



Current Agreements

Dealdoc

Development agreement for MicroRNA-92, miR-208 and miR-15/195 plus additional target (updated)

miRagen Therapeutics
Les Laboratoires Servier

Oct 18 2011

Development agreement for MicroRNA-92, miR-208 and miR-15/195 plus additional target (updated)

Companies:	miRagen Therapeutics Les Laboratoires Servier
Announcement date:	Oct 18 2011
Amendment date:	May 03 2017
Deal value, US\$m:	1000.0 : sum of upfront, research support and milestone payments
Related contracts:	Research and development agreement for mRNA-target cardiovascular medicines (expanded)

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- [Termsheet](#)
- [Press Release](#)
- [Filing Data](#)
- [Contract](#)

Details

Announcement date:	Oct 18 2011
Amendment date:	May 03 2017
Expiry date:	Sep 01 2019
Industry sectors:	Bigpharma Biotech Pharmaceutical
Exclusivity:	Exclusive
Asset type:	Product Cardiovascular
Therapy areas:	Cardiovascular » Congestive heart failure Cardiovascular » Myocardial Infarction
Technology types:	Biological compounds RNA therapeutics Co-development Co-promotion
Deal components:	Collaborative R&D Development Licensing
Stages of development:	Preclinical
Geographic focus:	Worldwide
Excluded geography:	Asia » Japan North America » United States

Financials

Deal value, US\$m:	1000.0 : sum of upfront, research support and milestone payments
Upfront, US\$m:	n/d : upfront payment
Milestones, US\$m:	45.0 : near term milestone payments 955.0 : clinical and commercial milestones
Royalty rates, %:	n/d : research and development milestone payments n/d : royalties on sales
Funding, US\$m:	n/d : clinical development support for successful development of three compounds

Termsheet

May 2017

Servier and Miragen Therapeutics, Inc., a clinical-stage biopharmaceutical company focused on the discovery and development of microRNA-targeted therapies, announced that they have extended their research collaboration through September 2019.

MicroRNA-92 has been added to the existing collaboration as a new therapeutic target, with the objective to start testing MRG-110 in humans within a year.

MRG-110, the lead product candidate under the collaboration, inhibits the activity of microRNA-92, which has been shown to be a regulator of new blood vessel creation in multiple peer reviewed scientific publications.

This may indicate that MRG-110 could be useful in the treatment of ischemic disease, cardiovascular disease and certain other vascular flow related diseases.

Servier is responsible for leading the global clinical development and potential commercialization of MRG-110, and any other microRNA therapeutic product candidates developed through the collaboration in all countries except the United States and Japan, where miRagen retains all rights.

miRagen has the right to utilize Servier generated data for regulatory filings in the United States and Japan.

In conjunction with the amendment, Servier has returned to miRagen the rights to certain other preclinical programs.

Servier has the option to add one additional microRNA target for research and development in cardiovascular disease under this collaboration through September 2019.

In October 2011, miRagen entered into a License and Collaboration Agreement with Servier with the goal of advancing microRNA-based therapies in cardiovascular disease and the agreement has been extended several times since then.

The May 2017 amendment provides Servier with an exclusive license to research, develop, and commercialize RNA-targeting therapeutics for one target in the cardiovascular field and the right to obtain such an exclusive license for another target to be named by Servier by a specified date.

miRagen is also eligible to receive research and development milestone payments, commercial milestone payments and royalties on the sale of the products developed under the collaboration, if any.

After the May 2017 amendment to the agreement, Servier will continue to finance the research, development, regulatory approval, and commercialization costs of product candidates developed under the collaboration.

Under the agreement, miRagen retains all commercialization rights in the United States and Japan for all product candidates developed under the collaboration, and the option to co-sponsor any Phase 3 clinical programs if miRagen elects to seek marketing approval in the United States or Japan for any product candidate developed under the collaboration.

26 June 2014

Servier and miRagen Therapeutics have extended their research collaboration by two years to October 2016 to discover, develop, and commercialize drugs targeting microRNAs for cardiovascular disease.

miRagen and Servier Research will continue preclinical research and development on multiple cardiovascular programs targeting microRNAs, including miR-208 and miR-15.

Servier will lead the global clinical development and commercialization of microRNA therapeutic product candidates developed through the collaboration in all countries except the U.S. and Japan, where miRagen has retained all rights.

18 October 2011

Agreement for advancing the research, development and commercialization of three drug candidates, including two of miRagen's lead programs (miR-208 and miR-15/195) and one additional target yet to be identified, for cardiovascular disease.

This partnership provides worldwide rights, excluding the U.S. and Japan, to Servier.

