UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K/A

CURRENT REPORT
Pursuant to Section 13 or 15(d) of
the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): January 23, 2017

DIFFUSION PHARMACEUTICALS INC.

(Exact name of registrant as specified in its charter)

Delaware	**000-24477**	**30-0645032**
(State or other jurisdiction of incorporation)	(Commission File Number)	(I.R.S. Employer Identification No.)

2020 Avon Court, #4 **Charlottesville, Virginia**	**22902**
(Address of principal executive offices)	(Zip Code)

(434) 220-0718
(Registrant's telephone number, including area code)

Not applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

EXPLANATORY NOTE

This Amendment No. 1 on Form 8-K/A (this "Amendment") is an amendment to the Current Report on Form 8-K of Diffusion Pharmaceuticals Inc. (the "Company"), filed on January 26, 2017 (the "Initial 8-K"). The Company is amending the Initial 8-K to include the revised and additional language related to Item 7.01 and Exhibit 99.1, which is being refurnished herewith.

Any information required to be set forth in the Initial 8-K which is not being amended or supplemented pursuant to this Amendment is hereby incorporated by reference. Except as set forth herein, no modifications have been made to information contained in the Initial 8-K, and the Company has not updated any information contained therein to reflect events that have occurred since the date of the Initial 8-K. Accordingly, this Amendment should be read in conjunction with Item 5.03 contained in the Initial 8-K, which has remained unchanged.

Item 7.01 Regulation FD Disclosure.

Attached as Exhibit 99.1 and furnished for purposes of Regulation FD is an investor presentation.

The information in Item 7.01 of this Current Report on Form 8-K (including Exhibit 99.1) is being furnished solely to satisfy the requirements of Regulation FD and shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed to be incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act.

Additional Information

This announcement is neither an offer to sell, nor a solicitation of an offer to buy, any securities and shall not constitute an offer, solicitation or sale in any jurisdiction in which such offer, solicitation or sale is unlawful. The securities described herein have not been and will not be registered under the Securities Act of 1933, as amended, or any state securities laws, and unless so registered, may not be offered or sold in the United States except pursuant to an exemption from the registration requirements of the Securities Act of 1933, as amended, and applicable state securities laws.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit Number	Description
99.1	Diffusion Pharmaceuticals Inc. Presentation.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: January 27, 2017

DIFFUSION PHARMACEUTICALS INC.

By: /s/ David G. Kalergis
Name: David G. Kalergis
Title: Chief Executive Officer

Forward-Looking Statements

Diffusio$_2$n Pharmaceuticals Inc.

This presentation contains forward-looking statements within the meaning of U.S. securities laws that are intended to be covered by the safe harbors created by those laws. These statements include, but may not be limited to, our operating and growth strategy, including our product development plans. Such statements may be identified by the use of forward-looking terminology, such as "may," "will," "could," "should," "believe," "expect," "future," "potential," "anticipate," "intend," "plan," "estimate," or the negative or other variations of these words or comparable terminology. The outcome of the events described in these forward-looking statements is subject to significant risks, including those disclosed in our periodic reports filed with the Securities and Exchange Commission. Actual results could differ materially from the forward-looking statements made in this presentation. Although we believe that the assumptions underlying the forward-looking statements are reasonable, any assumptions could be inaccurate, and therefore, there can be no assurance that the forward-looking statements included in the this presentation, will prove to be accurate. In light of the significant uncertainties inherent in the forward-looking statements included herein, the inclusion of such information should not be regarded as a representation by the Company or any other person that the objectives and plans of the Company will be achieved. Further, we undertake no obligation to revise such forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

Offering Summary

Diffusion Pharmaceuticals Inc.

Name of Issuer	Diffusion Pharmaceuticals Inc. (NasdaqCM: DFFN)
Minimum / Maximum Offering	$5 million / $15 million (may be increased to $25 million upon DFFN's and Maxim Group's mutual agreement)
Type of Security	Series A Convertible Preferred Stock
Offering Price	Lower of (i) $2.80 per share or (ii) the price equal to a 30% discount to the 10 day VWAP a/o day before initial closing
Dividends	8% Cumulative, Preferred Dividend paid Semi-annually in Common Stock
Warrants	Five-year Warrant exercisable for one share of Common Stock, exercisable at 110% of Offering Price
Make-Whole Adjustment	If DFFN raises more than $10 million over the next 3 years at a share price less than the Offering Price, DFFN will then issue a number of shares of Common Stock equal to the additional number of shares of Common Stock that such shares of Preferred Stock would be convertible into if the conversion price of the Preferred Stock was equal to 105% of the Make-Whole Price
Use of Proceeds	Research & Development and General Corporate Purposes
Placement Agent	Maxim Merchant Capital, a division of Maxim Group LLC

Diffusion Pharmaceuticals Inc.

Better Treatments for Cancer

David Kalergis, CEO
dkalergis@diffusionpharma.com

January 26, 2017
www.diffusionpharma.com

Combating Cellular Oxygen Deprivation to Treat Unmet Medical Needs

Diffusio$_2$n Pharmaceuticals Inc.

- First-in-class small molecules that safely re-oxygenate oxygen deprived (hypoxic) tissue by a novel mechanism; acts alone or with other treatments
- Multiple opportunities in unmet medical needs across $ billion markets
- Initial oncology focus uses lead molecule TSC to enhance the efficacy of radiation and chemotherapy:
  - Glioblastoma brain cancer; Phase 2 successfully completed, Phase 3-ready design guided by FDA; Granted Orphan Drug Designation
  - Metastatic pancreatic cancer; Phase 2 program design guided by FDA and world experts
  - Metastatic brain cancer; Granted Orphan Drug Designation
- Other Phase 2-ready hypoxia-related follow-on indications, supported by compelling clinical and preclinical data:
  - Peripheral arterial disease; Phase 2 study successfully completed
  - Stroke, myocardial infarction and emergency medicine
  - Respiratory diseases, including COPD
  - Neurodegenerative diseases
- IP patent portfolio protection through 2031
- Experienced management, directors, advisors and key investors

Management & Board of Directors

Diffusio$_2$n Pharmaceuticals Inc.

