

Unlocking the Pharmaceutical Potential of Cannabinoids

FORWARD LOOKING STATEMENTS

This presentation contains "forward-looking statements", including statements regarding Skye Bioscience, Inc. "Skye Bioscience and/or the Company", within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. All statements in this presentation, whether written or oral, that refer to expected or anticipated future actions and results of Skye Bioscience are forward-looking statements. In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances are forward-looking statements. These forward-looking statements reflect our current projections and expectations about future events as of the date of this presentation. Skye Bioscience cannot give any assurance that such forward-looking statements will prove to be correct. The reader is cautioned not to place undue reliance on these forward-looking statements.

The information provided in this presentation does not identify or include any risk or exposures of Skye Bioscience that would materially adversely affect the performance or risk of the company. For a description of the risks and uncertainties related to the business of Skye Bioscience, see our Annual Report or Form 10–K filed with the Securities and Exchange Commission and our subsequent periodic reports filed with the Securities and Exchange Commission.

All information contained in this presentation is provided as of the date of the presentation and is subject to change without notice. Neither Skye Bioscience, nor any other person undertakes any obligation to update or revise publicly any of the forward-looking statements set out herein, whether as a result of new information, future events or otherwise, except as required by law. This presentation shall not constitute an offer to sell or the solicitation of an offer to sell or the solicitation of an offer to buy any securities of Skye Bioscience, nor shall there be any sale of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. This is presented as a source of information and not an investment recommendation.



INVESTMENT HIGHLIGHTS

Transformative new class of therapeutics

- Endocannabinoid system (ECS) shown to play a significant role in health
- ECS-mediated signaling plays a role in multiple ocular indications

Solid clinical and preclinical foundation for glaucoma

- Multiple human clinical trials have demonstrated THC's ability to lower IOP
- Multiple preclinical models demonstrate SBI-100 is superior to standard of care

Strong intellectual property & patent protection

- Molecules are new chemical entities
- Composition of matter patents

Expanding pipeline with novel cannabinoid derivatives

Ophthalmology & beyond

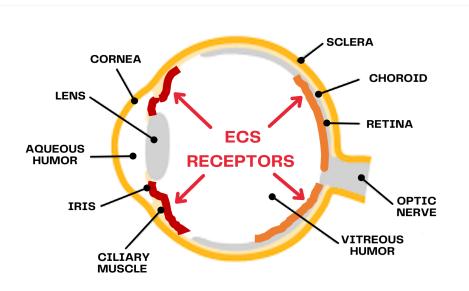
Meaningful clinical inflection points

- Phase 1 initiation Q2-22; Top line data Q3-22; Final data read out Q4-22
- Phase 2 initiation Q4-22

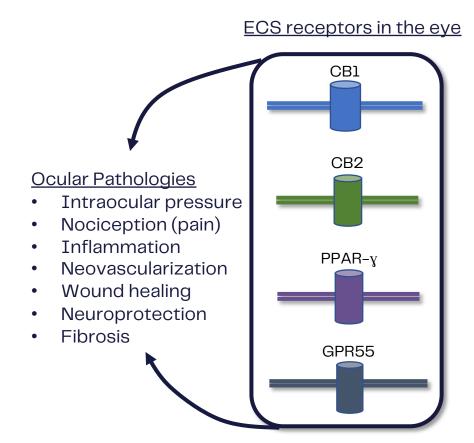


BUILDING A CANNABINOID PLATFORM IN OPHTHALMOLOGY

The endocannabinoid system (ECS) is a complex signaling system which exists in all tissues and plays pivotal role in human health.



- Evidence suggest modulation of the ECS can provide therapeutic benefit to multiple diseases, including those of eye.
- ECS receptors are found through the various structures of the eye, and those receptors have been shown to be involved in a broad set of pathologies.





