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Telix's lead product, Illuccix® (TLX591-CDx) for prostate cancer imaging, has been approved by the Australian Therapeutic Goods Administration (TGA), and the U.S. Food and Drug Administration (FDA). Telix is also progressing marketing authorisation applications for Illuccix in the European Union and Canada. With the exception of Illuccix in the US and Australia and Scintimun®, none of Telix's products have received a marketing authorisation in any jurisdiction.

Full prescribing information for Illuccix can be found at <a href="http://illuccixhcp.com/s/illuccix-prescribing-information.pdf">http://illuccixhcp.com/s/illuccix-prescribing-information.pdf</a>

# An established global leader in radiopharmaceuticals





Extensive portfolio of diagnostic and therapeutic assets with compelling clinical data

**12,150** patient doses in past 12 months<sup>1</sup>

FDA approval for TLX591-CDx (Illuccix®)2

18 active clinical studies (8 indications)<sup>3</sup>

Leading supply chain and distribution network

**80** countries in the Telix distribution network

11 countries with a manufacturing footprint



3. Includes partnered investigator-led studies.

<sup>1.</sup> Clinical trial doses and magisterial / compassionate use of TLX591-CDx. 12 months from Q4 2020

<sup>2.</sup> United States Food and Drug Administration – ASX 20/12/21

# Our strategy: See It. Treat it. Personalised, precision medicine



### **Targeted radiation delivery**

### Systemically administered

# Unique cancer cell signature (target) Radioactive isotope Targeting agent (a small molecule or antibody) binds selectively to a cancer cell

#### **Imaging**



<sup>68</sup>Ga. <sup>89</sup>Zr (diagnostic isotopes)

Enables **PET** images of cancer

PET<sup>1</sup> scanner

(Prostate cancer)



TLX591-CDx<sup>2</sup>



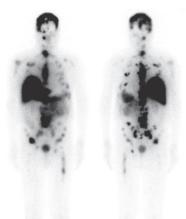
**Therapy** 

**TLX591** (Prostate cancer)



<sup>177</sup>Lu, <sup>131</sup>I, <sup>225</sup>Ac (therapeutic isotopes)

Enables precise radiation delivery to the cancer



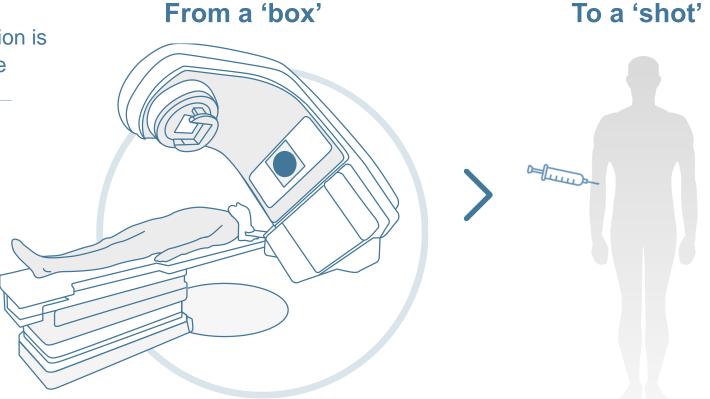
- Positron emission tomography
- 2. Courtesy of Ammar Chaudhry MD, City of Hope, Duarte CA, USA.

# Radiation has never been more important in cancer care Underpinned by the shift from radiation "in a box" to radiation "in a shot"



The evolution from external-beam radiation to systematically-delivered and targeted radiation is transforming the role of radiation in cancer care

- Synergy between imaging and therapy
- Broad cancer utility
- Potential to enhance existing drug classes (androgens, taxanes etc.)
- A vitally important "primer" for immuno-oncology
- A future cornerstone modality for gene/cell therapy conditioning



Telix is driving the integration of nuclear medicine and medical oncology with more targeted and personalised therapy and patient-friendly dosing regimens

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# Telix is pioneering a new cancer modality



#### Glioblastoma

Ph	Name	Asset	Dx/Tx
1/11	PAX-1	TLX101	Tx

#### **Breast Cancer**

Ph	Name	Asset	Dx/Tx
)N	OPALESCENCE (IIT)	TLX250-CDx	Dx
I	Emory University (IIT)	TLX591-CDx	Dx

#### Lung and Ovarian Cancers

Ph	Name	Asset	Dx/Tx
4	Royal Adelaide (IIT)	APOMAB	Dx/Tx

#### **Bone Marrow Conditioning**

Ph	Name	Asset	Dx/Tx
I/IIa	TRALA (IIT)	TLX66	Tx

#### **Bladder Cancer**

Ph	Name	Asset	Dx/Tx	
	ZiP-UP (IIT)	TLX250-CDx	Dx	
	PERTINENCE (IIT)	TLX250-CDx	Dx	

#### **Kidney Cancer**

Ph	Name	Asset	Dx/Tx
Ш	ZIRCON	TLX250-CDx	Dx
1/11	<b>♥</b> ZIRDAC	TLX250-CDx	Dx
II	STARLITE-1 (IIT)	TLX250	Tx
Ш	STARLITE-2 (IIT)	TLX250	Tx

#### **Prostate Cancer**

Ph	Name	Asset	Dx/Tx
Ш	University of Linz (IIT)	TLX591-CDx	Dx
П	Emory University (IIT)	TLX591-CDx	Dx
П	LENHANCING (IIT)	TLX591-CDx	Dx
П	Mem. Sloan Kettering (IIT)	TLX591-CDx	Dx
N/A*	NOBLE Marie del habitat	TLX599-CDx	Dx
Ш	PROSTACT	TLX591	Tx
I	CUPID	TLX592	Tx