Miragen will receive up to \$45 million in total upfront, research support and near-term milestone payments over the next three years, as well as royalties on sales, based on the successful outcome of the collaboration.

Additional clinical and commercial milestones, as well as clinical development support for the successful development of the three compounds, would value the deal at approximately \$1 billion.

Miragen and Servier will collaborate on the research and development effort, while Servier alone will be responsible for all costs associated with the global development, regulatory approval and commercialization of the three product candidates worldwide, excluding the U.S. and Japanese markets.

Miragen retains all rights in the U.S. and Japan, and the option to co-sponsor any Phase III programs in the event that Miragen, alone or together with a partner, should seek marketing approvals for any of the targets in the U.S. and Japan.

Press Release

May 2017

Servier and Miragen Therapeutics, Inc., a clinical-stage biopharmaceutical company focused on the discovery and development of microRNA-targeted therapies, announced that they have extended their research collaboration through September 2019.

MicroRNA-92 has been added to the existing collaboration as a new therapeutic target, with the objective to start testing MRG-110 in humans within a year.

MRG-110, the lead product candidate under the collaboration, inhibits the activity of microRNA-92, which has been shown to be a regulator of new blood vessel creation in multiple peer reviewed scientific publications.

This may indicate that MRG-110 could be useful in the treatment of ischemic disease, cardiovascular disease and certain other vascular flow related diseases.

Servier is responsible for leading the global clinical development and potential commercialization of MRG-110, and any other microRNA therapeutic product candidates developed through the collaboration in all countries except the United States and Japan, where miRagen retains all rights.

miRagen has the right to utilize Servier generated data for regulatory filings in the United States and Japan.

In conjunction with the amendment, Servier has returned to miRagen the rights to certain other preclinical programs.

Servier has the option to add one additional microRNA target for research and development in cardiovascular disease under this collaboration through September 2019.

In October 2011, miRagen entered into a License and Collaboration Agreement with Servier with the goal of advancing microRNA-based therapies in cardiovascular disease and the agreement has been extended several times since then. Under the terms of the agreement, miRagen received an upfront payment in 2011 and an additional payment when Servier exercised its option to name a third target under the agreement in 2013. The May 2017 amendment provides Servier with an exclusive license to research, develop, and commercialize RNA-targeting therapeutics for one target in the cardiovascular field and the right to obtain such an exclusive license for another target to be named by Servier by a specified date. miRagen is also eligible to receive research and development milestone payments, commercial milestone payments and royalties on the sale of the products developed under the collaboration, if any. After the May 2017 amendment to the agreement, Servier will continue to finance the research, development, regulatory approval, and commercialization costs of product candidates developed under the collaboration. Under the agreement, miRagen retains all commercialization rights in the United States and Japan for all product candidates developed under the collaboration, and the option to co-sponsor any Phase 3 clinical programs if miRagen elects to seek marketing approval in the United States or Japan for any product candidate developed under the collaboration.

26 June 2014

Servier and miRagen Extend Collaboration for the Research, Development and Commercialization of microRNA-targeting Drugs for Cardiovascular Disease

miRagen and Servier extend their research collaboration by two years to October 2016 to identify and characterize MicroRNA targets and oligonucleotides for cardiovascular diseases. Servier will continue to fund pre-clinical research and development of microRNA drugs to collaboration-targets through Phase II clinical trials. miRagen retains all U.S. and Japanese commercialization rights while Servier retains rights to all other global markets. SURESNES, France & BOULDER, Colo.--(BUSINESS WIRE)--Servier, an independent French research-based pharmaceutical company with a significant presence in European and emerging markets, and miRagen Therapeutics, Inc., a biopharmaceutical company developing innovative microRNA-based therapeutics, announced today that they have extended their research collaboration by two years to October 2016 to discover, develop, and commercialize drugs targeting microRNAs for cardiovascular disease. miRagen and Servier Research will continue preclinical research and development on multiple cardiovascular programs targeting microRNAs, including miR-208 and miR-15. Servier will lead the global clinical development and commercialization of microRNA therapeutic product candidates developed through the collaboration in all countries except the U.S. and Japan, where miRagen has retained all rights.

“Servier’s research efforts in cardiovascular disease are focused on delivering improved, innovative treatments. Extending our research collaboration with miRagen to discover novel cardiovascular miRNA-based therapeutics is a very important component of these efforts.” “The two year extension to our research collaboration reflects both the strength of our relationship with miRagen and our shared commitment to improve the lives of patients suffering from cardiovascular diseases,” said Dr. Jean-Paul Vilaine, Director of Servier’s Cardiovascular Research Unit. “We look forward to continuing our collaboration to advance microRNA-based therapeutics into clinical development.”

