

TLSA: NASDAQ TILS: AIM

# tiziana LIFE SCIENCES

An Innovative Platform in Oral and Nasal Antibody Administration

A Novel Approach for Treatment of Hepatocellular Carcinoma

FREE WRITING PROSPECTUS

September 20, 2019

Free Writing Prospectus Dated September 20, 2019. Filed pursuant to Rule 433. Registration No. 333-233020.

### DISCLAIMER AND FORWARD LOOKING STATEMENTS

The content of this presentation has been prepared for the purpose of providing general information about, and an overview of, the Company and its business. It is not intended to be a complete review of all matters concerning the Company and nor has it been independently verified. Whilst the presentation has been prepared in good faith and the Company has taken all reasonable care to ensure the information and facts contained in this presentation are accurate and up-to-date, it does not make any representation or warrantly, express or implied, as to the accuracy or completeness of any information included in this presentation. Neither the Company nor any of its directors, officers, employees or agents shall be liable for any loss arising directly from the use of or reliance upon this presentation or in relation to the adequacy, accuracy, completeness or reasonableness of the information it contains. All and any such liability is expressly excluded to the fullest extent permitted by law. The information in this presentation is subject to updating, completion, revision, further verification and amendment without notice.

This presentation in this presentation is subject to updating, completion, revision, further verification and amendment without notice.

This presentation does not constitute or form part of any offer for sale or solicitation of any offer to buy or subscribe for any securities including ordinary shares in the Company nor does it constitute an invitation or inducement to engage in investment activity in relation to any securities, including the ordinary shares of the Company. It does not purport to contain information that shall form the basis of or be relied upon in making such investment decisions. If you require any advice, please consult with a professional financial adviser. All investments are subject to risk. The value of securities may go down as well as up. Past performance cannot be relied on as a guide for future performance.

This presentation may contain certain forward-looking statements concerning the financial condition, results of operations and businesses of the Company. All statements other than statements of historical fact are, or may be deemed to be, forward-looking statements. Forward-looking statements are statements of future expectations that are based on management's current expectations and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in these statements. All forward-looking statements contained in this presentation are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. You should not place undue reliance on forward-looking statements seals forward-looking statement speaks only as of the date of this presentation. The Company does not undertake any obligation to publicly update or revise any forward-looking statements as a result of new information, future events or other information. In light of these risks, results could differ materially from those stated, implied or inferred from the forward-looking statements contained in this presentation. the forward-looking statements contained in this presentation.

In the UK, this presentation has not been approved by an authorised person and is being distributed on the basis that each person in the UK to whom it is issued is reasonably believed to be such a person as is described in Article 19 (investment professionals) or Article 49 (high net worth companies, unincorporated associations etc.) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (SI 2005/1529) or are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000) in connection with the issue or sale of any securities may otherwise lawfully be communicated or caused to be communicated. Persons who do not fall within such descriptions may not act upon the information contained in this presentation. presentation



## **FREE WRITING PROSPECTUS**

We have filed a registration statement (including a preliminary prospectus) with the SEC for the offering to which this presentation relates. The registration statement has not yet become effective. Before you invest, you should read the preliminary prospectus in the registration statement (including the risk factors described therein) and other documents we have filed with the SEC for more complete information about us and the offering.

You may access these documents for free by visiting EDGAR on the SEC Web site at http://www.sec.gov. The preliminary prospectus, dated August 5, 2019, is available on the SEC Web site at http://www.sec.gov. Alternatively, we or any underwriter participating in the offering will arrange to send you the prospectus if you contact ThinkEquity, a division of Fordham Financial Management, Inc., located at 17 State Street, 22nd Floor, New York, New York 10004, by telephone at (877) 436-3673, or by email at prospectus@think-equity.com.



# **OFFERING SUMMARY**

ISSUER:	TIZIANA LIFE SCIENCES, PLC
Approximate Offering Size	\$ 3.0 Million of ADSs
Listings/Symbols	Nasdaq Global Market / TLSA and AIM / TLS
Over-Allotment Option	15%
Use of Proceeds	Advance the clinical development of Foralumab and our other research and development programs, working capital and other general corporate purposes
Sole Book-Running Manager	ThinkEquity, a division of Fordham Financial Management, Inc.