<sup>\*</sup>Registry study

# Core pipeline: oncology & rare diseases



	Targeting Molecule	Target	Radioactive Isotope	Phase I	Phase II	Phase III	Commercial
	Small molecule	PSMA <sup>(1)</sup>	<sup>68</sup> Ga	TLX591-CDx (68Ga-PSMA-	11, Illuccix®)		Imaging
	Antibody	PSMA	<sup>177</sup> Lu	TLX591 (177Lu-rosopatama	b)		Therapy
Prostate	Antibody	PSMA	<sup>225</sup> Ac	TLX592 ( <sup>225</sup> Ac-RADmAb®)			Therapy (2 <sup>nd</sup> Gen)
o o	Small molecule	PSMA	<sup>99m</sup> Tc	TLX599-CDx (99mTc-iPSMA)	)*		Imaging/Surgery
	Small molecule	PSMA	<sup>68</sup> Ga	TLX591-Sx (68Ga-PSMA-IR	Dye)		Imaging/ Surgery
Gidney	Antibody	CA9 <sup>(2)</sup>	<sup>89</sup> Zr	TLX250-CDx (89Zr-girentux	imab)		Imaging
	Antibody	CA9	<sup>177</sup> Lu	TLX250 (177Lu-girentuxima	b)		Therapy
rain	Small molecule	LAT-1 <sup>(3)</sup>	18F	TLX101-CDx (18F-FET)			Imaging
	Small molecule	LAT-1	131	TLX101(131I-IPA)			Therapy
RD <sup>€</sup>	Antibody	CD66 <sup>(5)</sup>	<sup>99m</sup> Tc	TLX66-CDx (99mTc-besileso	mab, Scintimun®)		Imaging
BMC/RD(4)	Antibody	CD66	90Υ	TLX66 (90Y-besilesomab)			Therapy

Shaded arrows indicate completion expectations in the next 12 months.

\*Registry Study

Telix Pharmaceuticals Limited (ASX: TLX)

Prostate-specific membrane antigen.
 Carbonic anhydrase IX.

<sup>3.</sup> Large amino acid transporter 1

<sup>4.</sup> Bone marrow conditioning and rare disease.

<sup>5.</sup> Cluster of differentiation 66.

# **Strategic Priorities**





Establish Telix's leadership in urologic oncology

Create a high-value diagnostic portfolio

Kidney cancer imaging agent addresses major unmet need, builds on Illuccix engagement



Deliver on commercial value of therapeutics

Advance late-stage assets in the core pipeline that benefit from diagnostic market entrance



Expand the pipeline

Novel targets, clinical applications and manufacturing technologies

# Focus for 2022 Unlocking the value in our pipeline





Illuccix global rollout



**Commercialise diagnostics** 



**Advance core therapeutics** 



Pipeline & manufacturing

- US reimbursement
- Additional global approvals including EU/UK, Canada
- Commercial launch from late Q1 (US and AU)
- Kidney cancer (TLX250-CDx) Phase III readout
- Prepare for US regulatory filing for TLX250-CDx
- US filing planned for brain cancer imaging product
- ProstACT studies active globally
- Kidney cancer combination therapy Phase II studies
- Initiate Phase II studies in TLX101 and TLX66
- Seneffe manufacturing / R&D buildout to commence
- Focus on strategic deals and in-licensing
- Advance early-stage alpha therapy programs

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# Recent milestones and near-term catalysts



#### Recently completed milestones

- Illuccix regulatory approvals granted in US and Australia
- HCPCS<sup>1</sup> reimbursement submitted for Illuccix in the US
- ProstACT patient recruitment commenced
- Distributors finalised for major EU markets (subject to regulatory approval)
- FDA Investigational New Drug (IND) granted for STARLITE 1 & 2 studies

#### **Upcoming milestones: Q1 2022**

- Illuccix commercial launch US and AU
- US reimbursement for Illuccix:
  - Pass-through code submission (March 2022)
  - HCPCS code for US reimbursement expected 1 April 2022
- Illuccix EU marketing authorisation decision
- ZIRCON Phase III study enrolment completed
- IPAX-2 Phase II study launched (glioblastoma)
- STARLITE Phase II kidney cancer therapy studies progressed



# Illuccix® is now approved in the United States Indication and usage information



Illuccix is a kit for the preparation of gallium-68 (<sup>68</sup>Ga) gozetotide (also known as PSMA-11) injection, a radioactive diagnostic agent indicated for positron emission tomography (PET) of prostate-specific membrane antigen (PSMA) positive lesions in patients with prostate cancer with:

- Suspected metastasis who are candidates for initial definitive therapy;
  - Suspected recurrence based on elevated serum prostatespecific antigen (PSA) level.

