



Date: 29 January 2019

Sydney, Australia

**ASX: NOX**

**Noxopharm Limited**

ABN 50 608 966 123

**Registered Office  
and**

**Operational Office:**

Suite 3, Level 4  
828 Pacific Highway  
Gordon NSW 2072  
Australia

**Board of Directors**

**Mr Peter Marks**

Chairman  
Non-Executive  
Director

**Dr Graham Kelly**

Chief Executive Officer  
Managing Director

**Dr Ian Dixon**

Non-Executive  
Director

**Mr John Moore**

Non-Executive  
Director

ASX Limited  
20 Bridge Street  
SYDNEY NSW 2000

## APPENDIX 4C – DECEMBER 2018 QUARTER

- **Veyonda<sup>®</sup> clinical program continuing on plan**
- **Imminent release of interim DARRT-1 clinical data**
- **DARRT program to be expanded and expedited based on early data**
- **LuPIN-1 data to be released mid-year**
- **Major opportunity identified for Veyonda<sup>®</sup> in growing radiopharmaceutical use**
- **Strategic review prompted by increasing commercial opportunities**
- **Continuing emphasis on value creation of IP.**

**Sydney, 29 January 2019:** Noxopharm (ASX: NOX) today releases its Appendix 4C for the quarter ended 31 December 2018, as well as providing guidance for the next 12 months. This report is for the Noxopharm group covering both NOX and its majority-owned subsidiary, Nyrada Inc.

The Company's primary focus remains its Veyonda<sup>®</sup> clinical program that is evaluating this promising drug candidate as a standard companion drug to boost the benefits of radiotherapy and chemotherapy across a range of solid cancers.

The progress made in this clinical program over the past quarter has strengthened the Company's confidence that Veyonda<sup>®</sup> represents a major commercial opportunity. That confidence has prompted NOX to undertake a review of its commercial and developmental strategies and to begin building the necessary infrastructure, including expanding its management capacity, that will position the Company for future growth and success.

That strategic review is nearing completion and the Company expects to make further announcements in the coming weeks. The appointment in the previous quarter of Dr Greg van Wyk as the Company's chief medical officer has been a key first step in the process of building an executive team with the necessary skills and experience in big-pharma drug development, clinical trials, regulatory issues, licensing, business development and commercialization. Further appointments will be announced in conjunction with the release of the strategic review.

The Company's overarching objective has to be to bring Veyonda® to a point of value realization in the shortest possible time, as this will provide it with a range of options such as partnering, out-licensing, or independent activity, according to what the Board believes is in the best interest of shareholders.

## **1. Veyonda® Program**

This program, and a combination of Veyonda® and radiotherapy in particular, remains the Company's primary focus. The clear objective is to bring to market a drug that will boost the response of most forms of solid cancer to low, well tolerated dosages of radiation, providing better responses of irradiated lesions plus the opportunity to extend that to responses of non-irradiated lesions.

The last few years have seen the emergence in the oncology field of two important developments that hint at a transformative change in the treatment of many forms of cancer. The first is the combination of radiotherapy with drugs that stimulate the body's immune system; either approach alone generally offers only modest benefits in most patients, but the combination of the two holds the promise of providing significantly greater responses for a higher proportion of patients. The second development is the use of radiopharmaceutical drugs as a means of delivering the radiotherapy; this involves the intravenous injection of a radioactive drug as a means of reaching far more cancer cells throughout the body than externally-delivered radiotherapy.

Noxopharm shares the view of an increasing number of major pharmaceutical companies that the future of cancer therapy lies in restoring the ability of the body's immune system to detect and eliminate cancer cells. Increasingly it appears that radiotherapy acts as a trigger to restoring that immune response, with drugs that boost that immune response then tipping it over into a major anti-cancer effect. To the best of the Company's knowledge, Veyonda® is the only drug being developed with the critical dual actions of enhancing the cancer-killing effect of radiation (by increasing cancer cell chromosomal damage and blocking the cell's ability to repair the damage) and stimulating the body's innate immune system. Veyonda®, therefore, is uniquely placed to benefit from industry investment in both potentially transformative treatment modalities.

