

## Starpharma partners with UQ to advance DEP<sup>®</sup> radio pipeline

Melbourne, Australia; 26 July 2023: Starpharma (ASX: SPL, OTCQX: SPHRY) today announces it has entered a new partnership with The University of Queensland's (UQ's) Hub for Advanced Manufacture of Targeted Radiopharmaceuticals (AMTAR Hub), which has been awarded \$4.8 million from the Australian Government's Australian Research Council (ARC). The partnership will advance the research and development of Starpharma's targeted DEP<sup>®</sup> radiotheranostic products – which includes both DEP<sup>®</sup> radiodiagnostics and DEP<sup>®</sup> radiotherapeutics.

In addition to Starpharma, UQ's AMTAR Hub is partnering with other leading commercial organisations and scientific institutions, including Telix Pharmaceuticals, Clarity Pharmaceuticals and CSIRO. The AMTAR Hub is dedicated to advancing the development of radiopharmaceuticals in Australia. It will provide access to world-leading research capabilities, scientific innovations and expertise in the radiopharmaceutical field.

*"We are pleased to partner with Starpharma to collaborate within the AMTAR Hub on research and development of the broad range of potential applications of its unique targeted DEP<sup>®</sup> radiopharmaceutical products. The DEP<sup>®</sup> platform offers several distinct advantages versus other biological and nanotechnology approaches and we are encouraged by the existing data."*

- Professor Kris Thurecht  
from UQ's Australian Institute of Bioengineering and Nanotechnology (AIBN) and  
Centre for Advanced Imaging (CAI), who will lead the AMTAR Hub.

*"Starpharma is excited to collaborate with lead organisation UQ as part of the AMTAR Hub to access additional resources and accelerate the development of our expanding portfolio of targeted DEP<sup>®</sup> radiotheranostic products. Spearheaded by internationally recognised Professor Kris Thurecht, the AMTAR Hub is a significant initiative that will shape the future of Australia's radiotheranostics industry."*

- Dr Jackie Fairley, CEO of Starpharma

Last week, Starpharma announced<sup>1</sup> new data for DEP<sup>®</sup> HER2-zirconium, a HER2-targeted radiodiagnostic product, demonstrating its imaging benefits in a HER2-positive (HER2+) breast cancer model, in studies conducted in the laboratories of Professor Kris Thurecht, AIBN and CAI, at UQ. The benefits demonstrated for DEP<sup>®</sup> HER2-zirconium include a favourable biodistribution profile, excellent imaging contrast between tumour and normal tissues, rapid uptake into tumour, high levels of tumour accumulation, and rapid clearance from blood.

DEP<sup>®</sup> HER2-zirconium is a radiodiagnostic product that belongs to the rapidly growing "radiotheranostic" category – which includes both radiodiagnostics and radiotherapeutics. DEP<sup>®</sup> HER2-zirconium is designed to specifically diagnose, stage, and monitor HER2+ cancers with greater sensitivity, meaning that patients suffering from these cancers could be diagnosed earlier, more accurately, and monitored more closely during cancer treatment.

Starpharma has also previously reported excellent efficacy data for DEP<sup>®</sup> HER2-lutetium, a HER2-targeted radiotherapeutic, demonstrating enhanced delivery of radioisotopes to solid tumours in human cancer models and excellent tolerability. The DEP<sup>®</sup> platform technology affords several benefits to radiotheranostics, and advantages over standard biological targeting of radioisotopes using monoclonal antibodies. These advantages include the ability to use a broad range of targeting molecules combined with a broad range of radioisotopes with different diagnostic and therapeutic applications. In addition, the DEP<sup>®</sup> platform allows for improved and tailored

<sup>1</sup> ASX Announcement dated 21 July 2023

pharmacokinetic profiles of different radiodiagnostics and radiotherapeutics, and improved stability of radiotheranostic products.

Radiotheranostics are innovative medical technologies that include targeted molecular imaging and targeted therapy using radioisotopes. This approach allows for the delivery of radiation directly to cancer cells while minimising adverse effects on normal tissues in the body. In contrast to conventional external-beam radiation therapy (EBRT), radiotheranostics also have the ability to deliver radiotherapy to any site in the body where cancer cells are present.

