



Date: 5 March 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

NEW CORPORATE PRESENTATION RELEASED

SYDNEY, 5 March 2019: Noxopharm (NOX: ASX) today releases an updated corporate presentation ahead of non-deal roadshow presentations planned over the coming month in the U.S., Hong Kong and China. This is part of the Company's efforts to raise its profile in the global investment community ahead of planned release of key clinical data over the next 5 months.

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 a flavonoid 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).

www.noxopharm.com

Investor & Corporate Enquiries:

Prue Kelly

M: 0459 022 445

E: info@noxopharm.com

Company Secretary:

David Franks

T: +61 2 9299 9690

E: David.Franks@automicgroup.com.au

Media Contact:

Allison Blum, Ph.D.

LifeSci Public Relations

T: +1 516 655 0842

E: allison@lifescipublicrelations.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.

March 2019



ASX: NOX



DISCOVER



DEVELOP



DELIVER

Disclaimer

This presentation has been prepared by Noxopharm Limited (NOX or the Company). It should not be considered as an offer or invitation to subscribe for or purchase any shares in NOX or as an inducement to purchase any shares in NOX. No agreement to subscribe for securities in the NOX will be entered into on the basis of this presentation or any information, opinions or conclusions expressed in the course of this presentation.

This presentation is not a prospectus, product disclosure document or other offering document under Australian law or under the law of any other jurisdiction. It has been prepared for information purposes only. This presentation contains general summary information and does not take into account the investment objectives, financial situation and particular needs of an individual investor. It is not a financial product advice and the Company is not licenced to, and does not provide, financial advice.

This presentation may contain forward-looking statements which are identified by words such as 'may', 'could', 'believes', 'estimates', 'targets', 'expects', or 'intends' and other similar words that involve risks and uncertainties. These statements are based on an assessment of past and present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of this presentation, are expected to take place. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors many of which are beyond the control of the Company, its Directors and management.

Although the Company believes that the expectations reflected in the forward looking statements included in this presentation are reasonable, none of the Company, its Directors or officers can give, or gives, any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this document will actually occur or that the assumptions on which those statements are based are exhaustive or will prove to be correct beyond the date of its making. Readers are cautioned not to place undue reliance on these forward-looking statements. Except to the extent required by law, the Company has no intention to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this presentation.

Readers should make their own independent assessment of the information and take their own independent professional advice in relation to the information and any proposed action to be taken on the basis of the information. To the maximum extent permitted by law, the Company and its professional advisors and their related bodies corporate, affiliates and each of their respective directors, officers, management, employees, advisers and agents and any other person involved in the preparation of this presentation disclaim all liability and responsibility (including without limitation and liability arising from fault or negligence) for any direct or indirect loss or damage which may arise or be suffered through use of or reliance on anything contained in, or omitted from, this presentation. Neither the Company nor its advisors have any responsibility or obligation to update this presentation or inform the reader of any matter arising or coming to their notice after the date of this presentation document which may affect any matter referred to in the presentation.

We have a single objective:

To make **Veyonda[®]** (a radio-enhancing/immune-enhancing drug)

a standard companion drug

- for all forms of radiotherapy
- across most forms of solid cancer

in order to deliver

- more potent and more curative responses to radiotherapy
- at lower, better tolerated dosages of radiotherapy

and in so doing

- provide a transformative leap forward in the treatment of many cancers

Veyonda[®] - A New Improved Formulation of Idronoxil

Veyonda[®] delivers a proprietary pro-drug form of idronoxil* that delivers continuous anti-cancer activity for 12 hours

Veyonda[®] provides clinical benefit where earlier formulations did not

Veyonda[®] is a convenient-to-use, self-administered dosage form given twice daily to provide continuous 24-hour cover

* *Patents pending*



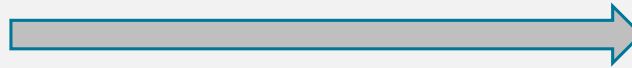
Examples of how a radio-enhancer might be used in prostate cancer