Executive Management

David Kalergis, JD/MBA -- CEO, Chair & Co-Founder
Life sciences serial entrepreneur, former Principal and General Counsel PRA International

John L. Gainer, PhD -- CSO & Co-Founder
Professor Emeritus University of Virginia, Chemical Engineering, Inventor of our TSC Technology

David Jones, MD -- CMO
Director of Thoracic Oncology Program at Memorial Sloan Kettering Cancer Center, Principal Investigator in 17 oncology clinical trials

Thomas Byrne, MS, JD -- General Counsel
Genentech, Amgen, Yale University, UVA

Ben Shealy, CFA, MBA -- SVP Finance
John Hancock buy side, DLJ sell side, VP M&A Corporate Software Rebar

Board of Directors/Key Shareholders

David Kalergis, JD/MBA -- CEO, Chair & Co-Founder

Isaac Blech -- Director/Vice Chair/Key Shareholder
World Class Biotechnology Entrepreneur; founded leading companies Celgene, ICOS, Pathogenesis, Genetic Systems.

John L. Gainer, PhD -- CSO & Co-Founder

Alan Levin -- Director
Pharma Financial Executive, Former EVP & CFO of Endo Health Solutions, Former SVP & CFO of Pfizer

Robert Adams, JD -- Director
Former partner at Nixon & Vanderhye, Specialty US Patent and International Patent Licensing

Mark T. Giles, JD -- Director
Sole managing member of private investment company, Former chair & CEO of Virginia National Bank

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Sol Barer, PhD -- Shareholder
Former CEO & Chairman of Celgene Corporation, Current Chairman of Centrexion, Edge Therapeutics.

Frank Yu -- Shareholder
Founder and CEO, Ally Bridge Group, a leading China-global cross-border healthcare-focused investment group.

World Class Advisors

Diffusio$_2$n Pharmaceuticals Inc.

Diffusion Pharmaceuticals' Scientific Advisory Board

Guy M. Chisolm, PhD, SAB Chair
Professor, (ret.) Department of Cellular and Molecular Medicine; Vice Chair of Lerner Research Institute at Cleveland Clinic

Gene H. Barnett, MD., MBA, FACS
Director, Rose Ella Burkhardt Brain Tumor and Neuro-Oncology Center, Cleveland Clinic Neurological Institute

William R. Hiatt, MD
Professor for cardiovascular research at the University of Colorado School of Medicine, Division of Cardiology with a clinical and research focus in vascular medicine

Karen C. Johnston, MD, MSc
Harrison Distinguished Professor, Chair of Neurology at University of Va. Leads Phase III Shine ischemic stroke trial

Jeffrey L. Saver, MD, FAHA, FAAN, FANA
Director of the UCLA Stroke Unit, and Professor and SA Vice-Chair of Neurology at the David Geffen School of Medicine

Kathleen A. Welsh-Bohmer, Ph.D., ABPP-CN
Director of the Joseph and Kathleen Bryan Alzheimer's Disease Research Center (Bryan ADRC) at Duke Medical Center

Scientific & Clinical Advisors (Cancer Program)

Daniel Von Hoff, MD
Physician in Chief and Director of Translational Research at TGen in Phoenix. Chief Scientific Officer for US Oncology and for Honor Health's Clinical Research Institute

Aimery de Gramont, MD, PhD
Founder, driving force and chairman of the French ARCAD Foundation. Head of the Internal Medicine / Oncology department at Saint-Antoine Hospital in Paris

Josep Tabernero, MD
Head of the Medical Oncology Department of Vall d'Hebron University Hospital, Director of Clinical Research at VHIO

Clet Niyikiza, PhD
Previous Eli Lilly, GSK, Merrimack Pharma

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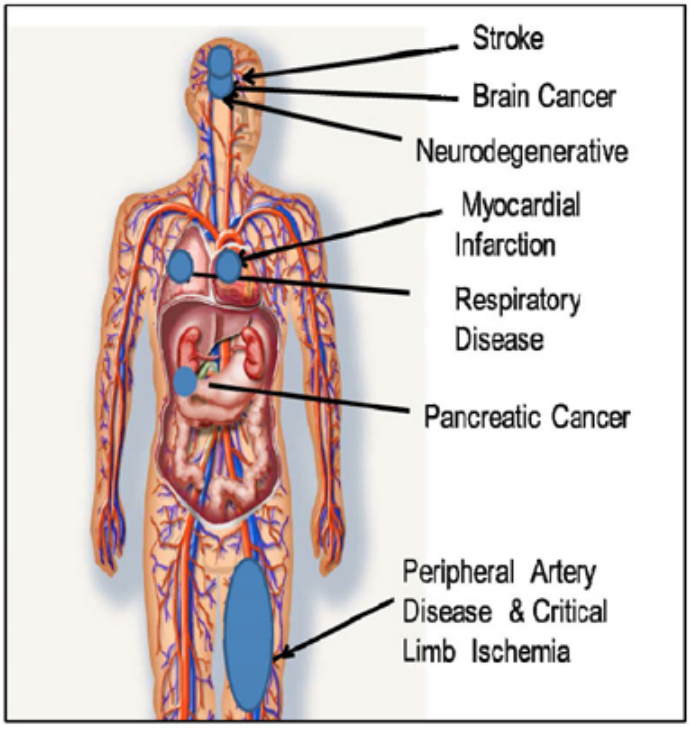
Target Markets

Hypoxia-related conditions, with an initial focus on oncology

Hypoxia: Cellular Oxygen Deprivation

Diffusio$_2$n Pharmaceuticals Inc.

- Insufficient oxygen supply ("hypoxia") to the body or a region of the body causes major clinical problems in many life-threatening diseases
- Hypoxia is an especially critical obstacle in the treatment of cardiovascular and respiratory diseases, as well as in cancer
- A successful new approach to treating hypoxia would open numerous unmet medical needs in $ billion markets



Hypoxia in Cancer

Diffusio$_2$n Pharmaceuticals Inc.

- A common feature of many solid cancers
- Caused by tumors outgrowing their blood supply
- Through HIF1α up-regulation, hypoxia is associated with many negative effects that lead to aggressive tumor phenotypes
  - Increased angiogenesis
  - Increased metastatic potential
  - Increased resistance to treatment
    - Cytotoxic therapy
    - Radiation therapy
- TSC re-oxygenates hypoxic tissue systemically, including cancerous tissue

Target Markets: Size and Scope

Diffusio$_2$n Pharmaceuticals Inc.

Cancers known to have hypoxia-related treatment-resistance:

Glioblastoma Multiforme

Worldwide Market $1B +
12,000 Patients in the USA
28,000 Patients worldwide

Pancreatic Cancer

Worldwide Market $3B +
49,000 Patients in the USA
100,000 Patients worldwide

Metastatic Brain Cancer

Worldwide Market $5B +
170,000 Patients in the USA
375,000 Patients worldwide

Other hypoxic cancers include breast, lung and ovarian

Source of demographic/market data: Cowen & Co., Therapeutics Categories Outlook, Feb 2015

China Opportunity

Diffusio$_2$n Pharmaceuticals Inc.

