WPD Pharmaceuticals

PRESENTATION FOR INVESTORS

CSE:WBIO

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Such results, studies or data may not be duplicable in the future. Certain expressions of results, studies or past discoveries may also be anecdotal and non-reproducible in future studies designed specifically to test the robustness, strength or veracity of such results, studies or data. No representation herein is designed to convey any claim regarding the safety or efficacy of any compound owned or licensed by the Company. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the future events and trends may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

Company Overview

WPD Pharmaceuticals is a diverse biotech company that has 8 novel drug candidates with 4 that are currently in clinical trials today with ongoing collaborations at MD Anderson Cancer Center, Mayo Clinic, Emory University, Wake Forest University and leading hospitals and academic centers in Poland.

Alongside direct investment of $60 million, over $29 million of grant funding (total of $89 million USD) has gone towards the development of our robust drug development pipeline with a focus on melanoma, brain cancer, leukemia and pancreatic cancer. Notably, these funds do not include $14 million USD in grants recently awarded to WPD Pharmaceuticals from The National Centre for Research and Development in Poland.

With a groundswell of multi-continental grant support and a diverse portfolio of breakthrough drug technologies, WPD Pharmaceuticals is now strategically positioned to enter the market with blockbuster potential.

Investment Highlights

Experienced Management & Advisors

Team of scientists with extensive pharmaceutical experience

Robust Drug Portfolio

8 novel drug candidates across 4 indicators

Strategic Partnerships

Wake Forest University Health Sciences, Moleculin Biotech Inc. and CNS Pharmaceuticals, Inc.

Rapidly Growing Operations

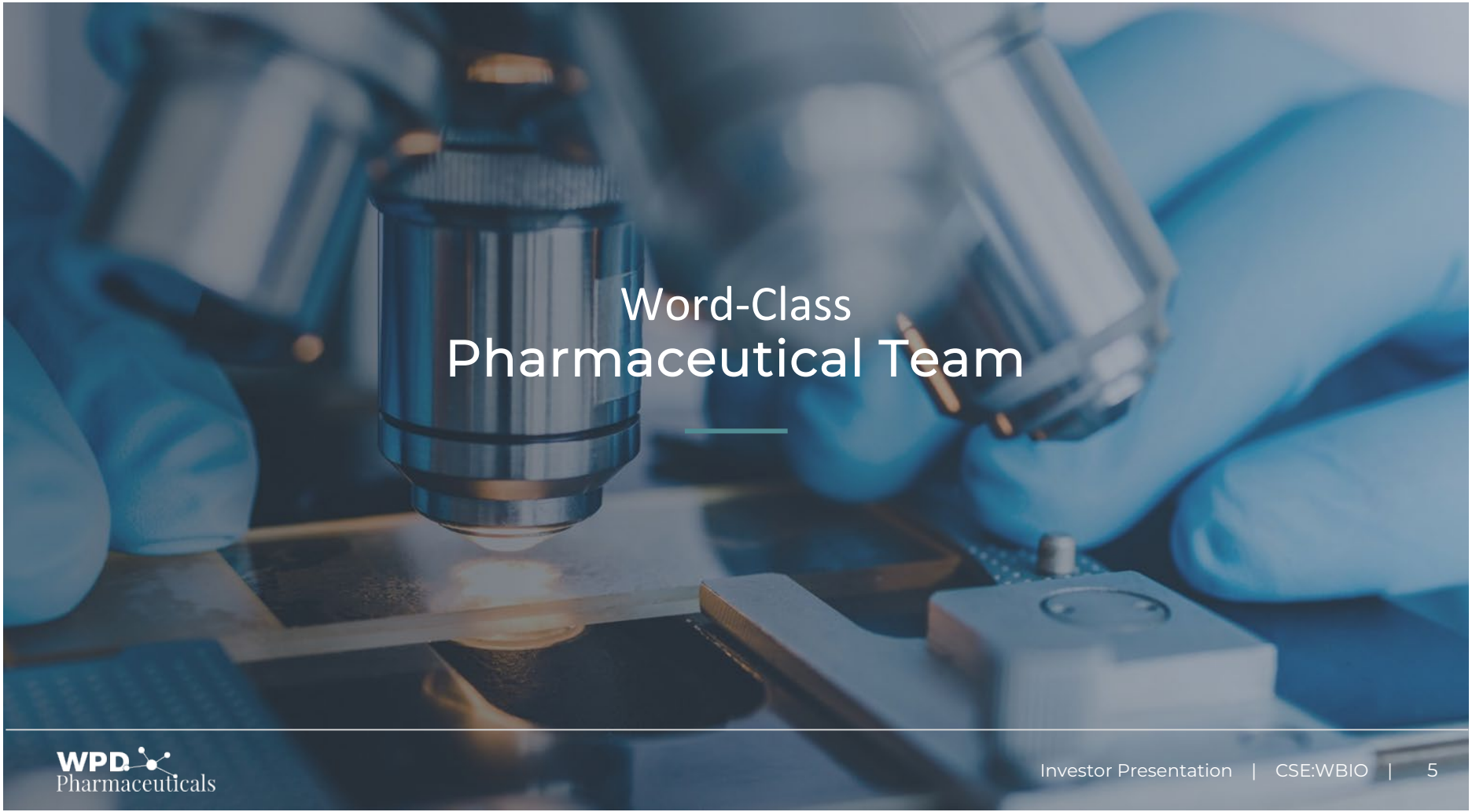
4 drug candidates in pre-clinical development, and 4 in clinical development