Dr. Emmanuel Canet, Servier’s President of Research and Development, commented that “Servier’s research efforts in cardiovascular disease are focused on delivering improved, innovative treatments. Extending our research collaboration with miRagen to discover novel cardiovascular miRNA-based therapeutics is a very important component of these efforts.”

“Extending our research collaboration with Servier highlights our collective dedication to harnessing the power of microRNAs to develop transformative therapies for patients in need,” said William S. Marshall, Ph.D., President and Chief Executive Officer of miRagen Therapeutics, Inc. “We believe that our microRNA therapeutics platform combined with Servier’s extensive knowledge and commitment to cardiovascular disease will allow us to deliver breakthrough therapies that improve human health.”

About the miRagen / Servier Cardiovascular Collaboration

In October 2011, miRagen entered into a License and Collaboration Agreement with Servier with the goal of advancing microRNA-based therapies in cardiovascular disease. The collaboration initially included two named targets (miR-208 and miR-15/195) and in May 2013 Servier exercised an option to include an additional undisclosed target to the collaboration. Under the terms of the agreement, miRagen received an upfront payment in 2011 and an additional payment when Servier expanded the agreement to cover the additional target in 2013. miRagen may also receive additional research and development milestone payments, commercial milestone payments and royalties on the sale of products developed under the collaboration. Servier will continue to finance the research, development, regulatory approval, and commercialization costs of product candidates under the collaboration. miRagen retains all commercialization rights in the U.S. and Japan, and the option to co-sponsor any Phase III programs if miRagen elects to seek marketing approval in the U.S. or Japan for any product developed under the collaboration.

About microRNAs

MicroRNAs have emerged as an important class of small RNAs encoded in the genome, acting as master regulators of gene expression. Recent studies have indicated that microRNAs appear to be associated with many disease processes. Because they are thought to be single molecular entities that dictate the expression of fundamental regulatory pathways, microRNAs represent potential drug targets for controlling many biologic and disease processes.¹

About miRagen Therapeutics, Inc.

miRagen Therapeutics, Inc., is a biopharmaceutical company focused on the discovery and development of innovative microRNA (miRNA)-targeting therapies in disease areas of high unmet medical need. The Company seeks to leverage in-house expertise in miRNA biology, oligonucleotide chemistry, and drug development to evaluate and advance promising technologies and high-potential product candidates for its own pipeline and in conjunction with strategic collaborators. For certain cardiovascular disease programs, miRagen has a collaboration and license agreement with Servier, an independent French research-based pharmaceutical company. miRagen retains all rights for the Servier-partnered programs in the U.S and Japan. For more information, please visit www.miragenrx.com.

About Servier

Founded in 1954, Servier is an independent French pharmaceutical research company. Its development is based on the continuous pursuit of innovation in the therapeutic areas of cardiovascular, metabolic, neurological, psychiatric and bone and joint diseases as well as oncology. Servier is established in 140 countries and employs more than 21,000 people worldwide. In 2013, Servier recorded a turnover of 4.2 billion euros of which 27% was reinvested in Research and Development. 91% of Servier drugs are consumed outside France and the Servier Group contributed 35% to the 2013 French trade surplus in the pharmaceuticals sector. More information is available at: www.servier.com.

23 May 2013

miRagen Therapeutics Achieves First Milestone in Strategic Alliance with Servier

Servier selects third cardiovascular target triggering the first milestone under the collaboration

SURESNES, France & BOULDER, Colo.--Servier, a privately-run French research-based pharmaceutical company and a major player in Europe and emerging markets having expertise in the development of treatments for cardiovascular diseases, and miRagen Therapeutics, Inc., a biopharmaceutical company developing innovative microRNA-based therapeutics, announced today that Servier has elected to add a new target as part of its existing agreement for advancing the research, development and commercialization of microRNA-based drug candidates for the treatment of cardiovascular disease. With this selection, Servier and miRagen now have three microRNA programs under development.

“Our selection of a third target is indicative of the strength of our partnership with miRagen, as well as our shared commitment to develop microRNA-based therapies for the treatment of cardiovascular disease” “Our selection of a third target is indicative of the strength of our

partnership with miRagen, as well as our shared commitment to develop microRNA-based therapies for the treatment of cardiovascular disease," said Dr. Jean-Paul Vilaine, Head of Servier's Cardiovascular Research Unit. "We look forward to our continued collaboration to advance promising drug candidates."