With increasing incidence and mortality, cancer is the leading cause of death in China and is a major public health problem.

4.3 million new cancer cases in 2015

12,000 newly diagnosed invasive cancer cases per day

2.8 million cancer deaths in 2015

7,500 people die every day from cancer

Almost 22 percent of global new cancer cases and 27 percent of global cancer deaths occur in China

Source: Chen W, Zheng R, Zhang S, et al. Cancer Statistics in China, 2015. CA: Cancer J. for Clin. 2016.

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TSC Technology, Pipeline & Mechanism

TSC: First-in-Class New Chemical Entity Targeting Hypoxia

Diffusio$_2$n Pharmaceuticals Inc.

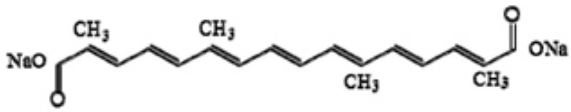
The Problem: Hypoxia is underlying cause of fatality or morbidity in numerous unmet medical needs

The Solution: *Oxygen diffusion enhancing compounds* that selectively regulates oxygen's pathway through the body by a novel MOA

Optimized lead compound: Trans Sodium Crocetinate (TSC)

- Synthetic small molecule designed to enhance the diffusion of oxygen selectively into hypoxic tissue

TSC is one of a new class of compounds called Bipolar Trans Carotenoid Salts. TSC is the most advanced of these compounds, having been studied in 3 completed clinical trials with 2 more clinical trials planned.



Brief History of TSC

Diffusio$_2$n Pharmaceuticals Inc.

New Chemical Entity with Novel Mechanism of Action that Enhances Oxygen Diffusion to Hypoxic Regions in Many Disease Settings

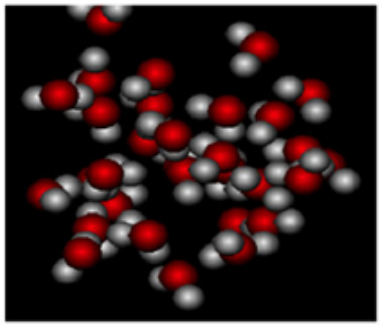
- ✓ TSC developed at University of Virginia (USA) by Professor John Gainer, Diffusion Pharma's Co-Founder
- ✓ Initially developed under a grant from US Office of Naval Research as an emergency treatment for battlefield casualties suffering life-threatening hypoxia from blood-loss
- ✓ Transitioned to oncology clinical trials as a first focus, based on promising pre-clinical and human safety and efficacy data

TSC's Mechanism of Action

Diffusio$_2$n
Pharmaceuticals Inc.

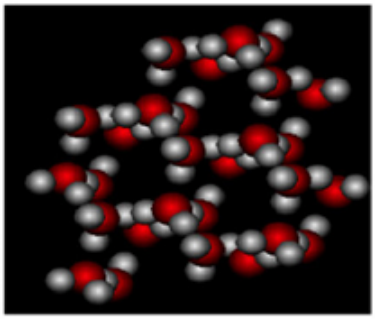
- First modern drug compound designed to harness the "**cosmotropic" effect** to impart systemic therapeutic benefit
  - When added to an aqueous solution such as blood plasma, cause the aqueous molecules to form more hydrogen bonds with each other
- Additional hydrogen bounds change arrangement of molecular structure of the aqueous portion of blood plasma
  - Oxygen can more easily diffuse into hypoxic tissue due to more open structural arrangement

Denser molecular structure → (additional hydrogen bonds) → more open molecular structure



Blood Plasma
+
TSC

Denser molecular structure of aqueous blood plasma impedes O_2 diffusion; more open structure enhances it



Mechanism of Action Validated

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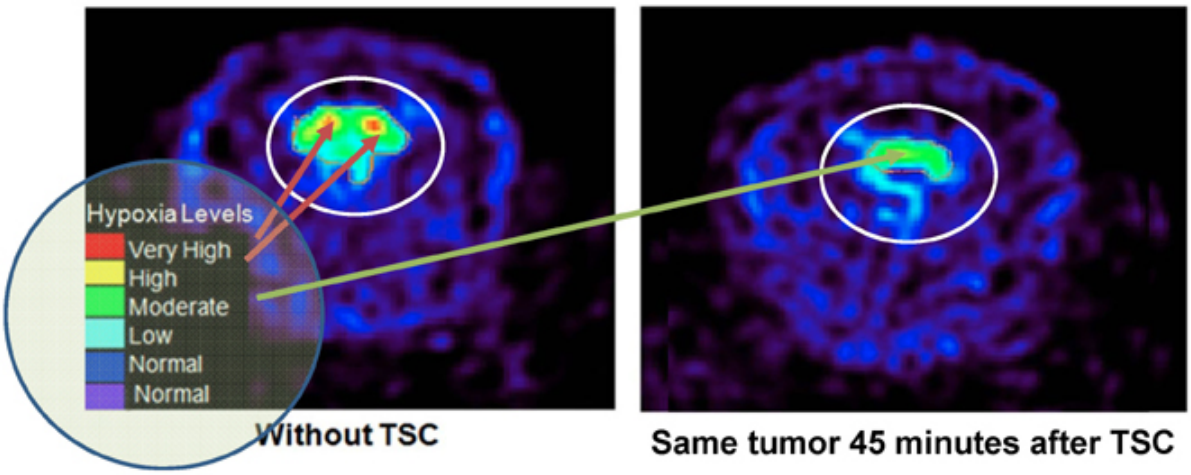
- Computer simulation studies demonstrate enhanced diffusion of oxygen
- In vitro studies demonstrate enhanced hydrogen bonding
- Direct oxygen measurement in tissue with PET, LICOX, TCOM
- Hypoxia-related animal models demonstrate improvements in key parameters
- Phase 2 proof of concept trials in PAD and oncology demonstrate favorable safety profile, clinical efficacy, and optimal dosing regimens
- Phase 3 ready

TSC Reduces Brain Tumor Hypoxia

Allows better results with radiation and chemotherapy

Diffusio$_2$n Pharmaceuticals Inc.