### **INVESTMENT HIGHLIGHTS**

Innovative platform technology for oral and nasal formulations can transform the administration of Monoclonal Antibodies ('mAbs')

Two de-risked assets in clinical evaluation that target the root causes of autoimmune/inflammatory diseases and cancer

Milciclib has received 'Orphan Drug Designation' in US and EU for treatment of thymic carcinoma/thymoma (TC/T)

#### Assets for unmet needs in a multi billion-dollar addressable market

- NASH \$35 billion
- Crohn's Disease \$10 billion/year by 2025
- Liver cancer \$1.5 billion/year by 2022

#### Strong intellectual property

- 255 patents approved and 30 pending
- Covers composition of matter, process and disease indications
- Oral formulation technology applicable to other mAbs therapeutics

#### Experienced and successful biotech management team

A leverageable biotechnology platform for use in additional therapeutics



Nasal Trial: Phase 2 starting shortly.

Phase 1 trial completed

Data - August 2019

Oral Trial: FDA approved IND. Phase 1 oral trial to begin shortly



Orphan Drug Designation Met primary and secondary endpoints in 2 separate Phase 2 trials in TC/T.

Phase 2a in sorafenib-resistant patients completed

Well-tolerated topline data reported July 2019



### LEADERSHIP AND EXECUTIVE TEAM

#### Kunwar Shailubhai PhD, MBA CEO & CSO



- nventor of Oral Formulation of Foralumab
- Co-founder, EVP & CSO of Synergy Pharmaceuticals NASDAQ: SGYP
- The pioneer of GC-C agonist technology inventor of TRUI ANCE approved for
- Chronic constipation and IBS-C

  VP, Callisto Pharmaceuticals

Dr. Shailubhai brings more than 25 years of experience within the life science industry, combined with a distinguished track record of success in translating drugs from concept through commercialization to market. He also currently serves as CEO of Rasna Therapeutics, Inc., a developer of therapeutics to address the high unmet need that exists for AML and other forms of leukemia. Dr. Shailubhai has been serving as a member of board of Tiziana Life Sciences since 2015. He actively played key roles in development of growth strategies through several key licensing of technologies and drug candidates. Dr. Shailubhai steered the Company through prioritization of projects to focus on novel drug candidates for treatment of autoimmune and inflammatory diseases and cancer. As co-founder, EVP and CSO of Synergy Pharmaceuticals, Inc. (NASDAQ: SGYP) he led the non-clinical, CMC and clinical development of Trulance™ from inception to approval by the FDA, having co-invented and pioneered Synergy's platform technology for functional Gl disorders, inflammatory bowel disease, Gl cancer and other human diseases. Dr. Shailubhai as the chief architect of the IP estate, directed all aspects of IP management, including timely submission of patent applications, directing office actions and coordinating with IP attorneys. Earlier, from 2003 until 2008, Dr. Shailubhai served as Senior Vice President, Drug Discovery and from 2001 to 2003, he held the position of Vice President, Drug Discovery at Synergy, where he pioneered therapeutic applications of GC-C agonists in a variety of human diseases such as Asthma, COPD and cholesterol lowering. Prior to Synergy, he was with Monsanto Company, serving as Group Leader, Cancer Prevention and previously served as a Senior Staff Fellow at the National Institutes of Health, and as an Assistant Professor at the University of Maryland. Dr. Shailubhai received his Ph.D. in microbiology from the University of Baroda, India, and his MBA from the University of Missouri, St. Louis. He has more than 36 issued patents, 20 patent applications and over 50 peer-reviewed publications.

#### Tiziano Lazzaretti Chief Financial Officer



Mr. Lazzaretti has extensive experience in the healthcare and pharmaceutical industry and joined Tiziana from Pharmentis Srl, a spin-off from Teva Ratiopharm, where he served as Group Finance Director from 2011. Prior to this, Mr. Lazzaretti was Executive Director at Alliance Boots Healthcare, and held senior positions at Accenture, SNIA Spa and Fiat Group. Mr. Lazzaretti has a Bachelor of Science (BSc Hons) in Accounting and Finance from the University of Turin, Italy, was awarded a Master in Business Administration (MBA) from Bocconi University, Milan and studied Corporate Finance at the London Business School.



# **BOARD OF DIRECTORS**

#### Gabriele Cerrone Executive Chairman



- Proven track record & experience in financing biotechnology companies
- Founder and chairman of two biotech companies with market cap over \$2 B
- Inhibitex sale \$2.5 B
- Synergy / Trovagene / Gensignia / Rasna / Contravir / Siga Technologies
- MBA, Stern School of Business, NY, USA

#### Leopoldo Zambeletti Non-Executive Director



- Former head of Life Sciences M&A for Credit Suisse, EU
- Investment Banking experience at JP Morgan and Credit Suisse
- Non-exec. director several biotech companies

#### Willy Simon Non-Executive Director



- Career as an executive in the banking and corporate finance sector and director of publicly listed companies
- Kredietbank N.V., Citibank, Generale Bank NL, CEO of Fortis Investment Management
- Chairman of Bank Oyens & van Eeghen, Partner at Redi &