Important Safety Information:
<a href="https://www.illuccixhcp.com/important-safety-information">https://www.illuccixhcp.com/important-safety-information</a>

Please see full Prescribing Information at <a href="http://illuccixhcp.com/s/illuccix-prescribinginformation.pdf">http://illuccixhcp.com/s/illuccix-prescribinginformation.pdf</a>



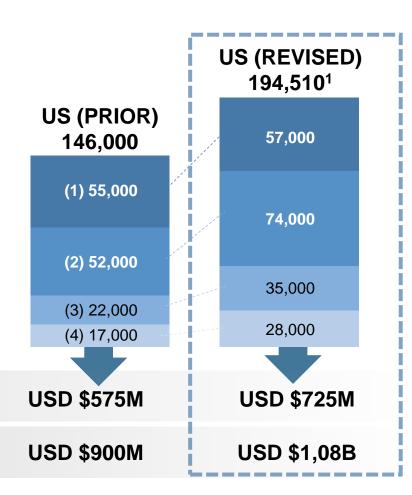
# Market opportunity for prostate imaging is expanding Due to growing incidence rates and practice guidelines





- 1. Primary staging in newly diagnosed high-risk prostate cancer (NCCN)
- 2. Biochemical recurrence following prostatectomy or radiation therapy (NCCN)
- 3. Monitoring of response to systemic therapy (Future)
- 4. Patient selection for targeted radio-ligand therapy (Future)





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American Cancer Society. Cancer Facts & Figures 2021. Atlanta, GA: American Cancer Society; 2021.

<sup>2.</sup> EU countries included in MAA submission to Danish Medicines Authority on 30 April 2020.

# Commercial launch plans - US Commercial ramp up during Q1 2022



#### Positioned to capture meaningful market share

- Access to ~90% of eligible PET sites
- Distribution network holds 60% market share of nuclear medicine market in the US
- On-demand pharmacy-based production with a high yield product
- Customer and patient scheduling flexibility

#### Market access strategy in place, commercial launch underway

- Q1 focus on early adopters imaging centers and veteran affairs
- 400 imaging centres pre-qualified
- Telix + partners will have one of the largest commercial teams (including sales, market access, MSL) to service the US prostate imaging market

#### On track for reimbursement in H1 2022

- HCPCS<sup>1</sup> code expected 1<sup>st</sup> April 2022
- Transitional Pass-Through (TPT) status expected 1<sup>st</sup> July 2022



- Telix / partner sites
- Current competitor sites (4 November 2021)



1. Healthcare Common Procedure Coding System

# PSMA-PET imaging emerging as standard of care in prostate cancer Inclusion in guidelines are driving clinical adoption and reimbursement



- National Comprehensive Cancer Network Guidelines® (NCCN Guidelines) include Ga-68 PSMA-11 PET/CT to be considered as an alternative to standard imaging of bone and soft tissue¹
  - Conventional imaging no longer a necessary prerequisite to PSMA-PET
  - Aligns with indication for detection of unfavourable intermediate, high and very high risk as well as recurrent prostate cancer
  - Society of Nuclear Medicine and Molecular Imaging (<u>SNMMI</u>) updated Appropriate Use Criteria (<u>AUC</u>) recognises higher accuracy in the initial staging evaluation<sup>2</sup>
- Two of the four main Radiology Benefit Managers (RBMs) AIM Specialty Health<sup>3</sup> and NIA Magellan<sup>4</sup> are now recommending PSMA-PET representing a significant portion of commercial payor (health insurance) reimbursement policies









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NCCN® Prostate Cancer Guidelines Update, Version 1.2022 – 10/09/21

<sup>2.</sup> SNMMI AUC for PSMA-PET Imaging: https://www.snmmi.org/ClinicalPractice/content.aspx?ItemNumber=38657

<sup>3.</sup> AIM Clinical Appropriateness Guidelines, Advanced Imaging. AUC: Oncologic Imaging (Effective 7/11/21).

National Imaging Associates Magellan Clinical Guidelines For Medical Necessity Review, Advanced Imaging Guideline (Effective 01/01/22)

# The NOBLE Registry (TLX599-CDx): Nobody left behind

# Improving access to PSMA imaging – beyond Illuccix







- Collaboration to investigate utility of <sup>99m</sup>Tc-iPSMA SPECT<sup>1</sup> imaging in prostate cancer
- Global consortium of clinical sites and investigators with experience using <sup>99m</sup>Tc-iPSMA
  - Geographic focus on developing markets or remote regions where access to PET imaging is limited<sup>2</sup>
- Isotope (99mTc) supply chain well established and inexpensive
- Rapid expansion planned including APAC







Chair





Dr. Akintunde Orunmuyi Nigeria



Dr. Ivan E. Diaz Meneses Ambassador | Mexico



Or. Mike Sathekge South Africa



Ambassador | Egypt



Dr. Ryan

Indonesia

Peter Tually Australia





<sup>1</sup> Single photon emission computed tomography

<sup>2.</sup> Worldwide SPECT cameras outnumber PET by 4:1 (MEDraysintell 2021)
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## TLX250-CDx / TLX250 overview

# TELIX

## An exciting target, with potential application beyond kidney cancer

- Target: Carbonic Anhydrase IX (CAIX / CA9)
- Indication: Kidney cancer (clear cell renal cell carcinoma, ccRCC)
- Development status:
  - TLX 250-CDx: Phase III ZIRCON diagnostic imaging study nearing completion
  - TLX250: Phase II STARLITE 1 & 2 therapeutic studies (in combination with immunotherapy) initiated

#### Rationale:

- CA9 is over-expressed in mutated ccRCC and many hypoxic solid tumors, with low expression in most normal tissue.
- Tumour hypoxia correlates with progression and resistance to therapy
- Potential for targeted radiation to enhance the effect of existing ccRCC therapies such as immunotherapy
- Limited competition in imaging, optimises surgical management