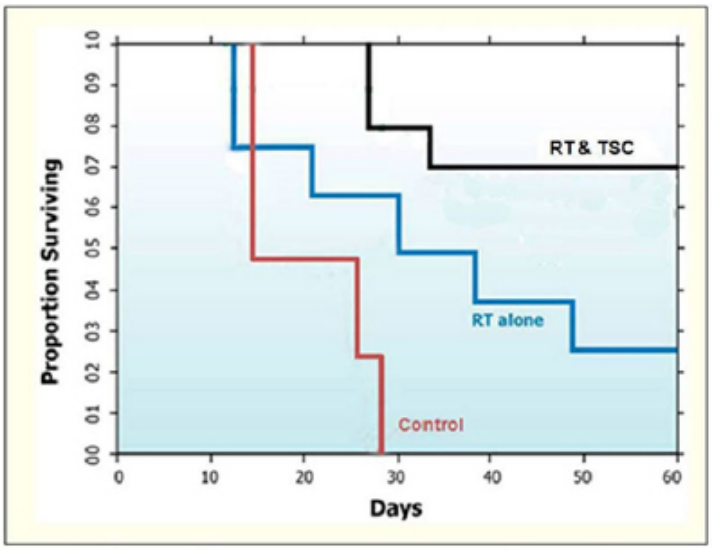


PET scan showing hypoxia levels in rat brain tumor, before and after TSC.

TSC with Radiation Therapy Triples Survival in Animal Models

Diffusio$_2$n Pharmaceuticals Inc.

- Rat glioblastoma cells implanted in rat brains
- On day 10, rat brains received radiation therapy
- TSC increased survival from 28% to 73%
- Tumor remission seen in TSC survivors



Sheehan J, et al. Trans sodium crocetinate sensitizes glioblastoma multiforme tumors to radiation. *J Neurosurg* 108:972-978, 2008.
See also, **Sheehan J, et al**, TSC with Radiation and Temozolomide; *J Neurosurg 113:234-239, 2010.*

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Pharmaceuticals Inc.

Oncology Clinical Programs

First Targeting Treatment Resistance in Solid Cancers Using TSC

Glioblastoma Multiforme

Pancreatic Cancer

Metastatic Brain Cancer

TSC in Clinical Trials

Diffusio$_2$n Pharmaceuticals Inc.

About TSC

- Administered via bolus IV
- Tested in 148 human subjects in Phase 1 & 2 trials
- No dose-limiting side effects or serious adverse events reported
- CMC: Phase 3 scale-up in process
- FDA: Two open INDs (Cardio-Renal and Oncology)
- FDA Orphan Drug Designation granted in multiple indications

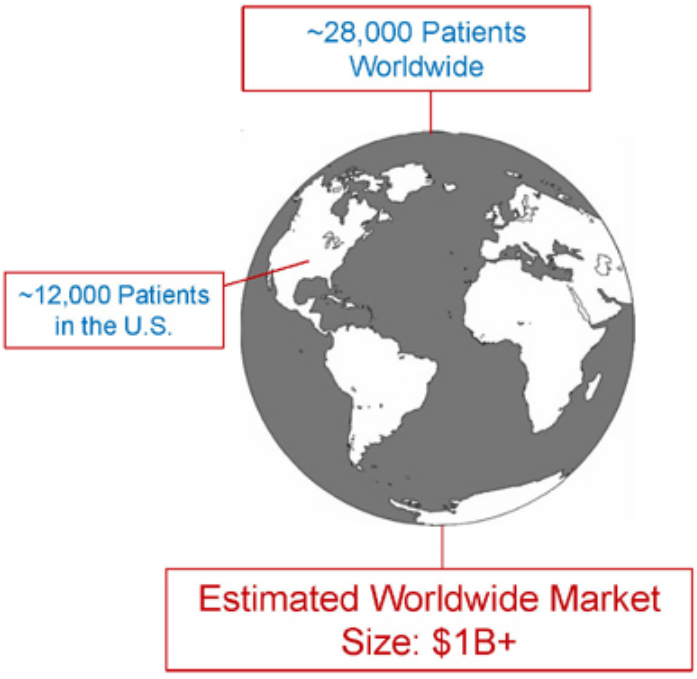
TSC Advantages

- Cosmotropic: Imparts greater molecular order to blood plasma
- Facilitates diffusion of oxygen into hypoxic tissue
- Mechanism does not require blood brain barrier penetration
- Does not hyper-oxygenate normal tissue
- Safely treats hypoxia-related conditions such as stroke and respiratory
- Increases tumor-killing power of radiation and chemotherapy

Glioblastoma Market Overview

Diffusio$_2$n Pharmaceuticals Inc.

- Life-threatening cancer of glial cells in the brain with an average life expectancy post-diagnosis < 2 years
- Standard of care is radiation and chemotherapy (temozolomide)
- One of the most hypoxic cancers, causing significant resistance to both radiation and chemotherapy
- Phase 1/2 clinical trial with TSC plus radiation and chemo showed 37% increase in overall survival



Source of demographic/market data: Cowen & Co., Therapeutics Categories Outlook, Feb 2015

Glioblastoma Phase 2 Clinical Trial Successfully Completed

Diffusio$_2$n Pharmaceuticals Inc.

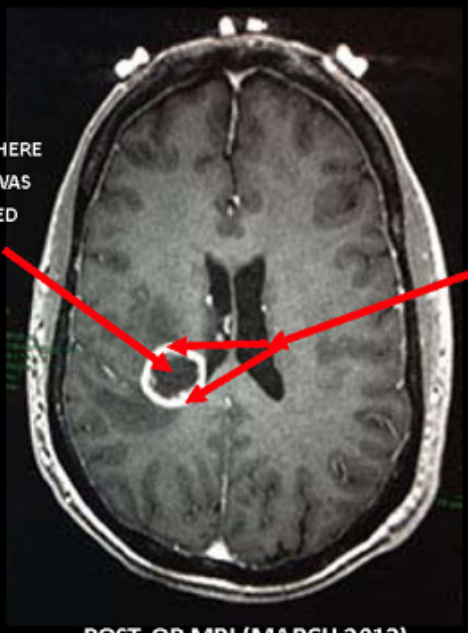
Design

- 59 newly diagnosed GBM patients enrolled at 18 cancer centers
- Open label, historical control study
- TSC dosed 3X/week for 6 weeks concurrent with standard radiation and chemotherapy
- Patients stratified for analysis:
  - Surgery for tumor removal
  - No surgery (inoperable/biopsy only)
- Primary endpoint: survival at 2 years
- Other endpoints: tumor status, performance, quality of life (Q of L)