### **SCIENTIFIC ADVISORY**

#### Howard Weiner, MD



- Professor of Neurology at Harvard Med
- Director and Founder of the Partners MS Center and Co-Director of the Ann Romney Center for Neurologic Diseases
- Pioneered investigation of the mucosal immune system for the treatment of autoimmune and other diseases

#### Kevin Herold, MD



- Professor of Immunobiology and Medicine and Deputy Director, Yale Center for Clinical Investigation
- Director of the Yale Diabetes Center and Director of the TrialNet Center at Yale
- Expert in autoimmune diseases and anti-CD3 monoclonal antibody therapies

#### **Arun Sanyal MD**



- Charles Caravati Distinguished Professor and Chair, Division of Gastroenterology, Hepatology and Nutrition at Virginia Commonwealth University School of Medicine
- Leader in the field of liver diseases

#### Napoleone Ferrara MD

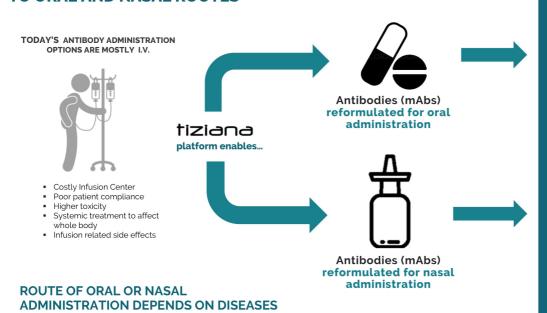


- Inventor of Avastin® (\$6.67Bn/yr)\*; 2010 Lasker Award
- Senior Deputy Director Basic Sciences, Moores Cancer Center,
- Distinguished Prof of Pathology, School of Medicine, UC San Diego



# A REVOLUTIONARY PLATFORM

**SWITCH** ANTIBODY ADMINSTRATION FROM INTRAVENOUS **TO ORAL AND NASAL ROUTES** 



# PATIENT & PROVIDER BENEFITS

Ease of use Superior compliance Topical action in gut Minimized toxicity Take home Rx No costly infusion

## THE LARGE MARKET OPPORTUNITY

Market opportunity for mAb therapeutics is **greater than** 

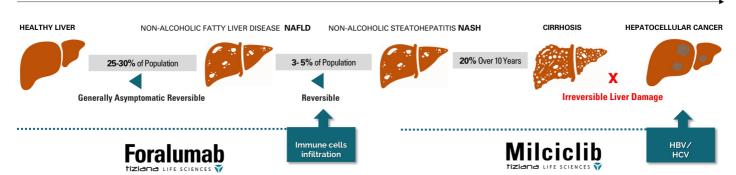




# THE MULTI BILLION DOLLAR MARKET FOR LIVER DISEASES AND CROHN'S DISEASE

#### **EXCESSIVE FAT DEPOSITS** LEAD TO LIVER INFLAMMATION

**INFLAMMATORY AND FIBROTIC PROCESSES** LEAD TO MALIGNANCY



#### Foralumab (Anti-CD3) for NASH and Crohn's Disease

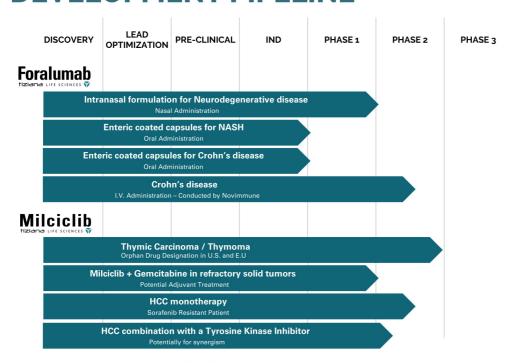
- NASH global market ~ \$35 B/year
- Crohn's Disease market: \$10B / year by 2025
- Oral/nasal treatment is a novel, completely differentiated approach
- Strong IP on the 'Revolutionary' approach with significant market potential

#### Milciclib for Liver Cancer

- HCC (\$1.5B /year by 2022): Medical need to have a safer and effective drug with higher responder rates
- Milciclib: An oral drug with completely differentiated MOA with long-term safety
- Superior safety profile



