

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i.e. where the development status for the drug(s) is one of the following: No Development Reported, Discontinued, or Withdrawn.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

COMPANY OVERVIEW

Company Name	Aerie Pharmaceuticals Inc
Parent Company Name	Aerie Pharmaceuticals Inc
Website	http://www.aeriepharma.com/
Country	US
Number of Drugs in Active Development	3
Number of Inactive Drugs	6
Number of Patents as Owner	12
Number of Patents as Third Party	1
Number of Deals	0
Key Indications	Ocular hypertension, Glaucoma, Dermatological disease, Gastrointestinal disease, Ocular disease, Bone disease, Cancer, Obesity, Renal disease, Bladder disease, Heart disease
Key Target-based Actions	Rho associated protein kinase inhibitor, Noradrenaline transporter inhibitor, Prostanoid receptor agonist, Rhodopsin kinase inhibitor, Beta-adrenoceptor related kinase-1 inhibitor, Beta-adrenoceptor related kinase-2 inhibitor, CAM kinase inhibitor, GRK5 protein kinase inhibitor, GRK6 protein kinase inhibitor, Protein kinase A inhibitor, Protein kinase C inhibitor, Protein
Key Technologies	Small molecule therapeutic, Ophthalmic formulation, Ophthalmic liquid formulation, Solution, Ophthalmic drug implant, Drug combination, Sustained release formulation, Crystalline form, Salt synthesis, Dermatological formulation

COMPANY PROFILE

SUMMARY

Aerie Pharmaceuticals Inc, a spin-out of Duke University Medical Center, is a biotechnology company developing therapies for sight-threatening diseases of the eye such as glaucoma. Its discovery platform includes a prodrug technology that increases drug delivery through the cornea.

EARLY R&D

By November 2007, the company was investigating protein kinase inhibitors and ethacrynic acid derivatives, to lower intraocular pressure in glaucoma patients. At that time, preclinical candidates from the series were anticipated later in that year.

FINANCIAL

In September 2013, Aerie filed a registration statement on Form S-1 with the US Securities and Exchange Commission, regarding a proposed initial public offering of its common stock. At that time, the company planned to list its common stock on the NASDAQ Global Market under the ticker symbol "AERI". In October 2013, the company priced the offering of 6,720,000 shares of its common stock at a price of US \$10 each. The underwriters were granted a 30-day option to purchase up to an additional 1,008,000 shares of common stock at the same price to cover over-allotments. The offering was expected to close on October 30, 2013; at that time, trading of the shares began; later that month, the offering was closed. Net proceeds of approximately \$68.4 million were expected from the issue of 7,728,000 common stock shares, including 1,008,000 shares from the fully exercised underwriters over-allotment option; later that month, the company raised gross proceeds of \$77.3 million and \$68.3 million after IPO fees and expenses.

In March 2011, Aerie raised \$30 million through a series B financing.

In October 2005, Aerie raised \$21 million through a series A financing.

