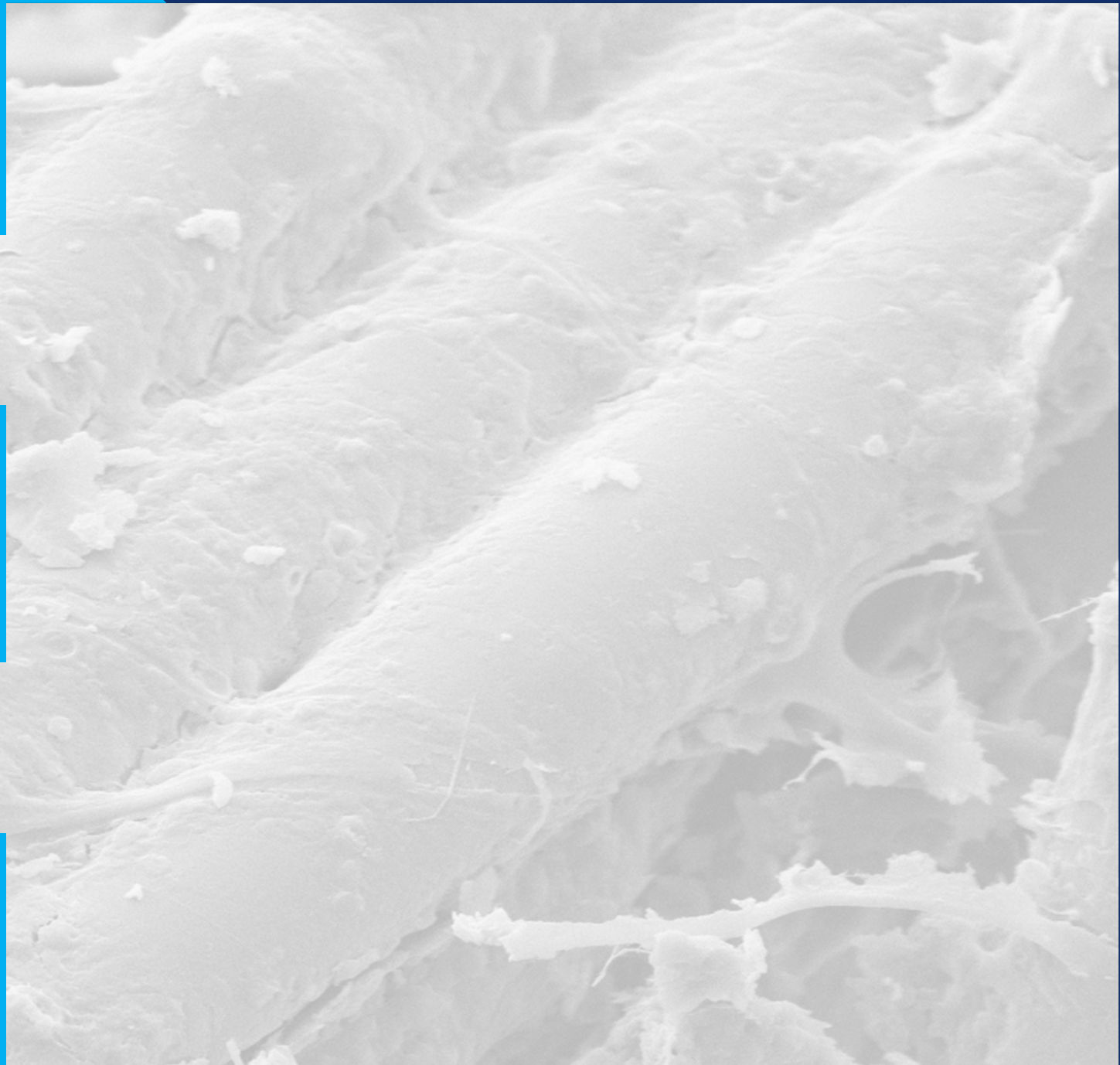


# **Dermata Therapeutics**

**Transforming Topical Treatment  
of the Skin**

**Corporate Presentation  
May 2022**



# FORWARD LOOKING STATEMENTS AND DISCLAIMERS

This presentation and the accompanying oral presentation contain “forward-looking” statements that are based on our management’s beliefs and assumptions and on information currently available to management. Forward-looking statements include all statements other than statements of historical fact contained in this presentation, including information concerning our current and future financial performance, business plans and objectives, current and future clinical and preclinical development activities, timing and success of our ongoing and planned clinical trials and related data, the timing of announcements, updates and results of our clinical trials and related data, our ability to obtain and maintain regulatory approval, the potential therapeutic benefits and economic value of our product candidates, competitive position, industry environment and potential market opportunities. The words “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “expect,” and similar expressions are intended to identify forward looking statements.

Forward-looking statements are subject to known and unknown risks, uncertainties, assumptions and other factors including, but not limited to, those related to the success, cost and timing of our product candidate development activities and ongoing and planned clinical trials; our plans to develop and commercialize targeted therapeutics, including our lead product candidates DMT310 and DMT410; the progress of patient enrollment and dosing in our clinical trials; the ability of our product candidates to achieve applicable endpoints in the clinical trials; the safety profile of our product candidates; the potential for data from our clinical trials to support a marketing application, as well as the timing of these events; our ability to obtain funding for our operations, development and commercialization of our product candidates; the timing of and our ability to obtain and maintain regulatory