



Pulse Biosciences

(Nasdaq : PLSE)

A **novel bioelectric medicine** company bringing to market their **proprietary** CellFX™ System, utilizing groundbreaking Nano-Pulse Stimulation™ (NPS™) technology



Forward-looking statements

This presentation and accompanying oral presentation by Pulse Biosciences, Inc., contain estimates and forward-looking statements as of December 4, 2019 including, among others, statements regarding Pulse Biosciences' future business plans, products, commercial applications, clinical trials, regulatory processes and pathways, markets for its technologies, and other future events.

You should not place undue reliance on forward-looking statements, as they involve known and unknown risks and uncertainties that are, in some cases, beyond the Company's control and could cause actual results to differ materially from the information expressed or implied. Factors that could materially affect actual results are described in detail in the Company's recent Securities and Exchange Commission filings.

Pulse Biosciences undertakes no obligation to revise or update forward-looking statements to reflect future events or circumstances.



Our Mission

To build a **viable company** that designs, produces, and commercializes Nano-Pulse Stimulation technology to improve and extend the lives of patients.



Proprietary Technology meets High Value Clinical Applications



Proprietary Platform

NPS™ has a **broadly applicable cell targeting mechanism** that effectively addresses **multiple treatments targets** in **commercially significant** areas of unmet clinical need



Excellent Clinical Data

Clinical studies have demonstrated **excellent safety and efficacy** in difficult-to-treat dermatologic conditions



Near-term Commercial

Preparing for **commercial launch** in aesthetic dermatology — **a significant commercial opportunity leveraging unique utilization-based business model**



Future Applications

Versatile technology and delivery system **platform** enables ready access to additional applications in areas of **high patient demand**



Strong Team

Proven management team and board of directors, experienced in building **valuable companies with significant shareholder returns**

Founded on technology and intellectual property, and advanced into the clinic toward commercialization by a proven and experienced multidisciplinary team.

Management Team

Darrin Uecker
President & Chief Executive Officer

Edward Ebers
EVP & GM, Dermatology

Sandra Gardiner
EVP & Chief Financial Officer

Board of Directors

Bob Duggan, Chairman


Maky Zanganeh, D.D.S.

Mitch Levinson

Thomas Fogarty, M.D.



Kenneth Clark





Manmeet Soni

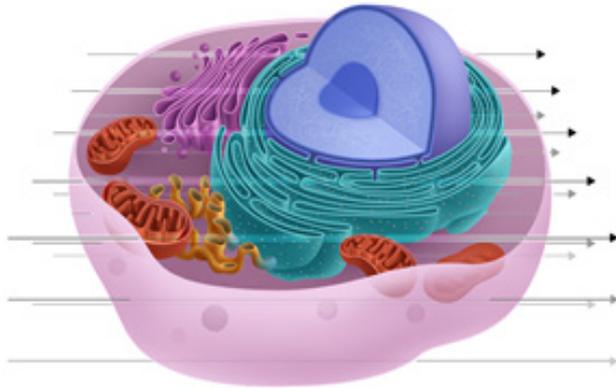
  



NPS Technology —unique mechanism
of action creates opportunity in
multiple applications



The Mechanism of NPS Technology

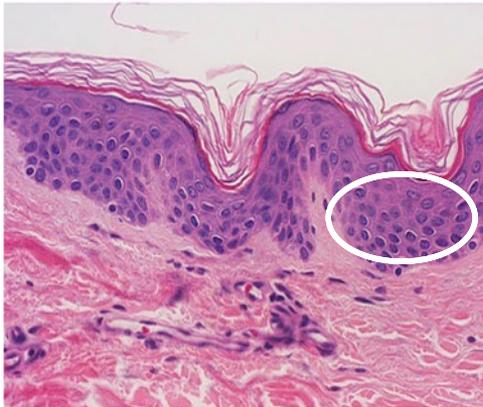


- **Non-thermal** modality that delivers nano-second duration pulses of electrical energy
- Energy pulses penetrate the cell membrane and **disrupt internal cellular function**, leading to cell death
- **Eliminates targeted cells** while sparing adjacent non-cellular tissue



