# Pulse Biosciences

(Nasdaq: PLSE)

August 2022

# Forward-looking statements

This presentation by Pulse Biosciences, Inc., contain estimates and forward-looking statements as of August 15, 2022 including, among others, statements regarding Pulse Biosciences' future business plans, products, commercial applications, intellectual property strategy, clinical trials, regulatory processes and pathways, and markets for its technologies, as well as patient and physician behavior and preferences 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.

Pulse Biosciences®

Provide superior treatment for a wide range of conditions through a novel, proprietary, tissue sparing solution



Pulse Biosciences®

# Launching a New Category in Dermatology


**NPS Platform technology addresses unmet need** aesthetically pleasing clearance of common spots, bumps and growths (benign skin lesions)

**Built-in demand** patients already visiting target aesthetic dermatologists and skin specialists

Positioned to be one of the **strongest revenue and profitability categories** for aesthetic dermatology clinics

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# Broadly Applicable Novel Bioelectric Medicine Platform


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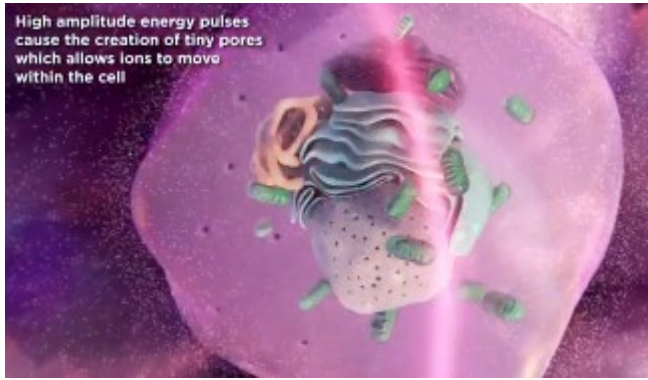
# Nano-Pulse Stimulation Technology

Non-thermal modality that delivers nanosecond duration pulses of electrical energy

High speed nanosecond energy pulses penetrate the cell membrane and disrupt internal cellular function, leading to regulated cell death

Unlike thermal (heat/cold) technologies, NPS directly impacts cellular structures while sparing non cellular tissue (primarily collagen)

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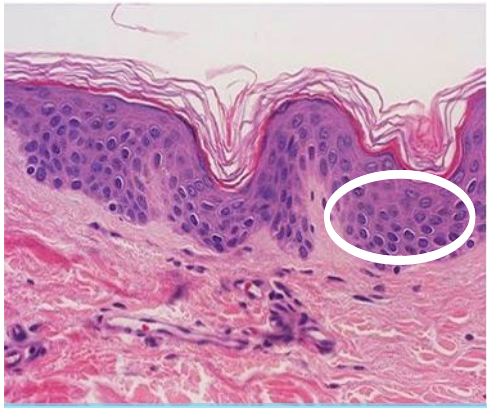
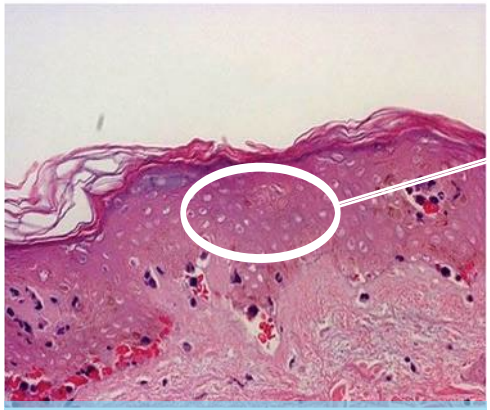
# Demonstrated Mechanism of NPS in Skin

Safe, precise targeting and elimination of cells while sparing the dermis



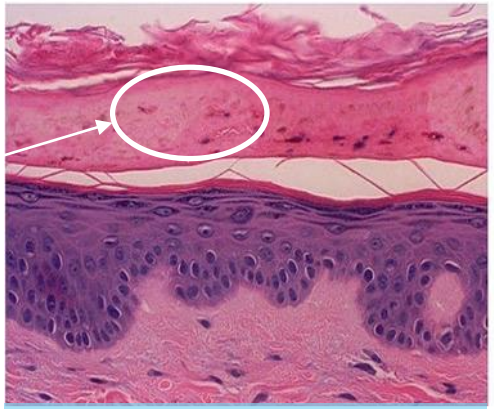
**Healthy Skin**

- 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

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# NPS Technology Platform

NPS delivered through the proprietary CellFX System

CellFX®

Broadly applicable platform with the ability to address multiple treatment targets in commercially significant areas of unmet clinical need