The Veyonda® Clinical Program is designed to establish the drug's credentials across both potential transformative areas of therapy via its DARRT and LuPIN treatment programs as expeditiously as possible. As noted above, the Company will update the market with the details of that clinical program as part of its strategic review in the coming weeks.

In the meantime, the key elements of the plan are as follows:

- to focus in the short-term on late-stage prostate cancer (metastatic, castrate-resistant cancer) in men who have exhausted standard treatment options. With 1 in 40 men dying from prostate cancer, there is an urgent need to offer men new treatments that can deliver more effective pain relief and improved quality of life, whilst also giving them the chance to live longer lives and possibly even go into full remission. Both the DARRT-1 and the LuPIN-1 studies include such men and running these programs in parallel is consistent with the Company's strategic intent to rapidly demonstrate that Veyonda enhances the treatment effect of multiple forms of radiotherapy;
- in due course to extend the DARRT treatment regimen into earlier-stage prostate cancer as this will substantially increase the market opportunity and may give more patients the option of delaying unpleasant treatments such as chemical castration therapy;
- to extend the clinical program into sarcoma with the prospect of Orphan Drug designation offering an opportunity to obtain marketing approval quicker than that for prostate cancer.

### **1.1 DARRT and Late-Stage Prostate Cancer.**

The DARRT (Direct and Abscopal Response to Radiotherapy) treatment regimen in metastatic, castrate-resistant prostate cancer remains the Company's highest priority for Veyonda®. The target market is men with no remaining standard treatment options who are being treated with radiotherapy for relief of symptoms, generally with little or no expectation for any survival advantage. The aim is to use Veyonda® to boost the clinical response to palliative, externally-

delivered radiotherapy, to provide both better and longer-lasting relief of symptoms, with the ultimate goal being an increase in survival and possibly even long-term disease remission.

The DARRT-1 study continued to recruit patients in the December quarter, with full enrolment in the 24-subject study anticipated in Q1 2019.

DARRT delivers a palliative (low) dose of radiation to 1-2 isolated lesions. The radiation can be delivered by either external beam radiotherapy or stereotactic body radiotherapy over 5 days. The objective is to use Veyonda<sup>®</sup> to boost the link between radiation-induced DNA damage and activation of the body's immune system. The objective of DARRT-1 is to produce a strong anti-cancer response in as many tumours as possible throughout the body, but particularly those in the skeleton which typically are associated with significant pain.

The key endpoints of DARRT-1 measured at 12- and 24-weeks are:

- Safety (incidence of dose-limiting events)
- PSA response
- Pain response
- Tumour shrinkage (by RECIST criteria in patients with measurable disease) of both irradiated and non-irradiated tumours.

These data will be important in informing the design of the next stage of clinical development and the number of subjects likely to be required in a registration study.

The upcoming timetable for the release of the DARRT-1 data is:

- Early-February 2019      12-week data Cohorts 1-3
- Early-May 2019          24-week data Cohorts 1-3
- Early-July 2019          12-week data Cohort 4
- Early-October 2019      24-week data Cohort 4.

The Company has engaged with the U.S. Food and Drug Administration (FDA) in planning for the next stage of development of the DARRT program and the late-stage prostate cancer indication. A key step in that approval process is a pharmacokinetic (PK) study in healthy subjects which is due to start in February 2019 and conclude in August 2019. However, interim data from this study is scheduled to be extracted in May 2019 and form the basis of an IND application expected to be lodged in June 2019, with approval to undertake US clinical trialing anticipated to be granted by August 2019.

## 1.2 LuPIN and Late-Stage Prostate Cancer

The LuPIN program involves the delivery of radiation to prostate cancer via a radiopharmaceutical.