The radiotheranostic category is generating global interest, with several new product approvals in recent years, including Illuccix<sup>®</sup> radiodiagnostic for prostate cancer from Telix Pharmaceuticals. In addition, there have been numerous high-value deals and acquisitions involving radiotheranostic products, such as Bayer's acquisition of Bicycle Therapeutics' radiotherapy cancer drug candidates valued at up to ~US\$1.7 billion. The global radiotheranostics market was US\$1.8 billion in 2022 and is expected to grow by over 10% annually to US\$4.2 billion by 2030<sup>2</sup>.

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### About Starpharma

Starpharma Holdings Limited (ASX:SPL, OTCQX:SPHRY) is a biopharmaceutical company, focussed on the development of pharmaceutical and medical products for unmet patient needs, including in the areas of oncology and infectious diseases.

Starpharma's innovative technology is based on proprietary polymers called dendrimers, which are precise, synthetically manufactured, nanoscale molecules. The unique properties of dendrimers – including their size, structure, high degree of branching, polyvalency, and water solubility – are advantageous in medical and pharmaceutical applications.

Starpharma uses its dendrimer technology to develop novel therapeutics and to improve the performance of existing pharmaceuticals. Starpharma's portfolio includes multiple clinical stage oncology products, which utilise its Dendrimer Enhanced Product ("DEP<sup>®</sup>") drug delivery technology; and marketed products, including VIRALEZE<sup>™</sup> and VivaGel<sup>®</sup> BV, which utilise SPL7013, a proprietary dendrimer with antimicrobial properties.

Starpharma's DEP<sup>®</sup> drug delivery platform is being used to enhance the effectiveness of existing and novel therapies and to reduce drug-related toxicities through controlled and specified drug delivery.

In addition to Starpharma's internal DEP<sup>®</sup> programs, Starpharma has multiple DEP<sup>®</sup> partnerships with international biopharmaceutical companies including AstraZeneca (oncology); MSD (antibody drug conjugates); Chase Sun (anti-infectives); and other world leading pharmaceutical companies. Due to the broad applicability and optionality of Starpharma's DEP<sup>®</sup> platform, partnered DEP<sup>®</sup> programs have the potential to generate significant future milestones and royalties.

Starpharma's topical antiviral nasal spray, VIRALEZE<sup>™</sup>, is now registered in more than 30 countries\*, including in Europe, in the UK, and in Southeast Asia. Starpharma's novel non-antibiotic vaginal gel, VivaGel<sup>®</sup> BV, for treatment of bacterial vaginosis (BV) and prevention of recurrent BV, is registered in more than 45 countries, including in the UK, in Europe, in Southeast Asia, South Africa, Australia and New Zealand.

\* Note: VIRALEZE<sup>™</sup> is not approved for use or supply in Australia.

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**Disclosure**  
This ASX Announcement was authorised for release by the Chair, Mr Rob Thomas.

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<sup>2</sup> <https://www.datamintelligence.com/research-report/theranostics-market>

### Forward Looking Statements

This document contains certain forward-looking statements, relating to Starpharma's business, which can be identified by the use of forward-looking terminology such as "promising", "plans", "anticipated", "will", "project", "believe", "forecast", "expected", "estimated", "targeting", "aiming", "set to", "potential", "seeking to", "goal", "could provide", "intends", "is being developed", "could be", "on track", or similar expressions, or by express or implied discussions regarding potential filings or marketing approvals, or potential future sales of product candidates. Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results to be materially different from any future results, performance or achievements expressed or implied by such statements. There can be no assurance that any existing or future regulatory filings will satisfy the FDA's and other authorities' requirements regarding any one or more product candidates nor can there be any assurance that such product candidates will be approved by any authorities for sale in any market or that they will reach any particular level of sales. In particular, management's expectations regarding the approval and commercialization of the product candidates could be affected by, among other things, unexpected trial results, including additional analysis of existing data, and new data; unexpected regulatory actions or delays, or government regulation generally; our ability to obtain or maintain patent or other proprietary intellectual property protection; competition in general; government, industry, and general public pricing pressures; and additional factors that involve significant risks and uncertainties about our products, product candidates, financial results and business prospects. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described herein as anticipated, believed, estimated or expected. Starpharma is providing this information as of the date of this document and does not assume any obligation to update any forward-looking statements contained in this document as a result of new information, future events or developments or otherwise. Clinical case studies and other clinical information given in this document are given for illustrative purposes only and are not necessarily a guide to product performance and no representation or warranty is made by any person as to the likelihood of achievement or reasonableness of future results. Nothing contained in this document nor any information made available to you is, or shall be relied upon as, a promise, representation, warranty or guarantee as to the past, present or the future performance of any Starpharma product.

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