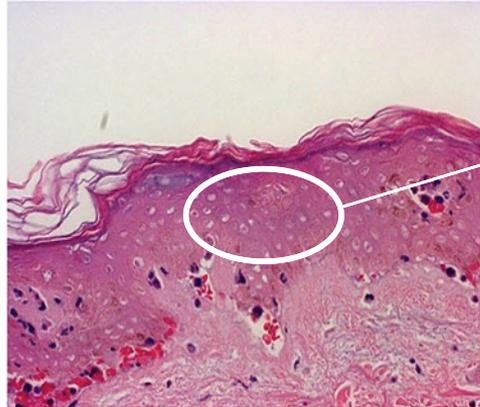
Demonstrated Mechanism of NPS for Superficial Lesions

Safe, Precise Targeting & Elimination of Treated Cells



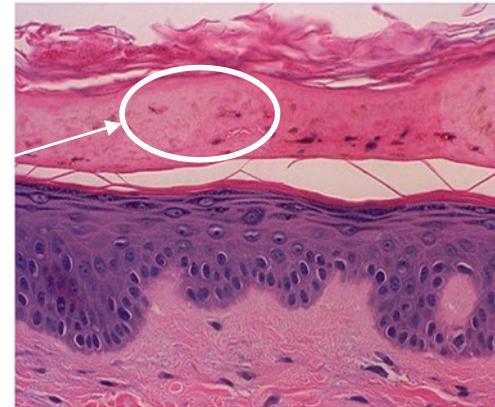
Healthy Skin

- Healthy epidermal cells with dark nuclei



One (1) day post-treatment

- Cells in treated epidermis are nonviable (ghost cells)
- Cell membranes and surrounding non-cellular tissue are intact



Seven (7) days post-treatment

- Healthy epidermis emerges below
- Treated epidermal layer peels away

The single most prevalent skin lesion appearing as brown, black or light tan growths generally associated with aging and presenting on the face, chest, shoulders and back.

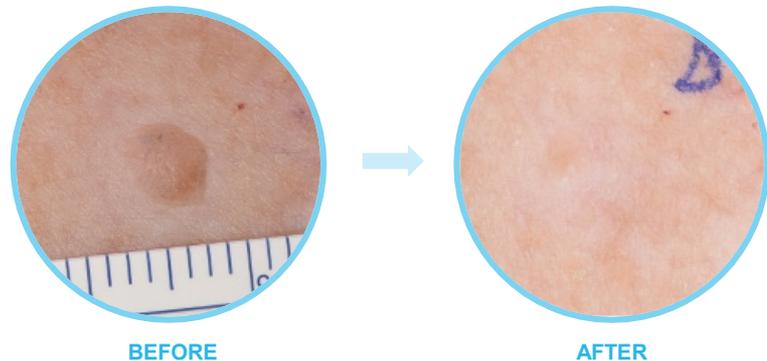
10M Immediately Addressable⁽¹⁾

- Estimated patients entering aesthetic clinics today:
~80 Patients/week per clinic, 6 lesions average per patient
- 60% of patients are untreated
- Current treatments lack acceptable cosmetic outcome

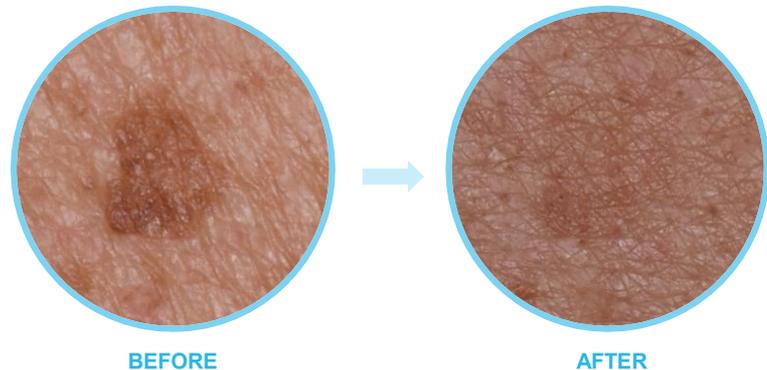
82% Efficacy Rate

- Clear or Mostly Clear with single treatment
- 174 SK's treated in 58 patients
- Patient preferred – 78% satisfaction rate