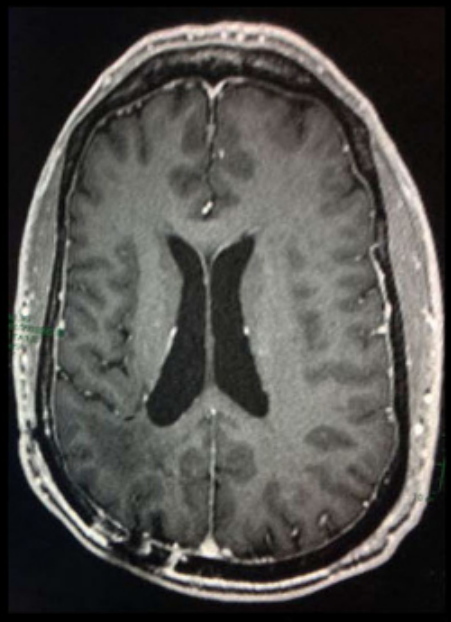
Results

- ***Results reported in the Journal of Neurosurgery***
- ***Overall survival increased by 37% at 2 years***
- ***Survival of inoperable patients at 2 years increased by 100%***
- ***Clean safety profile, no serious adverse events attributed to TSC; no negative effects on Q of L***
- ***Tumor regression in many patients;11 target tumors reported "undetectable"***

TSC/GBM TRIAL – PATIENT 427



POST-OP MRI (MARCH 2013)



1 YEAR FOLLOW-UP MRI (MARCH 2014)

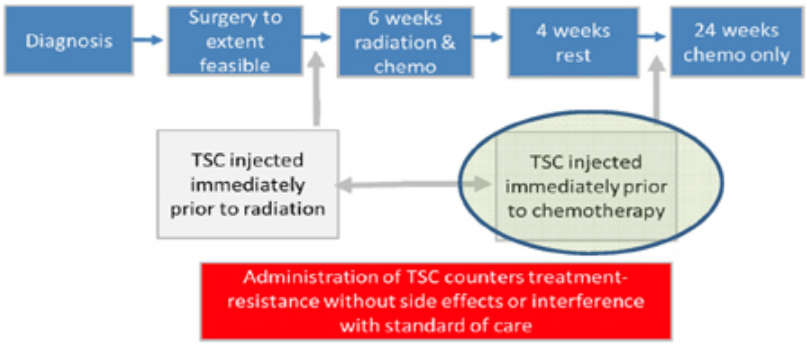
GBM End-of-Phase 2 FDA Meeting

Diffusio$_2$n Pharmaceuticals Inc.

- Held August 2015 at FDA headquarters
- Single Phase 3 Study could serve as the basis for approval
- Phase 3 trial design guidance received:
  - Phase 3 study of TSC as first line treatment with radiation/chemo in 400 newly diagnosed primary brain cancer patients
  - Randomized, controlled, multi-center pivotal study
  - Primary clinical endpoint is survival based on time-to-event
  - Significant flexibility to increase TSC dosing exposure based on Phase 2 study results and supporting animal toxicology
- Assuming success, the FDA-agreed label/indication is for entire range of first line patients: "TSC is indicated in combination with radiotherapy and TMZ for the initial treatment of GBM"
- Enrollment targeted to begin in 2017

Phase 3 GBM Pivotal Trial Design

Diffusio$_2$n Pharmaceuticals Inc.



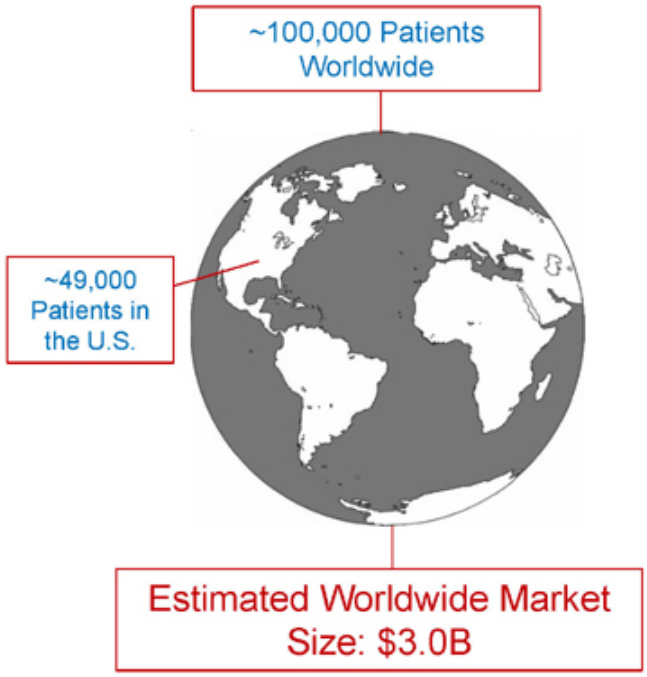
DESIGN

- Randomized, placebo-controlled
- Primary endpoint is overall survival; secondary endpoints are tumor status, performance, Q of L
- 400 newly diagnosed GBM patients (200 treated/200 control) at 100 sites in US, EU and Asia
- TSC dosing treatment period expanded from 18 to 36 doses
- Dosing plan: TSC dosed 3X/week for first 6 weeks concurrent with standard radiation and chemotherapy; 1 month patient rest; 3X/week for the first week of the following 6 months

Pancreatic Cancer Market Overview

Diffusio$_2$n Pharmaceuticals Inc.

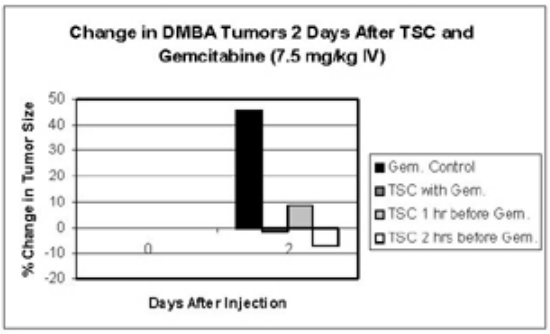
- Life-threatening cancer of the pancreas with an average life expectancy post-diagnosis < 1 year
- Emerging standard of care is radiation and chemotherapy
- One of the most hypoxic cancers, causing significant resistance to both radiation and chemotherapy
- TSC shown pre-clinically to be a powerful potentiator of current SOC first line pancreatic cancer treatment regimen (gemcitabine plus nab-paclitaxel)

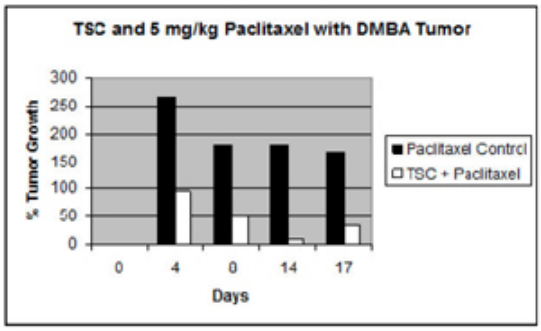


Source of demographic/market data: Cowen & Co., Therapeutics Categories Outlook, Feb 2015

TSC Enhances Gemcitabine and Paclitaxel

Diffusion Pharmaceuticals Inc.