# **DEVELOPMENT PIPELINE**



Foralumab
TIZIATIVA THE SELECT TO BEGINNING
PHASE 2
Nasal Trial

Foralumab
TIZIATIVA THE SELECT TO PHASE 2a
COMPLETED
I.V. Trial

Milciclib
TIZIATIVA THE SELECT TO TOTAL

MILCICLIB
TIZIATIVA THE SELECT TOTAL
TIZIATIVA THE SELECT TOTAL

MILCICLIB
TIZIATIVA THE SELECT TOTAL
TOTAL

MILCICLIB
TIZIATIVA THE SELECT TOTAL
TOTAL
TOTAL

MILCICLIB
TIZIATIVA THE SELECT TOTAL
THE SELECT TOT





#### **NASAL ADMINISTRATION**

Phase 1 trial completed for related neurodegenerative diseases such as Progressive Multiple Sclerosis (Pro-MS) Phase 2 trial in Pro-MS to start shortly

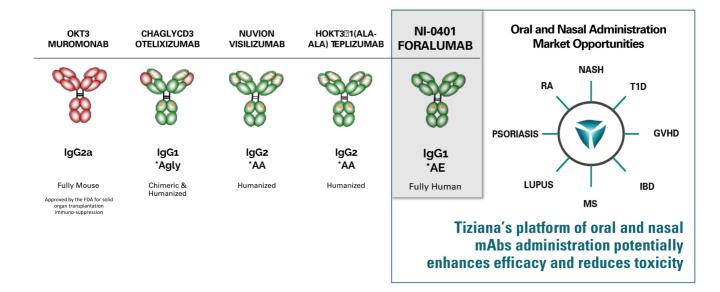


FDA has allowed initiation of clinical Phase 1 will be completed by 4Q, 2019.



# THE ONLY FULLY HUMAN ANTI-CD3 MAB

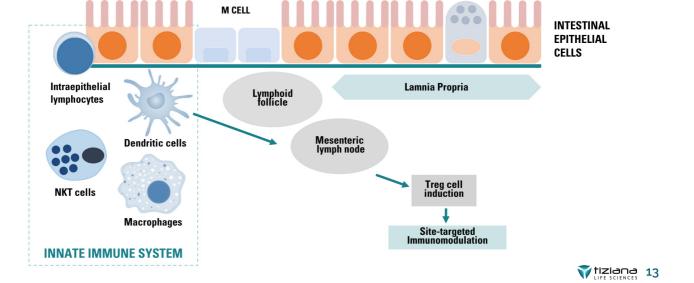
CD3-SPECIFIC MONOCLONAL ANTIBODIES IN CLINICAL DEVELOPMENT



# **HOW DOES OUR PLATFORM TECHNOLOGY WORK?**

**Gut Lumen** 

NOVEL APPROACH FOR SITE-TARGETED IMMUNOMODULATION



**PANETH CELL** 

# **ORAL AND NASAL FORMULATION PATENTS PENDING**

## Nasal administration of **Foralumab**

- Proof-of-concept demonstrated in animal studies
- Phase 1 study for neurodegenerative diseases at Brigham and Women's Hospital, Harvard Medical School; completed dosing, well-tolerated up to 250 µg
- ✓ Top line data expected August 2019
- ✓ In-licensed nasal delivery technology from Brigham and Women's Hospital, Harvard Medical School

### Patent covers Foralumab and other mAbs

#### **ANTI-CD3 ANTIBODY FORMULATIONS**

Applicant(s): Tiziana Life Sciences PLC Inventor(s): SHAILUBHAI, Kunwar

**US Non-Provisional Patent Application** No.:62/380,652, filed August 29, 2016 **PCT Application** PCT/US2017/049211, filed, Aug 29, 2017

#### Patent estate

- In-licensed exclusive license for composition of matter
- Composition of matter patent for oral formulation
- Additional patent applications pending
- Oral formulation technology applicable to other mAbs





# FINDINGS SUPPORT TIZIANA'S ORAL PLATFORM

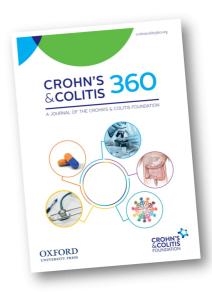
THIRD PARTY RESEARCHERS IN PEER-REVIEWED, CROHN'S & COLITIS 360\*

- Determined the immunologic effects and safety of orally delivered anti-CD3 antibody in patients with moderate-to-severe ulcerative colitis (UC)
- Six subjects received oral OKT3

#### **KEY FINDINGS**

- 1. The biologic response to treatment with oral anti-CD3 were increased proliferation and anti-inflammatory gene expression profile in peripheral blood mononuclear cells
- 2. 3 of 6 patients had a clinical response including one patient in clinical remission
- Treatment was well-tolerated with no serious treatment-related adverse events