Stage of cancer

Veyonda[®] + Radiotherapy (RT)

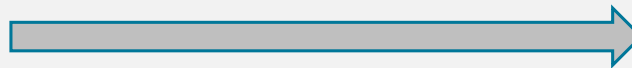
Potential benefits

Early-stage, operable



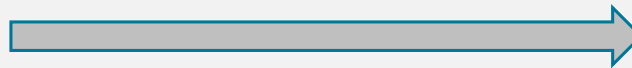
Avoidance of surgery and attendant side-effects

Early-stage, inoperable or recurrence post-prostatectomy



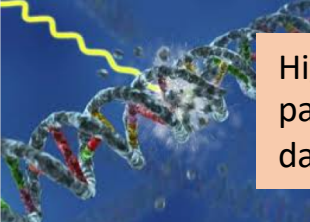
- Reduction in RT dosage to minimise pelvic tissue damage
- Delay in start of castration therapy

Late-stage, palliative

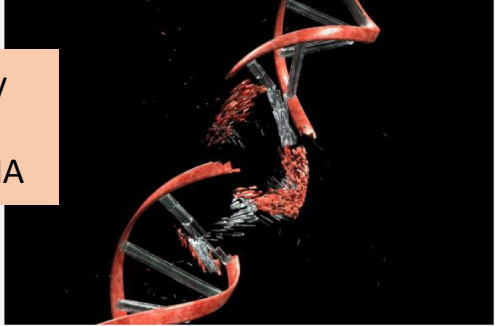


- Better pain and symptom relief
- Delay in tumour progression

How radiotherapy works



High energy particles damage DNA



Cell attempts to repair DNA damage

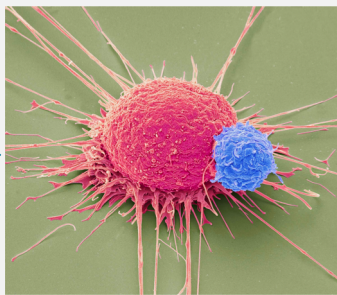
Too much damage »
Repair unsuccessful »
CELL DIES

Damaged DNA triggers release of **interferon** from neighboring healthy cells

Repair successful »
CELL SURVIVES

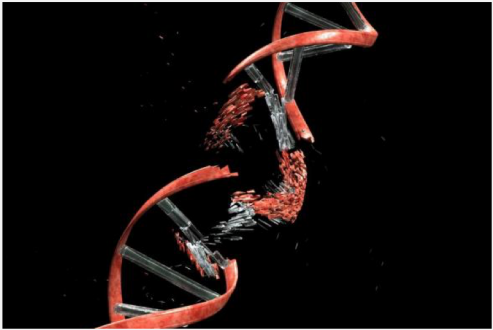
Interferon activates innate immune cells (NK cells) within tumor. Activated NK cells attack cancer cells

SURVIVING CELLS
killed by immune cells



How *Veyonda*[®] radio-enhances

BLOCKS DNA REPAIR MECHANISMS



~~Cell attempts to repair DNA damage~~

Repair unsuccessful
CELL DIES

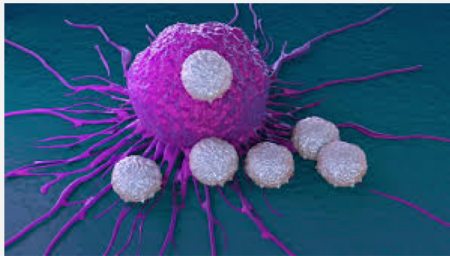
Damaged DNA triggers release of **interferon** from neighboring healthy cells