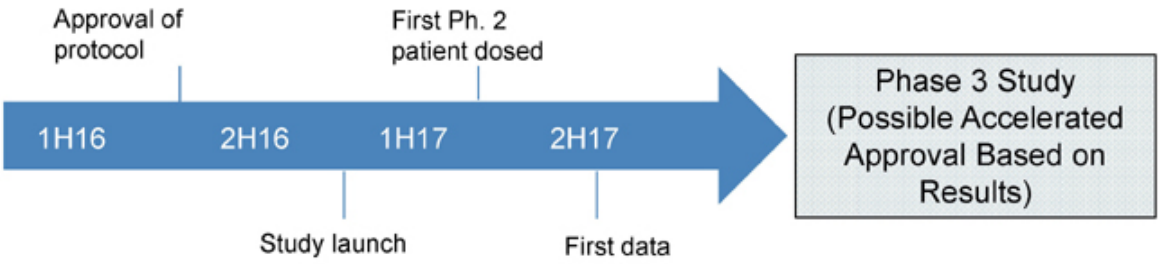




- In various animal models, TSC significantly enhances the standard-of-care chemotherapies used in the treatment of pancreatic cancer (gemcitabine and paclitaxel.)
- For gemcitabine, administration of TSC at 2 hours prior to chemo causes significant tumor volume reduction
- For paclitaxel, administration of TSC significantly slowed tumor growth.
- Note: Both gemcitabine and paclitaxel were developed and FDA-approved under programs led by members of the Diffusion Scientific Advisory Board.

Pancreatic Cancer Trial Design

Diffusio$_2$n Pharmaceuticals Inc.



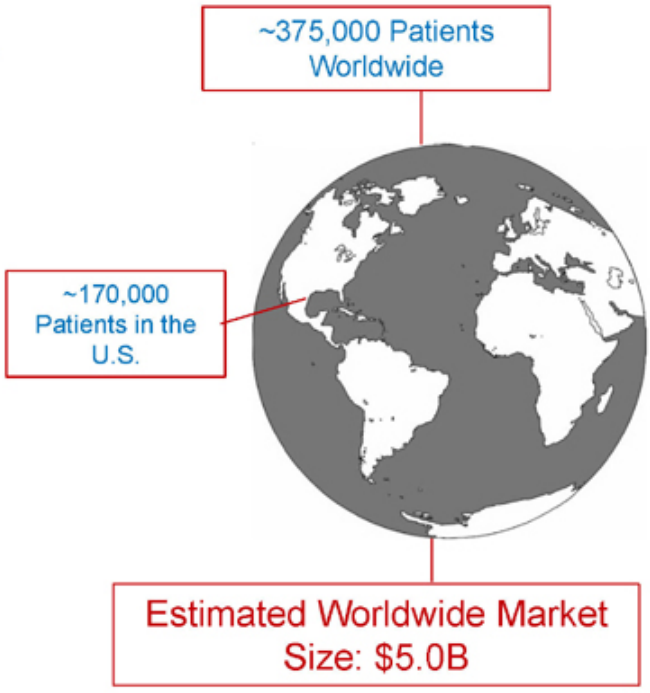
DESIGN

- Phase 2 study design in pancreatic cancer based on preclinical data and on completed Phase 2 safety and efficacy profile in other hypoxic tumors
- TSC shown to potentiate efficacy of gemcitabine and nab-paclitaxel in tumor models
- Shorter treatment period and patient survival accelerates trial results
- Endorsed by global KOLs; Dr. Daniel Von Hoff to be Principal Investigator
- Currently interacting with FDA regarding optimal trial design/end-points/patient numbers

Metastatic Brain Cancer

Diffusio$_2$n Pharmaceuticals Inc.

- Life-threatening cancer that has metastasized to the brain
- Average life expectancy post-diagnosis of < 1 year
- Standard of care is radiation only
- One of the most hypoxic cancers, causing significant resistance to radiation treatment
- No approved drug for metastatic brain cancer
- TSC granted FDA Orphan Designation



Source of demographic/market data: Cowen & Co., Therapeutics Categories Outlook, Feb 2015

Animal Model of Brain Metastases Shows Significant Efficacy

Diffusio$_2$n Pharmaceuticals Inc.

	At 30 Days	At 45 Days	At 60 Days
No Treatment (% Surviving)	0%	0%	0%
Radiation Only (% Surviving)	65%	40%	25%*
Radiation + TSC (% Surviving)	80%	70%	70%**

J Neurosurg 108:972-978, 2008.

- Cancer cells implanted in rat brains simulate metastases.
- All untreated animals dead within 30 days. (0% survival.)
- *Radiation-only treatment group had 25% survival at 60 days. MRI shows substantial tumor remaining.
- **Radiation plus TSC treatment group had 70% survival at 60 days. Complete tumor remission in TSC survivors, based on MRI.

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Pharmaceuticals Inc.

Other Indications

TSC: Potential Broad Applications Beyond Cancer

Diffusio$_2$n Pharmaceuticals Inc.

Pre-clinical data supports TSC as a treatment for other hypoxia-driven conditions such as:

- Stroke and myocardial infarction
- Peripheral artery disease (PAD)
- Neurodegenerative diseases (such as Alzheimer's or Parkinson's) involving death of neurons
- Respiratory diseases, including COPD
- Emergency medicine, including hemorrhagic shock
- And others

Having a proven safety from our oncology clinical trials we can begin additional studies in Phase 2 for the above indications.