Tightly Held Share Structure

Management and Insiders hold ~ 36%

Attractive Valuation

Discount to industry peers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Pharmaceutical Team

Mariusz Olejniczak

CHIEF EXECUTIVE OFFICER

Mariusz Olejniczak, CEO of WPD Pharmaceuticals is an experienced professional in medicinal products, medical devices, supplements and plant protection products R&D at every stage - from planning and scientific advice through supervision to the closure and finalization of the project.

He is a founder of several start-ups in the e-health industry and a member of the board and supervisory board of several R&D companies. He was also responsible for the acquisition of Bioscience SA. (a CRO operating in Poland) by the Neuca group.

As a graduate in biotechnology at the University of Life Sciences in Poznań, he has developed his skills through postgraduate studies. He is author of the publication “Change of the product development model as an opportunity for the Polish pharmaceutical industry” (in Polish), a member of the editorial committee of the book “Clinical Trials” (in Polish) and a lecturer in post-graduate study programs.

Beata Pająk

CHIEF SCIENTIFIC OFFICER

Biotechnologist with experience in the field of medical biology, including: oncology, virology, pathophysiology of neurodegenerative diseases and skeletal muscle physiology. Expert in the field of signal pathways, mechanisms of programmed cell death, chemo- and immuno-resistance of cancer cells. Head and team member in research and implementation projects.

Author and co-author of publications and conference reports. Laureate of L'Oreal UNESCO "For Women and Science" and “Polityka” journal "Stay with us" scholarships, MNiSW Scholarship for Young Outstanding Scientists, 1st Award of the Hasco-Lek Foundation for the doctoral dissertation and Gedeon Richter company distinction “With a passion for the future”.

Walter **Klemp**

BOARD MEMBER

Mr. Klemp has 29 years of experience in start-up and high-growth companies, the past nine of which have been spent developing FDA-approved dermatology therapy devices and topical compounds.

Mr. Klemp has been the Founder and CEO for Moleculin Biotech, Inc. (Nasdaq: MBRX) since 2007 and also President and CEO of Zeno Corporation from 2004 to 2010, where he successfully developed and marketed a number of dermatology devices and drugs from concept through FDA approval. He is also a Founder and Executive Chairman of Soliton, Inc. (Nasdaq: SOLY), a medical device company started in 2012.

Previously, Mr. Klemp served as Founder, CEO and Chairman of Drypers Corporation, a publicly traded multinational consumer products company, from 1987 to 2000. At Drypers, Mr. Klemp developed growth strategies, orchestrated mergers and acquisitions, and grew the company from start-up to $400 million in annualized sales and to a #1 ranking on the INC 500. Notably, he has overseen nearly $750 million in public and private financings throughout his career.