# **PROOF-OF-CONCEPT IN NASH PATIENTS**

#### ORAL TREATMENT WITH MURINE ANTI-CD3 (OKT3) EFFECTIVE IN A PHASE 2 TRIAL WITH NASH1

STUDY DESIGN	SAFETY	IMMUNOLOGICAL	EFFICACY BIOMARKERS
<ul> <li>36 subjects with NASH and type II diabetes</li> </ul>	<ul> <li>Well tolerated by all patients in all groups</li> </ul>	<ul> <li>Increases in Treg markers consistent with induction of Tregs</li> </ul>	<ul> <li>Positive trends, some of which were statistically significant</li> </ul>
<ul> <li>Randomized, single-blinded, placebo-controlled</li> </ul>	<ul> <li>No systemic drug-related adverse events</li> </ul>	<ul> <li>Anti-inflammatory markers ↑</li> </ul>	<ul> <li>AST ↓ – liver enzyme indicating reduced liver inflammation</li> </ul>
<ul> <li>9 per group, not powered for statistical significance</li> </ul>	<ul> <li>No changes in vital signs, serum biochemistry and hematological</li> </ul>	<ul> <li>CD4+CD25+LAP+ Treg cells ,TGFβ</li></ul>	<ul> <li>Glucose ↓ – favorable for subjects with type-2 diabetes</li> </ul>
<ul><li>0.2, 1.0, 5.0 mg or placebo daily for 30 days</li></ul>	parameters during treatment or follow-up periods (30-days post- treatment)		<ul> <li>Insulin ↓ – favorable for subjects</li> </ul>
<ul> <li>Primary endpoints: safety and trends in immunomodulation</li> </ul>	<ul> <li>No changes in lymphocyte and CD+ cell counts</li> </ul>		with type-2 diabetes
<ul> <li>Secondary endpoint: indication or trend of efficacy through biomarkers</li> </ul>	<ul> <li>No changes in weight or BMI or HbA1C lipid GLP-1, or CRP levels in any of the groups</li> </ul>	OKT3 MAb to Patients with NASH, Promotes Regulatory T-c	
<ul> <li>Follow up: Days 0, 14, 30, 60</li> </ul>	in any or the groups	Phase IIa Blinded Placebo-Controlled Trial. Journal of Clinic	al Immunology, 35(4), 399-407.
<ul> <li>Hadassah Medical Center, Jerusalem Israel</li> </ul>			



# **FORALUMAB IS FUNCTIONALLY EQUIVALENT TO OKT3**

#### Oral Treatment prevents skin xenograft rejection in mice with human immune systems

Mineko Ogura, Songyan Deng, Paula Preston-Hurlburt, Hideki Ogura, Kunwar Shailubhai, Chantal Kuhn, Howard L Weiner, and Kevan C. Herold

Clinical Immunol, 2017. 183: 240-246

#### **KEY FINDINGS**

- 1. Foralumab is as potent as OKT3
- 2. Treatment is effective in humanized mice studies
- 3. Mechanism of action is via activation of Tregs that systemically circulate to elicit targeted immunomodulation





# POTENTIAL TO TREAT TYPE I DIABETES

New England Journal of Medicine\* provides clinical evidence for the potential use of a humanized anti-CD3 mAb for treatment of type 1 diabetes

#### **KEY FINDINGS**

- 1. Teplizumab (humanized OKT3), administered intravenously, significantly slowed progression to clinical Type 1 diabetes, with a median delay in the diagnosis of diabetes of 2 years
- 2. At the end of the trial, 57% of subjects treated with Teplizumab showed slowed progression to development of Type 1 diabetes, while 72% of the placebo-treated subjects progressed to clinical diabetes

'K. Herold, B. Bundy, S.A. Long, J. Bluestone, L. Dimeglio, M. Dufort, S. Gitelman, P. Gottlieb, J. Krischer, P. Linsley, J. Marks, W. Moore, A. Moran, H. Rodriguez, W. Russell, D. Schatz, J. Skyler, E. Tsalikian, D. Wherrett, A-G. Ziegler and C. Greenbaum. An Anti-CD3 Antibody, Teplizumab, in Relatives at Risk for Type 1 Diabetes," epub. NEJM.org June 9 2019





## **PROGRESS AND RECENT EVENTS**

# **Foralumab**

- **Beginning Phase 2 trial**
- Advancing the clinical development of orally-administered Foralumab for the treatment of NASH and Crohn's disease
- Proof-of-concept for oral administration with mAbs was provided by three independent third-party publications

#### 1 July 2019

Independent Third-Party Article in New England Journal of Medicine reports on Intravenous Treatment with a Humanized Anti-CD3 mAb showing delays in progression of Type | Diabetes

A recently published study in The New England Journal of Medicine titled, "An Anti-CD3 Antibody, Teplizumab, in Relatives at Risk for Type 1 Diabetes," demonstrates potential use of an anti-CD3 mAb in the prevention or treatment of Type 1 diabetes. Teplizumab is being developed by Provention Bio. The published study was funded by the National Institute of Health and others and was conducted by investigators at numerous institutions in the field of immunology and pediatrics including Yale University and Vanderbilt University.



