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

FORM 8-K

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

Date of Report (Date of earliest event reported): July 21, 2021 (July 21, 2021)

Ensysce Biosciences, Inc.
(Exact name of registrant as specified in its charter)

Delaware	001-38306	82-2757287
(State or other jurisdiction of incorporation or organization)	(Commission File Number)	(I.R.S. Employer Identification Number)

7946 Ivanhoe Avenue, Suite 201 La Jolla, California	92037
(Address of principal executive offices)	(Zip Code)

(858) 263-4196
Registrant's telephone number, including area code

N/A
(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 to 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))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.0001 per share	**ENSC**	**The Nasdaq Stock Market LLC**
Warrants to purchase one share of Common Stock	**ENSCW**	**The Nasdaq Stock Market LLC**

Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 7.01. Regulation FD Disclosure.

On July 21, 2021, Ensysce Biosciences, Inc. (the "Company") will post a presentation to its website that may be used by the Company from time to time in meetings with investors, analysts, collaborators, vendors or other third parties. A copy of the presentation is furnished as Exhibit 99.1.

On July 21, 2021, the Company issued a press release announcing that Dr. Lynn Kirkpatrick, President and Chief Executive Officer of the Company, and Dave Humphrey, Chief Financial Officer of the Company, are scheduled to host a virtual investor day on Tuesday, July 27, 2021 from 11:00 a.m. to 12:00 p.m. Eastern Time. A link to the recording of the event will be provided on the Company's website at www.ensysce.com. A copy of the press release is included as Exhibit 99.2 to this Current Report on Form 8-K and is incorporated herein by reference.

As provided in General Instruction B.2 of Form 8-K, the information in this Item 7.01, the Exhibit 99.1 and the Exhibit 99.2 furnished hereunder will not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, nor will they be deemed to be incorporated by reference in any filing under the Securities Act of 1933, as amended, except as will be expressly set forth by specific reference in such a filing.

Forward-Looking Statements

This report contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These statements may be made directly in this report. Some of the forward-looking statements can be identified by the use of forward-looking words. Statements that are not historical in nature, including the words "anticipate," "expect," "suggests," "plan," "believe," "intend," "estimates," "targets," "projects," "should," "could," "would," "may," "will," "forecast" and other similar expressions are intended to identify forward-looking statements. All forward-looking statements are based upon management estimates and forecasts and reflect the views, assumptions, expectations, and opinions of the Company as of the date of this report, and may include, without limitation, changes in general economic conditions, including as a result of COVID-19, all of which are accordingly subject to change. Any such estimates, assumptions, expectations, forecasts, views or opinions set forth in this report constitute the Company's judgments and should be regarded as indicative, preliminary and for illustrative purposes only. The forward-looking statements and projections contained in this report are subject to a number of factors, risks and uncertainties, some of which are not currently known to the Company, that may cause the Company's actual results, performance or financial condition to be materially different from the expectations of future results, performance of financial condition. Although such forward-looking statements have been made in good faith and are based on assumptions that the Company believes to be reasonable, there is no assurance that the expected results will be achieved. The Company's actual results may differ materially from the results discussed in forward-looking statements. Additional information on factors that may cause actual results and the Company's performance to differ materially is included in the Company's filings with the Securities and Exchange Commission (the "SEC") (including filings as Leisure Acquisition Corp.). Copies of such filings with the SEC are available publicly on the SEC's website at www.sec.gov or may be obtained by contacting the Company. Readers are cautioned not to place undue reliance upon any forward-looking statements, which speak only as of the date made. These forward-looking statements are made only as of the date hereof, and the Company does not undertake any obligations to update or revise the forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit Number	**Description**
99.1	Investor Presentation furnished as of July 21, 2021.
99.2	Press Release, dated July 21, 2021.

SIGNATURE

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: July 21, 2021

Ensysce Biosciences, Inc.

By: */s/ Lynn Kirkpatrick*
Name: Dr. Lynn Kirkpatrick
Title: President and Chief Executive Officer

CORPORATE OVERVIEW

IMPROVING PRESCRIPTION DRUG SAFETY
THROUGH CHEMISTRY

ENSYSCE BIOSCIENCES

Disclaimer

Ensysce's PF614 and nafamostat are currently in clinical and pre-clinical trials, involving both the TAAP platform and MPAR platform. Accordingly, PF614 and nafamostat have the risks and uncertainties inherent in any drug in trial-phase, which include, but are not limited to, a failure to show sufficient efficacy to obtain FDA approval, the risk that clinical trials may not confirm any safety, potency or other product characteristics described or assumed herein and the possibility that presently unknown safety risks may occur. The statements made concerning PF614, nafamostat, TAAP and MPAR are subject to the complete set of risks set forth in the Company's Risk Factors disclosure found in Leisure Acquisition Corp.'s Registration Statement on Form S-4 filed with the Securities and Exchange Commission on March 15, 2021.