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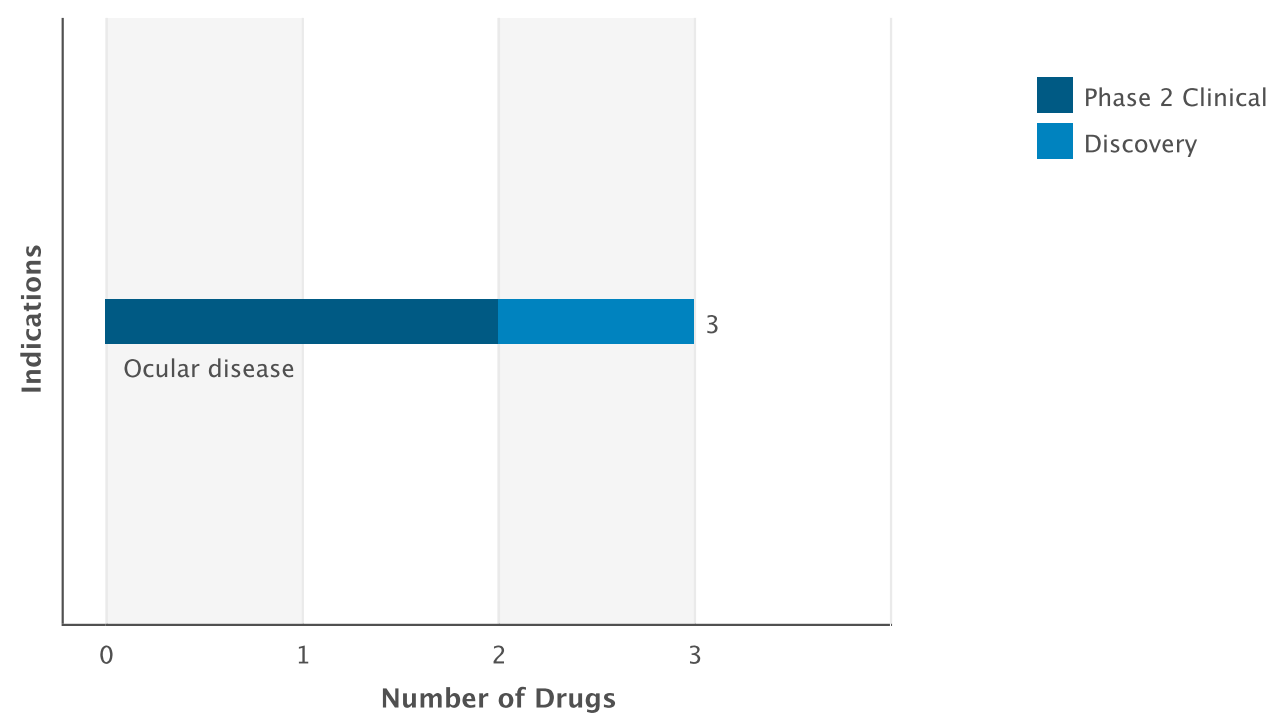


PRODUCT PORTFOLIO SUMMARY

DRUGS

Drugs by Indication

Active Drugs by Indication Chart



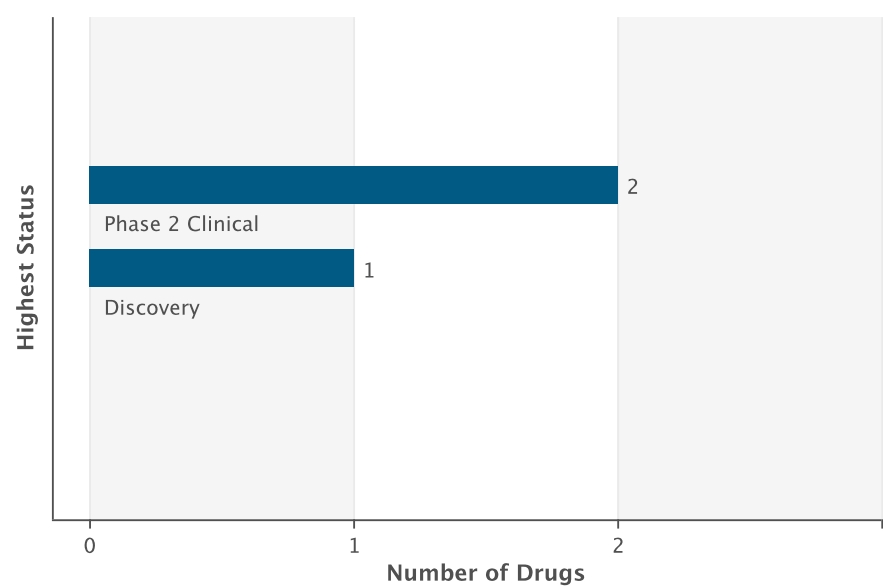
Drugs by Indication Table

Indication	Active	Inactive	Total
Ocular disease	3	6	9

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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	2
Discovery	1
Discontinued	3
No Development Reported	3

CLINICAL TRIALS

Trials by Condition Studied

Condition Studied	Ongoing	All
Ocular disease	1	14

Trials by Phase

Phase	Ongoing	All
Phase 2	1	13
Phase 1	0	2

Phase Definitions

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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	8	0	8
Endocrine disease	2	0	2
Gastrointestinal disease	8	0	8
Genitourinary disease	9	1	10
Degeneration	2	0	2
Andrology	1	0	1
Immune disorder	2	0	2
Musculoskeletal disease	8	0	8
Neoplasm	7	0	7
Ocular disease	11	0	11
Metabolic disorder	1	0	1
Neurological disease	2	0	2
Nutritional disorder	4	0	4
Respiratory disease	7	1	8
Inflammatory disease	8	0	8
Gynecology and obstetrics	1	0	1
Dermatological disease	8	0	8