Target: CAIX / CA9	Dx (TLX250-CDx)	Tx (TLX250)
Targeting molecule	Antibody	Antibody
Targeting agent	DFO- girentuximab	DOTA- girentuximab
Radionuclide	<sup>89</sup> Zr	<sup>177</sup> Lu

# Building a high-value diagnostics portfolio "Breakthrough Therapy" designation, clinical leadership opportunity



- Biologics License Application (BLA) consultation process has commenced, Phase III study in final stages of enrolment
- TLX250-CDx is an investigational product being developed for the imaging of clear cell renal cell carcinoma (ccRCC) with PET/CT
- Current options for patients are limited, potential for clinical leadership with a non-invasive imaging modality for ccRCC
- Being studied as an imaging agent assessing ability to determine if "indeterminate renal masses" are malignant through improved, whole of body imaging
- May aid decision making and avoid unnecessary surgical intervention
  - Opportunity to follow prostate cancer imaging, with a second
     high-value product for the genitourinary (GU) oncology field



An example of PET/CT imaging showing the uptake of <sup>89</sup>Zr-girentuximab in a primary renal mass. The insert shows the identification of a metastatic lesion of the proximal radius, confirmed as ccRCC upon biopsy.<sup>1</sup>

# TLX250-CDx: delivering an unmet need in kidney cancer imaging



Total addressable market value in US and Europe estimated at US\$300-400M

Potential for market leadership, given limited patient options

Addresses a major unmet medical need for more accurate patient staging

Estimated age-standardized incidence rates (World) in 2020, kidney, both sexes, all ages



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Data source: GLOBOCAN 2020 Graph production: IARC (http://gco.iarc.fr/today) World Health Organization



# ZIRCON Phase III trial of TLX250-CDx for imaging of ccRCC Study overview





#### **Eligible Patients**

- Single indeterminate renal mass ≤7cm diameter on CT or MRI suspicious for ccRCC
- Scheduled for surgical removal as part of management plan



Surgical removal & histology as standard of truth



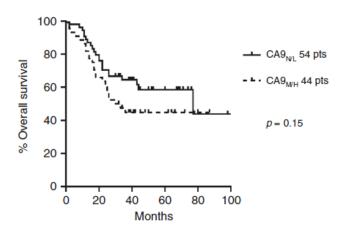
- International, multi-centre, Phase III trial in ~252 patients with an indeterminate renal mass suspicious of ccRCC
  - **Primary endpoint:** Sensitivity and specificity of PET/CT imaging with TLX250-CDx to non-invasively detect ccRCC in patients with indeterminate renal masses, using histology as standard of truth (after surgical removal)
- 35 sites participating
  - > 85% recruited, progressing well towards completion
  - United States, Canada, Europe, Turkey, Australia
- ZIRDAC-JP Phase I/II bridging trial of TLX250-CDx in Japan
  - Phase I objectives met, Phase II in planning, potential to include Chinese patients to expand Asian utility

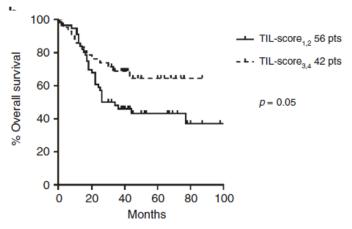
## STARLITE 2 Phase II trial of TLX250 for Treatment of ccRCC



## TLX250 in combination with immunotherapy

- STARLITE 2 now actively recruiting (screening patients)
- Phase II trial of TLX250 plus nivolumab in with ccRCC who have progressed following prior immunotherapy
- Evaluates TLX250-delivered radiation as an immune system "primer"
  - Targets carbonic anhydrase IX (CA9) a protein highly expressed in patients that are likely to demonstrate a more limited response to cancer immunotherapy
  - Primary endpoint
    - To determine the safety and efficacy of combination therapy with 177Lugirentuximab (TLX250) FDA Investigational New Drug Application (IND) accepted for STARLITE 2 study, being undertaken at Memorial Sloan Kettering Cancer Centre
  - Additional Phase II study STARLITE 1 (first-line combination study) to be initiated at a second US site (awaiting ethics approval)





CA9 expression is correlated with the presence of tumour-infiltrating lymphocytes, which may confer resistance to immunotherapy.<sup>1</sup>

<sup>1.</sup> Giatromanolaki et al. British Journal of Cancer. 2020.

# CA9 indication expansion New understanding leads to potential for applications beyond kidney cancer



- A transmembrane protein and a tumor-associated carbonic anhydrase isoenzyme
- Over-expressed in mutated ccRCC
   and many hypoxic solid tumors, with low expression in most normal tissue
- High expression in tumours including bladder or urothelial, breast, brain, cervix, colon, esophagus, head and neck, lung, ovarian, pancreatic and vulval cancers
- Imaging is being used to "indication scout" for future therapy applications, highlight the value of a "theranostic" approach

Potentia	Potential Indication			
	Bladder or Urothelial Cancer	Commenced		
	Triple Negative Breast Cancer	Commenced		
	Lung Cancer	Planned		
	Ovarian Cancer	Planned		
	Colorectal Cancer	Planned		
	Head and Neck Cancer	Planned		
	Pancreatic Cancer	Planned		

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# PROSTACT Prostate cancer therapy Our vision for prostate cancer Telix Pharmaceuticals Limited (ASX: TLX)