GLAUCOMA PRESENTS A SIGNIFICANT UNMET NEED

- 80M patients worldwide -> 110M by 2026
- \$7B addressable market
 - 80% represent by generic prostaglandin analogs (latanoprost) or beta blockers (timolol)
- Available treatments target elevated IOP
 - 40% of patients fail to reach IOP goals with first-line therapy¹
 - 50% of patients require 2 or more therapies^{1,2}
 - Additional adverse effects
 - Compliance issues
- 30% of glaucoma patients do not have elevated IOP (normotensive)
 - IOP-lowering medications provide limited benefit to normotensive patients
- Unmet need and lack of new drug innovation present an opportunity for a new class of therapy

MARKET SHARE OF IOP-LOWERING DRUGS BY CLASS



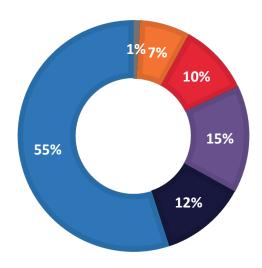
■Alpha Agonist

■Beta Blockers

■ Carbonic Anhydrase Inhibitor

■Fixed Combo

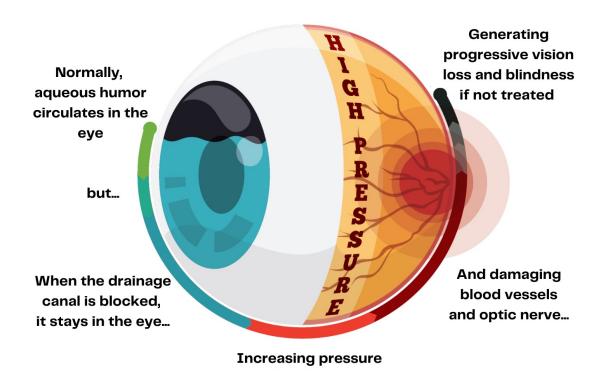
■Prostaglandin Analogs



Graph Source: adapted from IQVIA 2020



PATHOPHYSIOLOGY OF GLAUCOMA

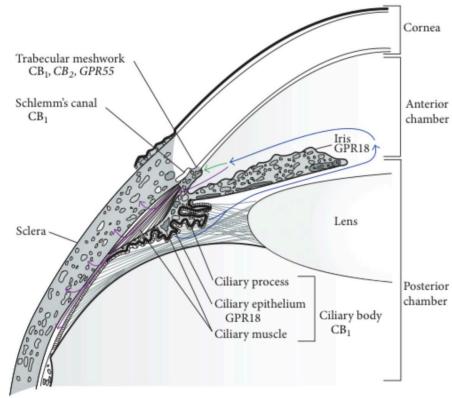


inside the eye...

- Disease that leads to the progressive damage of retinal ganglion cells (RGCs) that make up the optic nerve, resulting in irreversible vision loss
- Key risk factor in disease progression is elevated intraocular pressure
- Current available therapies aim to control IOP
- Reducing IOP by 1 mmHg has been shown to reduce disease progression by ~10%



SCIENTIFIC EVIDENCE SHOWS UTILITY OF CANNABINOIDS FOR GLAUCOMA



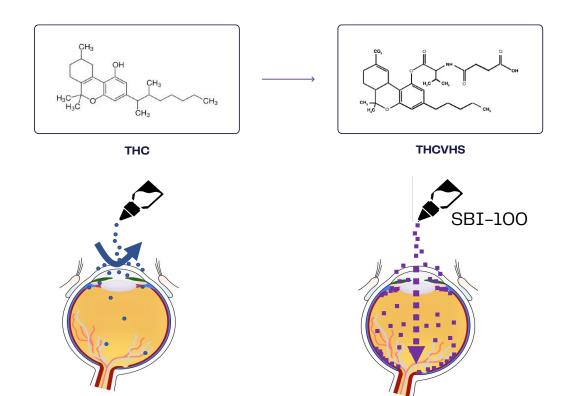
Circulating aqueous humor (blue), flowing from the ciliary body in the posterior chamber to the anterior chamber, is filtered out of the eye through two different outflow pathways: the trabecular meshwork pathway (green) and the uveoscleral pathway (purple).