* 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

AR-13324

AR-13324 SNAPSHOT

Drug Name	AR-13324
Key Synonyms	
Originator Company	Aerie Pharmaceuticals Inc
Active Companies	Aerie Pharmaceuticals Inc
Inactive Companies	
Highest Status	Phase 2 Clinical
Active Indications	Ocular hypertension;Glaucoma
Target-based Actions	Rho associated protein kinase inhibitor;Noradrenaline transporter inhibitor
Other Actions	Antiglaucoma agent;Antihypertensive
Technologies	Ophthalmic formulation;Ophthalmic liquid formulation;Solution;Small molecule therapeutic
Last Change Date	17-Feb-2014

AR-13324 DEVELOPMENT PROFILE

SUMMARY

Aerie Pharmaceuticals is developing AR-13324, the lead from a series of dual ROCK inhibitor and norepinephrine transporter inhibitor compounds, formulated as a once-daily ophthalmic solution, for the potential treatment of glaucoma and ocular hypertension,,. In April 2012, a phase II trial began ; in November 2012, positive top-line data were reported from the phase IIa study. In September 2013, the company planned to initiate two phase III registration trials in mid-2014. In January 2014, the company planned filing an NDA by mid-2016.

Aerie is also investigating a fixed dose combination of AR-13324 + latanoprost for the treatment of ocular hypertension.

The company was previously investigating AR-13165, for glaucoma. In October 2009, IND-enabling studies were underway; however in October 2011, AR-13165 was no longer listed on the company's pipeline.

AR-13324 DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

Company	Indication	Country	Development Status	Date
Aerie Pharmaceuticals Inc	Glaucoma	US	Phase 2 Clinical	03-Apr-2012

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Company	Indication	Country	Development Status	Date
Aerie Pharmaceuticals Inc	Ocular hypertension	US	Phase 2 Clinical	03-Apr-2012

AR-13324 DRUG NAMES

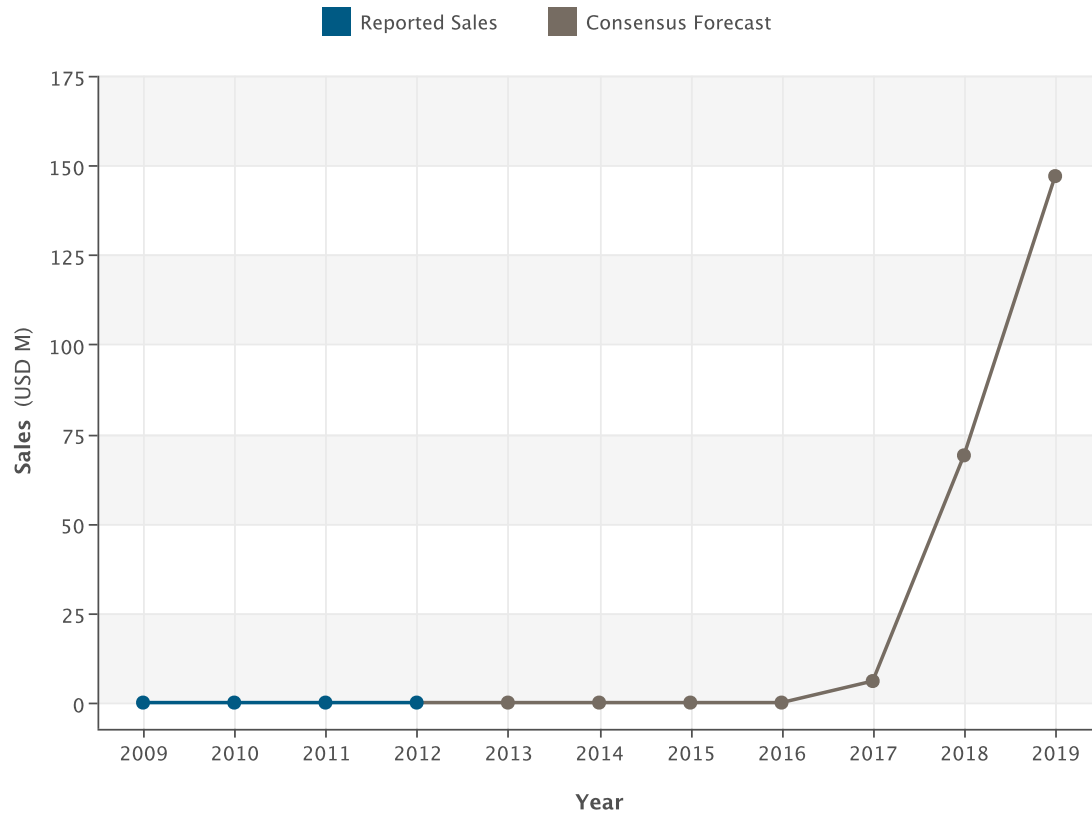
Names	Type
AR-13165	Research Code
AR-13324	Research Code
dual-targeting compounds (Glaucoma), Aerie	
AR-13165 series	