# Prostate cancer therapy assets overview Next-generation therapy to follow TLX591



- Target: Prostate Specific Membrane Antigen (PSMA)
- Indication: Prostate cancer
- Clinical status:
  - TLX591: ProstACT GLOBAL Phase III + ancillary studies recruiting
  - TLX592: CUPID study enrolling patients for imaging initially next-generation PSMA-directed alpha therapy
- Rationale:
  - Unmet need for treatment options for late-stage, metastatic patients specifically target both soft tissue and bony lesions
  - Antibody-based PSMA treatment may deliver superior efficacy and side-effect profile compared to small molecule
  - TLX592 a potential adjuvant for high-risk patients that may have early metastatic disease. May also have utility in patients progressing from conventional <sup>177</sup>Lu-PSMA Tx

Target: PSMA	TLX591	TLX592
Targeting molecule	Antibody	Engineered Antibody
Targeting agent	DOTA- rosopatamab	RADmAb®
Radionuclide	<sup>177</sup> Lu	<sup>225</sup> Ac

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# **ProstACT** program overview Multiple opportunities to deliver insights into TLX591



#### Radiogenomics study

- ~50 patients
- 1st line metastatic prostate cancer (mCRPC)
- Rapid recruitment

Combination with EBRT in oligometastatic early

- ~50 patients
- Co-funded by GenesisCare



#### Treat the scan

Correlation between imaging and therapy to optimise patient selection

**PROSTACT** recurrence (Phase II) **TARGET** 

#### Early data in front line care

Efficacy data in patients in their first recurrence

Pivotal Phase III study in patients with mCRPC progressing on 1st line novel androgen agents

- 390 patients
- 2nd line mCRPC



TLX591 + Standard of Care (SoC) vs. SoC alone

**SELECT (Ph I) –** radiogenomics study enhances patient selection and supports indication expansion based on a "theranostic" approach

**TARGET (Ph II)** – in partnership with GenesisCare, evaluates **TLX591** in a front-line setting

GLOBAL (Ph III) - Multiple data read-outs throughout the ProstACT program duration

# **ProstACT GLOBAL Phase III study**

#### **Pivotal trial**





TLX591 + Standard of Care (SoC) vs. SoC alone

#### **Eligible Patients**

- PSMA avid (defined by TLX591-CDx)
- mCRPC¹
- Progressed despite prior therapy with NAAD<sup>2</sup>



TLX591 + Standard of care therapy

Standard of care therapy alone



- International, multi-centre, Phase III RCT in ~390 patients with PSMA-expressing metastatic prostate cancer (mCRPC), experiencing disease progression following prior treatment with an anti-androgen drug (NAAD)
  - Primary endpoint: radiographic progression-free survival (rPFS)
  - Secondary endpoints include: overall survival, quality of life, safety
- 2:1 randomisation and enrichment of study population, patient selection with TLX591-CDx
- Status: ProstACT GLOBAL has been initiated in Australia and will add EU, US and potentially Chinese sites over the next six months, subject to satisfying the requisite regulator approvals

Metastatic castrate-resistant prostate cancer

<sup>2.</sup> Novel androgen axis drug

# **ProstACT SELECT Phase 1 study**



### Enhances patient selection and supports indication expansion



#### Treat the scan

Correlation between imaging and therapy to optimise patient selection

#### **Eligible Patients**

- PSMA avid (defined by TLX591-CDx)
- mCRPC
- Progressed despite prior therapy with NAAD



TLX591 + Standard of care therapy

Comparative imaging between <sup>68</sup>Ga-PSMA and <sup>177</sup>Lu -PSMA



- Ph I study of TLX591 for the treatment of mCRPC
- Multi-centre, multinational Phase I radiogenomics study in Australia and New Zealand in ~50 patients, comparing <sup>68</sup>Ga-PSMA and <sup>177</sup>Lu-PSMA, specifically confirming the similarity of small molecule and antibody-based targeting
- Radiogenomics study to enhance patient selection for ProstACT GLOBAL and support indication expansion for Telix's PSMA therapeutic portfolio, based on a "theranostic" approach
  - Primary endpoints: biodistribution, safety and tolerability
  - Secondary endpoints include: correlation between imaging and therapy molecules, radiographic progression-free survival, PSA response
- Status: Actively recruiting (screening patients)

# **ProstACT TARGET Phase II study**

# TELIX

### **Expanding clinical data to include a front-line setting**



Early data in front line care
Efficacy data in patients in their first recurrence

#### **Eligible Patients**

- PSMA avid (defined by TLX591-CDx)
- Oligometastatic early recurrence



TLX591 + External Beam Radiation Therapy (EBRT)