Forward Looking Statements

Statements contained in this presentation that are not purely historical may be deemed to be forward-looking statements for the purposes of the safe harbor provisions under The Private Securities Litigation Reform Act of 1995 and other federal securities laws. Without limiting the foregoing, the use of words such as "may," "intends," "can," "might," "will," "expect," "plan," and other similar expressions are intended to identify forward-looking statements. The product candidates discussed are in clinic and not approved and there can be no assurance that the clinical programs will be succesful in demonstrating safety and/or efficacy, that Ensysce will not encounter problems or delays in clinical development, or that any product candidate will ever receive regulatory approval or be successfully commercialized. All forward-looking statements are based on estimates and assumptions by Ensysce's management that, although Ensysce believes to be reasonable, are inherently uncertain. All forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those that Ensysce expected. In addition, Ensysce's business is subject to additional risks and uncertainties, including among others, the initiation and conduct of preclinical studies and clinical trials; the timing and availability of data from preclinical studies and clinical trials; expectations for regulatory submissions and approvals; potential safety concerns related to, or efficacy of, Ensysce's product candidates; the availability or commercial potential of product candidates; the ability of Ensysce to fund its continued operations, including its planned clinical trials; and Ensysce's and its partners' ability to perform under their license, collaboration and manufacturing arrangements. These statements are also subject to a number of material risks and uncertainties that are described in Ensysce's most resent definitive proxy statement/prospectus relating to the recently completed business combination with LACQ. Any forward-looking statement speaks only as of the date on which it was made. Ensysce undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise, except as required under applicable law.

ENSYSCE OVERVIEW

SUMMARY

OVERVIEW

Ensysce is a clinical-stage biotech company seeking to improve the safety of prescription drugs by applying its breakthrough, proprietary technology platforms to reduce abuse an overdose.

- CLINICAL STAGE COMPANY:
  - **Two new** platforms that aim to **eliminate opioid abuse (TAAP)** and **prevent drug overdose (MPAR)**
  - **Covistat**, an Ensysce subsidiary, is repositioning a protease inhibitor program for an **COVID-19 Therapeutic** and **Cystic Fibrosis**.
- FDA FAST TRACK: lead drug product PF614
- NIH/NIDA government awards: **major funding through 2024**[1]
- NEW CLASS OF PAIN DRUGS TARGETED TO LAUNCH 2024

Note:
1) A portion of funding subject to reaching clinical development milestones.

UNMET NEED TO ADDRESS SOCIETAL CRISIS

MORE PAIN.

50M
chronic pain
sufferers

Opioid prescriptions constitute **more than half** of the total prescription pain market with more than **153m** opioid prescriptions every year

MORE PAIN KILLERS.

191M
opioid prescriptions
per year

Chronic pain, which is caused by rising incidences of **cancer, arthritis, post-surgical pain** and **low back pain**, means more people are turning to pain killers (opioids)

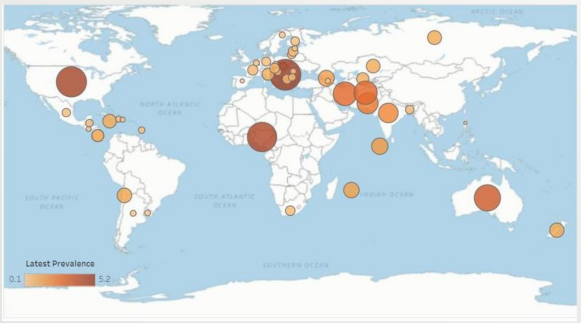
MORE PAIN KILLERS THAT KILL.

222
deaths / day
from opioid overdose

$560B
in costs
per year

But **drugs have turned deadly**, with rates of opioid abuse and death by **overdose skyrocketing** around the globe.

ANNUAL
Prevalence of Opioid Use Globally



Source: Data collected from National Authorities through Annual Reports Questionnaire (ARQ)

CHRONIC PAIN SUFFERERS WITH

OUT OF CONTROL PAIN CONTROL

Opioid abuse stems from the desire to increase the **onset of euphoria**, its **intensity,** and its **duration**.

This can be done by:

Breaking down the pill (physically or chemically) for quick digestion, inhalation or injection.

Taking more and more medication by swallowing, snorting or injecting it.

Opioid Evolution – The Next Generation of Opioids is Here

GEN 1
Tinctures and potions

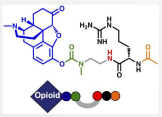
GEN 2
Pharmaceuticals

Immediate release opioids

GEN 3
Abuse Deterrent Formulations

Physical formulation approach
ER release to reduce abuse

Next GEN 4
TAAP and MPAR™



Chemical modification with 2 step activation

SOLVING FOR OPIOID ABUSE + OVERDOSE

ENSYSCE HAS CREATED TWO NEW DRUG PLATFORMS, TAAP AND MPAR™, THAT ARE DESIGNED TO COMBAT ABUSE AND PREVENT OVERDOSE

TAAP PLATFORM

TAAP designed to prevent drug abuse by using its innovative two step release

1. **EFFECTIVE:** TAAP relieves pain just as well as traditional opioids and has a longer pain relief time compared to traditional opioids
2. **SAFE:** TAAP side effects are limited to those of traditional opioids
3. **PROTECTIVE:** TAAP delivers pain relief without the ability to achieve instant euphoria

Ensysce™ biosciences

INTEGRATED PRODRUG TECHNOLOGY PLATFORM

Combining **anti-abuse** and **anti-overdose** technology to create new classes of prescription drugs that are expected to be powerful and safe for everyone

MPAR™ PLATFORM

MPAR™ designed to prevent drug overdose by inhibiting the release of a drug when excessive amounts are taken

1. **EFFECTIVE:** MPAR™ prevents activation and full release of TAAP opioids if more than the prescribed does is consumed
2. **SELECTIVE:** MPAR™ is only triggered during an overdose

Ensysce's PF614 and nalamostat are currently in clinical and pre-clinical trials, involving both the TAAP platform and MPAR™ platform. Accordingly, PF614 and nalamostat have the risks and uncertainties inherent in any drug in trial phase, which include, but are not limited to, a failure to show sufficient efficacy to obtain FDA approval, the risk that clinical trials may not confirm any safety, potency or other product characteristics described or assumed herein and the possibility that presently unknown safety risks may occur. TAAP and MPAR™ designed to accomplish these results. There can be no assurance that these results will continue to be demonstrated in clinical trails and the products will be successfully developed. The statements made concerning PF614, nalamostat, TAAP and MPAR™ are subject to the complete set of risks set forth in the Company's Risk Factors disclosure found in Leisure Acquisition Corp.'s Registration Statement on Form S-4 filed with the Securities and Exchange Commission on March 15, 2021.