Peter **Novak**

BOARD MEMBER

Mr. Novak is a 30-year veteran of the insurance and financial services industry, he is currently the General Agent of one of MassMutual's largest agencies with $4.8 billion in assets under management. He previously served as general agent to MassMutual's Rochester agency; co-general agent at The New England/Robinson Co. in Waterbury, Connecticut; and as an agent at the New York Life Insurance Company.

He is the co-founder of the Charter Oak Fund, Charter Oak's charitable arm, which supports numerous local philanthropic causes and organizations; the 2019 GAMA International Hall of Fame Inductee; a board member of GAMA International, as well as of GAMA's Executive Leadership Cabinet; an executive board member of The Kosciuszko Foundation; a board member at Quinnipiac University; Chairman of the Board of Quinnipiac university's Central European Institute (CEI); and an adjunct member of the University of Warsaw Alumni Association.

Dr. Waldemar **Priebe**

FOUNDER, CHAIRMAN OF SCIENTIFIC ADVISORY BOARD

Dr. Waldemar Priebe, Ph.D., is a world renowned medicinal chemist and entrepreneur. Dr. Priebe is a Professor of Medicinal Chemistry in the Department of Experimental Therapeutics at MD Anderson Cancer Center, Houston, TX.

Dr. Priebe is the inventor of more than 50 patents, the author of more than 200 scientific publications, and discoverer of five drugs that have reached clinical studies in humans. As the founder or founding scientist of 6 pharmaceutical companies, including three listed on Nasdaq, Dr. Priebe has been integral in advancing multiple drugs through the preclinical pipeline and clinical development.

Notably, Dr. Priebe was one of the founding scientists of Reata Pharmaceuticals, which has grown into a $5.5 Billion, Nasdaq listed, pharmaceutical powerhouse.

Dr. Sigmund **Hsu**

SCIENTIFIC ADVISORY BOARD

Dr. Sigmund Hsu has extensive experience in the evaluation and treatment of neurological disorders in cancer patients. He specializes in primary brain tumors as well as brain and spinal cord metastases, cancer neurology and the treatment of chemotherapy neurotoxicity. Dr. Hsu is a charter member of the Brain Tumor Network and has volunteered for several years for Run for the Rose, serving as the medical director from 2005-07.

Dr. Hsu has presented research at several national conferences, and his work has been published in numerous journals and textbooks. His most recent research has focused on novel therapies for recurrent primary CNS lymphoma, recurrent glioblastoma multiforme and intralumbar injections for cancer therapy, and he has several patents granted and pending for his treatments.

Tomasz **Rejman**

STRATEGIC ADVISORY BOARD

Mr. Rejman has held senior management positions at McKinsey, Allianz and Cersanit / Rovese managing over 6,000 employees and in charge of EUR $25 billion of revenue.

Mr. Rejman successfully turned around an underperforming division of Allianz with over $700 million in insurance premiums and lead the integration of a $600 million acquisition. Mr. Rejman has authored a book aimed at helping families of oncological patients and supports the Polish Oncological Association and Ministry of health in improvement of oncological patient care.

Dr. Tomasz **Sikorski**

SCIENTIFIC ADVISORY BOARD

Dr. Tomasz Skorski is currently a Professor at The School of Medicine at Temple University in Philadelphia, PA. He teaches in both the Department of Microbiology and Immunology, and the Fels Institute for Cancer Research and Molecular Biology.

His laboratory received continuous funding since 1999 from NIH (R01, R21, R29), Leukemia and Lymphoma Society (Scholar of the LLS, and research grants), Department of Defense, Leukemia Research Foundation, and Elsa U. Pardee Foundation.

Dr. Skorski has more than 25 years of experience in studying molecular mechanisms of leukemogenesis and in the past 18 years Dr. Skorkis's laboratory was focused on determination of the role of DNA repair mechanisms in acute (AML, ALL) and chronic (CML) leukemias and also in myeloproliferative neoplasms (MPNs) including the potential of therapeutic interventions.

Dr. Sandra L. **Silberman**

SCIENTIFIC ADVISORY BOARD

Dr. Sandra L. Silberman, M.D., Ph.D. is a Hematologist/Oncologist who earned her B.A., Sc.M. and Ph.D. from the Johns Hopkins University School of Arts and Sciences, School of Public Health and School of Medicine, respectively, and her M.D. from Cornell University Medical College, and then completed both a clinical fellowship in Hematology/Oncology as well as a research fellowship in tumor immunology.