Stroke

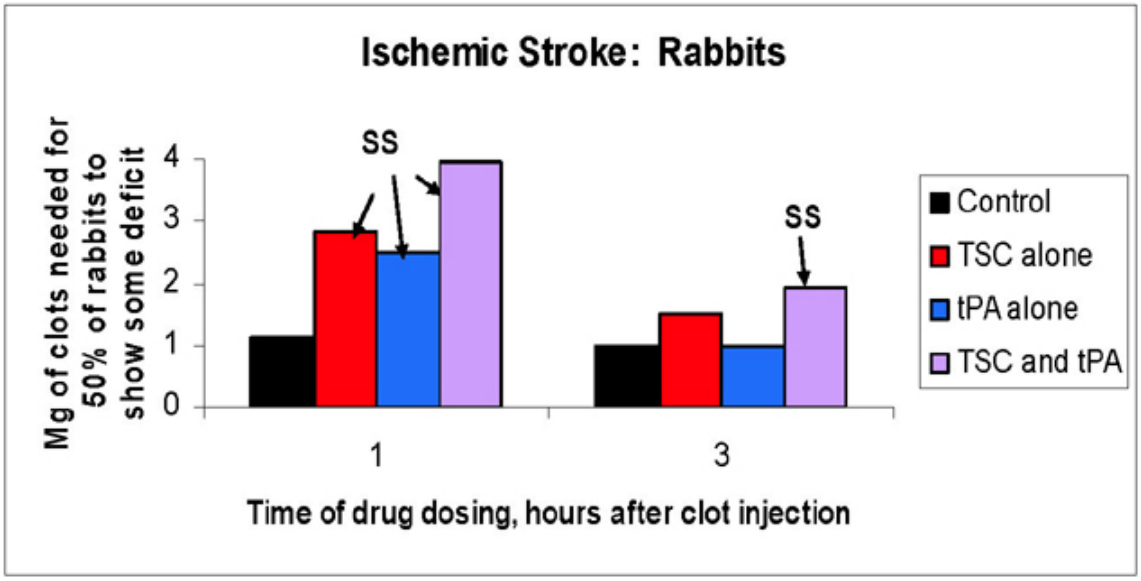
Diffusio$_2$n Pharmaceuticals Inc.

- Stroke is restricted blood flow to the brain, caused by a clot (ischemic) or a bleed (hemorrhagic).
- The resulting hypoxia drives the destruction of neurons, leading to impairment and death.
- tPA can only be use in ischemic stroke; can be fatal in hemorrhagic, delaying treatment time.
- TSC shows safety and efficacy in both ischemic and hemorrhagic stroke.
- Stroke clinical trial design being advised in co-operation with leading clinicians.

Source of demographic/market data: Cowen & Co., Therapeutics Categories Outlook, Feb 2015

TSC Shows Safety and Efficacy in Ischemic Stroke

Diffusio$_2$n Pharmaceuticals Inc.

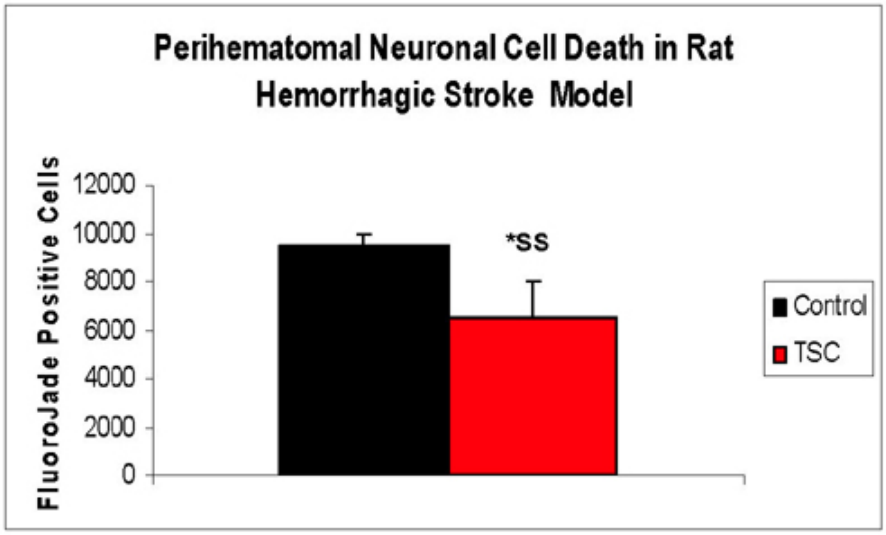


SS = statistical significance

Lapchak; *Brain Research; Vol. 1309;pp 136-145; 2010*

TSC Shows Safety and Efficacy in Hemorrhagic Stroke

Diffusio$_2$n Pharmaceuticals Inc.

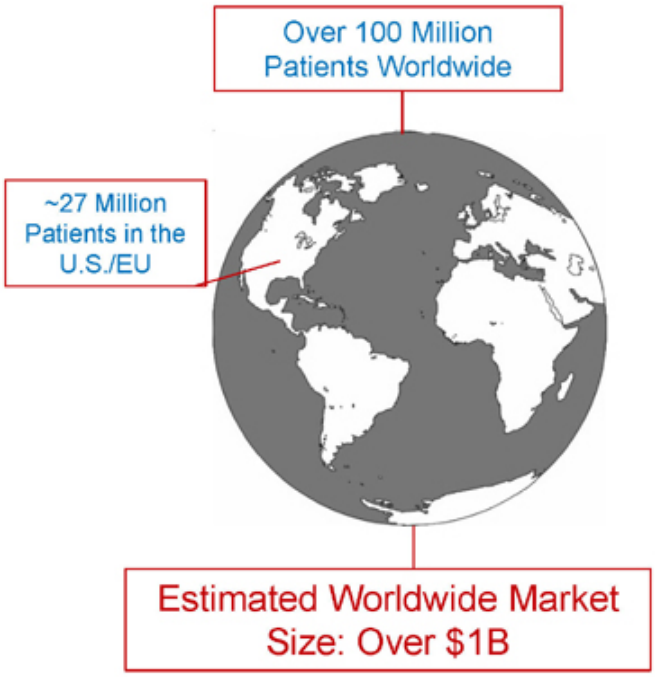


SS = statistical significance

Peripheral Arterial Disease

Diffusio$_2$n Pharmaceuticals Inc.

- Reduced blood flow limits oxygen reaching leg tissue
- Resulting hypoxia drives cascade of symptoms; pain, limited mobility, amputation, death
- Very limited treatment options; TSC provides a novel approach
- Successful Phase 2 study enhanced patient walking time, distance, and reduced time to pain onset
- *You clearly have a signal, and let me emphasize a strong signal, of clinically meaningful benefit..."*
  William Hiatt, MD, Past Chair of the Vascular Disease Section, American Heart Association



Source of demographic/market data: Cowen & Co., Therapeutics Categories Outlook, Feb 2015

DiffusiO_2n
Pharmaceuticals Inc.

Business Overview

Intellectual Property

Diffusio$_2$n Pharmaceuticals Inc.

- Issued and pending patents cover:
  - Composition of matter of drug product
  - Use of TSC for the treatment of cancer in combination with radiation and/or chemotherapy
  - Treatment of hypoxic conditions including stroke, heart attack, respiratory conditions and neurodegenerative diseases
- 14 patents issued in US & 46 issued abroad, including Asia
- Patents cover the major markets with key patent life until 2026, plus expected extensions until 2031
- Orphan Drug Designations seven-year exclusivity periods provide additional protection in the US
- Formulation patent provides protection for the TSC oral drug product until 2031, with possible extensions

Upcoming Key Milestones

Diffusio$_2$n Pharmaceuticals Inc.