TAAP

TRYPSIN-
ACTIVATED
ABUSE
PROTECTION

TAMPER-PROOF ANTI-ABUSE PLATFORM

TAAP opioids are designed with a **2-step verification mechanism** that cannot be "cracked" like abuse deterrent formulations, thus delivering a **highly effective solution** to combat drug abuse

- **TAAP is only activated by trypsin**, a digestive enzyme that exists only in the gut; therefore crushing, inhaling or injecting it will not cause the opioid to be released faster to produce pleasure/euphoria
- **TAAP chemically modifies** the opioid, thereby eliminating the potential abuse by the patient through physical means (e.g., crushing and subsequent injection)
- **TAAP PF614 provides 12hrs+ of pain relief**, providing true twice-daily dosing giving 24-hour all-day pain relief

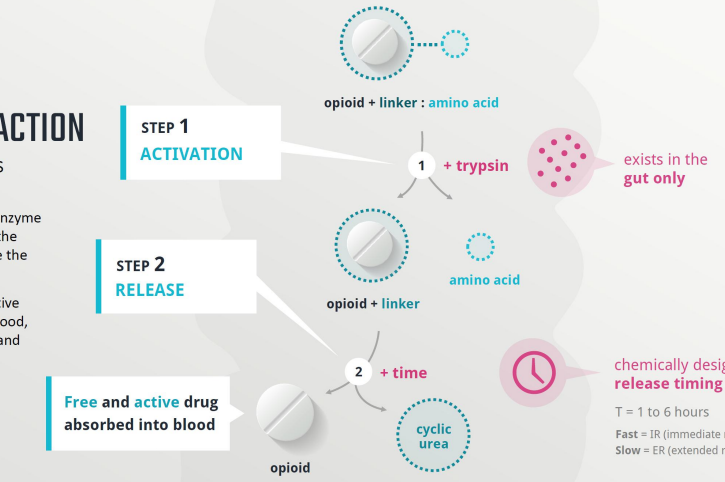
Enyzsve's PF614 and nafamostat are currently in clinical and pre-clinical trials, involving both the TAAP platform and MPAR platform. Accordingly, PF614 and nafamostat have the risks and uncertainties inherent in any drug in trial-phase, which include, but are not limited to, a failure to show sufficient efficacy to obtain FDA approval, the risk that clinical trials may not confirm any safety, potency or other product characteristics described or assumed herein and the possibility that presently unknown safety risks may occur. TAAP and MPAR designed to accomplish these results. There can be no assurance that these results will continue to be demonstrated in clinical trails and the products will be successfully developed. The statements made concerning PF614, nafamostat, TAAP and MPAR are subject to the complete set of risks set forth in the Company's Risk Factors disclosure found in Leisure Acquisition Corp.'s Registration Statement on Form S-4 filed with the Securities and Exchange Commission on March 15, 2021.

12

TAAP
MECHANISM OF ACTION

TWO-STEP RELEASE PROCESS

- The drug is activated by the enzyme trypsin only when it reaches the gut, preventing abuse outside the body
- The inactive drug releases active oxycodone gradually in the blood, preventing immediate onset and abuse



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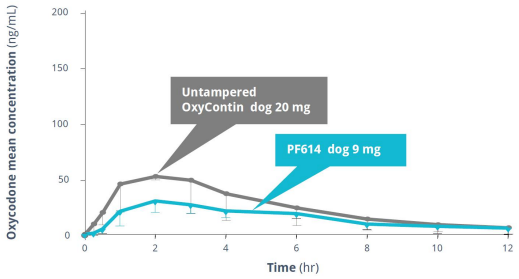
PF614 MATCHES OXYCONTIN EXTENDED RELEASE PROFILE

PF614 TAAP: PRECLINICAL DATA



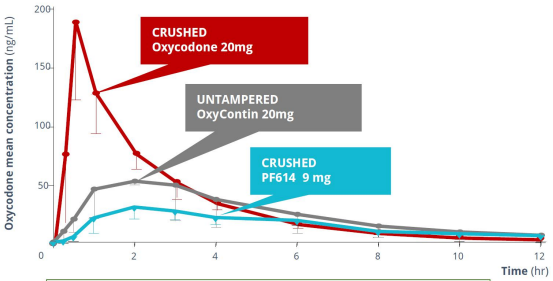
- PF614 chemically releases oxycodone with the **same extended release (ER) profile as OxyContin**
- The same release profile demonstrates that PF614 can achieve **similar pain relief** as OxyContin

PF614 Extended Release profile dose not change with manipulation

Based on pre-clinical and phase I data Ensysce believes its opioid PF614 to be abuse-resistant and safe without compromising on efficacy, de-risking the further development

- **Unlike OxyContin**, Ensysce's opioid PF614, even when crushed, releases oxycodone only slowly in the blood, thereby preventing euphoria (pleasure) and abuse
- In pre-clinical studies, PF614 achieved similar concentrations and duration of action in the blood as the current opioid, establishing **similar efficacy in pain-relief as OxyContin**
- Phase I trial data **demonstrated that PF614 is safe** to use in humans without causing any major side effects such as severe allergic reaction (anaphylaxis), seizures or heart attack