FEWER CELLS SURVIVE

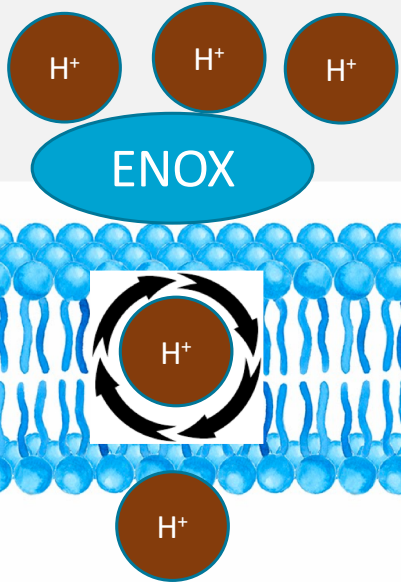
Veyonda[®] BOOSTS INTERFERON RESPONSE

SURVIVING CELLS more effectively killed by amplified immune response

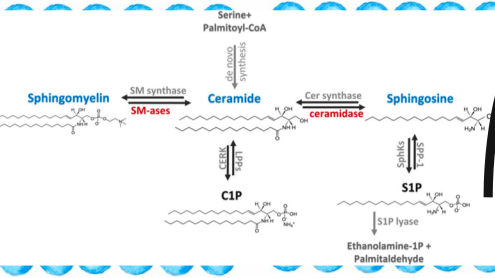
INCREASED ACTIVITY OF IMMUNE CELLS



Veyonda[®] MoA



Normal cell



S1P is a key *pro-survival* secondary messenger. S1P leaves the cell where it activates 5 different S1P receptors on the external surface of the cell



S1P receptors activate wide range of *pro-survival* signaling pathways, one of which is DNA repair capacity



External NADH oxidase (ENOX) enzyme regulates pump that transfers protons (H⁺) to the outside of the cell. This creates transmembrane electron potential that powers membrane functions such as the 'sphingomyelin cycle'.

'Sphingomyelin cycle': Sphingomyelins constituting about 25% of membrane phospholipids are in constant state of flux between sphingosine → ceramide ↔ sphingosine-1-phosphate (S1P).

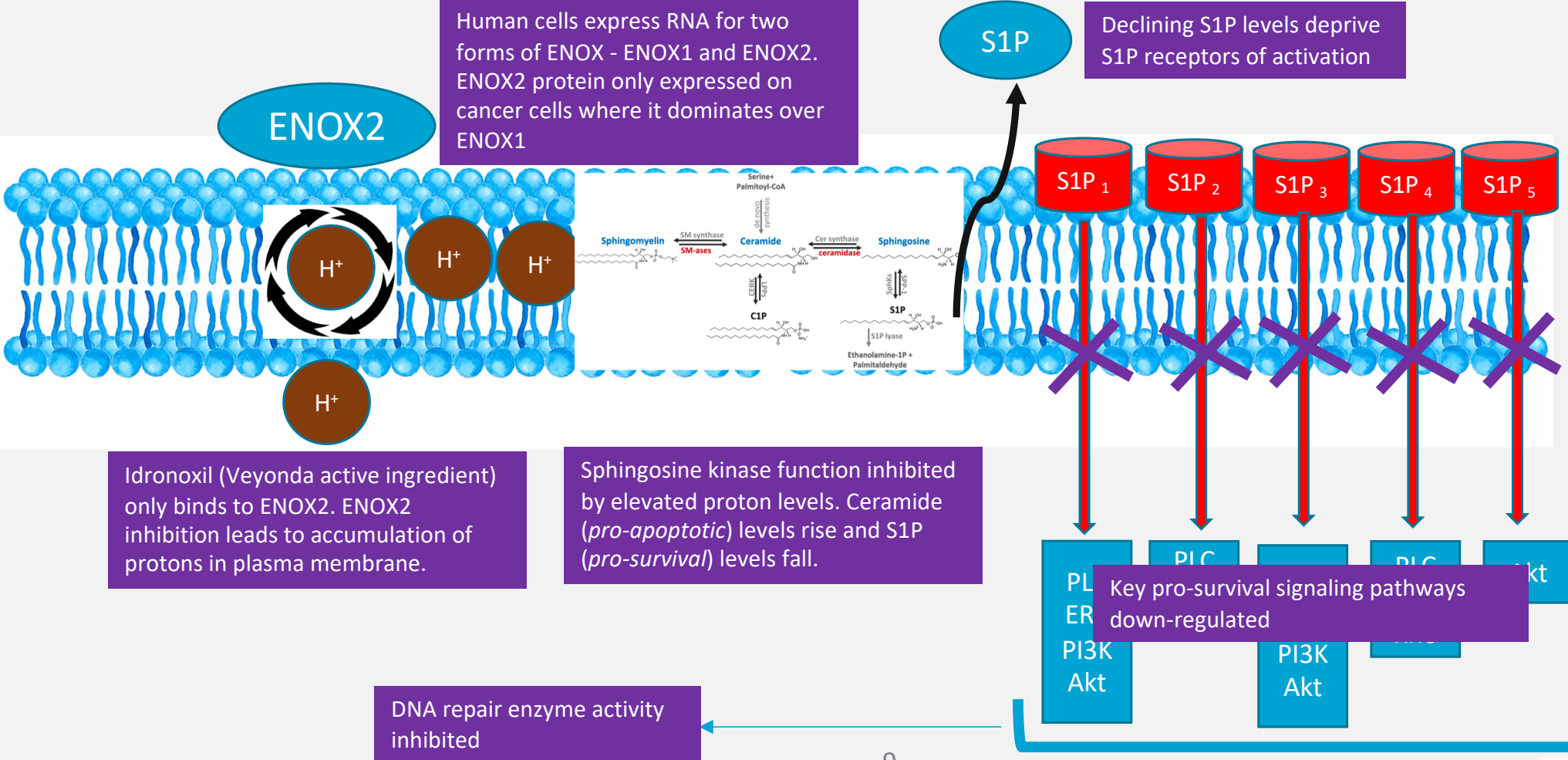
- Activate DNA repair enzymes:
- Topoisomerases 1 and 2
 - PARP 1 and 2