Initial applications in dermatology

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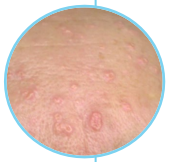
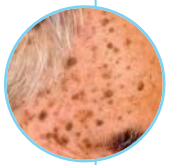
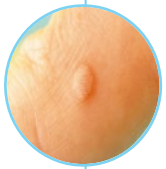
# Unmet Need in Aesthetic Dermatology

Current treatments lack acceptable cosmetic outcomes or no standard of care exists

## Aesthetic Patient Veterans

- Visit skin specialists for cosmetic procedures several times per year
- Seek latest treatment options
- Willingness to invest in procedures to look their best
- Aesthetic procedures are generally elective and cash-pay

| Condition | Current Standards |
|---|---|
|  **Sebaceous Hyperplasia** | **60%** of patients are untreated |
|  **Seborrheic Keratosis** | **65%** of patients are untreated |
|  **Warts** (non-genital) | **90%** of patients receive treatment with high failure rate |

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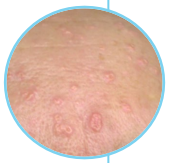
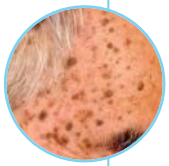
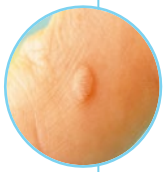
# Market Opportunity

Widespread prevalence among patients visiting aesthetic dermatologists today

**6,800 Aesthetic Physicians**

| | US[1] | Europe[2] |
|---|---|---|
|  **Sebaceous Hyperplasia** | **42** Patients per week | **54** Patients per week |
|  **Seborrheic Keratosis** | **84** Patients per week | **72** Patients per week |
|  **Warts** (non-genital) | **37** Patients per week | **55** Patients per week |

**+$1B**

Current addressable market

Surveys conducted by third-party market research firm on behalf of Pulse Biosciences, Inc., Full survey results available upon request

1. Based on 2019 Clinician (n=304) in the U.S.
2. Based on 2020 Clinician (n=46) in Europe

# Safety and efficacy across multiple difficult-to-treat dermatologic conditions

## SH

Cleared SH at 60-day follow-up

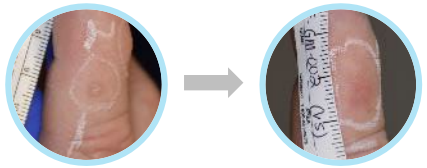
BEFORE AFTER

### Sebaceous Hyperplasia[1]

- 99.5% efficacy (% of SH lesions rated clear or mostly cleared 60 days post NPS procedure)[1]
- Long-term follow-up study (12-months) data shows 73% of lesions maintained or improved clearance[2]

## Warts

Cleared Wart at 60-day follow-up



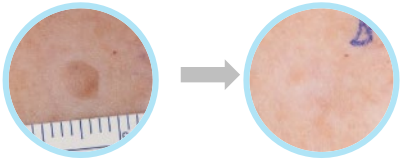
BEFORE AFTER

### Warts (non-genital)[3]

- Up to 75% clearance efficacy, with majority of common warts cleared with a single procedure
- 48% of treated warts had failed previous modalities
- No evidence of recurrence within a 120-day observation period

## SK

Cleared Raised SK at 106-day follow-up



BEFORE AFTER

### Seborrheic Keratosis[4]

- 82% efficacy rate
- Clear or mostly clear with single treatment
- 78% satisfaction rate

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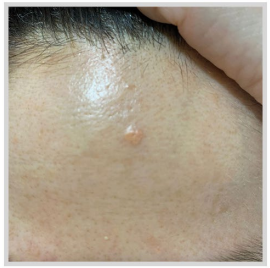
**1.** Munavalli G, Zelickson B, Selim M, Kilmer S, Rohrer T, Newman J, et al. Safety and Efficacy of Nanosecond Pulsed Electric Field Treatment of Sebaceous Gland Hyperplasia. Dermatologic Surgery 2020; 46: 803–809 **2.** April 2022 ASLMS Annual Meeting "Long-term NPS Data for the Clearance of Sebaceous Hyperplasia Shows High Levels of Clearance and Improved Cosmesis When Using Low NPS Energy Settings" Investigators: Suzanne Kilmer MD (presenter); Girish Munavalli MD, Brian Zelickson MD, Brenda M. LaTowsky MD, Elizabeth Tanzi MD, Ava Shamban MD **3.** Nuccitelli R, LaTowsky BM, Lain E, Munavalli G, Loss L, Ross EV, Jauregui L and Knape WA (2021), Safety and Efficacy of Nano-Pulse Stimulation Treatment of Non-Genital, Cutaneous Warts (Verrucae). Lasers in Surgery and Medicine. https://doi.org/10.1002/lsm.23423 **4.** Hruza G, Zelickson B, Selim M, Rohrer T, Newman J, et al. Safety and Efficacy of Nanosecond Pulsed Electric Field Treatment of Seborrheic Keratoses. Dermatologic Surgery 46(9):1183-1189, September 2020.