approvals; the rate and degree of market acceptance and clinical utility of our product candidates; the size and growth potential of the markets for our product candidates, and our ability to serve those markets; our commercialization, marketing and manufacturing capabilities and strategy; future agreements with third parties in connection with the commercialization of our product candidates; our expectations regarding our ability to obtain and maintain intellectual property protection; our dependence on third party manufacturers; the success of competing therapies that are or may become available; our ability to attract and retain key scientific or management personnel; our ability to identify additional product candidates with significant commercial potential consistent with our commercial objectives; and our estimates regarding expenses, future revenue, capital requirements and needs for additional financing.

We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives, and financial needs. Moreover, we operate in a very competitive and rapidly changing environment, and new risks may emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed herein may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. Although our management believes that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances described in the forward-looking statements will be achieved or occur. We undertake no obligation to publicly update any forward-looking statements, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

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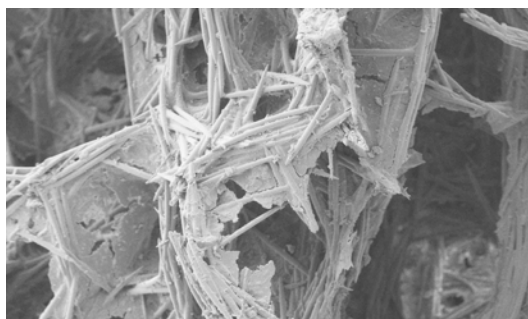
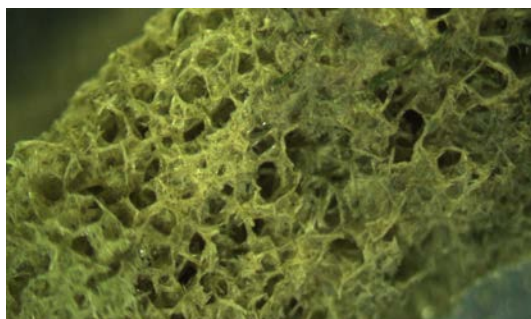
# Corporate Highlights

Unique, multi-use topical platform technology utilizing multiple mechanisms of actions

Pipeline addressing **large medical and aesthetic dermatology** marketing opportunities

Lead program with **compelling Phase 2b clinical data** for once weekly topical treatment of acne

**Multiple clinical milestones achieved in 2021 and expected in 2022**



## DMT310

### Acne – Phase 3 Planned (1H23)

- Potential anti-inflammatory effects
- Reduced lipogenesis of sebocytes in-vitro