## **PROGRESS AND RECENT EVENTS**

# Milciclib

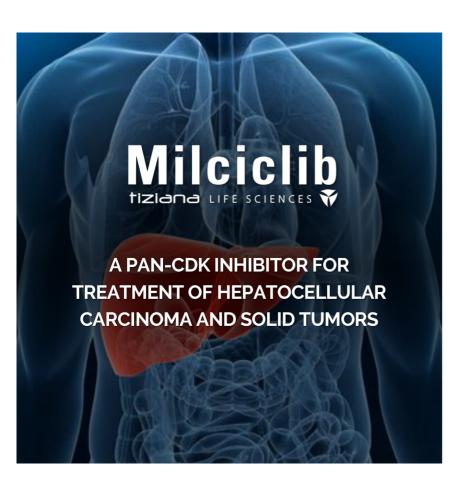
- Beginning Phase 2b
- Progressing the clinical development and obtaining regulatory approval for Milciclib, as a monotherapy in HCC and as a combination therapy for the treatment of refractory solid tumors (cancers which are non-responsive or become resistant to treatment)
- Efficacy and exploratory endpoint results from Phase 2a monotherapy trial available in September 2019

#### 22 July 2019

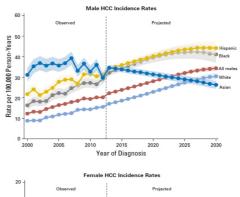
Tiziana Reports Phase 2a Clinical Data with Milciclib Monotherapy in Sorafenibrefractory or -intolerant patients with unresectable or metastatic Hepatocellular Carcinoma

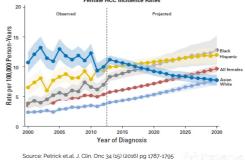
- Milciclib was well tolerated and no drug related deaths
- patients completing the 6-month study duration
- 9 patients continued treatment under compassionate use, of which 5 are currently continuing with treatment





# Incidence of HCC is steadily increasing in males and females and subpopulations in US

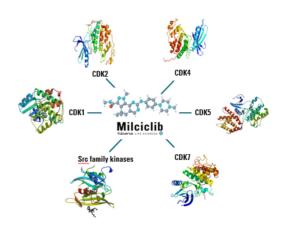






# **SMALL MOLECULE PAN-CDK INHIBITOR**

- Orally-bioavailable small molecule with potent anti-tumor activity in a wide range of animal models
- Inhibitor of kinases associated with cancer cell growth including CDK1, CDK2, CDK4 CDK5, CDK7 and src-family kinases
- Inhibits signaling pathways for hepatocarcinogenesis
- Well tolerated in 316 patients
- Improved toxicity profile over the current standard of care anticipated



A drug with completely differentiated MOA and long-term safety



# **CLINICAL DATA FROM MILCICLIB**

#### PHASE 2A TRIAL IN SORAFENIB-RESISTANT HCC PATIENTS

Trial design: Oral administration (100 mg/day). Total patients 30 to be enrolled. Duration 6 months

Primary end point: safety

Secondary end points: PFS, ORR & TTP **Exploratory: AFP and miRNA profiling** 

Compassionate use: Upon request of patients with EC approval

Trial complete: Data from 28 out of 31 evaluable sorafenib-resistant HCC patients

- 14 patients completed treatment as per protocol
- Nine approved for compassionate use. Four patients completed 9, 11, 13 and 16 months, respectively. Five patients continuing with the treatment at 8,9,9,9 and 11 months, respectively
- No drug related deaths in the trial
- Treatment was well-tolerated
- Adverse events were manageable
- MRI imaging and micro RNA profiling data available in September 2019



# THYMIC CARCINOMA AND THYMOMA **UPDATES**

- Two Phase 2 trials with Milciclib in US, Italy and France
  - o Trial 006: Thymic carcinoma and Thymoma mixed population (72 patients)
  - o Trial 007: Thymic carcinoma and Thymoma mixed population (30 patients)
- Rare cancers with very few cases: Orphan Disease Indications
- Positive clinical data
- Primary endpoint (progression free survival) and secondary endpoint (overall survival) met in both trials separately
- Thymic carcinoma is an aggressive metastatic cancer and it has no approved therapy
- Milciclib as a single agent met primary as well as secondary endpoints in thymic carcinoma in both trials
- Under compassionate use, few patients continued the treatment for over five years
- Seeking guidance from FDA/EMA regarding conditional marketing approval