# Results from Around the World

before



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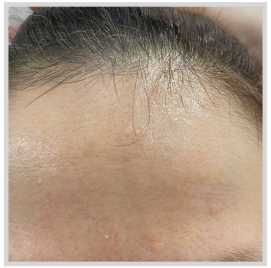
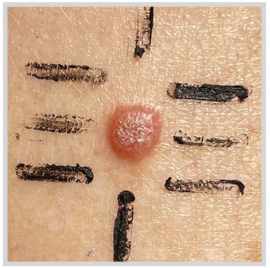


Photos courtesy of Dr. Mar Llamas

before



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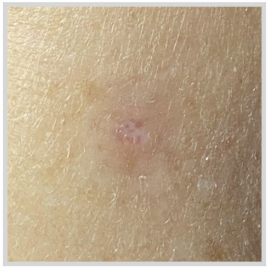
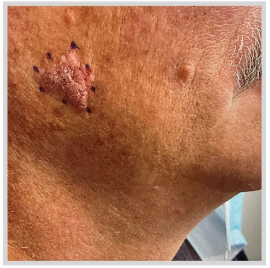


Photos courtesy of Dr. Josep Gonzalez Castro

before



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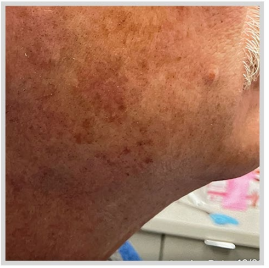
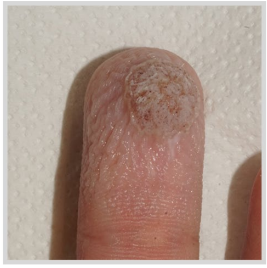


Courtesy of Dr. Anna Paré

before



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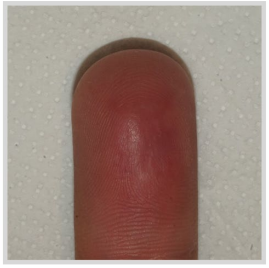
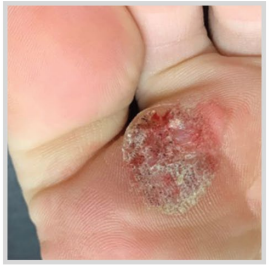


Courtesy of Dr. Enrique Rodriguez Lomba

before



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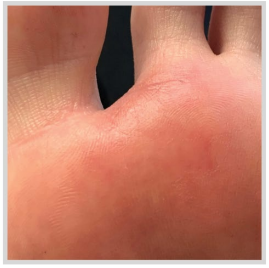
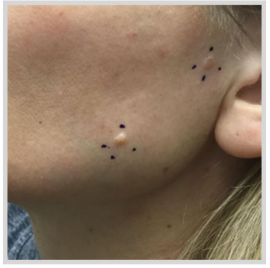


Courtesy of Dr. Matt Mahlberg

before



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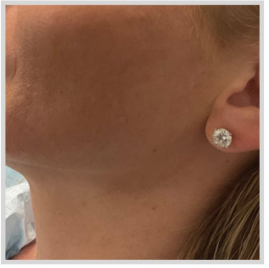

Courtesy of Dr. Anna Paré

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# Strong Dermatology KOL Support and Advocacy

Deep network of leading aesthetic dermatologists

**13** **CLINICAL PUBLICATIONS ON NPS TECHNOLOGY**

Dermatologic Surgery | Lasers in Surgery and Medicine | Journal of Cosmetic and Laser Therapy

## PODIUM AND POSTER PRESENTATIONS

| 2018 | 2019 | 2020 | 2021 | 2022* |
|---|---|---|---|---|
| 4 | 12 | 16 | 18 | 14 |