Dr. Silberman has played key roles in the development of many drugs including Gleevec™, for which she led the global clinical development at Novartis. Dr. Silberman advanced several original, proprietary compounds into Phases I through III during her work with leading biopharmaceutical companies.

Dr. Donald **Picker**

SCIENTIFIC ADVISORY BOARD

Donald Picker, PhD, joined the Moleculin team in 2009 with over 35 years of drug development experience. At Johnson Matthey, Dr. Picker was responsible for the development of Carboplatin, one of the world's leading cancer drugs, acquired by Bristol-Myers Squibb and with annual sales of over $500 million. He also oversaw the development of Satraplatin and Picoplatin, third-generation platinum drugs currently in late-stage clinical development.

Dr. Picker has significant experience in dermatological pharmaceutical discovery and development as well, having led projects for topical therapies in psoriasis, atopic dermatitis and acne.


8 Drugs
5 Indications

	Discovery	Pre-Clinical	Regulatory	Clinical I / II
Brain Cancers		WPD101		Berubicin
				WP1066
Pancreatic Cancers			WP1066	
			WP1732	
Other Cancers	WPD103			Annamycin
				WPD1220
Melanoma	WPD102			

01

WPD101

Indications to Treat **Brain Cancers** including
Glioblastoma

WPD101

OVERVIEW

Cancer cells, including glioblastoma (GBM) tumor cells that are highly resistant to all known therapies, express tumor specific receptors, IL-13RA2 and EphA2 (these receptors are not present in normal cells). The breakthrough of WPD Pharmaceuticals' solution will be based on the use of therapy targeting IL-13RA2 and EphA2 receptors by genetically modified IL-13 and Ephrin 1 proteins, conjugated to Pseudomonas and Diphtheria bacteria toxins. Recombinant IL-13 and Ephrin 1 proteins armed with potent bacteria toxins preferentially bind to GBM tumor-specific receptors and deliver highly cytotoxic payload. This highly specific targeting of GBM cells will allow for selective elimination of tumor cells by bacteria-toxins-induced cytotoxic effects without affecting normal cells. Furthermore, the planned method of administering the drug to the tumor tissue will be an advantage over standard intravenous administration, resulting in the possible reduction of any potential side effects associated with standard chemotherapy. Development of WPD101 will allow GBM patients access to innovative molecular targeted therapies as an alternative to conventional treatment.

CLINICAL DEVELOPMENT

WPD101 is currently in preclinical development and its consistent anticancer properties are demonstrated and validated in dogs with spontaneous GBM closely resembling GBM in human patients. Overall, results of these studies indicate the significant potential of WPD101 demonstrating the same effective treatment of GBM in humans. Phase I of clinical trial is expected to begin in 2020.

INITIAL INDICATION

Primary focus on GBM and subsequently on other cancers with similarly high overexpression of IL-13RA2 and EphA2 receptors (for example uveal melanoma).

OTHER INDICATIONS

In addition to GBM, it is known that uveal melanoma cancer cells also express a high level of IL-13RA2 receptors. WPD Pharmaceuticals is going to develop WPD101 therapy in a uveal melanoma model, the localization of which allows local drug administration.

WPD101

GRANTS / FUNDING

- In February 2018, WPD was awarded an $6 million-dollar grant from the National Centre for Research and Development in Poland for the development of WPD101 that would include Phase I clinical studies in GBM tumors

REGULATORY

- WPD101 has not been submitted for FDA or EMA approval so far

PARTNERS, AFFILIATIONS & LICENSE

- Wake Forest Baptist Medical Center is a recognized, fully integrated academic medical center and health system located in Winston-Salem, North Carolina, USA
- North Carolina Baptist Hospital operates inpatient hospitals, community health centers, health maintenance organization, primary care centers and teaching hospital as a subsidiary of Wake Forest Baptist Medical Center
- WPD owns the exclusive global rights

MARKET OPPORTUNITY

With no other curative options available, we believe WPD101 may have the potential for accelerated approval as a safe and effective therapy for primary GBM and GBM recurrence tumors. Moreover, other types of cancer that will be confirmed as IL-13RA2- or EphA2-positive, could potentially be explored as WPD101 targets.