Cleared Raised SK at 106-day follow-up

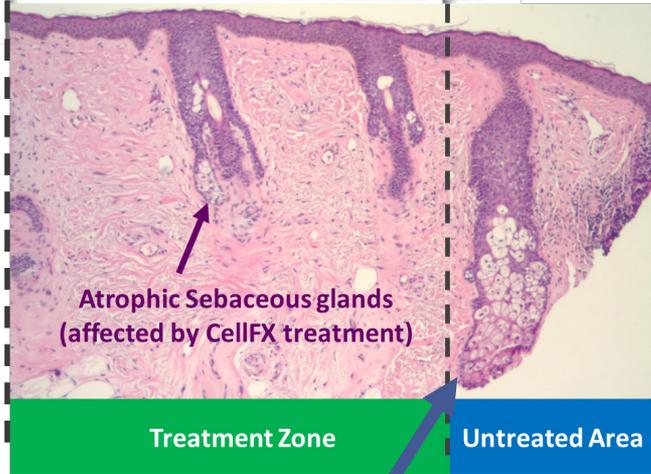


Cleared Macular SK at 60-day follow-up

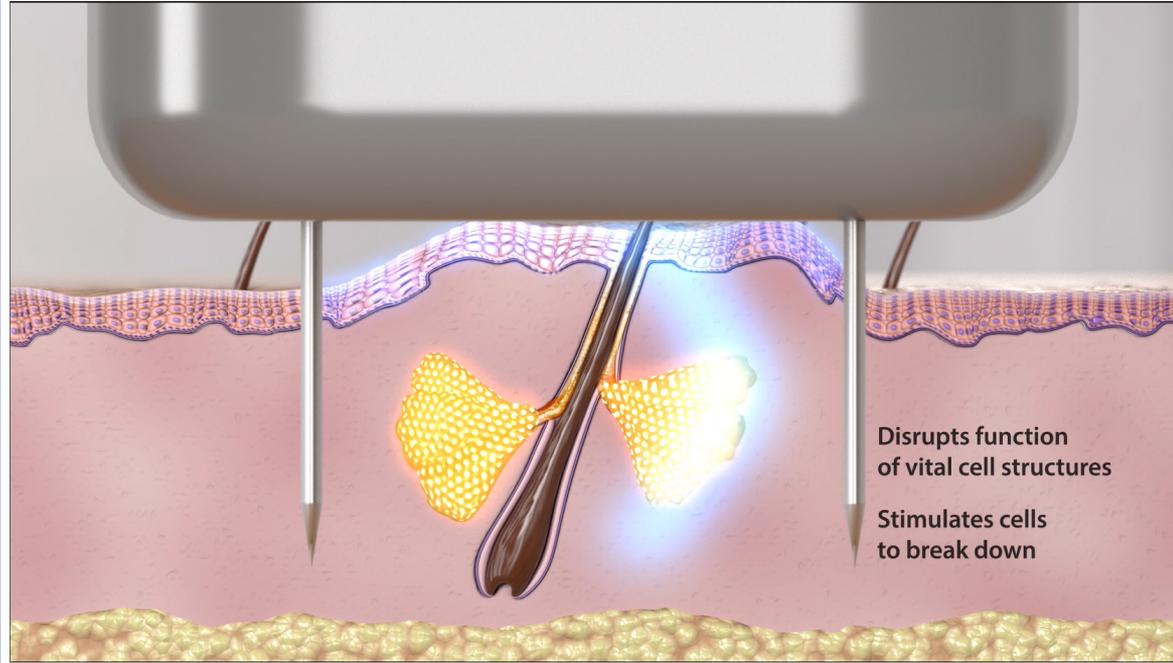


CellFX™ Cell Selective Effects Deeper in the Dermis

CellFX Treatment Zone



Normal Sebaceous Glands
Outside Treatment Zone are
Not Affected



CellFX™ in Dermatology—Sebaceous Hyperplasia (SH)

Small oily, shiny lesions usually 2-4 millimeters in diameter presenting on the face as a result of enlarged sebaceous glands deep in the skin.