Blood Concentration of Opioid Vs. Time



*Pre-clinical data in dogs comparing Ensysce's opioid against current opioid OxyContin **demonstrated that Ensysce can prevent opioid abuse** while OxyContin cannot*

ENSYSCE SOLUTION VS. THE COMPETITION

TAAP–modified oxycodone designed to provide longer pain relief and a lower risk for abuse than the traditional oxycodone

	Oxycodone	VS	TAAP LEAD CANDIDATE PF614
Opioid Receptor Binding	HIGH AFFINITY: increasing the strength of binding to receptors and hence, promoting pleasure (euphoria)		LOW AFFINITY: without GI activation, reducing the binding to receptors and hence, minimal side effect
CNS Penetration	HIGH CNS PENETRATION thereby increasing the amount of drug in the brain to bind to receptors and providing euphoria		LOW CNS PENETRATION thereby limiting the amount of drug in the brain to bind to receptors and preventing euphoric side effect
Manipulation	CAN BE MANIPULATED by crushing to provide active opioid immediately and therefore, opioid abuse		CANNOT BE MANIPULATED to provide active opioid immediately; **must** be swallowed and released in gastrointestinal tract, thereby preventing abuse
Inhalation / Injection	ACTIVE IMMEDIATELY if inhaled or injected		INACTIVE if inhaled or injected
Half-Life	5 -7 HOURS, yet prescribed twice a day		12 HOURS, **truly** twice a day

MPAR™ MULTI-PILL ABUSE RESISTANT

SMART ANTI-OVERDOSE PLATFORM

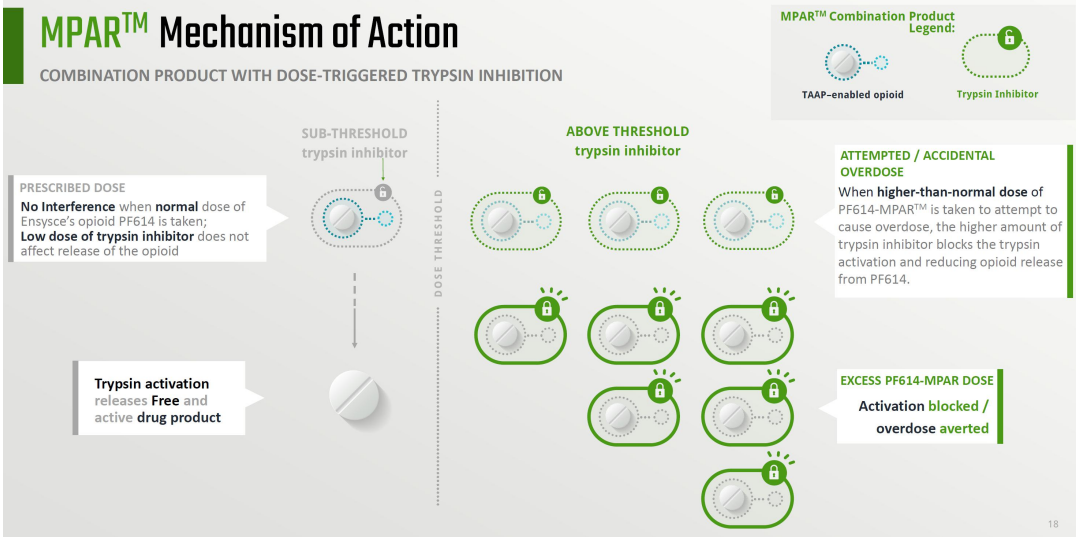
MPAR™ is a smart anti-overdose platform that is designed **to** protect patients from overdosing when it is combined with TAAP opioids. At its essence, MPAR is a combination product of PF614 and Nafamostat.

- **MPAR™ inhibits trypsin** when too much TAAP opioid is swallowed, inhibiting full activation and opioid release, and therefore, preventing overdose-related deaths
- **MPAR™ is only triggered by an overdose**, blocking the additional doses consumed
- **The prescribed activity of trypsin will not** be affected by MPAR™, therefore making it very safe for daily use

Ensysce's PF614 and nafamostat are currently in clinical and pre-clinical trials, involving both the TAAP platform and MPAR platform. Accordingly, PF614 and nafamostat have the risks and uncertainties inherent in any drug in trial-phase, which include, but are not limited to, a failure to show sufficient efficacy to obtain FDA approval, the risk that clinical trials may not confirm any safety, potency or other product characteristics described or assumed herein and the possibility that presently unknown safety risks may occur. TAAP and MPAR designed to accomplish these results. There can be no assurance that these results will continue to be demonstrated in clinical trails and the products will be successfully developed. The statements made concerning PF614, nafamostat, TAAP and MPAR are subject to the complete set of risks set forth in the Company's Risk Factors disclosure found in Leisure Acquisition Corp.'s Registration Statement on Form S-4 filed with the Securities and Exchange Commission on March 15, 2021.

MPAR™ Mechanism of Action

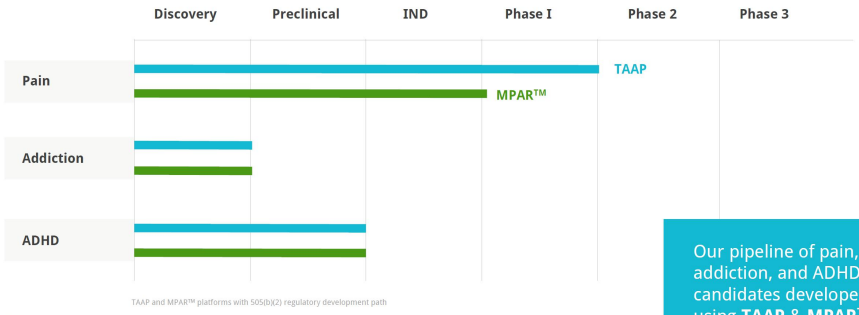
COMBINATION PRODUCT WITH DOSE-TRIGGERED TRYPSIN INHIBITION



Leveraging Our Platform to Drive Long-Term Value

TAAP & MPAR™ PORTFOLIO

DIVERSIFIED PIPELINE TO ADDRESS AREAS OF UNMET NEEDS



TAAP and MPAR™ platforms with 505(b)(2) regulatory development path

Our pipeline of pain, addiction, and ADHD candidates developed using **TAAP** & **MPAR™** show advantageous positioning.