### Psoriasis – Phase 2 Planned (2H22)

- Potentially inhibits inflammatory cytokines IL-17A and IL-17F
- Anticipated once-weekly topical application

### Rosacea – Phase 2 Results (2H22)

- Similar inflammatory lesions to acne
- Reduces IL-17, which facilitates neutrophil recruitment

## DMT410

### Hyperhidrosis – Phase 1b PoC Completed

- Topical delivery of botulinum toxin to the dermis
- Reduction in sweat production

### Aesthetics – Phase 1b PoC Completed

- Potentially broadens uses for botulinum toxin with topical applications
- Clinical improvement in global aesthetic appearance

# Experienced Management Team and Board

## Senior Management



**Gerry Proehl**

*Chairman, President and CEO*



**Kyri Van Hoose, C.P.A**

*CFO*



**Maria Bedoya Toro Munera, Ph.D.**

*SVP, Regulatory Affairs & Quality Assurance*



**Chris Nardo, M.P.H., Ph.D.**

*SVP, Development*

## Board of Directors

**Gerry Proehl**



**David Hale**



**Wendell Wierenga Ph.D.**



**Kathleen Scott**



**Steven J. Mento, Ph.D.**



**Mary Fischer**



**Andrew Sandler, M.D.**



**Brittany Bradrick**



# Vast Dermatological Market Opportunity

## DMT310 - Acne

Ph 2b Completed

- **50 million patients in the US**, with approximately 85% of teenagers experiencing some form of acne <sup>1</sup>
- Prescription acne market in 2019: roughly **\$2.3 billion in sales** <sup>2</sup>
- Few novel topical treatment options in recent years – **most new products are reformulations**

## DMT310 – Rosacea

Ph 2 Ongoing

- **16 million patients in the US** and topical prescription products did about **\$374 million in sales** in 2019 <sup>2</sup>
- Few novel topical treatment options approved in recent years and most have **unwanted side effects**

## DMT310 – Psoriasis

Ph 1b Completed

- Psoriasis affects about 2% of the world's population with about 80% being affected by plaque-type psoriasis <sup>3</sup>
- Over 75% of patients with plaque-type psoriasis have mild disease, but they have few treatment options as **the most effective products are limited to moderate-to-severe disease** <sup>3</sup>

## DMT410 – Aesthetics

Ph 1b Completed

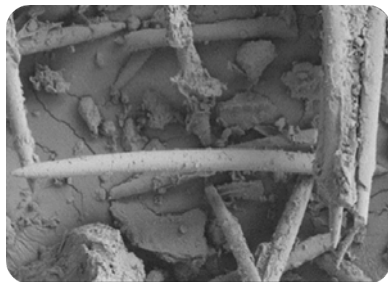
- The American Society of Plastic Surgeons estimates that **over 15.4 million cosmetic procedures** were performed in 2016 of which about **7 million used botulinum toxin** <sup>5</sup>
- **Growing demand for aesthetic treatments**, including from male patients



# Unique Natural Platform Technology with Dual MoA

## Spongilla-derived Platform

- Complex freshwater sponge, *Spongilla lacustris* or *Spongilla*, harvested based on proprietary environmental conditions resulting in unique characteristics that are optimized for clinical applications
- Possesses multiple complementary chemical and mechanical properties to potentially enhance pharmaceutical treatment effect
- If approved, could be used as a standalone topical product or in a combination with macro molecules to enable intradermal delivery of drugs that typically must be injected