The expected market size is in excess of $1 Billion.

02

WPD102

Indications to Treat Uval Melanoma

WPD102

OVERVIEW

Uveal melanoma (UV), a rare but deadly cancer of the eye that often rapidly progresses to the liver is characterized by the expression of the tumor specific receptors IL-13RA2, which are not detected in normal cells, and which express mainly IL-13RA1. The breakthrough of WPD Pharmaceuticals' solution will be based on the use of targeted therapy against IL-13RA2 by genetically modified IL-13 conjugated to a cytotoxic load ("Warhead"). Recombinant cytokines preferentially bound to tumor-specific receptors will allow for highly specific targeting of UV cells and their further elimination due to chemically induced intracellular cytotoxic effects. What's more, the planned method of administering the drug directly to the tumor tissue will be an advantage over standard intravenous administration, thanks to which patients may avoid the side effects associated with standard chemotherapy. The Project's result should allow patients access to innovative molecular targeted therapies as an alternative to conventional treatment.

CLINICAL DEVELOPMENT

WPD102 is currently in preclinical development and based on the data obtained from in vitro studies using cancer cell lines, we see significant potential for WPD102 for the treatment of UV in humans. A Phase I clinical trial is expected to begin in 2021-22.

INITIAL INDICATION

Primary focus on primary UV and subsequently on liver UV lesions and related cancers with high overexpression of IL-13RA2.

OTHER INDICATIONS

In addition to local (into the eye) administration, WPD Pharmaceuticals is also going to develop therapy in intravenous administration form for progressive uveal melanoma and other cancer, whose cells also express a high level of IL-13RA2 receptors.

WPD102

GRANTS / FUNDING

- In February 2019, WPD started developing an updated scientific program and grant proposal for submission in 2019/2020

REGULATORY

- WPD102 has not been submitted for FDA or EMA approval so far

PARTNERS, AFFILIATIONS & LICENSE

- Wake Forest Baptist Medical Center is a recognized, fully integrated academic medical center and health system located in Winston-Salem, North Carolina, USA
- North Carolina Baptist Hospital operates inpatient hospitals, community health centers, health maintenance organization, primary care centers and teaching hospital as a subsidiary of Wake Forest Baptist Medical Center
- Clinic of Ophthalmology and Oncology Ophthalmology Jagiellonian University in Kraków, Poland
- WPD owns the exclusive global rights

MARKET OPPORTUNITY

With no other curative options available, we believe WPD102 may have the potential for accelerated approval as a safe and effective therapy for primary UV. Moreover, other types of cancer that will be confirmed as IL-13RA2, could potentially be explored as WPD102 targets.

The expected market size is in excess of $1 Billion.

03

Berubicin

Indications to Treat Glioblastoma

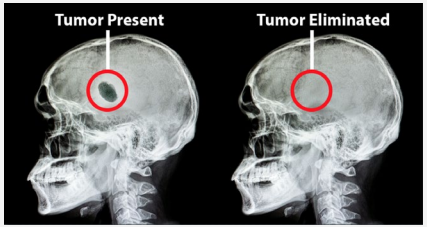
Berubicin

OVERVIEW

Berubicin is an exciting new drug that is one of the first anthracyclines proven to cross the blood brain barrier (BBB) and able to reach brain tumors. This discovery can potentially extend the clinical use of anthracyclines to brain tumors, specifically GBM.

CLINICAL DEVELOPMENT

Berubicin's Phase I clinical trial, the first time it was tested in humans, yielded very promising results with 44% of the patients showing a clinical response. In addition, Berubicin has shown evidence of improved overall survival in a patient population that currently has a dismal median survival rate of only 14.6 months from diagnosis.



Berubicin had one complete response to treatment during Phase I clinical trials. A "complete response" means no signs of cancer are visible on MRI.

Berubicin is expected to begin Phase II clinical trials in 2020

INITIAL INDICATION

GBM

OTHER INDICATIONS

WPD may also pursue the development of Berubicin to treat additional diseases, including pancreatic and ovarian cancers and lymphoma. WPD may also develop combination therapies that include Berubicin.