Company Funding – 1st Q 2017

Possible Partnering – 2017

400 Patient Glioblastoma Multiforme (GBM) Phase 3
2017 – Study Start-up and Begin Treating Patients
2018-2019 – Complete Enrollment
2019 – Interim Data Readout (Potential)
2020 – Complete Study Conduct
Data collection, analysis and regulatory interaction will then occur over the following 12 to 18 months.

160 Patient Pancreatic Cancer Phase 2
2017 – Study Start-up and Begin Treating Patients (Part A)
2018 – Complete Part A; DSMB Review of Part A data;
Begin Treating Part B
2019 – Complete Study Conduct
Data collection, analysis and regulatory interaction will occur over the following 9 to 12 months.

Financial Overview

Diffusion Pharmaceuticals Inc.

- Total capital invested to date: $63 million
- Became a public entity effective 1/8/2016 through a merger with RestorGenex Corp
- Trades as Diffusion Pharmaceuticals Inc. (Ticker: NASDAQ DFFN)
- Financials – See Diffusion 10-Q for Quarter ended 9/30/2016 on the Company's website at www.diffusionpharma.com

Recent Transactions and Landscape At 1/26/17

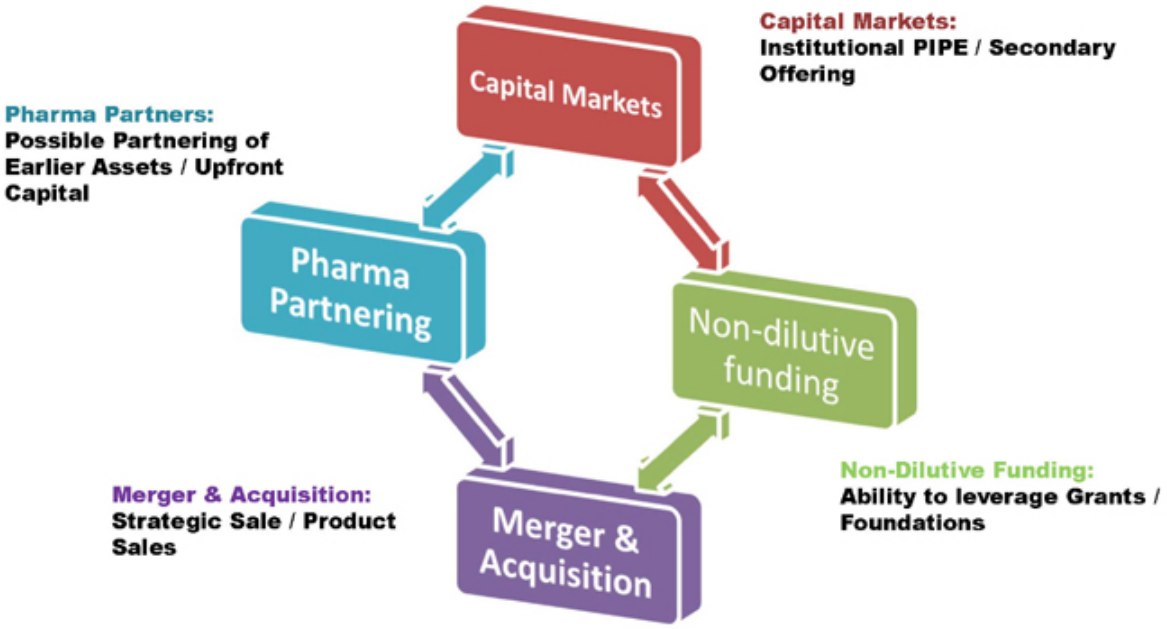
Diffusion Pharmaceuticals Inc.

Company	Status	Value	Notes
Calistoga Pharmaceuticals	Phase 2	$600 Million	Acquired by Gilead
Celator	Phase 3 Read Out	$1.5 Billion	Acquired by Jazz
Clovis Oncology	Phase 2/3	$2.7 Billion Mkt Cap	Nasdaq: CLVS
Acerta	Phase 3	$7 Billion	Acquired by AstraZeneca
Loxo Oncology	Phase 2	$833 Million Mkt Cap	Nasdaq: LOXO
Aduro Biotech	Phase 2	$747 Million Mkt Cap	Nasdaq: ADRO
OncoMed	Phase 2	$291 Million Mkt Cap	Nasdaq: OMED

The transactions and valuations above are provided for information purposes only and should not be construed as indicative of expected results or performance of Diffusion Pharmaceuticals Inc.

Building Value & Monetizing the Asset

Diffusio$_2$n Pharmaceuticals Inc.



Capital Markets:
Institutional PIPE / Secondary Offering

Pharma Partners:
Possible Partnering of Earlier Assets / Upfront Capital

Non-Dilutive Funding:
Ability to leverage Grants / Foundations

Merger & Acquisition:
Strategic Sale / Product Sales

Combating Cellular Oxygen Deprivation to Treat Unmet Medical Needs

Diffusio$_2$n Pharmaceuticals Inc.

- First-in-class small molecules that safely re-oxygenate oxygen deprived (hypoxic) tissue by a novel mechanism; acts alone or with other treatments
- Multiple opportunities in unmet medical needs across $ billion markets
- Initial oncology focus uses lead molecule TSC to enhance the efficacy of radiation and chemotherapy:
  - Glioblastoma brain cancer; Phase 2 successfully completed, Phase 3-ready design guided by FDA; Granted Orphan Drug Designation
  - Metastatic pancreatic cancer; Phase 2 program design guided by FDA and world experts
  - Metastatic brain cancer; Granted Orphan Drug Designation
- Other Phase 2-ready hypoxia-related follow-on indications, supported by compelling clinical and preclinical data:
  - Peripheral arterial disease; Phase 2 study successfully completed
  - Stroke, myocardial infarction and emergency medicine
  - Respiratory diseases, including COPD
  - Neurodegenerative diseases
- IP patent portfolio protection through 2031
- Experienced management, directors, advisors and key investors


CAVITY WHERE
TUMOR WAS
REMOVED
RING OF
REMAINING
TUMOR
05:00
HD vimeo

Diffusion Pharmaceuticals Inc.

Better Treatments for Cancer

David Kalergis, CEO
dkalergis@diffusionpharma.com

January 26, 2017
www.diffusionpharma.com