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* *Completed or planned through June 2022*

## Scientific Advisors & Consultants

ASDS American Society for Dermatologic Surgery | ASLMS American Society for Laser Medicine & Surgery, Inc. | AAD American Academy of Dermatology

Dr. Brian Biesman, Nashville, TN
Dr. Joel Cohen, Denver, CO
Dr. Chris Harmon, Birmingham, AL
Dr. Suzanne Kilmer, Sacramento, CA`
Dr. Darius Mehregan, Ann Arbor, MI
Dr. Gilly Munavalli, Charlotte, NC
Dr. Tom Rohrer, Chestnut Hill, MA
Dr. Vic Ross, San Diego, CA
Dr. Elizabeth Tanzi, Chevy Chase, MD
Dr. Brian Zelickson, Edina, MN
Dr. Brian Berman, Aventura, FL
Dr. Mark Nestor, Aventura, FL
Dr. James Newman, San Mateo, CA
Dr. Robert Pierce, Boston, MA

# CellFX Commercial Launch

Transitioned from controlled launch program to increasing commercial clinic utilization

## 2021

**Regulatory approval for CellFX received**
- CE mark in January
- FDA clearance in February
- Health Canada approval in June
- Australia TGA approval

**Commenced controlled launch in US and EU**
- First patients treated in the US and EU
- 70 clinics onboarded by YE22
- 29 opted to acquire CellFX Systems and transition to commercial use

**First 2 commercial sales of CellFX Systems completed**

## 1H22

**Driving utilization at key accounts**
- Implemented utilization program within subset of commercial accounts

**Controlled Launch Progresses**
- Transitioned 14 CLP participants to commercial use
- Total of 43 commercial conversions to date (12 remaining; 15 opted out)

**3 commercial sales of CellFX Systems**

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# Cycles Enable Treatment Delivery

Innovative utilization based business model aligns incentives

- Patients want to pay based on number of lesions treated
- Dermatologists want to treat all patients regardless of condition size/type/amount and want their costs aligned with what they treat


**CellFX System is designed to support a business model based on each lesion treated, aligning the patient, physician, and Pulse**

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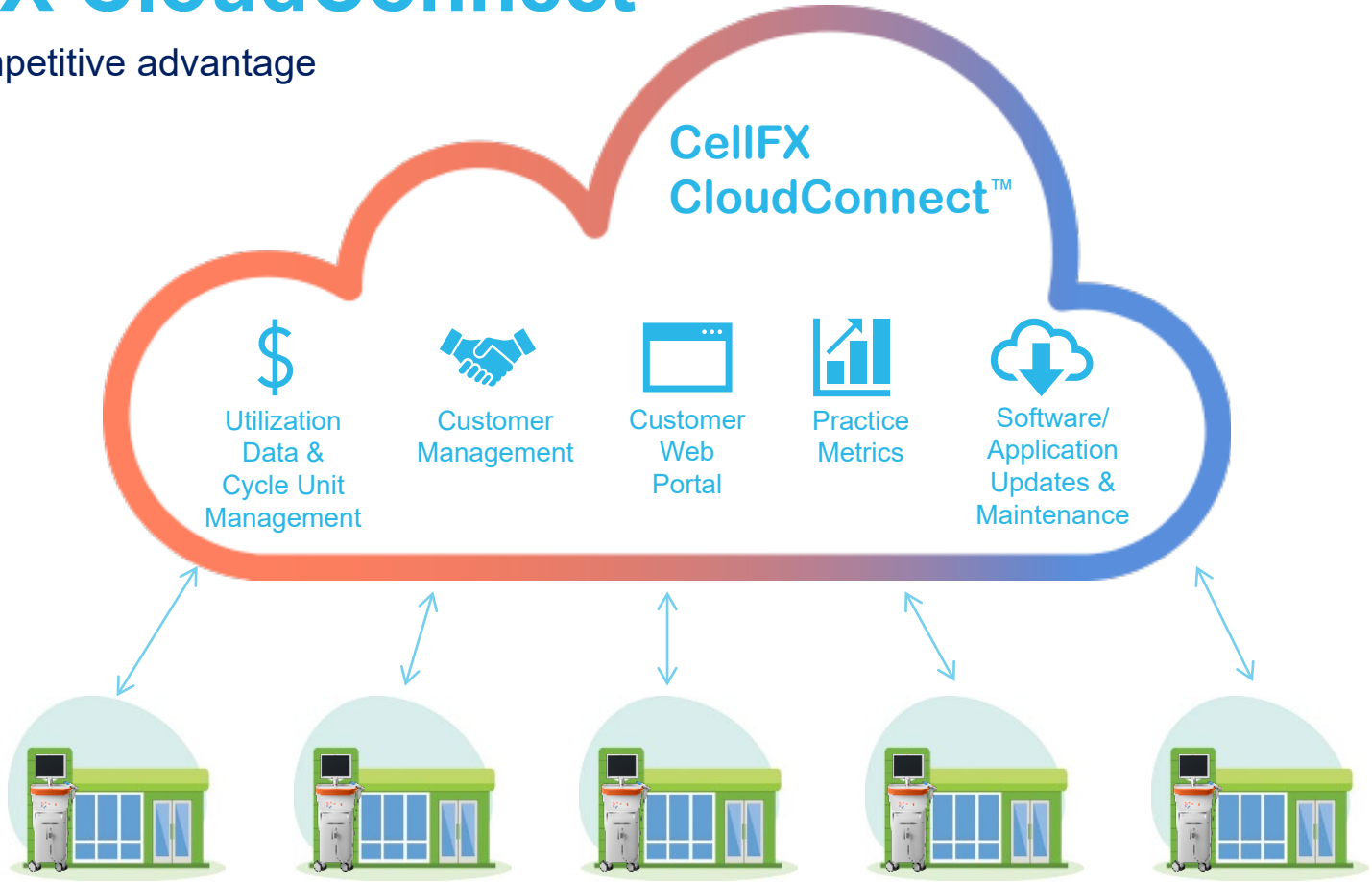
# CellFX CloudConnect™