Berubicin

GRANTS / FUNDING

- In February 2019, WPD was awarded a $6 million-dollar grant from the National Centre for Research and Development in Poland for the continued development of Berubicin in adult and in pediatric population
- Previous grants and direct investments have totaled more than $25 million focused on developing Berubicin

REGULATORY

- Berubicin has previously received an Orphan Drug designation in the US, which provides seven years of marketing exclusivity.

PARTNERS, AFFILIATIONS & LICENSE

- Reata Pharmaceutical (Nasdaq: RETA) - $3 Billion- dollar Nasdaq listed company
- Houston Pharmaceuticals
- MD Anderson, leading cancer research center in the world
- CNS Pharmaceutical – co-development partner
- WPD owns the exclusive license to 30 countries in Europe and Asia and also Russia

MARKET OPPORTUNITY

With no other curative options available, we believe Berubicin may have the potential to become standard of care for GBM and other cancers.

04

WP1066

Indications to Treat CNS tumors, Pancreatic cancer, Ocular tumors

WP1066

OVERVIEW

WP1066 represents a new class of drugs, which WPD calls "Immune/Transcription Modulators." WP1066 and related analogs have not only demonstrated the ability to directly induce apoptosis (tumor cell death) but also the ability to stimulate an immune response to tumors allowing T-cells to attack tumor cells. These unique drug properties are a result of WP1066's ability to inhibit the activated form of STAT3, (p-STAT3). Furthermore, our studies demonstrated that these inhibitory effects are extended to downstream targets and include inhibition of antiapoptotic proteins and VEGF, factors responsible for the formation of new blood vessels (angiogenesis); and most importantly the ability to additionally inhibit two key oncogenic transcription factors, HIF-1α and c-Myc, that were considered either undruggable or very challenging drug targets.

CLINICAL DEVELOPMENT

Currently in a Phase I trial at MD Anderson for GBM and melanoma metastasized to the brain (WP1066 crosses the blood-brain barrier, or BBB); presently in the 3rd cohort of dose escalation evaluating safety and activity; planned surgical expansion to be able to assess tumor tissue directly after administration of WP1066 at the maximum tolerated dose (MTD) for direct confirmation of target inhibition

INITIAL INDICATION

Glioblastoma(GBM) and melanoma brain metastases. Due to the importance of STAT3 in AML, a subsequent initiation of clinical studies in AML patients is planned in 2019-20.

OTHER INDICATIONS

Additional indications include pancreatic cancer, lung cancer, renal cancer, melanomas resistant to BRAF inhibitors, breast cancer, and ovarian cancer.

WP1066

GRANTS / FUNDING

- WP1066 development has received over $8 million and grants and has had $15 million invested in furthering the technology and is expected to receive an additional $3 million in the next 24 months for Phase I and II clinical trials for WP1066 and related analogs

REGULATORY

- WP1066 has received an Orphan Drug designation in the US for the treatment of glioblastoma, which provides seven years of marketing exclusivity

PARTNERS, AFFILIATIONS & LICENSE

- MD Anderson, leading cancer research center in the world
- Moleculin Biotech, Inc. – co-development partner
- Children's Healthcare of Atlanta, Pediatric Neuro-Oncology Program, Emory University School of Medicine – Clinical studies of WP1066 in pediatric medulloblastoma, the most common malignant brain tumor in children,
- Mayo Clinic - Clinical Studies in diffuse intrinsic pontine gliomas (DIPG), a highly aggressive and difficult to treat brain tumor that affects almost exclusively children.
- WPD owns the exclusive license to 30 countries in Europe and Asia and also Russia

MARKET OPPORTUNITY

The expected market size is multiple billions.

05

WP1732

Indications to Treat

Pancreatic Cancer

WP1732

OVERVIEW

Based on preclinical testing, WP1732 is a potential breakthrough discovery, a new fully water-soluble p-STAT3 inhibitor technology complementary to orally bioavailable non-water-soluble WP1066. STAT3 inhibitors are an essential part of our efforts to develop new cancer treatments that effectively target highly resistant tumors. We believe this expanded array of effective STAT3 inhibitors could improve our ability to treat a broader range of the most difficult cancers, and especially pancreatic cancer. Specifically, we have preclinical evidence to suggest WP1732, our injectable new molecule, is capable of inhibition of oncogenic transcription factors similarly to orally administered WP1066.