FDA fast track

2018

FDA granted Fast Track designation for TAAP PF614.

Fast Track may expedite review of drugs to treat serious conditions that address an unmet medical need

NIH support

2018

NIDA awarded Ensysce up to $12M grant to progress MPAR™

Four year award to undertake the **pre-clinical and clinical development** of the company's opioid overdose protection platform MPAR™ (Multi Pill Abuse Resistance).

NIDA grant

2019

NIDA awarded Ensysce up to $15M grant to progress TAAP/MPAR™ for OUD

Five year award to undertake the **pre-clinical and clinical development** of the company's TAAP and MPAR™ for treatments of Opioid Use Disorder.

Key Milestones

Ensysce seeks to deliver commercial launch of PF614 by 2024

To Date

CLINICAL ●●●○ IND

PIPELINE ●●●●

- CMC **preparation for HAL** and **bioequivalence.**
- **MPAR™ and OUD preclinical program initated.**
- **Nafamostat** Phase 1 trial.
- **MPAR™ IND submission.**

2021

CLINICAL ●●●●

PIPELINE ●●●

- **PF614 bioequivalence** (Phase 2) Trial initialed 07 21 (505(b)(2) approval).
- **PF614 Human Abuse Liability** (HAL) clinical trial: nasal and oral.
- PF614-MPAR Phase 1 trial initialed.
- **Nafamostat –** Phase 2 in COVID 19

2022

CLINICAL ●●●●○ IND

PIPELINE ●●

- **PF614 Phase 3** Trial: chronic pain.
- Develop **MPAR™ overdose protection Phase 1** pipeline.
- OUD methadone IND.

2023

CLINICAL ●●●●● NDA

PIPELINE ●●

- **PF614 NDA submission**
- Progress pipeline technology **clinical development**
- Expand **TAAP platform licensing partnerships**

CMC = Chemistry manufacturing and controls
IND = Investigational New drug application to FDA
HAL = human abuse liability studies
MPAR = overdose protection
OUD = opioid use disorder

●● Designates product in development
○ Designates IND submitted

EXPERIENCED LEADERS

FINANCE, DRUG DEVELOPMENT & DRUG COMMERCIALIZATION

D. Lynn Kirkpatrick, PhD
Chief Executive Officer

- Co-founded 2 start up companies
- Developed three targeted small molecule oncology drugs from discovery to clinic
- Experience in private and public company raising funds from private, public and government sources

BIOMIRA
ONCOTHYREON
Yale University School of Medicine

David Humphrey
Chief Financial Officer

- Extensive experience in entrepreneurial environments.
- Multiple equity and debt financing, including IPOs.
- Focused on financial infrastructure, internal controls with merger and acquisition strategies.

senomyx
ACTIV Biosystems
pwc

Geoff Birkett
Chief Commercial Officer

- Large pharma leadership experience
- Launched 5 major market-leading brands, including:
  - Nicorette
  - Prozac
  - Seroquel
  - Zomig

Landsdowne
NEKTAR
AstraZeneca
Lilly
INSEAD

William K Schmidt, PhD
Chief Medical Officer

- Over 25 years of pharma industry experience, with special emphasis on discovery and development of novel analgesic and narcotic antagonist drugs
- Past President of the Eastern Pain Association, affiliate of the American Pain Society

DUPONT
Adolor
CrystalGenomics
UCSF

Richard Wright, MBA
Chief Business Officer

- Background in Intellectual Property monetization, banking, venture capital
- Co-founder of an immunology biotech company, later sold to private equity

BDMS
JSR
endo
GE
Penn Wharton

Jeffrey Millard, PhD
Chief Operating Officer

- Industrial experience in CMC (chemistry, manufacturing, and controls)
- 7 IND submissions (CDER, CBER, and IMPDs); directed CMC efforts from discovery, in-licensing to commercial launch
- PhD in Pharmaceutical Sciences from University of Arizona

BIOMIRA
ONCOTHYREON
CASCADIAN THERAPEUTICS
ARIZONA

BOARD of DIRECTORS

Dr. Lynn Kirkpatrick

Career focused on novel drug discovery and development

- Former Professor of Chemistry and Biochemistry, U of Regina, Canada
- Founder of ProlX Pharmaceuticals,
- Former, Chief Scientific Officer, Oncotheryon Inc.
- Founder PHusis Pharmaceutics Inc.
- President and CEO, Ensysce Biosciences Inc.

Dr. Bob Gower

Seasoned Executive and Entrepreneur

- Former President, CEO and Chairman of Lyondell Petrochemical Company
- Senior VP Atlantic Richfield Corporation
- VP ARCO Chemical
- Sinclair Oil (acquired by ARCO)
- Founder, President and CEO Carbon Nanotechnologies Inc.
- Founder and Chairman, Ensysce

Andrew Benton

President Emeritus of Pepperdine University

- Served as the seventh president of Pepperdine University from 2000–2019
- Past Chair of the Association of Independent California Colleges and Universities.
- Member of the American Bar Association

William Chang

Entrepreneur, Realty Company and Movie executive.