Unique competitive advantage

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# Practice Economics

MD Franchise Based on Expanding Utilization Over Time

## Compelling Short-term Economics

## Long-term Practice Franchise

**Initial Investment**

$45,000

**Three Patients / Week**

1-10 lesions / patient

**MD Revenue / Patient**

$250-500*

**< 1 Year**

**Return on Investment**

**Avg. Ten Patients / Week**

- 10 x 15-minute treatment session (2.5 hrs)
- Benign Lesion, SH, SK, & Warts
- Room for growth with additional apps

**Avg. Five Lesions per Patient**

MD Revenue
$500

**Revenue to Practice**

**~$250,000 - $500,000 / Year**

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*Average revenue per patient of $375 used in ROI calculation yields $58,000 revenue in < one year

# A Big Future in Dermatology

NPS mechanism being investigated for multiple applications

**Initial Applications**

**Early Feasibility Work Underway**

Future Potential Applications

Over 800 subjects treated in controlled clinical studies*

**EPIDERMAL**

**Seborrheic keratosis (Raised & Macular)**

**Warts (non-genital)**

**Common moles/nevi**

**Superficial basal cell carcinoma (BCC)**

Actinic keratosis

Molluscum contagiosum

**MID-DERMAL**

**Sebaceous hyperplasia**

**Acne**

**Syringoma**

**Benign nevi**

**Oily skin**

**Dermatofibroma**

Keloid scar

Melasma

White/blond hair

Rhinophyma

Xanthelasma

**DEEP DERMIS / SUBCUTANEOUS**

**Nodular basal cell carcinoma (BCC)**

Sweat glands

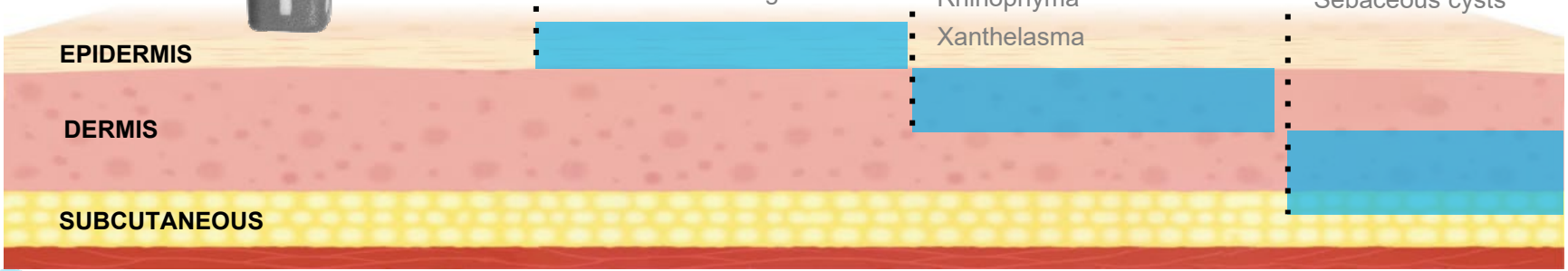
Congenital melanocytic nevi

Subcutaneous fat

Hidradenitis suppurativa

Lipomas

Sebaceous cysts

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*Specific applications have not been cleared by the FDA*