We believe the significantly increased solubility of WP1732 may make it a good choice for administration via standard intravenous (IV) injection. Preclinical animal testing has also shown that WP1732 is capable of disproportionately high accumulation in the pancreas, making it a promising candidate for treating pancreatic cancer, one of the most resistant and deadly forms of cancer.

CLINICAL DEVELOPMENT

WPD through its development partner has begun planning and performing the preclinical work necessary to submit an IND for WP1732 and entered into an agreement with The University of Iowa Pharmaceuticals for the development of a formulation for WP1732.

INITIAL INDICATION

Pancreatic Cancer

OTHER INDICATIONS

Additional indications could include a wide range of tumors, including lung, stomach and head & neck cancers, as well as use in combination with checkpoint inhibitors and cytotoxic agents. Hematological malignancies are potential additional indications for intravenously (IV) administered WP1732.

WP1732

GRANTS / FUNDING

- WP1732 has benefitted from over $1 million in grants and subsequently sponsored research at MD Anderson Cancer Center and is expected to receive over $3 million in the next 24 months for Phase I and II clinical trials

REGULATORY

- IND-enabling toxicology work is progressing and expectations are to submit an IND in the US in 2019

PARTNERS, AFFILIATIONS & LICENSE

- MD Anderson, leading cancer research center in the world
- Moleculin Biotech, Inc. – co-development partner
- WPD owns the exclusive license to 30 countries in Europe and Asia and also Russia

MARKET OPPORTUNITY

The expected market size is in excess of $1 billion.

06

WP1220

Indications for **cutaneous T-cell lymphoma.**

WP1220

OVERVIEW

Cutaneous T-cell lymphoma (CTCL) is rare and difficult to recognize malignant tumor of the lymphatic system. The disease is caused by an uncontrolled increase in T lymphocytes located in the lymphatic system of the skin and often mistaken with psoriasis or eczema.

Factors regulating CTCL pathogenesis are still largely unknown, but STAT3 protein, a messenger and transcription factor responsible for CTCL cell proliferation and survival, has been identified as the primary target. STAT3 is the molecular stimulus that triggers CTCL tumor development and tumor-induced immune tolerance.

By targeting the signaling pathway consisting of many factors mediated by p-STAT3, survival, the response rate can be improved and the time to relapse/progression in CTCL patients can be significantly extended.

WP1220 is the first pSTAT3-targeted drug used in monotherapy for patients with CTCL and giving the opportunity to be used in other skin cancers and diseases associated with STAT3.

CLINICAL DEVELOPMENT

WP1220 is already clinical trials in Poland.

INITIAL INDICATION

Cutaneous T-cell lymphoma

OTHER INDICATIONS

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WP1220

PARTNERS, AFFILIATIONS & LICENSE

- MD Anderson, leading cancer research center in the world
- Moleculin Biotech, Inc. – co-development partner

MARKET OPPORTUNITY

The expected market size is in excess of $1 billion.

07

WPD**103**

Indications to Treat **GBM**, **Melanoma**, & Other Cancers

WPD103

OVERVIEW

WPD103 is a radiopharmaceutical based on the expression of tumor specific receptors, such as IL-13RA2 and EphA2, which are not detected in normal cells, which express mainly IL-13RA1 and Eph-RA1 proteins. The breakthrough of WPD Pharmaceuticals' solution is expected to be a new diagnostic tool and targeted therapy against IL-13RA2 and EphA2 receptors by genetically modified IL-13 and Ephrin 1 cytokines, conjugated to radionuclides. Recombinant cytokines preferentially bound to tumor-specific receptors will allow for highly specific targeting of cancer cells and their further elimination due to radiation induced cytotoxic effects. The Project's result should allow patients access to an innovative molecular diagnostic tool and, later, targeted therapies as an alternative to conventional treatment. The solution falls within the scope of theranostics, a novel approach combining diagnostics with cancer therapy.

CLINICAL DEVELOPMENT

WPD103 is currently in preclinical development and based on the data obtained from *in vitro* studies using cancer cell lines and WPD101 in spontaneous GBM dog model studies, we see significant potential for WPD103 in diagnostics and therapy in humans. Phase I clinical trial is expected to begin in 2022-23.