- CEO Westlake Realty Group and Chairman of Westlake International
- Investor in major sport leagues, movies and biosciences companies.
- USA Rugby BOD

Dr. Adam Levin

Academic and clinical orthopedic surgeon at Johns Hopkins University

- Vice Chair of Faculty Development for the Department of Orthopaedic Surgery
- Associate Professor of Orthopaedic Surgery and Associate Professor of Oncology
- Former Assistant Professor of Orthopaedic Surgery at the Zucker School of Medicine at Hofstra University

Steve Martin

Experienced Senior Executive and Chief Financial Officer

- CFO of Armata Pharmaceuticals Inc. (NYSE: ARMP)
- Former Interim CEO, CFO and senior executive of numerous life sciences companies including AmpliPhi Biosciences, Stratagene, Gen-Probe
- 10 years with Deloitte

Dr. Curtis Rosebraugh

Extensive FDA drug approval experience

- Former Director of the Office of Drug Evaluation II at the FDA
- Overseen the development and approval of over 50 new drugs
- Former Deputy Director Office of Nonprescription Products at the FDA
- Experience in the development of abuse deterrent opioid formulations

KEY OPIONION LEADERS

CLINICAL ADVISORY BOARD

Dr. Lynn Webster

Dr. Webster has dedicated more than three decades to becoming an expert in the field of pain management

- Former Vice President of Scientific Affairs of PRA Health Sciences,
- Past President of the American Academy of Pain Medicine
- Leading voice in trying to help physicians safely treat pain patients while actively working within the industry to develop safer and more effective therapies for chronic pain and addiction
- Board-certified in anesthesiology and pain medicine
- Certified in addiction medicine
- Lectures extensively on the subject of preventing opioid abuse and criminal diversion in chronic pain patients
- Has played an instrumental role in the industry as a strong advocate for safe and effective pain resolution methods

Dr. Jeffrey Gudin

Dr. Gudin is director of pain and palliative care at Englewood Hospital and Medical Center, New Jersey

- Board-certified in pain medicine, anesthesiology, addiction medicine, and hospice/palliative medicine, and a medical acupuncturist
- An active speaker and advisor,
- Clinical and research focus includes post-operative pain management, opioid abuse and potential solutions
- Focused on increasing clinician awareness of pain assessment and risk management

Dr. Richard Dart

Dr. Dart is the Director of the Rocky Mountain Poison and Drug Center and specializes in emergency medicine and toxicology

- Certified by the American Board of Emergency Medicine and American Board of Medical Toxicology
- Director of the Rocky Mountain Poison and Drug Center since 1992
- Executive Director of Researched Abuse, Diversion and Addiction-Related Surveillance System (RADARS)
- Has published more than 250 papers and chapters
- Served as editor for the book, *The 5-Minute Toxicology Consult*, and the third edition of *Medical Toxicology*

Key Investment Highlights

Ensysce™ biosciences

Unmet Need – With individuals suffering from severe pain and need for safer options Ensysce has focused on using its TAAP and MPAR technology to help address the need.

Revolutionary Abuse-Resistant Opioids – Ensysce believes it has developed a breakthrough technology to deliver opioids that provide effective pain relief without instant euphoria that leads to abuse.

Successful Phase I Data – Phase I data have demonstrated Ensysce's opioid PF614 as abuse-resistant and safe without compromising on efficacy; PF614 expected to launch by 2024 generating revenue for ongoing programs.

De-Risked and Accelerated FDA Milestones – Ensysce secured FDA Fast-Track Designation and is using the 505(b)(2) regulatory pathway, which could substantially reduce the trial/regulatory risk and potential time and cost to market.

Breakthrough Technology Well-Protected by Patents – Ensysce has over 100 patents already issued in 25 countries, which should provide a barrier to entry from new competitors globally.

Well-Rounded Seasoned Management – Ensysce has an experienced leadership team with significant expertise and experience in all facets of biotech company-building, from drug development to commercialization.

CONTACT US

ENSYSCE BIOSCIENCES
7946 IVANHOE AVENUE, LA JOLLA, CA, 92037
UNITED STATES
(858) 263-4196
INFO@ENSYSCE.COM

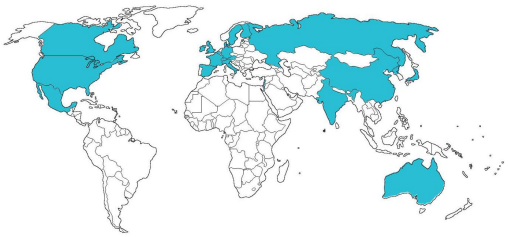
APPENDIX

EXTENSIVE PATENT PORTFOLIO

Ensysce has over 100 patents already issued in 25 countries, ensuring barriers to entry for new companies globally

- Ensysce's technology is well-protected by a **suite of 111 patents** issued in the U.S. and overseas (the UK, a majority of the EU, Australia, China, and others with a total of 25 countries), ensuring a **barrier to entry** for other companies in these markets.
- These patents provide protection to the **underlying molecules** of both the immediate and extended release formulations of Ensysce.
- Ensysce **patent pipeline will grow** with a number of new products in development, has a library of trade secrets and trademarks.

Color coded regions on the map indicate countries where patents have been issued



Clinical Proof of Concept

PF614

PF614: TAAP Oxycodone prodrug evaluated in Phase 1 clinical trial.