- ECS receptors, specifically CB1 receptors, are found in the tissues responsible for both fluid production (ciliary body) and drainage (trabecular meshwork, Schlemm's canal)
- THC and the CB1 receptor, specifically, have been shown to be involved in IOP-lowering activity
- Multiple human studies dating to the early 1970s have demonstrated THC's ability to lower IOP
- Multiple preclinical studies have demonstrated THC's ability to be neuroprotective to cells of the optic nerve



SBI-100 ADVANTAGE - PROPRIETARY MOLECULE AND FORMULATION

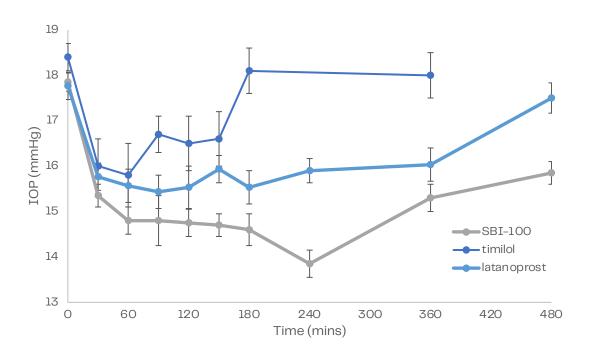
Skye has developed a prodrug that allows local delivery into the eye, limiting systemic exposure and delivering THC to ocular tissue responsible for regulating IOP

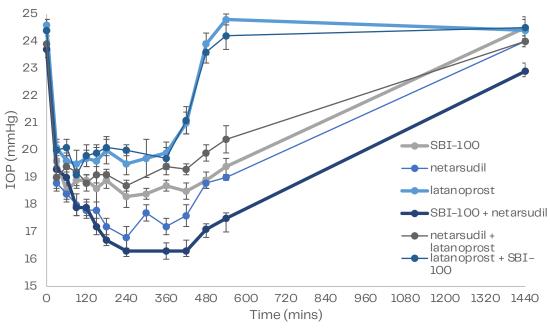


- Systemic administration of THC pose PK/PD challenges and other adverse effects
- THC is lipophilic and not easily delivered into the eye topically
- THCVHS is a prodrug of THC that increases solubility and polarity of THC, allowing it to better penetrate ocular tissue
- Inside the eye, THCVHS is converted back into THC by enzymes that cleave VHS arm of the molecule
- SBI-100: proprietary nanoemulsion (NE) formulation containing THCVHS that further enhances delivery of THC to ocular tissue, resulting in greater IOP-lowering effect and duration



SBI-100 HAS DEMONSTRATED SUPERIOR IOP LOWERING COMPARED TO STANDARD OF CARE





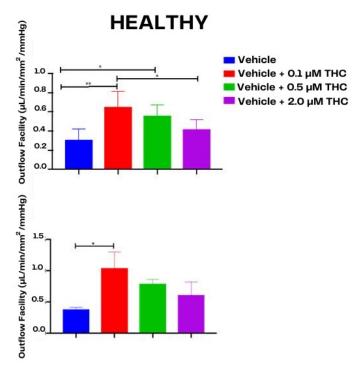
In several preclinical studies, SBI-100 demonstrated superior IOP lowering compared to leading therapies as a single agent

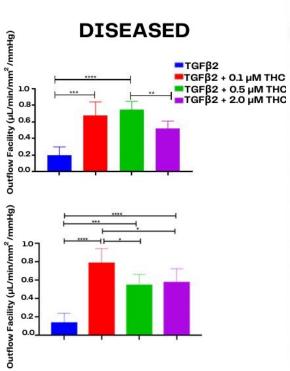
In preclinical studies, SBI-100 demonstrated enhanced efficacy when combined with other approved therapies