Radiopharmaceuticals are drugs (oral or intravenous) that are radioactive and which can be used either for diagnosis or treatment and are anticipated to become an important treatment option for a range of cancers. Examples are <sup>177</sup>lutetium-PSMA used in the treatment of prostate cancer and <sup>177</sup>lutetium-dotatate which is used in the treatment of neuroendocrine tumours. At this stage, with the exception of prostate cancer, the use of radiopharmaceuticals is restricted to rare cancers.

The LuPIN-1 Study involves combination therapy of Veyonda<sup>®</sup> and <sup>177</sup>lutetium-PSMA-617 in metastatic, castrate-resistant prostate cancer in a 32-man study. This is an investigator-initiated study by St Vincent's Hospital, Sydney, with the two experimental drugs being supplied by Noxopharm and Endocyte (Novartis) respectively. The study is fully recruited with the last patient due to complete treatment in August 2019.

Standard <sup>177</sup>lutetium-PSMA-617 therapy involves 6 intravenous injections 6-weeks apart (total 30-week treatment course), with the goal of delivering radioactive lutetium to prostate cancer cells present throughout the body. The current limitation with this and most forms of radiopharmaceutical therapy is the extent to which cancer cells will take up the radioactive isotope. The rationale behind the use of Veyonda<sup>®</sup> with radiopharmaceutical drug therapy is to

convert low level damage in cancer cells taking up low doses of radiation, into a higher level of damage more likely to kill the cancer cell.

The Company's objectives with the LuPIN-1 Study are:

- to show that Veyonda<sup>®</sup> and <sup>177</sup>lutetium-PSMA-617 combination therapy is well tolerated
- to increase the response rate so that more men are able to complete the full (6 cycle) treatment course
- to provide a greater depth of response (more men having declines in PSA levels >75%)
- to provide greater duration of response
- to provide better pain response and better quality of life.

The clinical investigators in the LuPIN-1 study have submitted interim clinical data to a major nuclear medicine conference that will be held in the U.S. in mid-2019. The Company is unable to comment on this further prior to the conference.

Discussions are underway with other parties with the goal of conducting a larger, controlled LuPIN-2 study, as well as extending this approach into other forms of cancer such as neuroendocrine tumours.

### **1.3 Metastatic Sarcoma**

The Company plans to initiate a Phase I/II study of Veyonda<sup>®</sup> in sarcomas. Sarcomas are rare cancers in adults accounting for just 1% of all cancers, but account for 20% of all cancers in children. They are cancers of connective tissue – bone, cartilage, fat, blood vessels, nerves etc. There are approximately 70 different sub-types of sarcoma depending on the site of origin, generally divided into soft tissue sarcomas and hard tissue (e.g. bone, cartilage) sarcomas. Response rates to chemotherapy (e.g. doxorubicin) and/or radiotherapy generally are poor.

The unmet clinical need in these cancers is substantial, and regulators such as the FDA, through its Office of Orphan Products Development (OOPD), offer a range of incentives for sponsors to develop products for rare diseases. These incentives include grants, tax incentives, research design assistance, FDA fee waivers, extended patent life and 7-year market exclusivity.

Driving the Company's entry into this field are those economic incentives, the prospect of achieving marketing approval in a relatively short timeframe, and pre-clinical data indicating the potential for Veyonda<sup>®</sup> in combination therapy in sarcoma.

Pre-clinical studies investigating the relative benefits of Veyonda<sup>®</sup> in combination with doxorubicin or radiotherapy in multiple sub-types of sarcoma (e.g. fibrosarcoma, osteosarcoma, leiomyosarcoma, Ewing sarcoma) commenced in the December quarter and are ongoing. This work will help inform the design of a Phase I/Phase II trial of Veyonda<sup>®</sup> in combination with doxorubicin or DARRT radiation in particular sarcoma sub-types in 2019.