# Expanding CellFX System Regulatory Clearances



- **Received 510(k) Clearance** for general dermatologic indication February 2, 2021
  - **Progressing stepwise FDA strategy** in pursuit of subsequent specific indications
  - **Sebaceous Hyperplasia –** Completed FDA IDE approved study and 510(k) submission in 4Q21, received Additional Information letter in 1Q22
  - **Common non-genital warts –** Completed treatments in FDA IDE approved study to generate data for a 510(k) submission
  - **Basal cell carcinoma –** Completed treatments and tissue analysis for FDA IDE approved treat and resect feasibility study
- **CE mark approval** received January 22, 2021
- **Health Canada approval** received June 9, 2021
- **Australian TGA approval** received November 8, 2021

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# Upcoming Milestones

- **Increasing commercial utilization among nine program clinics**
- **Continue transition of Controlled Launch Program clinics to commercial use**
- **Clinical and regulatory activity to expand CellFX System clinical applications**
  - Subsequent 510(k) submissions
    - Anticipate further communication with FDA prior to any formal response to the Additional Information letter
    - Non-genital warts submission planned for after SH AI letter response
  - Anticipate meeting with the FDA to discuss a potential pivotal study to treat basal cell carcinoma lesions by end of 3Q22
- **Progress Clinical and Scientific programs**
  - Continued presence at global scientific meetings


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As of July 2022

# 130 issued patents globally owned & licensed

Additional 104 patent applications pending worldwide

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# Robust IP 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 Snapshot

**Revenue**

| | |
|---|---|
| 2021 | $1.4 million |
| 1Q 2022 | $444 thousand |
| 2Q 2022 | $265 thousand |

**Cash Utilization**

| | |
|---|---|
| 2021 | $52.9 million |
| 1Q 2022 | $15.9 million |
| 2Q 2022 | $12.8 million |

**Completed restructuring initiatives in 2Q 2022, resulting in 21% reduction of operating expenses compared to the prior quarter**

**Completed $15MM Rights Offering in June 2022, with potential to raise an additional $15MM through the exercise of accompanying warrants**

| | June 30, 2022 (In thousands) |
|---|---|
| Cash, cash equivalents & investments | $ 14,798 |
| Accounts Receivable | 8 |
| Inventory | 7,871 |
| Prepaid expenses & other assets | 1,427 |
| Property, plant and equipment | 2,386 |
| Goodwill & intangibles | 5,674 |
| Right of use assets | 8,433 |
| **Total assets** | **$ 40,597** |
| Accounts payable & accrued liabilities | $ 6,705 |
| Deferred revenue | 32 |
| Lease liability | 10,445 |
| Stockholders' equity | 23,415 |
| **Total liabilities & stockholders' equity** | **$ 40,597** |
| Shares outstanding (as of 7/31/2022) | 37,126 |

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# Leadership Team

Proven and experienced in growing medical technology from clinical to commercial stage

## MANAGEMENT

| | | |
|---|---|---|
| Darrin Uecker* | President & Chief Executive Officer | gynesonics, computermotion |
| Kevin Danahy | Chief Commercial Officer | Zimmer Biomet, Intuitive, Medtronic, Johnson & Johnson |
| Sandra Gardiner | EVP & Chief Financial Officer | Cutera, tria |
| Mitch Levinson* | Chief Strategy Officer | Cerebrotech Medical Systems, Zeltiq, thermage |

## BOARD OF DIRECTORS

**Bob Duggan, Chairman**

pharmacyclics, Intuitive, computermotion

**Maky Zanganeh, D.D.S.**

pharmacyclics, computermotion

**Mitch Levinson**

Cerebrotech Medical Systems, Zeltiq, thermage

**Richard van den Broek**

HSMR Advisors, pharmacyclics

**Manmeet Soni**

Reata Pharmaceuticals, Alnylam, pharmacyclics, Zeltiq

**Shelley Spray**

Summit therapeutics, Intuitive, Medtronic

*Also on Board of Directors

# Thank You