PF329

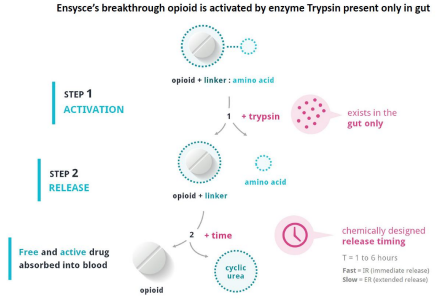
PF329: TAAP Hydromorphone prodrug evaluated in Phase 1 clinical trial alone and in combination with trypsin inhibitor, Nafamostat.

ENSYSCE'S REVOLUTIONARY ABUSE-RESISTANT OPIOIDS

Ensysce has developed a breakthrough technology to make novel opioids that it believes provide effective pain-relief without causing abuse and addiction

- **TAAP breakthrough technology** is a chemical modulation of opioids.
- It has a revolutionary **2-step release process** that seeks to achieve **the intended goal of effective pain-relief while eliminating the potential for user abuse.**
- **TAAP PF614** is chemically modified oxycodone – is inactive and can only be activated by the enzyme Trypsin only be found in a person's gut.
- **TAAP effectively eliminates all forms of potential abuse**, since the opioid is in an inactive state and cannot be activated through injection, inhalation or chewing.

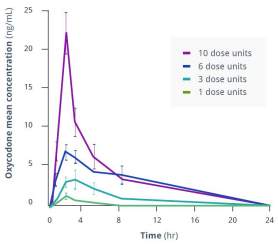
Ensysce's breakthrough opioid is activated by enzyme Trypsin present only in gut



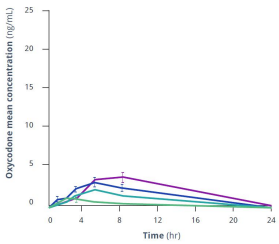
Ensysce's PF614 and nafamostat are currently in clinical and pre-clinical trials, involving both the TAAP platform and MPAR platform. Accordingly, PF614 and nafamostat have the risks and uncertainties inherent in any drug in trial-phase, which include, but are not limited to, a failure to show sufficient efficacy to obtain FDA approval, the risk that clinical trials may not confirm any safety, potency or other product characteristics described or assumed herein and the possibility that presently unknown safety risks may occur. TAAP and MPAR designed to accomplish these results. There can be no assurance that these results will continue to be demonstrated in clinical trials and the products will be successfully developed. The statements made concerning PF614, nafamostat, TAAP and MPAR are subject to the complete set of risks set

PF614 MPAR™
BLOCKS OXYCODONE RELEASE with overdose

WITHOUT MPAR™
(PF614 without TI nafamostat)



WITH MPAR™
(PF614 with TI nafamostat)

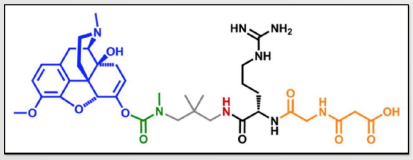


in rats n=4 / dose

TAAP + MPAR™: PRECLINICAL DATA

- Trypsin inhibition using nafamostat prevents opioid overdose by reducing PF614 activation with increasing dose unit administration
- Data on the right demonstrate the effectiveness of Ensysce's MPAR™ overdose protection, as oxycodone concentration does not rise in blood at high-doses due to MPAR™-enabled trypsin inhibition

Lead Product PF614: ER Oxycodone
Chemical approach to abuse deterrence



PF614
Extended release oxycodone

Properties	PF614
Abuse deterrence	✓
Susceptible to abuse: chewing	✗
Susceptible to abuse: extraction/injection	✗
Simple coating/reformulation	✗
Half-life 12 hrs. for twice a day product	✓
Two-step oral activation	✓
Overdose solution: MPAR™	✓

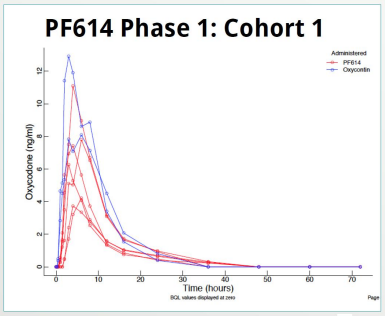
PF614: Phase 1 Summary

Phase 1 Design and Results

- Single ascending dose (SAD) study in up to 48 healthy subjects; 15 to 200 mg fasted/ 200 mg fed.
- Cohorts 1 to 6 : 15 to 200 mg PF614 matched to 10 to 80 mg OxyContin.
- Randomized: *PF614* (n=6 per cohort) or *OxyContin* comparator arm (n=2).
- Safety and pharmacokinetic endpoints.

- **Cohort 1:**
  - PF614 solution: 15 mg (6.3 mg oxycodone equivalent)
  - OxyContin tablet : 10 mg

- Presented International Anesthesia Research Society (IARS), May 2017

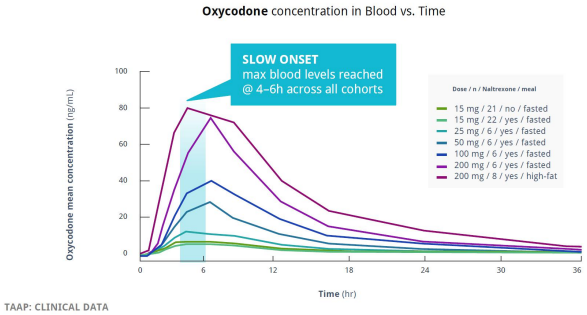


Oxycodone released from:
PF614 (red) or OxyContin (Blue)

Shows PF614 provides oxycodone with same extended release format as OxyContin.