## **2. NOX Group Drug Discovery Programs**

NOX is conducting five R&D programs across a number of non-oncology indications. Three of these programs are within Nyrada and two within NOX.

PROGRAM	COMPANY	BIOLOGICAL TARGET	CLINICAL INDICATION	CURRENT STATUS	END-2019 TARGET STATUS
NEUROPROTECTION	NYRADA	Glutamate-associated excitotoxicity	Stroke; concussion	Lead optimisation	Significant progress to P1a study
PERIPHERAL NERVE INJURY/PAIN	NYRADA	Nerve inflammation	Nerve crush injury; neuropathic pain	Pre-IND studies	Significant progress to P1a study
HYPERCHOLESTEROLEMIA	NYRADA	PCSK9-LDL-receptor binding	Co-use with statins in patients with high LDL levels	Lead optimisation	Pre-clinical proof of concept; safety
IRAK4 INHIBITOR	NOXOPHARM	Interleukin-1 receptor associated kinase 4	Autoimmunity; certain cancers	Drug discovery	Confirm lead and target indication
TPL2 INHIBITOR	NOXOPHARM	Tumour progression locus 2	Chronic inflammatory diseases	Drug discovery	Confirm lead and target indication

The Company will update shareholders on progress in all pre-clinical programs over the course of 2019.

### 3. Funding

The Company ended the December quarter with a Group consolidated cash reserve of AUD\$9.59 million, with an additional \$350K+ expected to be received in the March 2019 quarter from the Federal Government R&D Rebate Scheme related to Nyrada 2017-2018 FY expenditure. The overall funding is expected to provide the Company with sufficient funds to continue with its current planned research, clinical and business activities over the medium-term. At the same time, the Board constantly monitors the cash position in relation to the budget as well as prevailing market conditions and will select a time and means which it considers most appropriate and beneficial for all shareholders in relation to the securing of additional funding.

#### About Noxopharm

Noxopharm is a clinical-stage Australian drug development company with offices in Sydney, New York and Hong Kong. The Company has a primary focus on the development of drugs based on an isoflavonoid chemical structure, with Veyonda® the first pipeline product. Three other drug candidates for non-oncology indications are under development in a subsidiary company (Nyrada Inc).

#### Investor & Corporate Enquiries:

Prue Kelly  
M: 0459 022 445  
E: [info@noxopharm.com](mailto:info@noxopharm.com)

#### Company Secretary:

David Franks  
T: +61 2 9299 9690  
E: [dfranks@fa.com.au](mailto:dfranks@fa.com.au)

#### Media Contact:

Allison Blum, Ph.D.  
LifeSci Public Relations  
T: +1 516 655 0842  
E: [allison@lifescipublicrelations.com](mailto:allison@lifescipublicrelations.com)

[www.noxopharm.com](http://www.noxopharm.com)

#### Forward Looking Statements

This announcement may contain forward-looking statements. You can identify these statements by the fact they use words such as “aim”, “anticipate”, “assume”, “believe”, “continue”, “could”, “estimate”, “expect”, “intend”, “may”, “plan”, “predict”, “project”, “plan”, “should”, “target”, “will” or “would” or the negative of such terms or other similar expressions. Forward-looking statements are based on estimates, projections and assumptions made by Noxopharm about circumstances and events that have not yet taken place. Although Noxopharm believes the forward-looking statements to be reasonable, they are not certain. Forward-looking statements involve known and unknown risks, uncertainties and other factors that are in some cases beyond the Company’s control that could cause the actual results, performance or achievements to differ materially from those expressed or implied by the forward-looking statement. No representation, warranty or assurance (express or implied) is given or made by Noxopharm that the forward-looking statements contained in this announcement are accurate and undue reliance should not be placed upon such statements.