For Dr. Jean-Philippe Seta, Chief Executive Officer of Servier, "Micro-RNA is now the gateway to acting at the deepest level of gene expression regulation, with exciting prospects of major developments in the treatment of cardiovascular disease."

"The achievement of this milestone further validates the potential of miRagen's platform in the development of disease-modifying drug candidates," said William S. Marshall, Ph.D., President and Chief Executive Officer of miRagen Therapeutics, Inc. "We remain deeply committed to the discovery and advancement of microRNA-based therapeutics, and we anticipate that our partnership with Servier will yield life-changing treatment options for patients in need."

About the miRagen / Servier Cardiovascular Drug Discovery Strategic Alliance In October 2011, miRagen entered into a Strategic Alliance with Servier with the goal of advancing microRNA-based therapies in cardiovascular disease. The Servier Alliance initially included two named targets (miR-208 and miR-15/195) and granted Servier the right to add one additional target. In May 2013, Servier elected to add a third, undisclosed, target. Under the terms of the agreement, miRagen received an upfront payment in 2011, is scheduled to receive a target selection payment in 2013, and additional research and development milestones per target. miRagen is also eligible to receive commercial milestones and royalties on the sale of products under the Strategic Alliance. Servier will finance the research, development, regulatory approval, and commercialization costs of the three product candidates. miRagen retains all commercialization rights in the U.S. and Japan, and the option to co-sponsor any Phase III programs in the event that miRagen, alone or together with a partner, should seek marketing approvals for any of the targets in the U.S. and Japan.

About microRNAs MicroRNAs have emerged as an important class of small RNAs encoded in the genome, acting as master regulators of gene expression. Recent studies have demonstrated that microRNA alterations are associated with many disease processes. Because microRNAs have evolved to modulate the expression of related regulatory pathways, microRNAs represent potential drug targets for intervening in complex disease biology.

About miRagen Therapeutics, Inc. miRagen Therapeutics, Inc., is a biopharmaceutical company focused on the discovery and development of innovative microRNA (miRNA)-based therapeutics in disease areas with high unmet medical need. The company leverages insights from leading laboratories to evaluate and advance high-potential therapies for its own pipeline or in conjunction with strategic partners. With its commercial and academic alliances, miRagen strives to harness the power of microRNA biology and chemistry by translating discoveries into breakthrough therapies that improve human health. For more information, please visit www.miragenrx.com.

About Servier Servier is a privately-run French research-based pharmaceutical company. Current therapeutic domains for Servier medicines are cardiovascular, metabolic, neurological, psychiatric and bone and joint diseases, as well as oncology. Servier is established in 140 countries worldwide with over 22,000 employees and a 2012 turnover of €3.9 billion. Servier invests 25% of its turnover in R&D.

More information is available at: www.servier.com.

18 October 2011

miRagen Therapeutics Scores \$352 Million Cardio microRNA Development Deal With Servier

10/18/2011 6:55:34 AM

SURESNES, France, & BOULDER, Colo.--(BUSINESS WIRE)-- Les Laboratoires Servier, a leading European pharmaceutical company with expertise in innovative treatments for cardiovascular diseases, and Miragen Therapeutics, Inc., a preclinical-stage biopharmaceutical company focused on improving patients' lives by developing innovative microRNA (miRNA)-based therapeutics for cardiovascular and muscle disease, announced today an agreement for advancing the research, development and commercialization of three drug candidates, including two of miRagen's lead programs (miR-208 and miR-15/195) and one additional target yet to be identified, for cardiovascular disease. This partnership provides worldwide rights, excluding the U.S. and Japan, to Servier.

Under the terms of the agreement, Miragen will receive up to \$45 million in total upfront, research support and near-term milestone payments over the next three years, as well as royalties on sales, based on the successful outcome of the collaboration. Additional clinical and commercial milestones, as well as clinical development support for the successful development of the three compounds, would value the deal at approximately \$1 billion. Miragen and Servier will collaborate on the research and development effort, while Servier alone will be responsible for all costs associated with the global development, regulatory approval and commercialization of the three product candidates worldwide, excluding the U.S. and Japanese markets. Miragen retains all rights in the U.S. and Japan, and the option to co-sponsor any Phase III programs in the event that Miragen, alone or together with a partner, should seek marketing approvals for any of the targets in the U.S. and Japan.

"We are very pleased with this new partnership, which demonstrates once again our ability to explore truly innovative treatments for patients suffering from cardiovascular diseases. Indeed, these diseases still represent the number one cause of mortality in most of the world," said Emmanuel Canet, M.D., Ph.D., Head of Servier R&D.