## Mechanism of Actions

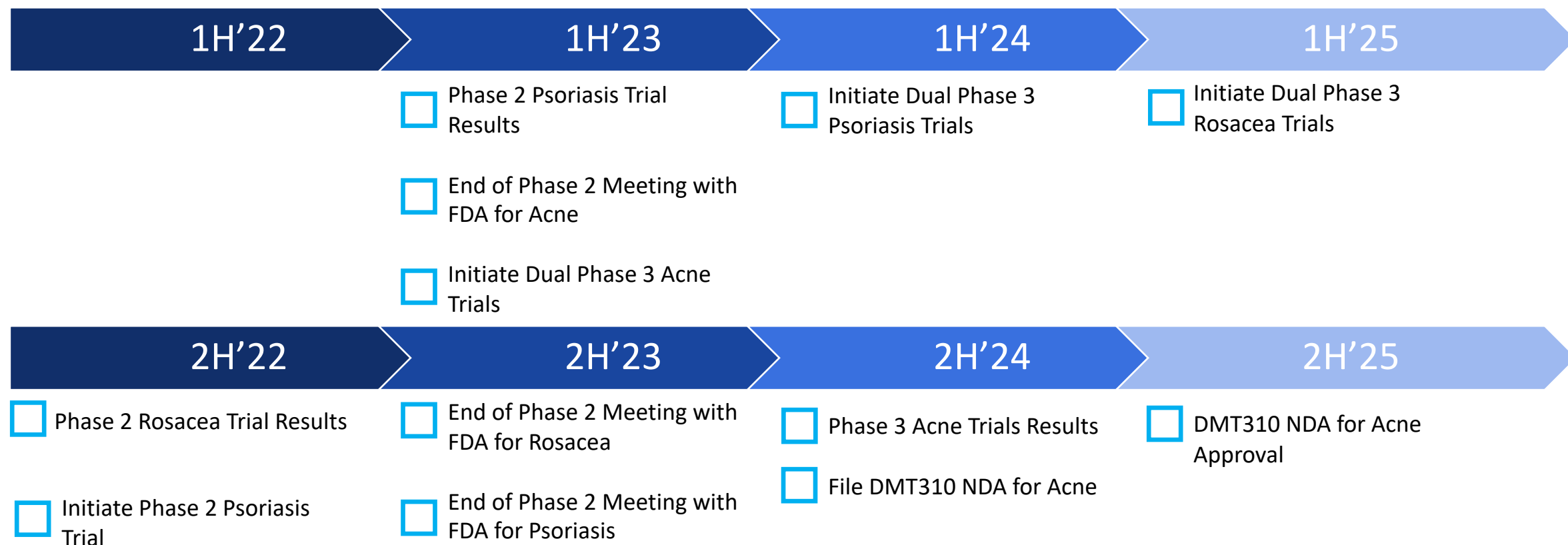
**Mechanical Component:** processed sponge contains large quantity of uniquely sized siliceous spicules that exfoliate the dermal epithelium, thereby:

- Creating microchannels into the dermis for delivery of chemical compounds
- Opening closed comedones (blackheads) to increase oxygen
- Promoting collagen production, accelerating the skin's rejuvenation period