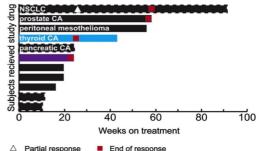
# MILCICLIB OVERCOMES DRUG RESISTANCE

PATIENTS RAPIDLY ACQUIRE RESISTANCE TOWARDS CHEMOTHERAPIES

#### **KEY FINDINGS**

- Milciclib well-tolerated with manageable side effects with refractory solid tumors
- Oral treatment in combination with gemcitabine demonstrated clinical activity in patients who were non-responder to existing chemotherapeutic drugs
- Recommended Phase 2 dose (RPD) found to be 3. 150 mg/day (7 day off/7day on cycle)
- Overall response rate was 36% 4.
- Results suggest further evaluation in other solid cancers either as monotherapy or combo-therapy

#### Phase 1 Dose-Escalation Study of Milciclib in **Combination with Gemcitabine in Patients with** Refractory Solid Tumors\*





Swimmerplot showing treatment duration. Tumor type was indicated for patients having a prolonged stable disease or a partial response. M Milciclib; G gemcitabine.

<sup>\*</sup> Cancer Chemotherapy and Pharmacology, June 2017, 79(6), 1257-1265



# PRECLINICAL PIPELINE

A FULLY HUMAN ANTI IL-6 RECEPTOR MAB

#### **TZLS-501**



Fully human anti-interleukin-6 receptor (IL-6R) monoclonal antibody (mAb) to treat inflammatory disease

#### **MECHANISM**

#### Interleukin-6 (IL-6) is a potent cytokine regulating cell growth, differentiation and immune responses.

Excessive production of IL-6 and its receptor IL-6R are key drivers of chronic inflammation and inflammatory disease

#### **INDICATIONS**

- Multiple Myeloma
- Could be used in combination with Foralumab for NASH and other autoimmune and inflammatory diseases such rheumatoid arthritis

#### **OPPORTUNITY**

- Anticipated to exert synergistic effect with Foralumab for inflammatory diseases
- >\$35 billion market

#### **COMPETITIVE EDGE**

Differs from other anti-IL-6R mAb's (e.g. tocilizumab), by acting not only on membrane-bound IL-6R, but also on soluble IL-6R, and is also able to deplete circulating levels of IL-6 in blood in blood

#### **IP/OWNERSHIP**

- Exclusive license from Novimmune (NI-1201)
- Method of use in combination with anti-CD3 patent pending



# **INTELLECTUAL PROPERTY PORTFOLIO**

FAMILY	SUBJECT	PRIORITY	STATUS	EXPIRES	JURISDICTION
Foralumab	Methods of Use (Autoimmune or Inflammatory diseases and disorders)	2004	Issued	2025	Australia, Canada, China, Hong Kong, Israel, Japan, Mexico, Norway, Singapore, South Africa, Ukraine, Armenia, Austria, Azerbaijan, Belgium, Belarus, Switzerland, Germany, Denmark, Spain, France, United Kingdom, Ireland, Italy, Kyrgysztan, Kazakhstan, Luxembourg, Moldova, Netherlands, Portugal, Russian Federation, Sweden, Tajikistan, Turkmenistan,
	Composition and methods of use	2004	Issued/ Pending	2025	US, Armenia, Australia, Austria, Azerbaijan, Belarus, Canada, China, Denmark, France, Germany, Hong Kong, India, Israel, Italy, Japan, Kazakhstan, Kyrgyzstan, Mexico, Moldova, Netherlands, Norway, Republic of Korea, Russian Federation, Singapore, South Africa, Spain, Switzerland, Tajikistan, Turkmenistan, and Ukraine Pending: Brazil, Japan (divisional), Singapore (divisional), Si (divisional)
	Methods of Use (In combination with anti-IL-6/IL-6R antibodies)	2011	Pending	2032	US
	Formulations and dosing regimen	2016	Pending	2037	US, Australia, Canada, China, Europe, Israel, Japan
	Methods of Use (CNS disorders)	2017	Pending	2038	PCT
	Methods of Use (gastrointestinal/autoimmune/inflammatory)	2018	Pending	2039	Provisional
T	Composition of matter, methods of use, process of manufacturing	2003	lssued/ Pending	2024	US, Europe, Eurasia, Africa, Algeria, Antigua & Barbuda, Argentina, Australia, Barbados, Bosnia & Herzegovina, Brazil, Canada, Colombia, Costa Rica, Croatia, Cuba, Ecuador, Egypt, Georgia, Iceland, India, Indonesia, Israel, Japan, Korea, Kosovo, Malaysia, Mexico, Mongolia, Montenegro, New Zealand, Nicaragua, Norway, Pakistan, Philippines, Serbia, Singapore, South Africa, Sri Lanka, Taiwan, Thailand, Trinidad & Tobago, Tunisia, Ukraine, Uzbekistan, Venezuela, Vietnam Pending: Several in US and other countries
Milciclib	Methods of use (multiple indications)	2008; 2009	Issued	2029; 2030	US, EU, China, Hong Kong, Japan
TZLS-201	Methods of use (combination therapies with cytotoxics)	2008; 2009	Issued	2029; 2030	US, EU, China, Hong Kong, Japan
	Compositions of related entities, formulations and methods of treatment	2009	Issued	2030	US, EU, China, Hong Kong, Japan
	Methods of use (combination therapies with therapeutic antibodies)	2006	Issued	2027	US, EU, China, Japan
	Formulations of Milciclib and therapeutic combinations of the same for use in the treatment of cancer	2017	Pending	2038	US, PCT
Anti IL-6/IL-6R Antibody TZI S-501	Composition of Matter and Methods of use	2009	Issued/ Pending	2029	US, Austria, Australia, Belgium, Canada, China, Denmark, France, Germany, Ireland, Italy, Japan Luxembourg, Mexico, Netherland, Spain, Sweden, Switzerland and UK . Pending: US (divisional), Japan (divisional), India