Veyonda[®] MoA

Cancer cell

Human cells express RNA for two forms of ENOX - ENOX1 and ENOX2. ENOX2 protein only expressed on cancer cells where it dominates over ENOX1



Idronoxil (Veyonda active ingredient) only binds to ENOX2. ENOX2 inhibition leads to accumulation of protons in plasma membrane.

Sphingosine kinase function inhibited by elevated proton levels. Ceramide (*pro-apoptotic*) levels rise and S1P (*pro-survival*) levels fall.

Declining S1P levels deprive S1P receptors of activation

Key pro-survival signaling pathways down-regulated

DNA repair enzyme activity inhibited



Veyonda[®] + Radiotherapy

Potential use across broad range of radiotherapy practice



Externally-delivered radiotherapy



Internally-delivered radiopharmaceuticals

Clinical Programs

DARRT

Direct and Abscopal Response to Radio-Therapy

LuPIN

¹⁷⁷Lutetium-PSMA In Combination With VeyoNda

Initial focus on **late-stage prostate cancer**

- Metastatic, castrate-resistant disease
- Post-docetaxel and abiraterone/enzalutamide
- No remaining standard treatment options
- Progressive disease
- Anticipated survival of > 3 months
- Patient eligible for palliative treatment

DARRT

Direct and Abscopal Response to Radio-Therapy

Rationale

1. Use of palliative (low) dose of radiation minimizes damage to innate immune cells within the irradiated lesion.
2. Veyonda[®] amplifies radiation-induced DNA damage in cancer cell by:
 - *blocking cell division, thereby exposing the DNA to greater damage, and*
 - *blocking the ability of the cancer cell to repair that damage*
3. Amplified radiation-induced DNA damage then:
 - *Increases likelihood of irradiated cancer cell dying*
 - *Enhances response of local innate immune cells*

Objectives

Local effect. Greater shrinkage of the irradiated target lesion (DIRECT RESPONSE)