AR-13324 SALES AND FORECASTS

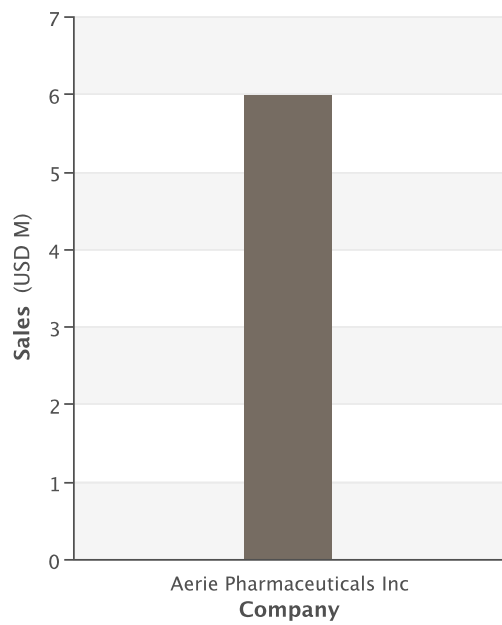
CHARTS

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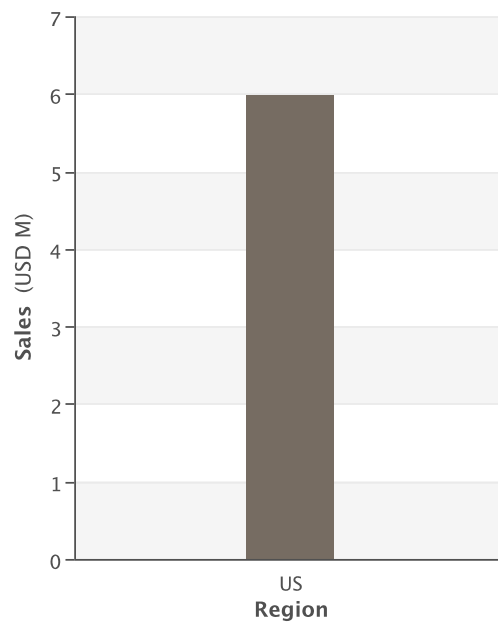
Total Sales



Company Analysis 2017



Regional Analysis 2017



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COMMENTARY

CONSENSUS SALES INFORMATION

Consensus forecast data for Aerie Pharmaceuticals are presented.

REGIONAL DEVELOPMENT AND MARKETING RIGHTS

Aerie Pharmaceuticals holds exclusive development and marketing rights.