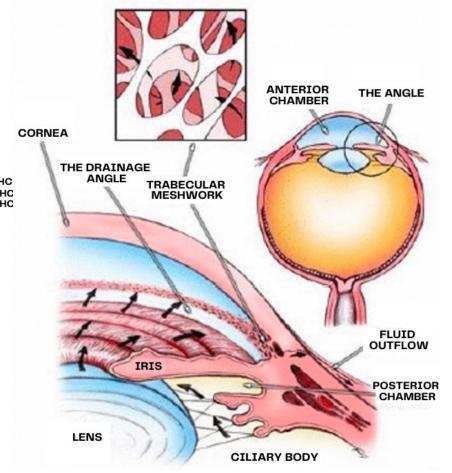


MULTI-FACTORIAL MECHANISM OF ACTION DIRECTLY TARGETS DISEASE

• In a 3D model of human trabecular meshwork (TM) tissues (responsible for fluid drainage), THC significantly increased drainage (outflow) in both healthy and diseasesimulated tissue

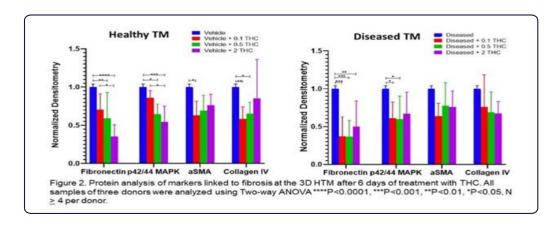


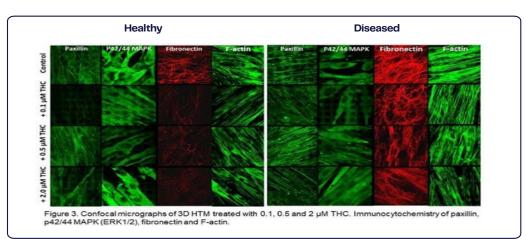






MULTI-FACTORIAL MECHANISM OF ACTION DIRECTLY TARGETS DISEASE





- THC treatment significantly reduced markers associated with fibrosis and inflammation, which are associated with glaucoma
- Potentially disease modifying through extracellular matrix remodeling of the trabecular meshwork
- Multi-factorial mechanism of action, including vasodilatory, anti-inflammatory, and anti-fibrotic responses
- Potentially a new class of treatment with therapeutic attributes distinct from existing IOP-lowering drugs



SBI-100 - ADDRESSES MULTIPLE ISSUES WITH CURRENT TREATMENT OPTIONS

✓ Targets area of disease

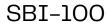
- Most drugs do not target the main site of disease-causing increased IOP, the trabecular meshwork (TM)
- THC directly targets the TM and increases flow through the eye, as well as uveoscleral pathways
- THC decreases fibrosis in the TM, the main cause of blockage to flow

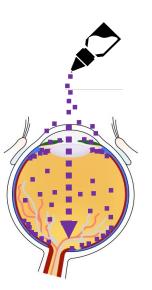
✓ Potential combination and add-on to current therapies

- · Other drugs cause local and systemic side effects
- Most drugs do not combine well with each other

√ Neuroprotective capabilities

 Cannabinoids and THC, specifically, have shown potential benefits to promote health and survival of optic nerve cells – sparing of retinal ganglion cells (RGCs) – in glaucoma models







UPCOMING CATALYSTS TO ADVANCE OUR GROWTH

SBI-100: PHASE 1

- Q122: Completion of GLP toxicology studies
- ☐ Q122: AUS Ethics Approval
- □ Q222: Initiate Phase 1 safety & tolerability
- □ Q322: Phase 1 interim data
- □ Q422: Phase 1 final data

SBI-100: PHASE 2

- ✓ Q421: Pre-IND meeting with the FDA
- □ Q122: Study protocol
- □ Q322: Complete IND-enabling studies
- □ Q422: IND clearance
- ☐ Q422: Phase 2 efficacy study initiation

ADDITIONAL MILESTONES

- Neuroprotection study to assess SBI-100 potential to spare vision loss
- ☐ CPIP/early-stage research & pipeline expansion
 - ☐ Support discovery of at least 1 novel ECS-modulating cannabinoid derivative to expand pipeline
- ☐ Product-driven intellectual property
- ☐ Efficient corporate growth to support objectives