INITIAL INDICATION

Primary focus on cancers with high overexpression of IL-13RA2 (for example melanoma lesion in liver).

OTHER INDICATIONS

In addition to GBM and melanoma, pancreatic, breast and colon cancer cells also express a high level of IL-13RA2 receptors. WPD Pharmaceuticals is going to develop WPD103 as a diagnostic tool first and targeted therapy in progressed melanoma later.

WPD103

GRANTS / FUNDING

- In July 2018, WPD started developing a scientific program and grant proposal for submission in 2019/2020

REGULATORY

- WPD103 has not been submitted for FDA or EMA approval so far

PARTNERS, AFFILIATIONS & LICENSE

- Wake Forest Baptist Medical Center is a recognized, fully integrated academic medical center and health system located in Winston-Salem, North Carolina, USA
- North Carolina Baptist Hospital operates inpatient hospitals, community health centers, health maintenance organization, primary care centers and teaching hospital as a subsidiary of Wake Forest Baptist Medical Center
- Lower Silesian Center of Oncology in Wroclaw, Poland
- WPD owns the exclusive global rights

MARKET OPPORTUNITY

With no other curative options available, we believe WPD103 may have the potential for an early approval and to become a highly effective and safe therapy for different types of tumors.

The expected market size is in excess of $1 Billion.

08

Annamycin

Indications to treat **AML**,
metastasis to **lungs**

Annamycin

OVERVIEW

Annamycin belongs to the group of anthracyclines, considered one of the most effective groups of oncological drugs. Unlike clinically used anthracyclines, Annamycin, thanks to modifications in the drug structure, effectively penetrates cancer cells, regardless of the presence of MDR proteins, while maintaining high safety and lack of cardiotoxicity. L-ANN mechanism of action is based on the fixation of cracks in DNA leading to cell apoptosis and suppression of TOPO-II repair activity, which is highly active in cells with high proliferative potential.

Annamycin was originally developed for the treatment of relapsed or refractory acute myeloid leukemia or AML and has been tested in 6 prior clinical trials where 114 patients were treated. Moreover, a low incidence of side effects, especially cardiotoxicity, is observed with L-ANN administration, which is a unique feature among anthracyclines.

Lately, preclinical studies have shown that very high Annamycin concentration in the lungs (6-10 times higher than in plasma) correlates with high drug activity against lung tumors. That is why Annamycins was selected as a promising drug in the treatment of solid tumors metastasis to lungs.

CLINICAL DEVELOPMENT

Annamycin is now administrated in two separate Phase I/II clinical trials in AML, one in the US and one in Poland. Moreover, it is in preclinical development onsolid tumors. The clinical study on Annamycin in the treatment of solid tumors metastasis to lungs is planned to start in 2021/2022.

INITIAL INDICATION

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OTHER INDICATIONS

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Annamycin

GRANTS / FUNDING

- TBD

REGULATORY

- Liposomal Annamycin is now in the clinical development for the treatment of AML in Europe and US.

PARTNERS, AFFILIATIONS & LICENSE

- MD Anderson, leading cancer research center in the world
- Moleculin Biotech, Inc. – co-development partner
- WPD owns the rights to chosen countries.
- North Carolina Baptist Hospital operates inpatient hospitals, community health centers, health maintenance organization, primary care centers and teaching hospital as a subsidiary of Wake Forest Baptist Medical Center
- Clinic of Ophthalmology and Oncology Ophthalmology Jagiellonian University in Kraków, Poland
- WPD owns the exclusive global rights

MARKET OPPORTUNITY

With no other curative options available, we believe WPD102 may have the potential for accelerated approval as a safe and effective therapy for primary UV. Moreover, other types of cancer that will be confirmed as IL-13RA2, could potentially be explored as WPD102 targets.

The expected market size is in excess of $1 Billion.

Corporate Overview

WPD Pharmaceuticals Inc.

CSE: WBIO

Capital Structure

Issued and Outstanding	111,520,388
Warrants	3,949,997
Fully Diluted	115,470,385
Management and Insider holdings	36%

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