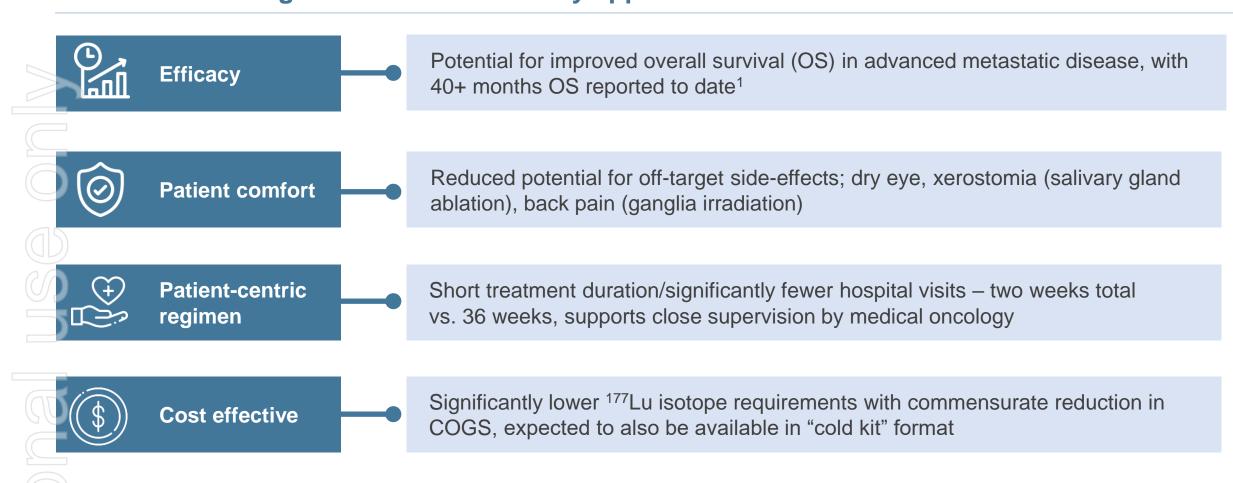


- Single arm Phase II study in Australia in 50 patients with PSMA-expressing biochemically recurrent oligometastatic prostate cancer, in combination with external beam radiation therapy (EBRT)
- To determine the efficacy, biodistribution and combination dosimetry of TLX591 plus EBRT, including dose to tumour
  - Primary endpoint: radiographic progression-free survival
  - Secondary endpoints include: overall survival, quality of life, safety
- Status: Patient screening to commence early 2022 (subject to ethics approval)

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# TLX591 differentiation Potential advantages with PSMA antibody approach





1. Tagawa et al, Cancer 2019.

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# TLX591 patient experience Off-target irradiation – quality of life matters



#### **TLX591**

Antibodies are functionally specific for tumour-expressed PSMA and do not "hit" most endogenous PSMA expression

Liver (preferred clearance organ)

**Fecal excretion** 





Lacrimal, Parotid, Submandibular (salivary) glands

Spleen, Liver

Kidneys, Small bowel

Bladder (urinary excretion)

#### Small molecule

Small molecule radioligands taken up by endogenous PSMA

Additional off-target effects with small molecule radioligands (not experienced with TLX591):

- Dry eye
- Xerostomia
- Back pain from ganglia irradiation

Data courtesy of Prof. Neil Bander, WCMC.

# Our long-term vision for prostate cancer Improving access, imaging and treatment options for patients

TELIX

 Further development of the PSMA target underpins our lifecycle management strategy for prostate cancer and vision to improve patient outcomes

PSMA pipeline includes imaging, therapy and surgical tools

 NOBLE Registry (PSMA-SPECT tracer): TLX599-CDx (99mTc-iPSMA) – PSMA imaging access for patients in developing and remote areas, where PET is not readily available

Next-generation alpha therapy: TLX592 (<sup>225</sup>Ac-RADmAb®) – high potency, complementary to TLX591

 Image guided surgery: TLX591-Sx (<sup>68</sup>Ga-PSMA-IRDye) dual-labelled PET-optical tracer for image guided surgery, enables real-time cancer detection<sup>1</sup>

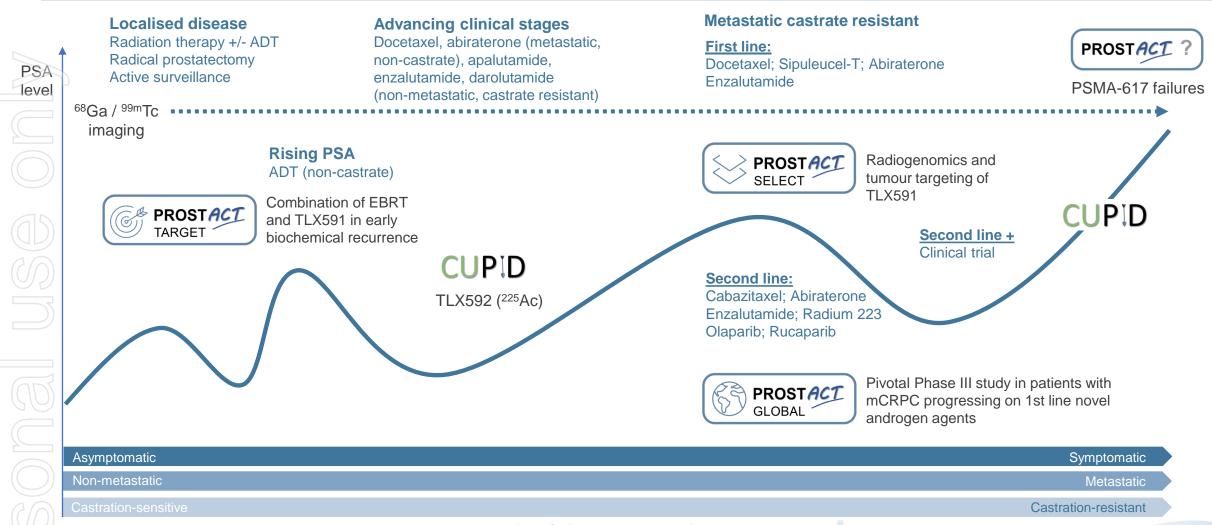


Imaging and Robotics in Surgery Alliance with Mauna Kea Technologies.