AR-13324 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
Ocular hypertension											
0	0	0	0	0	4	0	0	0	0	0	4
Open angle glaucoma											
0	0	0	0	0	2	0	0	0	0	0	2
Glaucoma											
0	0	0	0	0	1	0	0	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	4	0	1	0	0	0	5

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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AR-13324 + latanoprost (fixed dose combination, ocular hypertension/glaucoma), Aerie

AR-13324 + latanoprost (fixed dose combination, ocular hypertension/glaucoma), Aerie SNAPSHOT

Drug Name	AR-13324 + latanoprost (fixed dose combination, ocular hypertension/glaucoma), Aerie
Key Synonyms	
Originator Company	Aerie Pharmaceuticals Inc
Active Companies	Aerie Pharmaceuticals Inc
Inactive Companies	
Highest Status	Phase 2 Clinical
Active Indications	Glaucoma;Ocular hypertension
Target-based Actions	Noradrenaline transporter inhibitor;Rho associated protein kinase inhibitor
Other Actions	Ophthalmological agent;Antihypertensive;PGF2 alpha agonist
Technologies	Drug combination;Ophthalmic formulation;Ophthalmic liquid formulation;Small molecule therapeutic
Last Change Date	31-Jan-2014

AR-13324 + latanoprost (fixed dose combination, ocular hypertension/glaucoma), Aerie DEVELOPMENT PROFILE

SUMMARY

Aerie Pharmaceuticals is developing a triple action product, PG-324, a fixed dose combination of dual-action compound AR-13324, a dual ROCK inhibitor and norepinephrine transporter inhibitor and latanoprost, a prostanoid-selective prostaglandin F₂ receptor agonist, formulated as a once-daily, eye drop, for the potential treatment of ocular hypertension and glaucoma. In January 2014, a phase IIb trial was initiated and topline results were expected in mid-2014.

AR-13324 + latanoprost (fixed dose combination, ocular hypertension/glaucoma), Aerie DEVELOPMENT STATUS

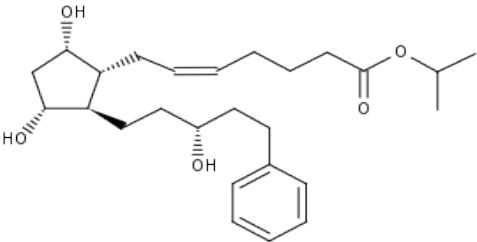
CURRENT DEVELOPMENT STATUS

Company	Indication	Country	Development Status	Date
Aerie Pharmaceuticals Inc	Glaucoma	US	Phase 2 Clinical	30-Jan-2014
Aerie Pharmaceuticals Inc	Ocular hypertension	US	Phase 2 Clinical	30-Jan-2014

AR-13324 + latanoprost (fixed dose combination, ocular hypertension/glaucoma), Aerie CHEMICAL STRUCTURES

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CAS Registry Number:	Confidence Level:
130209-82-4	1
	
Name	Type
latanoprost	BAN; INN; USAN
Catioprost	Trade Name
LatanoSol	Trade Name
Xalatan	Trade Name
PhXA-41	Research Code

AR-13324 + latanoprost (fixed dose combination, ocular hypertension/glaucoma), Aerie DRUG NAMES

Names	Type
AR-13324 + latanoprost (fixed dose combination, ocular hypertension/glaucoma), Aerie	
AR-13324 + latanoprost	
PG-324	Research Code

AR-13324 + latanoprost (fixed dose combination, ocular hypertension/glaucoma), Aerie 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
Ocular hypertension											
0	0	0	0	1	2	0	0	0	0	1	2
Open angle glaucoma											
0	0	0	0	1	1	0	0	0	0	1	1

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Glaucoma											
0	0	0	0	0	1	0	0	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	1	2	0	0	0	0	1	2

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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AR-13533

AR-13533 SNAPSHOT

Drug Name	AR-13533
Key Synonyms	
Originator Company	Aerie Pharmaceuticals Inc
Active Companies	Aerie Pharmaceuticals Inc
Inactive Companies	
Highest Status	Discovery
Active Indications	Ocular hypertension
Target-based Actions	Noradrenaline transporter inhibitor;Rho associated protein kinase inhibitor
Other Actions	Antihypertensive
Technologies	Ophthalmic formulation;Solution;Small molecule therapeutic
Last Change Date	18-Oct-2013

AR-13533 DEVELOPMENT STATUS

CURRENT DEVELOPMENT STATUS

Company	Indication	Country	Development Status	Date
Aerie Pharmaceuticals Inc	Ocular hypertension	US	Discovery	17-Sep-2013

AR-13533 DRUG NAMES

Names	Type
AR-13533	Research Code

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