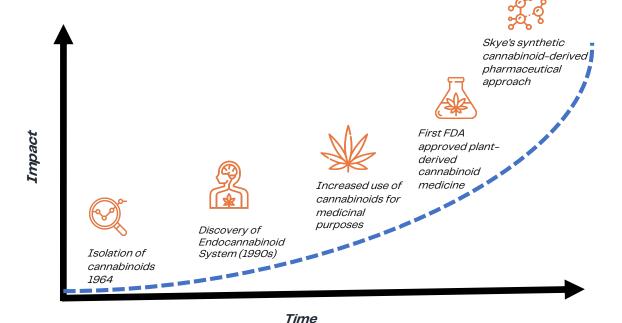


CANNABINOID PHARMACEUTICAL INNOVATION PROGRAM

Expanding the reach of cannabinoid-based therapies

UNLOCKING THE POTENTIAL OF PHARMACEUTICAL CANNABINOIDS

Decades of cannabinoid science advancements are merging with modern biotechnology techniques, creating an opportunity to develop novel, valuable, clinically-validated pharmaceutical therapies



Skye CPI Program: expanding novel cannabinoid pharmaceutical research and development to expand the pipeline of molecules and intellectual property

- Established a coalition of partners to leverage decades of research and experience
- NO LIMIT to generating game-changing cannabinoid-derived therapeutics





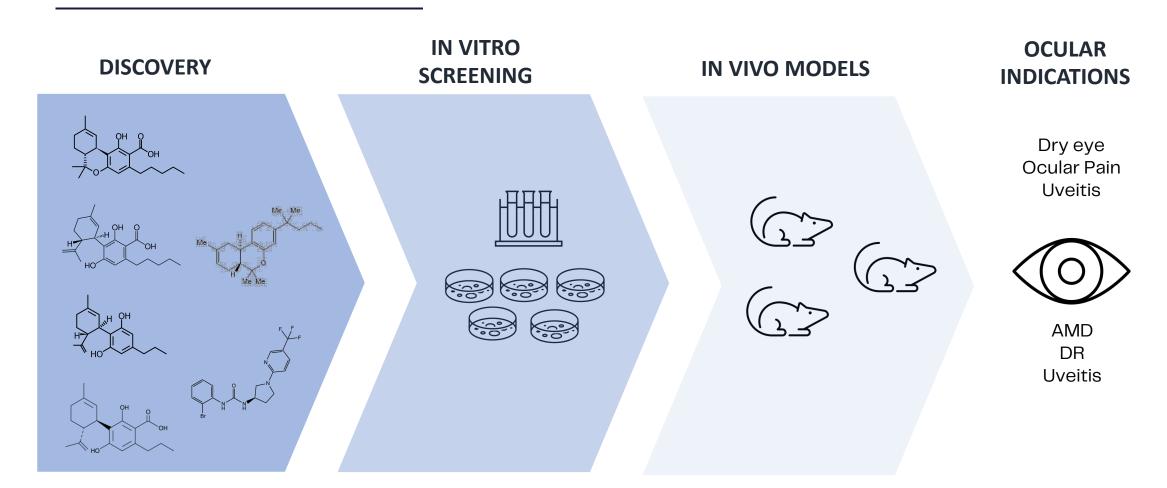






.15.

CPIP: DEVELOPING AN IN VITRO SCREENING PLATFORM FOR OCULAR DISEASES



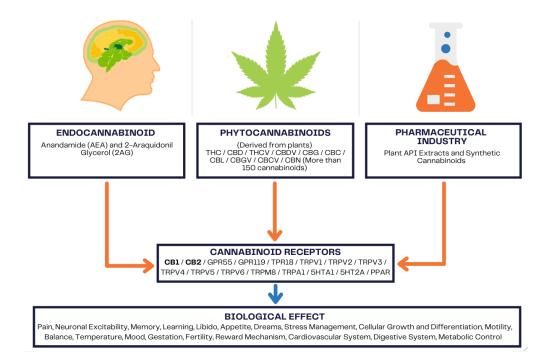
VALIDATION OF PHARMACEUTICAL CANNABINOID APPROACH