Systemic effect. An anti-cancer response in non-target, non-irradiated lesions stemming from enhanced innate immune and epigenetic responses in the irradiated lesion (ABSCOPAL RESPONSE)

DARRT

Direct and Abscopal Response to Radio-Therapy



External Beam RT
or
Stereotactic Body RT

- Patients with multiple lesions and at least 2 measurable lesions
- Irradiate 1 lesion*
(20-25 Gy in 5 fractionated doses)
- **Veyonda**[®] (600 mg bid) 10 days beginning Day -5
- Assessments at 6 , 12 and 24 weeks
 - PSA
 - Pain Score
 - QoL Score
 - Time to progression
 - RECIST* (where possible)

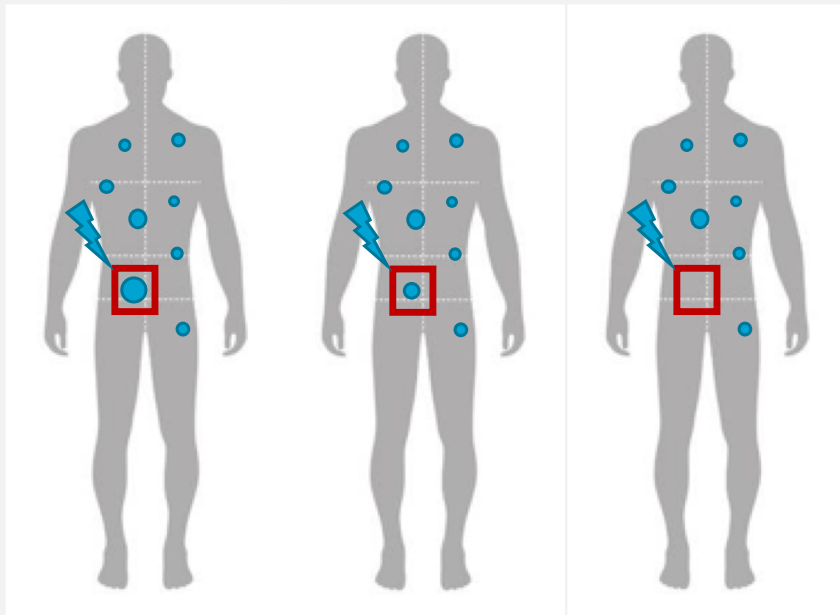
*Only patients in part 1 needed to have one measurable lesion as per RECIST v1.1

DARRT

Direct and Abscopal Response to Radio-Therapy

DIRECT RESPONSE

At a minimum, Veyonda® is expected to lead to better **DIRECT** response to radiotherapy by functioning as a **radio-enhancer**