Telix Pharmaceuticals Limited (ASX: TLX)

# Our clinical mission: support the patient every step of the way





Time / disease progression

### **CUPID** trial



### **Next-generation alpha therapy, complements TLX591**

**CUPID** 

Study with <sup>64</sup>Cu-TLX592 to show biodistribution and tumour targeting prior to targeted alpha therapy (TAT) with <sup>225</sup>Ac-TLX592

#### **Eligible Patients**

 Prostate cancer patients with low-burden metastatic disease at ≤ 5 sites as detected using PSMA PET/CT scanning (TLX591-CDx)





Subject to positive outcomes with <sup>64</sup>Cu



- TAT is becoming an important area of PSMA therapy research, particularly in men that are no longer responding to 177Lu
- TLX592 antibody re-engineered to clear ~10x faster from the body, while maintaining specificity for tumour-expressed PSMA (liver cleared, no exocrine uptake)
- Designed for delivering TAT (<sup>225</sup>Ac) intended for:
  - i) Early-stage metastatic disease (e.g. biochemical recurrence (BCR)) and
  - ii) Late-stage disease when <sup>177</sup>Lu-PSMA therapy is no longer providing treatment efficacy
- Single arm, open-label, first-in-human (FIH) study of <sup>64</sup>Cu-TLX592 in men with metastatic prostate cancer using PET
  - **Primary endpoint:** Determine the safety and tolerability, pharmacokinetics, whole body biodistribution and radiation dosimetry of <sup>64</sup>Cu-TLX592 using PET as a proxy for <sup>225</sup>Ac-TLX592 TAT
- Status: Actively recruiting multiple patients dosed in imaging phase

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### TLX101-CDx / TLX101 overview



## Orphan designation status granted for imaging and therapy candidates

- Target: Large amino acid transporter 1 (LAT-1)
- Indication: Glioblastoma multiforme (GBM)
- Clinical status:
  - TLX101-CDx: Progressing towards new drug application (NDA) filing in 2022
  - TLX101: IPAX-2 follow-on Phase I/II study in newly diagnosed patients commencing in 2022
- Rationale:
  - TLX101-CDx: FET-PET demonstrated to provide greater diagnostic sensitivity compared to standard imaging procedures
  - TLX101: Poor prognosis with few treatment options. Promising overall survival data in IPAX-1 study warrants further investigation in earlier stage patients

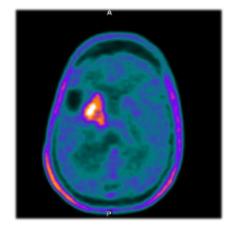
Target: LAT-1	Dx (TLX101- CDx)	Tx (TLX101)
Targeting molecule	Small molecule	Small molecule
Targeting agent	Fluoroethyl)-L- tyrosine (FET)	
Radionuclide	<sup>18</sup> F	131

### IPAX-I Phase I/II trial of TLX101 for the treatment of GBM<sup>1</sup>

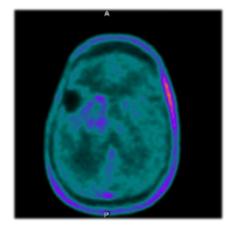
# TELIX

#### **TLX101** in combination with EBRT<sup>2</sup>

- Multi-centre Phase I/II trial of TLX101 in combination with EBRT in patients with recurrent GBM
  - Primary endpoint: Safety and tolerability
  - Secondary endpoints include: MTD<sup>3</sup>, efficacy, dosimetry
  - First-peer review data presented at Congress of Neurological Surgeons (CNS) Annual Meeting in October 2021
    - All patients evaluated received similar total activity dose of ~2GBq (2000 MBq) of TLX101, either in a single administration or a triple-fractionated regime.
    - Treatment well tolerated, typically grade 1 − 2 adverse events
    - Evidence of anti-tumour effect from both imaging and clinical assessment
    - Overall survival (OS) on this interim analysis shows median 15.97 months to date
    - 6/10 patients still alive and will be followed until 1 year after dosing for the final OS calculation (May 2022)



**Baseline PET scan** 



Day 45 PET scan post TLX101 therapy

Glioblastoma Multiforme

Maximum tolerated dose.

<sup>2.</sup> External beam radiation therapy

# Building on the IPAX-1 experience IPAX-2 will evaluate TLX101 in newly-diagnosed patients



- Progression of TLX101 program into front-line setting, Phase I/II study expected to commence in Q1 2022
- Initial dose finding study TLX101 plus standard of care (SOC) in patients with newly diagnosed glioblastoma, after surgery
- Evaluates the potential for DNA damage from targeted radiation using TLX101 to enhance SOC radio-chemotherapy for newly diagnosed glioma
  - Study objectives expected to include:
    - Maximum tolerated dose
    - Safety and tolerability in combination with the Stupp regimen (SOC)
    - 12 months overall survival rates
    - Progression free survival at a range of treatment intervals
- Single-arm, multi-centre trial, expected to enrol 12-15 patients in Phase I
- Patients to be treated and monitored for up to 64 weeks



### TLX66 CD-X / TLX66 overview



### Application across a range of conditions requiring bone marrow conditioning

Target: CD66 (Cluster of differentiation 66)

#### **Indication:**

- TLX66-CDx: Scintigraphic bone imaging
- TLX66: Bone marrow conditioning for systemic amyloid light chain amyloidosis

#### Development status:

- TLX66-CDx (Scintimun®): Approved in EU
- TLX66: Phase I TRALA study completed in 2021, planning for Phase II study in progress