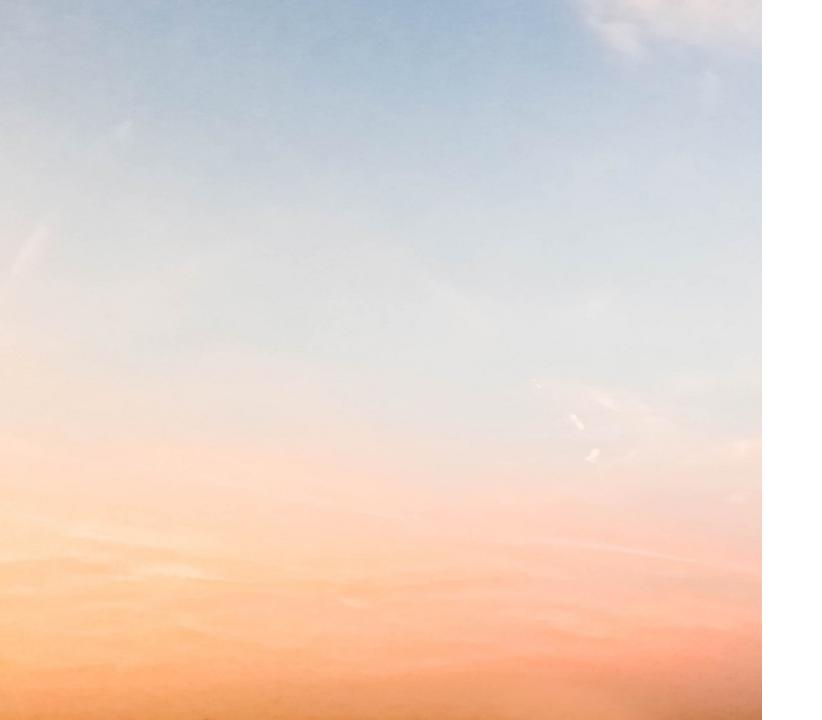
GW Pharma Overview – Plant-Based Cannabinoid Therapies

- GW demonstrated that cannabinoids are a viable and marketable class of drugs
- Company's lead product, **Epidiolex**, is first plant-derived cannabinoid approved in the US
- Has since generated sales of \$269M in 2019 and \$510M in 2020
- Established broad pipeline of plant-derived cannabinoids for multiple other indications and continues to expand label for Epidiolex
- Sold to Jazz Pharmaceuticals for \$7.2B in 2021

Differentiating from GW Model and Creating a New Class of Drugs

- Skye believes that naturally derived cannabinoids can be significantly improved through chemistry
- SBI-100 is our first proof-of-concept of this approach







MANAGEMENT TEAM

SENIOR MANAGEMENT

Punit Dhillon

Chief Executive Officer & Chair

 Co-founded and led OncoSec Medical, a cancer immunotherapy company, through early development and a partnership with Merck to launch Phase 2/3 multi-center trial. Previously VP Finance & Operations for Inovio Pharmaceuticals.

Kaitlyn Arsenault, CPA

Chief Financial Officer

 Over 14 years of experience in accounting, auditing, financial reporting, mergers and acquisitions, as well as business operations in the life science and technology sectors.

Tu Diep, MSc

Chief Development Officer

 Over 15 years of experience in research, clinical and strategic operations, business process, CMC, regulatory affairs, and business development.

Karam Takhar

VP Corporate Development

 Life sciences executive with over 15 years of experience in research, project management, operations, finance, business development, sales, and investor relations.

Tom Kim, Esq

General Counsel & Director of IP

 Previously SVP and Corporate Secretary for Inovio Pharmaceuticals. Built global patent portfolio, led M&A transactions, closed license and partnering deals with large pharma. Practiced law at large firms and Fortune 100 companies, eg.
 Monsanto and DuPont. Over 20 years of experience counseling biotech companies.

Rhea Williams, MPH

Head of Regulatory Affairs & Quality Assurance

 Over 25 years of experience in drug development, regulatory affairs and quality assurance. Supported the development of small and large molecules in the areas of neurology, hematology, oncology, women's health, cardiology, and ophthalmology.



