

Acceleron Pharma Inc

COMPANY AND PIPELINE OVERVIEW REPORT

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

Publication Date: 11-Apr-2013

THOMSON REUTERS

3 Times Square New York, New York 10036 United States

Tel: +1 646 223 4000

thomsonreuters.com



ABOUT COMPANY AND PIPELINE OVERVIEW REPORT

Thomson Reuters provides the knowledge, tools, and expertise to help support drug discovery and development activities, IP portfolio optimization, identification of licensing and partnering opportunities, delivery of successful regulatory submissions, and the ability to keep current with the rapidly-changing pharmaceutical and chemical markets, supporting informed, early decisions.

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 and Pipeline Overview reports are the first in a series of reports that track pharmaceutical and biotechnology companies worldwide. Further report offerings planned to follow include: Company Detailed Pipeline and Company Competitive Landscape reports. 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 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.

THOMSON REUTERS

TABLE OF CONTENTS

Company Overview	5
Company Profile	6
Product Portfolio Summary	7
Product Portfolio Drugs	12



Acceleron Pharma Inc

COMPANY OVERVIEW

Company Name	Acceleron Pharma Inc
Parent Company Name	Acceleron Pharma Inc
Website	http://www.acceleronpharma.com/
Country	US
Number of Drugs in Active Development	6
Number of Inactive Drugs	2
Number of Patents as Owner	36
Number of Patents as Third Party	0
Number of Deals	8
Key Indications	Beta thalassemia, Anemia, Bone disease, Multiple myeloma, Rheumatoid arthritis, Duchenne dystrophy, Sarcopenia, Ovary tumor, Solid tumor, Age related macular degeneration, Diamond Blackfan anemia, Endometrioid carcinoma, Renal cell carcinoma, Squamous cell carcinoma
Key Target-based Actions	TGF beta antagonist,Activin type-II receptor antagonist,GDF modulator,GDF-8 antagonist,Activin type-IIB receptor antagonist,Alk-1 protein kinase inhibitor,Immunoglobulin gamma Fc receptor agonist,Alk-3 protein kinase modulator,Bone morphogenetic protein-10 ligand modulator,Bone morphogenetic protein-9 ligand modulator,TGF beta ligand inhibitor,TNF
Key Technologies	Protein fusion, Biological therapeutic, Immunoglobulin-G, Antibody fragment, Subcutaneous formulation, Receptor fusion, Small molecule therapeutic, Soluble receptor, Antibody, Intraperitoneal formulation, Parenteral formulation unspecified, Protein chimeric, Systemic formulation unspecified

COMPANY PROFILE

SUMMARY

Acceleron Pharma Inc, founded in 2003 and headquartered in Cambridge, MA, is a biopharmaceutical company using approaches that exploit the therapeutic potential of a large family of growth and differentiation factors.

COMPANY LOCATION

In May 2009, Acceleron signed a lease on a third facility in Cambridge, MA. At that time, the company planned to increase its workforce by 50% in 2009.

In June 2008, the company announced that it was to double the size of its facilities in Cambridge, MA and increase its workforce by 40% during 2008.

LICENSING AGREEMENTS

In February 2008, as part of a codevelopment agreement for ACE-011, Acceleron and Celgene signed an option deal for the the development of three discovery programs in the field of osteoporosis and bone loss.

In August 2004, Artemis Pharmaceuticals GmbH and Acceleron signed a cooperation agreement in mouse genetics. Artemis would apply its ArteMice technology platforms to generate a specifically genetically engineered mouse model system for Acceleron, which would use the mouse model to develop drugs for the treatment of musculoskeletal and metabolic disorders.

EARLY R&D

By May 2007, the company was investigating a number of research programs including ACE-05X for bone loss, ACE-06X and ACE-07X for fat accumulation, and ACE-08X and ACE-07X for muscle loss.

FINANCIAL



In December 2011, Acceleron raised \$30 million from a private financing.

In October 2007, the company raised \$31 million from a series C financing round. At that time, Acceleron planned to use the proceeds to advance its clinical and preclinical pipeline.

By August 2006, Acceleron had obtained \$30 million in Series B financing. In May 2007, investors included Advanced Technology Ventures, OrbiMed Advisors, Polaris Venture Partners, Sutter Hill Investors and Venrock Associates.

In January 2006, the company received \$8 million in debt financing from Hercules Technology Growth Capital.