# **CATALYSTS**

PRODUCT	ACTION/OBJECTIVE	DATE
Foralumab	Report Phase 1 Nasal Dosing in Healthy Volunteers (Safety, Tolerability and Biomarkers of Immunomodulation)	August 2019
Foralumab	Initiate Phase 1 Oral Dosing of Foralumab in Healthy Volunteers	2H 2019
Milciclib	Report Top Line Safety, Efficacy and Exploratory End Point Data from Phase 2a Monotherapy Trial	2H 2019
Milciclib	Initiate Phase 2b Liver Cancer Study of Milciclib in Combination with a TKI	1H 2020
Foralumab	Report Phase 1 Oral Dosing of Foralumab in Healthy Volunteers (Safety, Tolerability and Biomarkers of Anti-inflammation)	1H 2020
Foralumab	Initiate Phase 2 in Crohn's disease and NASH with Oral Foralumab	2H 2020

# **PLANNED USE OF PROCEEDS**

Foralumab Program  Complete Phase 1 Oral Administration SAD Clinical Trial - Healthy Volunteers  Commence Phase 2 Nasal Administration Clinical Trial - MS Patients  *\$2.0 Mil		TOTAL ~\$ 3.0 Million
Foralumab Program  Complete Phase 1 Oral Administration SAD Clinical Trial - Healthy Volunteers  Commence Phase 2 Nasal Administration Clinical Trial  \$1.0 M	Other R&D Programs, Working Capital & Offering Expenses	~\$1.0 Million
Foralumab Program  Complete Phase 1 Oral Administration SAD Clinical Trial - Healthy Volunteers  *\$2.0 Mil		\$1.0 Millio
Foralumab Program ~\$2.0 Mil	- Healthy Volunteers	\$1.0 Millio
OBJECTVE CAPITAL ALLOCAT		~\$2.0 Million
	DBJECTVE	CAPITAL ALLOCATION

# **CAPITAL STRUCTURE**

	ADS EQUIVALENT
Ordinary Issued Shares	13,646,382
Warrants (WAEP: £11.60)	361,790
Options (WAEP: £16.51)	1,713,740
Fully Diluted Shares	15,721,912

\*Information prepared a of July 24, 2019 1 ADS represents 10 ordinary shares







An Innovative Platform in Oral and Nasal Antibody Administration

A Novel Approach for Treatment of Hepatocellular Carcinoma

Foralumab

Milciclib

TLSA: NASDAQ TILS: AIM

# **CONTACT US**

#### **US Headquarters**

Tiziana Life Sciences Inc 420 Lexington Avenue Suite 2525 New York, NY 10170

#### Research and Development Center

Tiziana Life Sciences Inc Pennsylvania Biotechnology Center of Bucks County 3805 Old Easton RD Doylestown, PA 18902-8400

#### **UK Headquarters**

Tiziana Life Sciences plc 55 Park Lane London W1K 1NA United Kingdom

+ 1 (917) 509 7491

info@tizianalifesciences.com www.tizianalifewsciences.com