34

PF614: DESIGNED FOR SAFER, MORE EFFICIENT & LONGER-LASTING PAIN RELIEF



TAAP: CLINICAL DATA

ABUSE PREVENTION

- As shown in the graph on the left, the onset of Ensysce's PF614 in blood is slow even at higher doses, **demonstrating the ability to prevent opioid pleasure (euphoria) and abuse**

SAFE

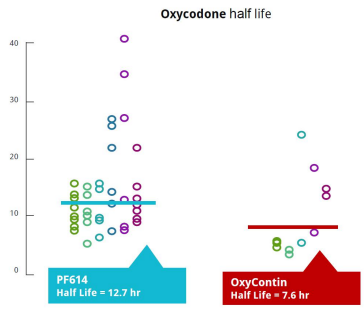
- PF614 has **shown to be safe**, and no unexpected adverse events were observed in Phase I

EFFICIENT CONVERSION TO OXYCODONE

- PF614 is effectively converted to Oxycodone with an **efficiency of 90%**, thereby replicating the pain-relief by OxyContin (oxycodone)

35

PF614 LONGER LASTING COMPARED TO OXYCONTIN



TAAP: CLINICAL DATA

Dose (PF614 / OxyContin)
15 mg / 10 mg
25 mg / 10 mg
50 mg / 20 mg
100 mg / 50 mg
200 mg / 80 mg
200 mg / --

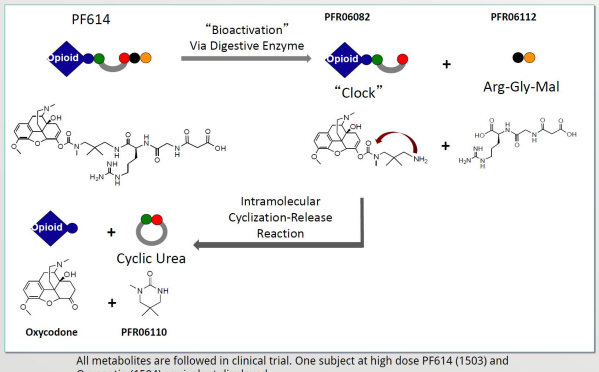
True Twice-a-Day Product

- Ensysce's opioid **PF614's half-life is 12.7 hours**, versus OxyContin's 7.6 hours
- As a result, Ensysce's PF614 is more convenient for the patient, since PF614 needs to be taken only **twice-a-day**, in contrast to OxyContin (which some patients end up taking **three times per day**)

36

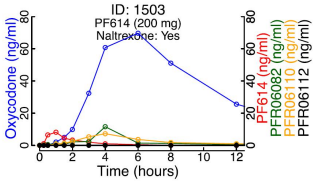
PF614: Clinical Activation and Metabolism

Unique 2-step process

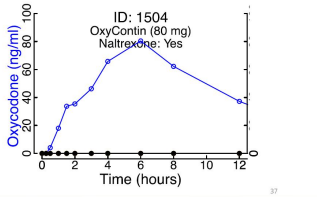


All metabolites are followed in clinical trial. One subject at high dose PF614 (1503) and Oxycontin (1504) equivalent displayed.

Oxycodone levels from PF614 200 mg



Oxycodone levels from OxyContin 80 mg



*Additional Clinical data upon request

Exhibit 99.2

Ensysce Biosciences to Host Virtual Investor Day on July 27, 2021

SAN DIEGO, July 21, 2021 — Ensysce Biosciences, Inc. ("Ensysce" or the "Company") (NASDAQ: ENSC, OTC: ENSCW), a clinical stage biotech company with proprietary technology platforms to reduce the economic and social burden of prescription drug abuse and overdose, today announced that it will host a virtual investor day on Tuesday, July 27, 2021 from 11:00am to 12:00 pm EDT.

Ensysce CEO Dr. Lynn Kirkpatrick and CFO Dave Humphrey will present alongside other members of the Company's executive management team. There will be a 30-minute question and answer session following the Company's presentation.

Registration for the event can be foundhere. Interested parties may submit questions in advance of the event by emailingEnsysce@gatewayir.com. A recording of the event as well as the accompanying presentation will be provided on the Company's website following the conclusion of the event.

Forward Looking Statements

This press release contains certain forward-looking statements within the meaning of federal securities laws. Forward-looking statements are predictions, projections and other statements about future events that are based on current expectations and assumptions and, as a result, are subject to risks and uncertainties. Many factors could cause actual future events to differ materially from the forward-looking statements in this communication. Such factors can be found in Ensysce's most recent annual report on Form 10-K, subsequently filed quarterly reports on Form 10-Q and current reports on Form 8-K, which are available, free of charge, at the SEC's website at www.sec.gov, and also in the Form S-4 and Ensysce's definitive proxy statement/prospectus filed on June 16, 2021. New risks and uncertainties arise from time to time, and it is impossible for us to predict these events or how they may affect the Company. You are cautioned not to place undue reliance upon any forward-looking statements, which speak only as of the date made, and Ensysce undertakes no obligation to update or revise the forward looking statements, whether as a result of new information, changes in expectations, future events or otherwise.

About Ensysce Biosciences:

Ensysce Biosciences, San Diego, CA is a clinical-stage biotech company using its proprietary technology platforms to develop safer prescription drugs. Leveraging its Trypsin Activated Abuse Protection (TAAP™) and Multi-Pill Abuse Resistance (MPAR™) platforms, the Company is developing a new class of powerful, tamper-proof opioids that prevent both drug abuse and overdoses. Ensysce's products are anticipated to provide safer options to treat severe pain and assist in preventing deaths caused by opioid abuse, reducing the human and economic cost. The platforms are covered by an extensive worldwide intellectual property portfolio for a wide array of prescription drug compositions. For more information, please visit www.ensysce.com.

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