	09-Apr-2014

deuterated ketamine (oral, mood disorder), Auspex Pharmaceuticals DEVELOPMENT PROFILE

### **SUMMARY**

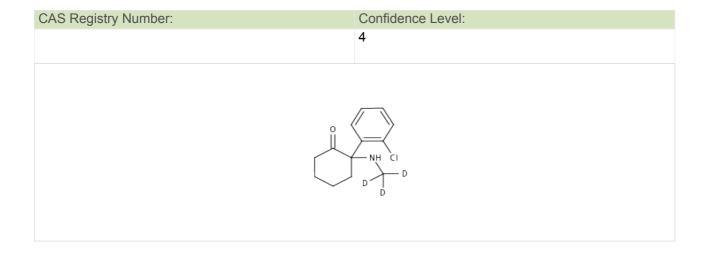
Auspex Pharmaceuticals is investigating deuterated ketamine, for the potential oral treatment of mood disorder. In March 2014, the drug was in preclinical development. At that time, the company was seeking to outlicense the drug.

deuterated ketamine (oral, mood disorder), Auspex Pharmaceuticals DEVELOPMENT STATUS

### **CURRENT DEVELOPMENT STATUS**

Company	Indication	Country	<b>Development Status</b>	Date
Auspex Pharmaceuticals Inc	Mood disorder	US	Discovery	12-Mar-2014

deuterated ketamine (oral, mood disorder), Auspex Pharmaceuticals CHEMICAL STRUCTURES



## deuterated ketamine (oral, mood disorder), Auspex Pharmaceuticals DRUG NAMES

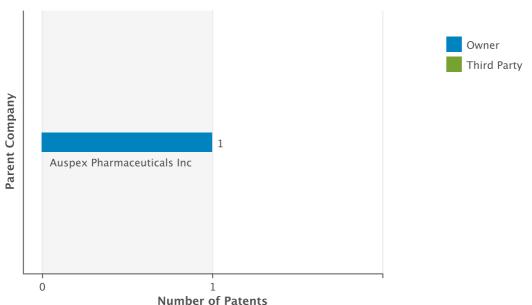
Names	Туре
deuterated ketamine (oral, mood disorder), Auspex Pharmaceuticals	

## deuterated ketamine (oral, mood disorder), Auspex Pharmaceuticals DEALS AND PATENTS

## **PATENTS**

## **Patents by Parent Company Chart**

Chart displayed by Owner/Third Party

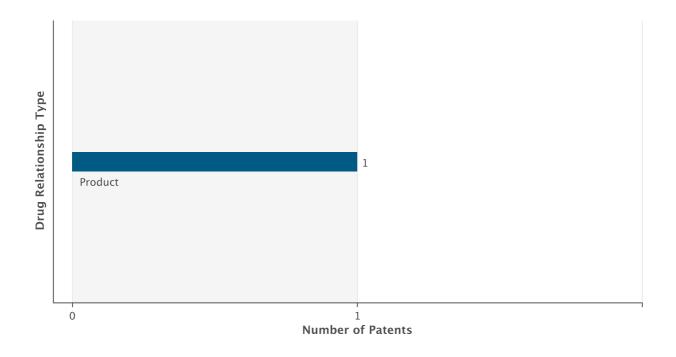




# **Patents by Parent Company Table**

Company Name	As Owner	As Third Party	Total
Auspex Pharmaceuticals Inc	1	0	1

# **Patents by Drug Relationship Type Chart**



# **Patents by Drug Relationship Type Table**

Dru	g Relationship	Total
Prod	duct	1

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.

THOMSON REUTERS