BOARD OF DIRECTORS

Punit Dhillon

Chair

 Co-founded and led OncoSec (NASDAQ: ONCS), a cancer immunotherapy company, through early development and a partnership with Merck to launch Phase 2/3 multi-center trial. Previously VP, Finance & Operations for Inovio Pharmaceuticals (NASDAQ: INO).

James Heppell, LLB

Director

Former Founder, CEO, Director of BC Advantage Life Sciences venture fund. Director of multiple life science companies. Extensive experience in corporate finance law.

Keith Ward, PhD

Director

 Over 25 years of experience in the biotech and pharmaceutical industry. Currently President and CEO of InterveXion Therapeutics. Previously served as Global Vice President of Pharmaceutical R&D at Bausch & Lomb.

Margaret Dalesandro, PhD

Director

 Over 25 years of drug development experience in pharmaceutical, biotechnology, and diagnostics industries. Currently President of Brecon Pharma Consulting.

Praveen Tyle, PhD

Director

 Over 37 years of broad pharmaceutical executive leadership. Currently President, CEO, and Director of Invectys, Inc.. Experienced in ocular disorders with a wealth of academic insight. Previously held senior leadership positions at Novartis and Bausch & Lomb.



ADVISORS

CLINICAL

Robert Ritch, MD

Professor of Ophthalmology, Mt. Sinai

Shelley and Steven Einhorn
 Distinguished Professor of
 Ophthalmology; Surgeon Director
 Emeritus and Chief, Glaucoma
 Services, The New York Eye & Ear
 Infirmary; Professor of
 Ophthalmology, The New York Medical
 College

Louis Pasquale, MD

Professor of Ophthalmology, Mt. Sinai

 Professor Ophthalmology, Icahn School of Medicine, Chair, Department of Ophthalmology, Vice Chair of Translational Ophthalmology Research, Mount Sinai Healthcare System

SCIENTIFIC

Giovanni Appendino, PhD

Professor of Organic Chemistry, U. Piedmont

 Over 40 years of research in natural products, leading to the discovery and isolation of over 200 novel compounds, including novel cannabinoids and chemistry for cannabinoid-derived molecules.

Jeffery Goldberg, MD, PhD

Professor of Ophthalmology, Stanford

 Professor and Chair of Ophthalmology and Director of Spencer Center for Vision Research at Byers Eye Institute, Stanford University

Miguel González-Andrades, MD, PhD

Ophthalmology Clinical Advisor

 Clinician–Scientist, Ophthalmologist at Reina Sofia University Hospital, Assistant Professor and Research Scientist at Maimonides Biomedical Research Institute of Córdoba – University of Córdoba

Eduardo Muñoz, MD, PhD

Professor of Immunology, U. Córdoba

 Over 30 years of experience in biomedical research, focused on cannabinoids, pharmacology, and inflammation, providing deep expertise in the mechanism of actions of cannabinoids and the development of novel cannabinoid-derived molecules.



FINANCE DASHBOARD

476.1M

Common Shares Outstanding

5.2M

Convertible Debt Shares

\$24.6M

Market Cap

1

178.1M

Options & Warrants

659.4M

Fully Diluted

¹Based on prospectus filed 9/28/21

²Based on principal balance and accrued interest outstanding as of 21/03/31 on multi-draw credit facility which is convertible at \$0.40 per share

³ Based on 1/06/22 OTCQB closing price \$0.051



SKYE SUMMARY

- ☐ Building organization
- ☐ Finalizing nonclinical studies
- ☐ Complete Phase 1
- ☐ Initiate Phase 2
- ☐ Expanding R&D and IP

- Near-term initiation of SBI-100 Phase 1 safety and tolerability study
- Key nonclinical studies have established **mechanism of action and efficacy of SBI-100 in glaucoma**
- Skye's near-term clinical milestones, experienced executive team, and Board additions position company for future growth and strength in ophthalmology
- Pipeline expansion positions Skye in the forefront of cannabinoid research and drug development



THANK YOU



To learn more please contact:

Punit Dhillon Chief Executive Officer & Chair ir@skyebioscience.com 1 (858) 410-0266