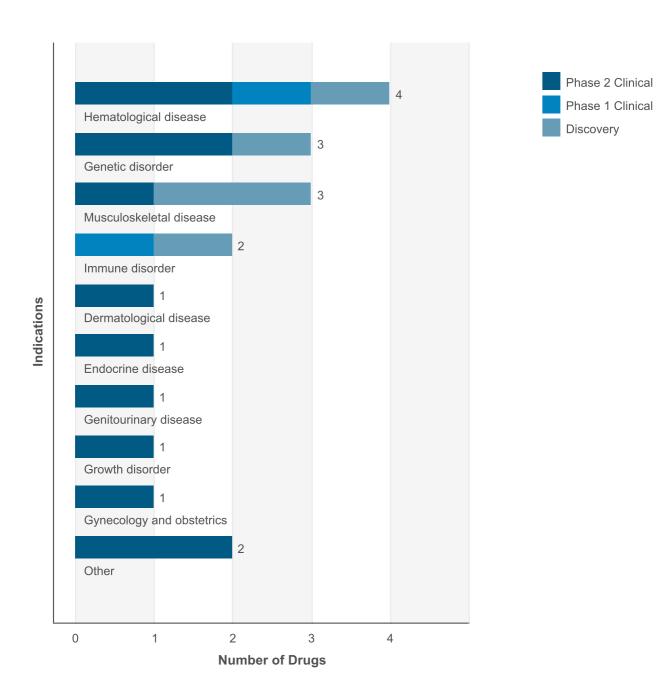
In February 2004, Acceleron raised \$25 million in its first round of private equity financing.



PRODUCT PORTFOLIO SUMMARY DRUGS

Drugs by Indication

Active Drugs by Indication Chart



Drugs by Indication Table

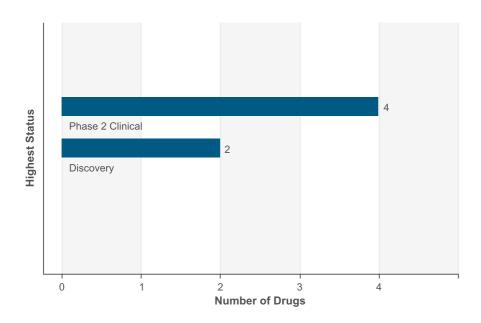
Indication	Active	Inactive	Total
Musculoskeletal disease	3	3	6



Hematological disease	4	0	4
Genetic disorder	3	0	3
Metabolic disorder	0	2	2
Inflammatory disease	1	1	2
Immune disorder	2	0	2
Growth disorder	1	1	2
Injury	0	1	1
Nutritional disorder	0	1	1
Dermatological disease	1	0	1
Neurological disease	1	0	1
Genitourinary disease	1	0	1
Ocular disease	1	0	1
Gynecology and obstetrics	1	0	1
Endocrine disease	1	0	1
Neoplasm	1	0	1

Drugs by Highest Status

Active Drugs by Highest Status Chart



Drugs by Highest Status Table



Development Status	Number of Drugs
Phase 2 Clinical	4
Discovery	2
No Development Reported	2

DEALS

Deal Type	Prin	cipal	Par	tner	Total
	Active	Inactive	Active	Inactive	
Drug - Funding	3	0	0	0	3
Technology - Other Proprietary	0	0	2	0	2
Drug - Development/Commercialization License	2	0	0	0	2
Technology - Delivery/Formulation	1	0	0	0	1

CLINICAL TRIALS

Trials by Condition Studied

Condition Studied	Ongoing	All
Neoplasm	1	6
Hematological disease	3	5
Musculoskeletal disease	0	5
Endocrine disease	0	5
Gynecology and obstetrics	0	3
Degeneration	0	2
Neurological disease	0	2
Genitourinary disease	1	2
Growth disorder	0	2
Gastrointestinal disease	0	1
Dermatological disease	0	1
Immune disorder	0	1
Genetic disorder	1	1



Trials by Phase

Phase	Ongoing	All
Phase 2	4	9
Phase 1	0	6
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

PATENTS *

Indication	As Owner	As Third Party	Total
Cardiovascular disease	12	0	12
Endocrine disease	26	0	26
Gastrointestinal disease	14	0	14
Genitourinary disease	4	0	4
Growth disorder	11	0	11
Hematological disease	15	0	15
Degeneration	10	0	10
Andrology	1	0	1
Immune disorder	18	0	18
Psychiatric disorder	1	0	1
Musculoskeletal disease	31	0	31
Neoplasm	21	0	21
Ocular disease	2	0	2
Genetic disorder	1	0	1
Metabolic disorder	10	0	10
Mouth disease	1	0	1



Neurological disease	10	0	10
Nutritional disorder	11	0	11
Prophylaxis	1	0	1
Respiratory disease	3	0	3
Infectious disease	4	0	4
Injury	5	0	5
Inflammatory disease	13	0	13
Gynecology and obstetrics	9	0	9
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.