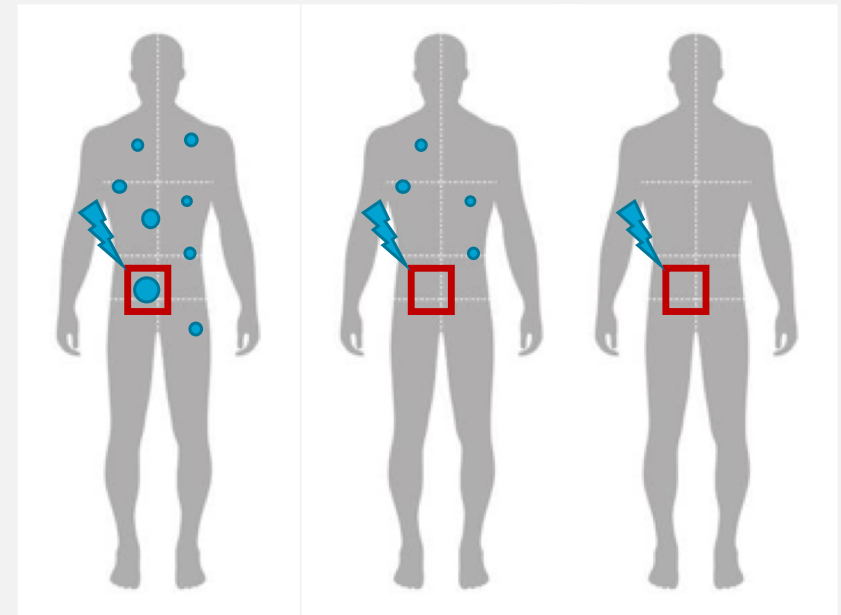


Shrinkage of Irradiated tumor

Complete resolution of Irradiated tumor

ABSCOPAL RESPONSE

The best expected outcome would be an improved DIRECT response, plus shrinkage of non-targeted lesions



Partial abscopal response

Complete abscopal response

DARRT-1 Study

Details:

- ❖ Phase 1b multi-national study (Australia, NZ, Georgia)
- ❖ Open label, single-arm study
- ❖ 24 patients; metastatic, castrate-resistant prostate cancer
- ❖ **Veyonda**[®] + external beam RT to 1 lesion*
- ❖ Part 1: Dose-finding (constant RT dose)
 - 400 mg Veyonda (4 patients)
 - 800 mg Veyonda (4 patients)**
 - 1200 mg Veyonda (4 patients)***
- Part 2: 1200 mg Veyonda
 - 12 patients

*Only patients in part 1 needed to have one measurable lesion as per RECIST v1.1

**2 patients were replaced

*** 1 patient was not evaluable at 12 weeks

DARRT-1 Study

12-week data for Part 1 patients:

	<u>400 mg</u> n=4	<u>800 mg</u> n=4	<u>1200mg</u> n=4 (3 evaluable)
PSA response*	0	2	2
Pain response**	2	3	2
RECIST response***	4 SD	1 PR 2 SD 1 PD	3SD

* > 50% decline

** > 30% decline

*** aggregate of all measurable lesions

24-week data Part 1 patients – late May 2019

12-week data Part 2 patients – July 2019

24-week data Part 2 patients – Q1 2020

DARRT-1 Study

Interim conclusions:

- ❖ **Veyonda**[®] + palliative dosages of radiotherapy well tolerated
- ❖ 400 mg dose of **Veyonda**[®] sub-therapeutic
- ❖ No notable difference between 800 and 1200 mg doses
- ❖ In the 7 evaluable patients in the 800 and 1200 mg cohorts*
 - 4/7 achieved PSA falls >50%
 - 5/7 achieved decrease in pain levels >30%
 - 1/7 showed partial response (RECIST) and 5/7 showed stable disease

The significant reductions in PSA, pain levels and halt in tumour growth suggests potential off-target responses at 3 months in men with advanced mCRPC.