5M Immediately Addressable⁽¹⁾

- Estimated patients entering target aesthetic clinics today:
~40 Patients/week per clinic, 6 lesions average per patient
- 65% of patients are untreated
- Unmet need: no acceptable standard of care

99.5% Efficacy Rate

- Clear or Mostly Clear – 90% single treatment
- 222 SH lesions treated in 72 patients
- Very safe and tolerable – 77% satisfaction rate

Cleared SH at 60-day follow-up



CellFX™ in Dermatology—Warts (non-genital)

Benign skin growths that are caused by human papillomavirus (HPV) and can appear anywhere on the body. Up to one-third of non-genital warts become **recalcitrant**, which means they persist following several months of conventional treatment.

4.5M Immediately Addressable⁽¹⁾

- Estimated patients entering aesthetic clinics today:
~30 Patients/week per clinic, 3 warts average per patient
- Approximately 90% receive some method of treatment
- Difficult to permanently clear warts

Feasibility Study

61% Rate of Complete Clearance in Recalcitrant Warts

- Majority of patients in study failed previous modalities
- 71% of completely cleared warts achieved with single treatment session
- Based on strong feasibility study results, large pivotal study is underway

Cleared Wart at 60-day follow-up



BEFORE

AFTER

CellFX System – Platform for Multiple Applications

EPIDERMAL

- Seborrheic keratosis (Raised & Macular)

- Warts (*Pivotal Study*)

- Common moles/nevi

- Cherry angioma

- Actinic keratosis

- Molluscum contagiosum

MID-DERMAL

- Sebaceous hyperplasia

- Acne

- Syringoma

- Intradermal nevi

- Oily skin

- Tattoo removal

- Keloid scar

- Melasma

- White/blond hair

- Rhinophyma

- Xanthelasma

Initial Applications

Early Feasibility Work Underway

Future Applications

DEEP DERMIS / SUBCUTANEOUS

- Nodular BCC

- Sweat glands

- Congenital melanocytic nevi

- Subcutaneous fat

- Hidradenitis suppurativa

- Lipomas

- Sebaceous cysts



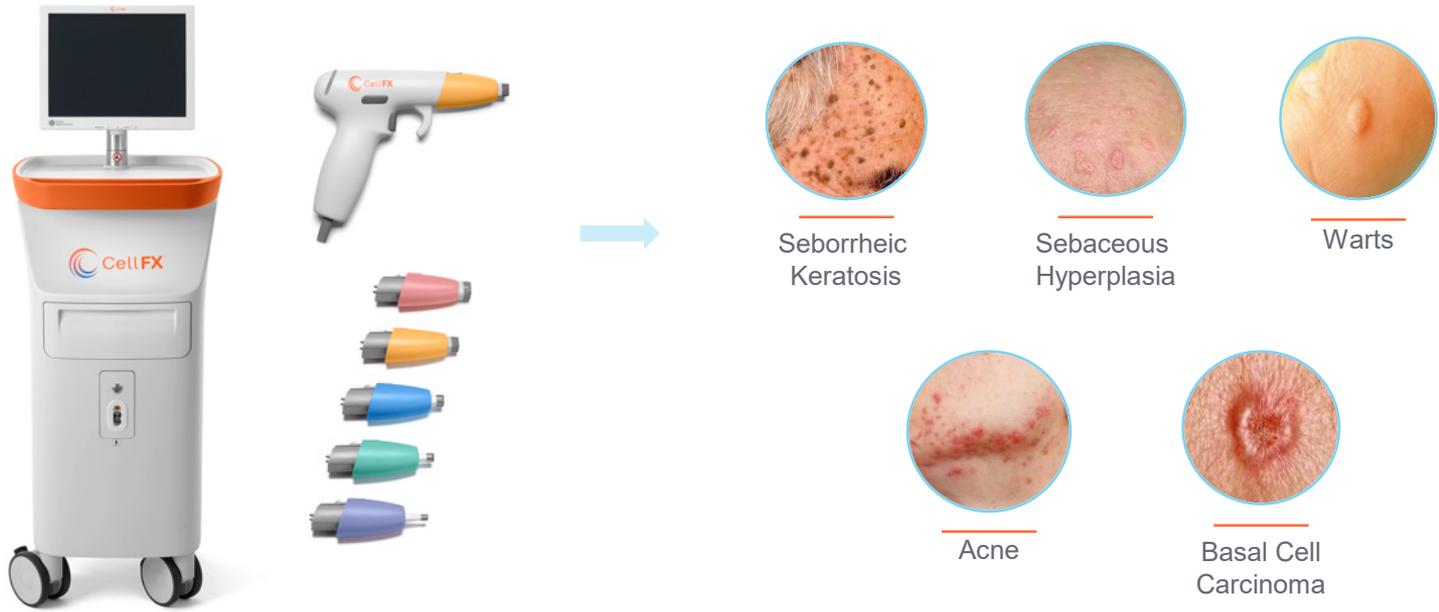
Caution: Applications have yet not been cleared by the FDA