## Appendix 4C

### Quarterly report for entities subject to Listing Rule 4.7B

Introduced 31/03/00 Amended 30/09/01, 24/10/05, 17/12/10, 01/09/16

**Name of entity**

NOXOPHARM LIMITED

**ABN**

50 608 966 123

**Quarter ended ("current quarter")**

31 December 2018

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers		
1.2 Payments for		
(a) research and development	(1,626)	(3,117)
(b) product manufacturing and operating costs	-	-
(c) advertising and marketing	(22)	(43)
(d) leased assets	-	-
(e) staff costs	(1,004)	(1,933)
(f) administration and corporate costs	(681)	(1,298)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	42	66
1.5 Interest and other costs of finance paid	(4)	(8)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	3,264	3,264
1.8 Other (Listing process costs)	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(31)</b>	<b>(3,069)</b>
<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	(3)	(7)
(b) businesses (see item 10)	-	-
(c) investments	-	-

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
(d) intellectual property	-	-
(e) other non-current assets	-	-
<b>2.2 Proceeds from disposal of:</b>		
(a) property, plant and equipment	-	-
(b) businesses (see item 10)	-	-
(c) investments	-	-
(d) intellectual property	-	-
(e) other non-current assets	-	-
<b>2.3 Cash flows from loans to other entities</b>	-	-
<b>2.4 Dividends received (see note 3)</b>	-	-
<b>2.5 Other (provide details if material)</b>	-	-
<b>2.6 Net cash from / (used in) investing activities</b>	<b>(3)</b>	<b>(7)</b>

<b>3. Cash flows from financing activities</b>		
3.1 Proceeds from issues of shares	-	-
3.2 Proceeds from issue of convertible notes	-	-
3.3 Proceeds from exercise of share options	-	75
3.4 Transaction costs related to issues of shares, convertible notes or options	-	-
3.5 Proceeds from borrowings	-	-
3.6 Repayment of borrowings	-	-
3.7 Transaction costs related to loans and borrowings	-	-
3.8 Dividends paid	-	-
3.9 Other (provide details if material)	-	-
<b>3.10 Net cash from / (used in) financing activities</b>	<b>0</b>	<b>75</b>

<b>4. Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1 Cash and cash equivalents at beginning of quarter/year to date	9,631	12,612
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(31)	(3,069)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	(3)	(7)
4.4 Net cash from / (used in) financing activities (item 3.10 above)	-	75

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	(8)	(22)
<b>4.6</b>	<b>Cash and cash equivalents at end of quarter</b>	<b>9,589</b>	<b>9,589</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	2,990	3,031
5.2	Call deposits	6,501	6,500
5.3	Bank overdrafts		
5.4	Other		
	- business debit cards	98	100
	- bank balances (held in trust)	-	-
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>9,589</b>	<b>9,631</b>

**6. Payments to directors of the entity and their associates**

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

<b>Current quarter \$A'000</b>
292
-

Director fees and salary for executive director and related parties.

**7. Payments to related entities of the entity and their associates**

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

<b>Current quarter \$A'000</b>
-
-



8. <b>Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1 Loan facilities	-	-
8.2 Credit standby arrangements	-	-
8.3 Other (please specify)	-	-
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

--	--

9. <b>Estimated cash outflows for next quarter</b>	\$A'000
9.1 Research and development	1,950
9.2 Product manufacturing and operating costs	350
9.3 Advertising and marketing	45
9.4 Leased assets	-
9.5 Staff costs	1250
9.6 Administration and corporate costs	800
9.7 Other (provide details if material)	-
<b>9.8 Total estimated cash outflows</b>	<b>4,395</b>

10. <b>Acquisitions and disposals of business entities (items 2.1(b) and 2.2(b) above)</b>	Acquisitions	Disposals
10.1 Name of entity	N/A	N/A
10.2 Place of incorporation or registration	-	-
10.3 Consideration for acquisition or disposal	-	-
10.4 Total net assets	-	-
10.5 Nature of business	N/A	N/A

**Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here:  ..... Date: **29 January 2019** .....

(Company secretary)

**DAVID FRANKS**

Print name: .....

**Notes**

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.