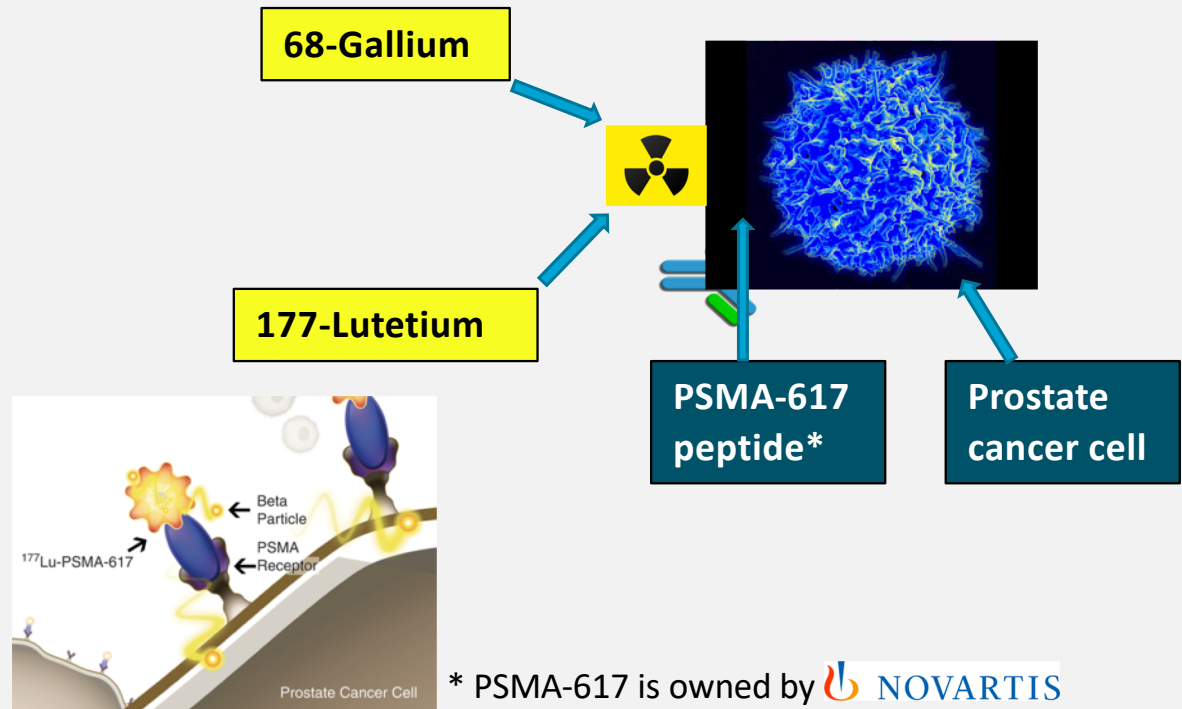
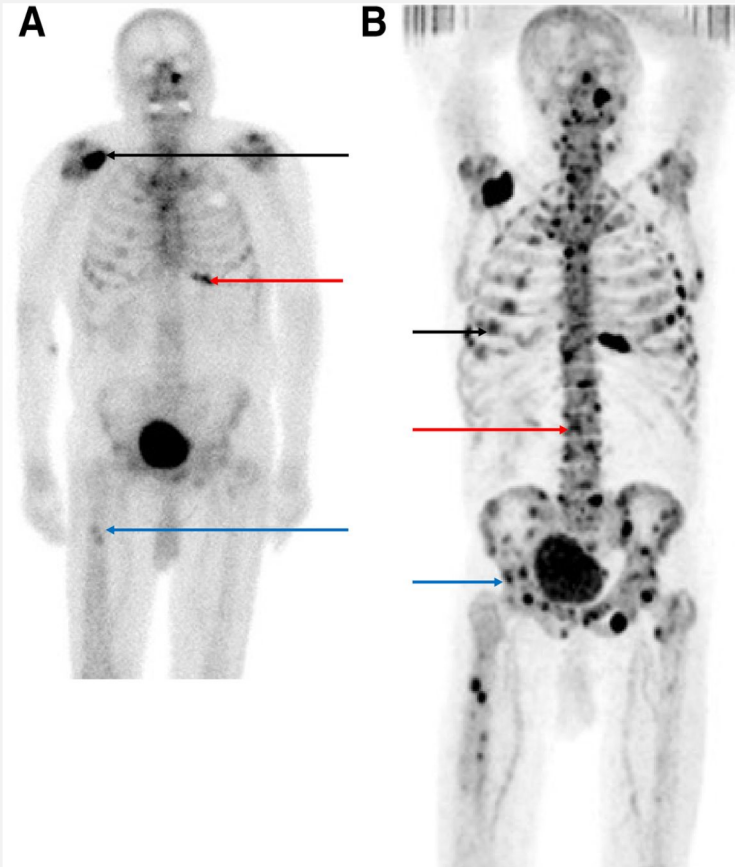
* Of the 10 patients enrolled, 7 were evaluable at 12 weeks


17

©2019 Noxopharm



Aim of ^{177}Lu PSMA-617 therapy is to deliver a low dose of radiation to all cancer cells within the body