"More and more evidence is gathering to show that some microRNAs are not only cardiovascular biomarkers, but they also play a significant role in the pathogenesis of various diseases from heart failure to coronary disease," added Dr. Jean-Paul Vilaine, Head of Servier's Cardiovascular Unit.

"Our agreement with Servier not only provides validation of our lead programs in cardiac disease, but further underscores the potential of our innovative technology platform to deliver compelling drug candidates," said William S. Marshall, Ph.D., President and Chief Executive Officer of Miragen Therapeutics, Inc. "We are delighted to partner with Servier, whose demonstrated leadership and expertise in the development of cardiovascular drugs are truly impressive. By combining our strengths, we hope to translate the potential of microRNA targeting into life-changing medicines for patients in need."

Miragen's lead programs utilize Santaris Pharma A/S' Locked Nucleic Acid (LNA) Drug Platform. In June 2010, Miragen licensed the rights to utilize Santaris Pharma A/S proprietary LNA Drug Platform to identify and select drug candidates against Miragen's proprietary microRNA targets for the treatment of cardiovascular disease. This agreement has now been expanded to allow Miragen to develop additional targets and provide Servier access to Santaris Pharma's LNA technology.

"We are pleased to expand our alliance with Miragen to include additional cardiovascular targets and provide access to Santaris Pharma's LNA technology in order to help Servier and Miragen to develop LNA-based microRNA-targeted drugs for the treatment of cardiovascular disease," said Søren Tønderup, President and CEO of Santaris Pharma A/S. "This agreement further validates that Santaris Pharma's LNA Drug Platform is the technology-of-choice for developing RNA-targeted medicines."

The agreement includes two of Miragen's lead programs: miR-208, which plays an important role in the pathogenesis and progression of heart failure, and miR-15/195, which plays a role in the survival and proliferative capacity of cardiomyocytes. The agreement also includes one additional cardiovascular microRNA modulator yet to be identified.

- miR-208: Miragen's research has demonstrated that therapeutic inhibition of miR-208 may improve cardiac function and survival rates during heart failure. In addition, chemically-synthesized inhibitors of miR-208 have been shown to suppress pathological cardiac remodeling in a model of heart failure induced by chronic high blood pressure, while enhancing cardiac function and survival.

- miR-15/195: Research has shown that the inhibition of miR-15 may stimulate cardiomyogenesis, the process whereby new heart muscle cells are formed, and that inhibition of miR-15 can spare cardiomyocytes from death during myocardial infarction (MI), resulting in less heart tissue death and an improvement in cardiac function after a heart attack.

About Servier: Servier is the leading independent pharmaceutical company in France with sales worldwide reaching EUR3.7 billion in 2010. Servier is established in 140 countries with its main therapeutic products treating cardiovascular diseases, diabetes, CNS disorders, oncology and rheumatological diseases. More than 25 percent of Servier's turnover is invested in research and development. Servier has more than 20,000 employees worldwide, including nearly 3,000 in R&D. For more information, please visit www.servier.com.

About Miragen Therapeutics: Miragen Therapeutics, Inc., was founded in 2007 to develop innovative microRNA-based therapeutics for cardiovascular and muscle disease. Only recently discovered, microRNAs are short, single-stranded RNA molecules encoded in the genome that regulate gene expression and play a vital role in influencing cardiovascular and muscle disease. Cardiovascular disease is the leading cause of death globally and represents an enormous burden on global healthcare systems. Principally funded through venture capital investments, Miragen combines world recognized leadership in cardiovascular medicine with unprecedented in-house expertise in microRNA biology and chemistry. For more information, please visit www.miragentherapeutics.com.

About microRNAs: MicroRNAs have emerged as an important class of small RNAs encoded in the genome. They act to control the expression of sets of genes and entire pathways and are thus thought of as master regulators of gene expression. Recent studies have demonstrated that microRNAs are associated with many disease processes. Because they are single molecular entities that dictate the expression of fundamental regulatory pathways, microRNAs represent potential drug targets for controlling many biologic and disease processes.

About Santaris Pharma A/S' Locked Nucleic Acid (LNA) Drug Platform: The LNA Drug Platform developed by Santaris Pharma A/S leverages the Company's proprietary LNA chemistry to rapidly deliver LNA-based drug candidates against RNA targets, both mRNA and microRNA, for a range of diseases. LNA-based drugs are a promising new class of therapeutics that are enabling scientists to develop drug candidates to work through previously inaccessible clinical pathways. The unique combination of small size and very high affinity allows this new class of drugs candidates to potently and specifically inhibit RNA targets in many different tissues without the need for complex delivery vehicles.

Filing Data

Not available.

Contract

Not available.