PRODUCT PORTFOLIO DRUGS

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

sotatercept

Drug Name	sotatercept
Key Synonyms	sotatercept
Originator Company	Acceleron Pharma Inc
Active Companies	Acceleron Pharma Inc, Celgene Corp
Inactive Companies	
Highest Status	Phase 2 Clinical
Active Indications	Beta thalassemia, Anemia, Diamond Blackfan anemia
Target-based Actions	Activin type-II receptor antagonist
Other Actions	Hematopoietic stimulant, Osteoblast modulator, Bone resorption inhibitor
Technologies	Antibody fragment, Immunoglobulin-G, Subcutaneous formulation, Biological therapeutic, Protein fusion, Soluble receptor
Last Change Date	07-Mar-2013

ramatercept

Drug Name	ramatercept
Key Synonyms	ramatercept
Originator Company	Acceleron Pharma Inc
Active Companies	Shire plc, Acceleron Pharma Inc
Inactive Companies	
Highest Status	Phase 2 Clinical
Active Indications	Duchenne dystrophy, Sarcopenia, Beta thalassemia
Target-based Actions	Activin type-IIB receptor antagonist, GDF-8 antagonist
Other Actions	Muscle system agent
Technologies	Antibody fragment, Immunoglobulin-G, Subcutaneous formulation, Biological therapeutic, Protein fusion
Last Change Date	21-Mar-2013

THOMSON REUTERS

dalantercept

Drug Name	dalantercept
Key Synonyms	dalantercept
Originator Company	Acceleron Pharma Inc
Active Companies	Acceleron Pharma Inc
Inactive Companies	
Highest Status	Phase 2 Clinical
Active Indications	Solid tumor, Squamous cell carcinoma, Multiple myeloma, Age related macular degeneration, Ovary tumor, Endometrioid carcinoma, Renal cell carcinoma
Target-based Actions	TGF beta antagonist, Alk-1 protein kinase inhibitor, Bone morphogenetic protein-9 ligand modulator, Bone morphogenetic protein-10 ligand modulator
Other Actions	Anticancer protein kinase inhibitor, Angiogenesis inhibitor, Ocular antineovascularisation agent
Technologies	Antibody fragment, Receptor fusion, Subcutaneous formulation, Biological therapeutic, Protein chimeric, Protein fusion
Last Change Date	06-Feb-2013

ACE-536

Drug Name	ACE-536
Key Synonyms	
Originator Company	Acceleron Pharma Inc
Active Companies	Celgene Corp, Acceleron Pharma Inc
Inactive Companies	
Highest Status	Phase 2 Clinical
Active Indications	Beta thalassemia, Anemia
Target-based Actions	TGF beta antagonist, TGF beta ligand inhibitor, GDF modulator
Other Actions	Hematopoietic stimulant
Technologies	Antibody fragment, Receptor fusion, Immunoglobulin-G, Subcutaneous formulation, Biological therapeutic, Protein fusion, Soluble receptor
Last Change Date	25-Mar-2013

THOMSON REUTERS

ACE-661

Drug Name	ACE-661
Key Synonyms	
Originator Company	Acceleron Pharma Inc
Active Companies	Acceleron Pharma Inc
Inactive Companies	
Highest Status	Discovery
Active Indications	Bone disease
Target-based Actions	Immunoglobulin gamma Fc receptor agonist, TGF beta antagonist, Alk-3 protein kinase modulator
Other Actions	Steroid agonist, Bone modulator
Technologies	Immunoglobulin-G, Systemic formulation unspecified, Intraperitoneal formulation, Biological therapeutic, Protein fusion
Last Change Date	16-Oct-2012

ACE-772

Drug Name	ACE-772
Key Synonyms	
Originator Company	Acceleron Pharma Inc
Active Companies	Acceleron Pharma Inc
Inactive Companies	
Highest Status	Discovery
Active Indications	Rheumatoid arthritis
Target-based Actions	TNF antagonist
Other Actions	Anti-inflammatory
Technologies	Receptor fusion, Small molecule therapeutic
Last Change Date	05-Jul-2012

THOMSON REUTERS

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