* PSMA-617 is owned by  NOVARTIS

¹⁷⁷Lu-PSMA-617 In Combination With Veyonda

Rationale

1. Use of radiopharmaceutical maximises interaction between **Veyonda**[®] and radiation in the broad spread of cancer cells throughout the body.
2. **Veyonda**[®] amplifies radiation-induced DNA damage in cancer cell by:
 - *blocking cell division, thereby exposing the DNA to greater damage, and*
 - *blocking the ability of the cancer cell to repair that damage*
3. Amplified radiation-induced DNA damage then:
 - *Increases likelihood of irradiated cancer cell dying*
 - *Enhances response of local innate immune cells*

Objectives

1. **To achieve higher response rates, with more patients able to complete the 6-course Lu-PSMA treatment without relapsing**
2. **To achieve greater depth of response as measured by PSA levels**
3. **To achieve more durable responses as measured by improved time to progression and overall survival.**

LuPIN-1 Study

- Phase 1/2 study; investigator-initiated; Australia
- Open label, single arm
- PSMA-positive, late-stage mCRPC patients
- 6 courses of ¹⁷⁷lutetium-PSMA-617 administered intravenously every 6 weeks
- **Veyonda**[®] administered for 10 days starting Day-2 each course
- 8 patients 400 mg **Veyonda**[®]; 24 patients 800 mg **Veyonda**[®]
- 30/32 patients enrolled 1 March 2019*

*Clinical data from first 8 patients (400 mg dose cohort) to be presented at SNMMI Conference, Anaheim, June 2019.

Planned Expanded Clinical Study Program 2019-2020

DARRT - mCRPC

- Late-stage mCRPC patients eligible for palliative therapy
- Phase 2 (adaptive), USA
- Double-blind, 2-arm study
- End-points: PSA response, pain response, QoL, PFS

DARRT – rare cancers

- Rare cancers eligible for palliative therapy
- Phase 1, Australia
- Open label, single arm
- End-points: genetic markers of response, RECIST, PFS

Veyonda® + immuno-oncology drug

- NSC lung cancer patients
- No remaining standard treatment options; failure to respond to checkpoint inhibitors
- Phase 1b, open label, single arm, Australia
- End-points: Safety, RECIST, PFS

Priority
High



Low

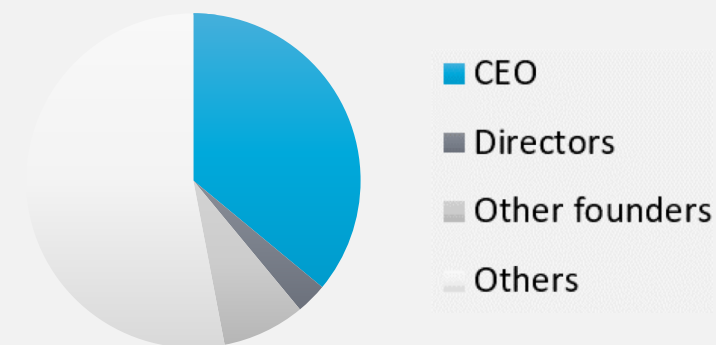
External radiotherapy in cancer (all forms) treatment*

	Africa	Asia Pacific	Europe	Latin America	North America
Population	1070	4108	893	601	350
No. radiation centres	140	2590	1430	620	2790
No. radiotherapy courses	0.4M	3.3M	1.9M	0.6M	0.9M
Cost per course (US\$)	1,300	2,120	3,490	2,080	7,050

RADIO-ENHANCER OPPORTUNITY Total 7.1 M courses of radiotherapy = **US\$70 billion**
(US\$10K per course)

Key metrics

Number of Shares	121.9M : Free float 66.8%
Market Cap (1 March 2019)	AU\$53M
IPO price	20 cents
12 month high/low	\$1.64/0.36
Cash position	AU\$ 9.6M (31 Dec 2018)





NOXOPHARM

ASX: NOX



DISCOVER



DEVELOP



DELIVER