CellFX System

Our proprietary platform for delivering
Nano-Pulse Stimulation technology
targeting the Aesthetic Procedure Market



CellFX™ System – Expanding Apps and Growing Utilization



Deliver high value applications to improve the lives of patients that generate value-based revenue for physician and Pulse Biosciences



Target Physicians and Patients Are Focused on Aesthetic Procedures



Aesthetic Physicians

- Focused on aesthetic procedures which are typically cash-pay, elective
- Frequent purchaser of capital equipment
- Large portion of revenues derived from aesthetic procedures
- Business and marketing savvy with focus on growing practice by offering the latest technologies
- Entire clinic is well-trained and well-versed in educating patients and promoting procedures

	Condition	Patient volume*
	Sebaceous Hyperplasia	42 per week
	Seborrheic Keratosis	84 per week
	Warts (non-genital)	37 per week



Aesthetic Patient Veterans

- “Aesthetic veterans” who are active in visiting skin specialists for various cosmetic procedures several times a year
- Willing to invest in procedures to look their very best to maintain confidence, continue looking young, and improve self-esteem
- Seek advice from their skin specialist on latest treatments options
- Typically female, age 40 – 65

Compelling Short-term Economics



Initial Investment

\$45,000



3 Patients / Week

Avg. Lesions per Patient

5 / patient

MD Revenue per Patient

\$900-1200*



< Four Month

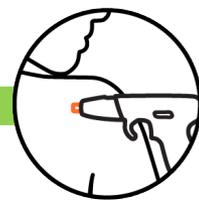
Return on Investment

Long-term Practice Franchise



Avg. 10 Patients / Week

- 10 x 15 minute treatment session (3 hrs)
- Benign Lesion, SH, SK, & Warts
- Room for growth with additional apps



Avg. 5 Lesions per Patient

Net MD Rev per lesion
\$150-200



Gross Profit

~\$400,000 / Year

*Average revenue per patient of \$1050 used in ROI calculation yields \$63K revenue in < four months

