

**Dealdoc****Licensing option agreement for adenosine A2A antagonist**

Sosei Heptares  
Shire Pharmaceuticals

May 09 2011

# Licensing option agreement for adenosine A2A antagonist

<b>Companies:</b>	<a href="#">Sosei Heptares</a> <a href="#">Shire Pharmaceuticals</a>
<b>Announcement date:</b>	May 09 2011
<b>Deal value, US\$m:</b>	n/d
<b>Related contracts:</b>	<a href="#">Licensing and option agreement for adenosine A2 receptor antagonist for CNS disease</a>

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- [Termsheet](#)
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## Details

<b>Announcement date:</b>	May 09 2011
<b>Industry sectors:</b>	Bigpharma Bigbiotech Pharmaceutical
<b>Therapy areas:</b>	Central Nervous System Central Nervous System » Parkinson's disease
<b>Technology types:</b>	Small molecules
<b>Deal components:</b>	Licensing Option
<b>Stages of development:</b>	Preclinical
<b>Geographic focus:</b>	Worldwide

## Financials

<b>Deal value, US\$m:</b>	n/d
<b>Upfront, US\$m:</b>	n/d : upfront option payment
<b>Milestones, US\$m:</b>	n/d : option exercise payment n/d : future milestone payments
<b>Royalty rates, %:</b>	n/d : royalties on product sales

## Termsheet

20 March 2012

Shire is paying Heptares up-front fees and potentially \$190 million in milestones to exercise its option for an exclusive worldwide license to the latter's preclinical-stage adenosine A2A receptor antagonist candidate, which is in development for the potential treatment of CNS disorders.

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9 May 2011

Exclusive option agreement with Shire Pharmaceuticals for a novel adenosine A2A antagonist discovered by Heptares and currently in preclinical development.

Heptares has granted Shire an exclusive option, upon completion of certain preclinical studies, to license worldwide development and commercial rights to the Heptares A2A programme.

Heptares has received an upfront payment and is eligible, upon exercise of the option by Shire, to an option exercise payment, future milestone payments, plus royalties on product sales.

Further terms of the agreement are not being disclosed.

## Press Release

20 March 2011

### Shire Licenses Heptares' Adenosine A2A Receptor Antagonist for CNS Diseases

Shire is paying Heptares up-front fees and potentially \$190 million in milestones to exercise its option for an exclusive worldwide license to the latter's preclinical-stage adenosine A2A receptor antagonist candidate, which is in development for the potential treatment of CNS disorders.

Heptares is focused on the development of drugs targeting G-protein-coupled receptors (GPCRs). The firm is exploiting an integrated discovery platform that includes technologies for engineering stabilized GPCRs (known as StaRs®) in their native conformations, and the identification of new ligand-interaction sites and screening for drug candidates. In January the firm reported publication of research papers describing how its technologies were used to stabilize the A2A receptor, enabling the application of structure-based drug discovery techniques including its Biophysical Mapping™ technique, fragment screening, and x-ray crystallography to the receptor. The surface plasmon resonance-based BioPhysical Mapping technique allows for the 3-D determination of compound-binding to facilitate the design of drug candidates.

"We are impressed with the novelty and quality of the A2A antagonist leads generated by Heptares, resulting from what we believe to be the first time a structure-based drug discovery approach has been applied from the beginning to a GPCR drug target," comments Jeff Jonas, svp for R&D, specialty pharmaceuticals and regenerative medicine at Shire. "This agreement with Heptares is a reflection of our growth strategy of investing and focusing on highly targeted drug discovery platforms."

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9 May 2011

### Heptares Therapeutics Grants Shire an Exclusive Option to License Novel Adenosine A2A Antagonist

WELWYN GARDEN CITY, England, May 9, 2011 /PRNewswire/ --

- Best-in-Class Candidate With Potential in Treatment of CNS Diseases

Heptares Therapeutics today announced it has signed an exclusive option agreement with Shire Pharmaceuticals for a novel adenosine A2A antagonist discovered by Heptares and currently in preclinical development. Adenosine A2A is a G-protein coupled receptor (GPCR) involved in the regulation of dopaminergic pathways in the brain. Recently, inhibition of the A2A receptor has been proved to be clinically effective in treating symptoms of Parkinson's disease and may offer benefits in additional CNS diseases.

The Heptares A2A programme reflects a new approach to this GPCR target. Heptares stabilised the A2A receptor using its proprietary StaR(R) technology, determined the receptor's binding characteristics through Biophysical Mapping(TM), and resolved its 3D crystal structure using x-ray crystallography. This advanced knowledge of the target enabled Heptares scientists to discover entirely new types of chemical structures for inhibiting the A2A receptor.

Under the terms of the agreement, Heptares has granted Shire an exclusive option, upon completion of certain preclinical studies, to license worldwide development and commercial rights to the Heptares A2A programme. Heptares has received an upfront payment and is eligible, upon exercise of the option by Shire, to an option exercise payment, future milestone payments, plus royalties on product sales. Further terms of the agreement are not being disclosed.

"We are excited to sign this option agreement with Shire for the development of our novel A2A antagonist, a potentially best-in-class new agent for treating patients suffering from debilitating CNS diseases," said Malcolm Weir, CEO of Heptares. "A2A is an important and clinically validated GPCR drug target, yet it has never been adequately addressed by the available older chemistries. Heptares has discovered fundamentally novel chemotypes as the basis for a new and, we believe, superior approach to A2A receptor pharmacology."

#### About Heptares Therapeutics

Heptares is a drug discovery company creating new medicines targeting G-protein-coupled receptors (GPCRs). The Company is currently leveraging its GPCR expertise and proprietary StaR(R) technology to build a pipeline of best-in-class and first-in-class GPCR-targeted medicines for the treatment of CNS, metabolic and other diseases.

GPCRs represent the single most important family of drug targets in the human body, yet, due to their inherent instability when removed from cell membranes, little or no structural information about these valuable targets has been available to drive structure-based drug discovery programmes. Heptares' StaR(R) (Stabilised Receptor) technology enables the first-ever thermo-stabilisation of GPCRs. This breakthrough allows Heptares scientists to resolve GPCR structures and deploy structure-based drug discovery techniques to identify potent and selective

drug candidates to previously undruggable targets.

Heptares has raised more than \$40 million from leading venture investors, Clarus Ventures, MVM Life Science Partners, Novartis Option Fund and Takeda Ventures, and has formed partnerships with Shire, Takeda and Novartis.

### **Filing Data**

*Not available.*

### **Contract**

*Not available.*