#### Rationale:

- TLX66-CDx: Lower cost, faster than white blood cell labelling (current standard). Data from >100,000 patients in Europe to support regulatory filing in US.
- TLX66: Significantly reduced toxicity and tolerability compared to chemo-ablative approaches, potential to treat patients ineligible for SoC (e.g., older patients, co-morbidities, children)

Target: CD66	Dx (TLX66- CDx)	Tx (TLX66)
Targeting molecule	Antibody	Antibody
Targeting agent	besilesomab	DOTA- besilesomab
Radionuclide	<sup>99m</sup> Tc	90 <b>Y</b>

# New hope in a rare disease Progressing development of TLX66 in bone marrow conditioning



- SALA<sup>1</sup> is a rare disease with a poor prognosis (median survival ~11 months if untreated)
- Plasma cells in the bone marrow produce abnormal protein called 'amyloid' which accumulates in the organs and causes them to fail
- Prevalence of ~30,000 to 45,000 (US + EU combined) patients, ~US\$600M TAM<sup>2</sup> in US and 'EU5'
- Current standard of care comprises induction therapy (cyclophosphamide, bortezomib, dexamethasone) plus high dose melphalan BMC<sup>3</sup>, followed by HSCT<sup>4, 5</sup>
- A novel monoclonal antibody, daratumumab has potential as an initial therapy for patients but is not curative or suitable for all patient populations
  - TRALA study: Phase I trial of 90Y-besilesomab (TLX66) in SALA
  - **Primary endpoint:** Safety and toxicity of <sup>90</sup>Y-besilesomab as the sole BMC regimen for autologous HSCT in patients with SALA
  - Study complete, preliminary data (9 pts) demonstrated 100% engraftment and high PR/CR rate (5/2) survival data. Regulator consultation in progress for next phase of development

Organ failure, death

Faulty plasma cells Free antibody light chain **Amyloid** protein accumulates in organs

Systemic amyloid light chain amyloidosis.

<sup>2.</sup> Total addressable market.

<sup>3.</sup> Bone marrow conditioning.

<sup>4.</sup> Hematopoietic stem cell transplant.

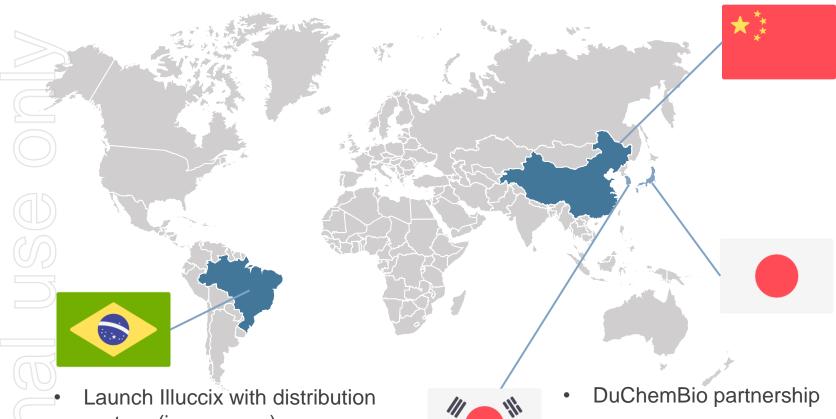
<sup>5.</sup> Venner C, et al. Blood. (2012) 119 (19): 4387-4390.

<sup>6. &</sup>lt;a href="https://www.clinicaltrialsregister.eu/ctr-search/trial/2015-002231-18/GB">https://www.clinicaltrialsregister.eu/ctr-search/trial/2015-002231-18/GB</a>



# **Near-term growth opportunities Expansion into new geographic markets**





- China Grand Pharma partnership
- NMPA consultations have commenced (Mainland China)
- Regulatory filings for Illuccix Q1 2022 (Taiwan, Hong Kong)

- Largest Asia Pacific market opportunity
- Key bridging clinical trials have been successfully completed (TLX591-CDx & TLX250-CDx)

- partner (in progress)
- NOBLE Registry expansion

- NECA HTA<sup>1</sup> completed
- Illuccix kit sales have commenced, pursuing reimbursement

National Evidence-based Healthcare Collaborating Agency. Health Technology Assessment.

# Buildout of the Brussels (Seneffe) manufacturing facility Vertical integration in Europe



- Seneffe will serve as the primary EU manufacturing site
   for Telix's products
  - Will also be used manufacture <sup>131</sup>I-based products for export (i.e. TLX101) using Belgian-sourced isotopes (Belgium is a major global supplier)
  - Provides certainty / control over supply chain
  - Seneffe will be an integral part of Telix's EU R&D capability
  - Enables the capture of intellectual property that is intrinsic in manufacturing scale-up of this class of products
    - First legacy cyclotron removed October 2021, second in November 2021
    - New buildout has commenced

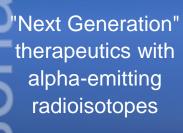


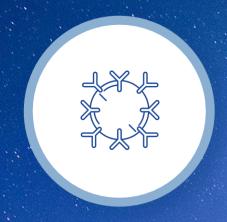
# Future research and innovation focus











MTR<sup>1</sup> + immuno-oncology

MTR sets the "groundwork" for cancer immuno-therapy in combination



**Tumour** microenvironment

Combining MTR with standard of care treatments for improved efficacy with biomarker-driven patient selection



**Artificial** intelligence (AI)

Tools to maximise clinical insights gained from imaging, link to therapeutic outcomes



Radio-guided surgery

Bringing molecular imaging into the operating room (OR)