CellFX™ Cloud: Unique Competitive Advantages





U.S. Target Market Geographies Favor Promotional Efficiencies

80%

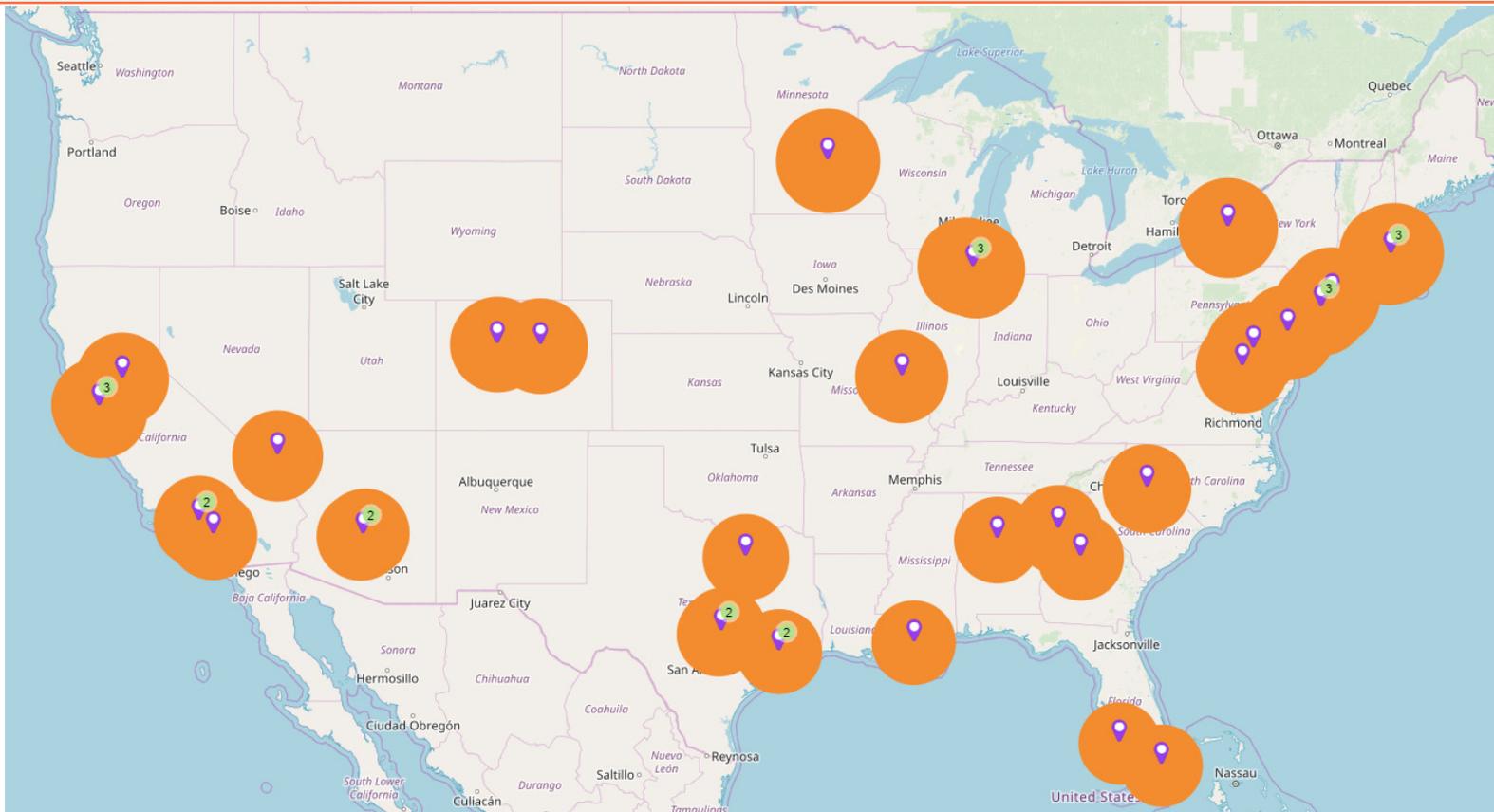
of target early adopter physicians

located within 100-mile radius of the 40 controlled launch participants selected for controlled launch

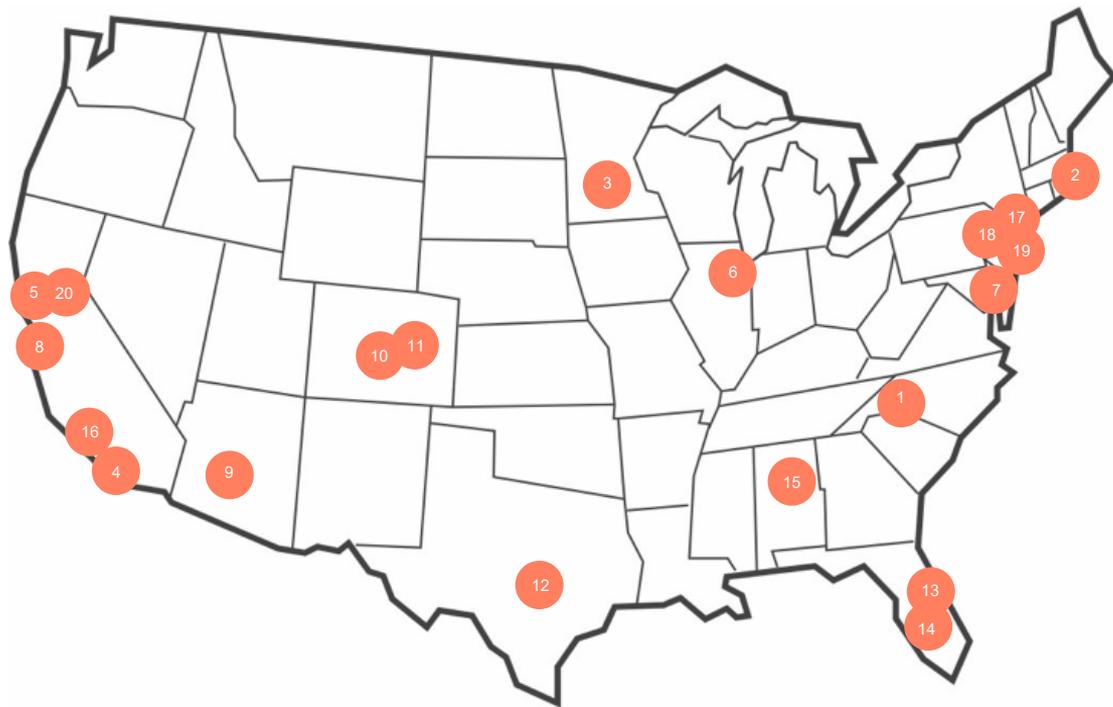
4.6M

average population

located within 100-mile radius of the 40 controlled launch participants selected for controlled launch



CellFX™ Clinical Study Sites / KOLs Across the U.S.



- 1 Dr. Gilly Munavalli, Charlotte, NC
- 2 Dr. Tom Rohrer, Chestnut Hill, MA
- 3 Dr. Brian Zelickson, Edina, MN
- 4 Dr. Vic Ross / Scripps, San Diego, CA
- 5 Dr. Suzanne Kilmer, Sacramento, CA
- 6 Dr. Carolyn Jacob, Chicago, IL
- 7 Dr. Elizabeth Tanzi, Chase, MD
- 8 Dr. James Newman, San Mateo, CA
- 9 Dr. Brenda LaTowsky, Scottsdale, AZ
- 10 Dr. Lauren Bonati, Edwards, CO
- 11 Dr. Joel Cohen, Centennial CO
- 12 Dr. Ted Lain, Austin TX
- 13 Dr. Mark Nestor, Aventura, FL
- 14 Dr. Jeremy Green, Coral Gables FL
- 15 Dr. Chris Harmon, Birmingham, AL
- 16 Dr. Ava Shamban, Los Angeles, CA
- 17 Dr. Lesley Loss, Rochester, NY
- 18 Dr. Roy Geronemus, New York, NY
- 19 Dr. Bruce Katz, New York, NY
- 20 Dr. David Kaufman, Folsom, CA

- **510(k) Submission for the CellFX System**
 - Treatment of dermatologic benign lesions *including sebaceous hyperplasia and seborrheic keratosis*
- **Submitted:** February 22, 2019
- **Additional Information (AI) Letter from FDA:** April 30, 2019
- **Current Status:**
 - We responded to the AI letter in Q3 and received two additional questions.
 - Based on discussion with FDA the submission was put on hold again to allow time for FDA to review responses to the additional questions.
 - Subject to further communication with FDA, we are expecting resolution by the end of 2019 and are planning for a clearance.



As of November 2019

**95 issued
patents
globally
owned
& licensed**

Additional 93 patent applications pending worldwide

A Robust Intellectual Property Portfolio

Multipronged Patent Strategy

- Pioneering IP for the use of nanosecond pulses in biology
- Covering methods and tools for the application of nanosecond pulses in biology
- Pioneering IP and continued development of IP with focus on skin-based applications
- Continued development and patent filings covering systems, applications, and methods of combining nanosecond pulsing with other biological technologies and agents

Financial Position (in thousands)

- No debt
- Working capital \$31.9MM
- Quarterly cash usage
 - Q1'2019 \$ 6.8MM
 - Q2'2019 \$10.2MM
 - Q3'2019 \$ 8.1MM

Sep 30, 2019

Cash, cash equivalents & investments	\$	34,498
Prepays & other assets		3,082
Property, plant and equipment		2,428
Goodwill & intangibles		7,504
Right of use assets		1,190
Total assets	\$	48,702
Accounts payables & accrued liabilities	\$	3,870
Lease liability		3,851
Debt		-
Stockholders' equity		40,981
Total liabilities & stockholders' equity	\$	48,702
Shares outstanding		20,788

Near-Term Milestones



✓ Commercialization of the CellFX System

- FDA Clearance
- Buildout Commercial Team and Infrastructure
- Commence CellFX Controlled Launch

✓ Expand Pipeline of Clinical Applications

- Warts Pivotal Study
- Expanded BCC Feasibility Studies
- Additional Dermatology Application Studies

Thank You