**Chemical Component:** contains multiple chemical compounds that have demonstrated *in-vitro*:

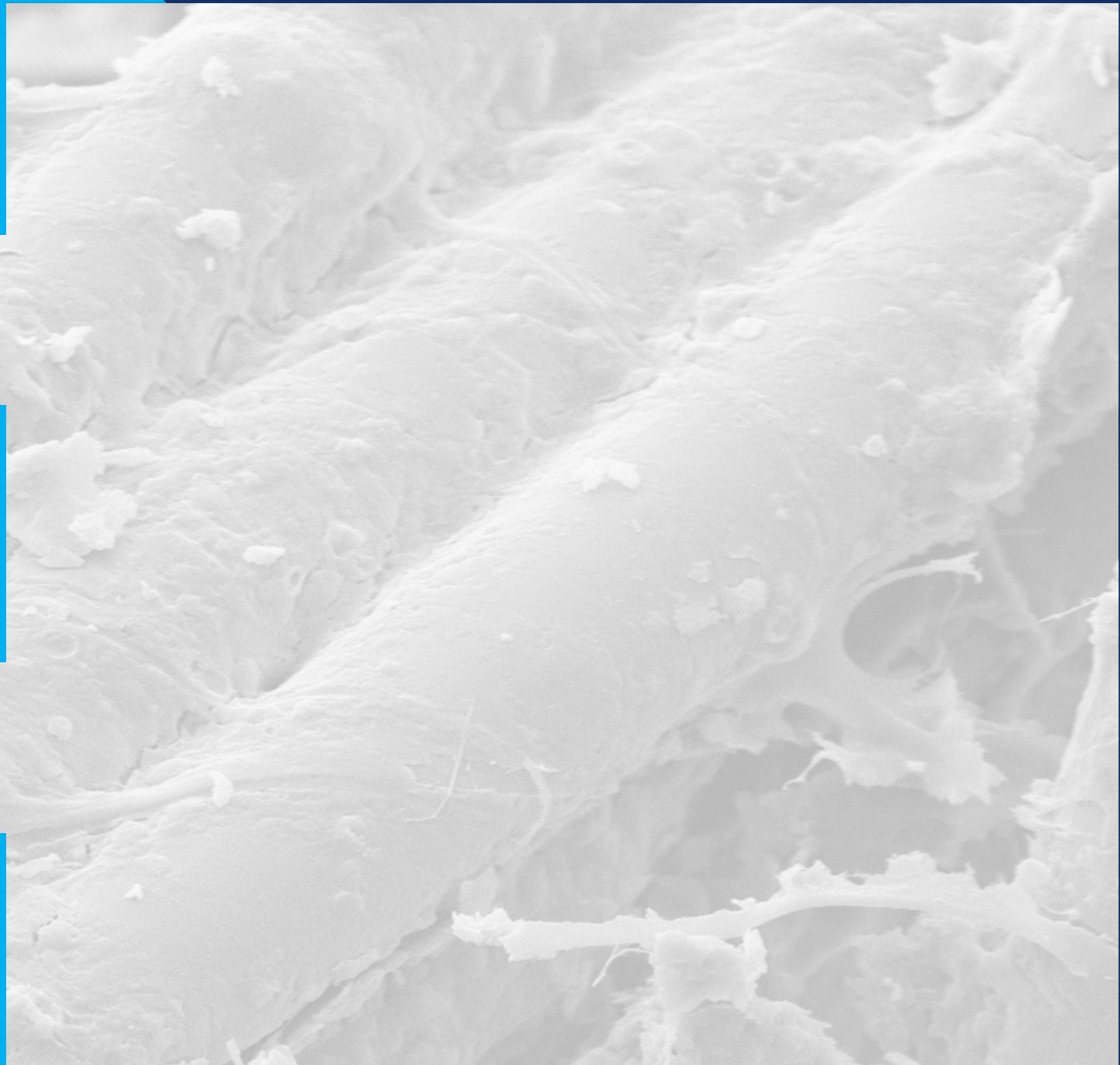
- Anti-inflammatory activity:
  - Reduction of *C. acnes* stimulated IL-8 production in NHEK
  - Inhibition of IL-17A and IL-17F expression in human cell lines
- Anti-microbial activity against *C. acnes*
- Effects on sebum production, namely inhibition of lipogenesis in sebocytes

# Anticipated Development Timeline & Milestones



# DMT310

Once Weekly Topical  
Treatment





# DMT310 Benefits

## Frequency of Treatments

- Current topical treatments require one or two applications daily, resulting in poor compliance and early discontinuation by patients when application becomes burdensome
- Once weekly application of DMT310 may optimize compliance

## Time to Treatment Effect

- Current topical treatments may take 6-8 weeks before a patient perceives a treatment effect
- DMT310 in acne demonstrated statistically significant reductions in inflammatory and non-inflammatory lesions after only 4 treatments (Week 4) and continued reduction through Week 12 versus placebo

## Tolerability and Side Effects

- Currently available products have various side effects and tolerability issues – including burning, stinging and peeling – that occur well before a treatment effect leading to poor overall compliance
- DMT310's tolerability, side effect profile and comparatively fast onset of action could result in better compliance, leading to better patient outcome and satisfaction

## Application of DMT310

Sponge is processed into a fine powder and packaged into pouches with a bottle of 3% H<sub>2</sub>O<sub>2</sub>



Once per week, patients mix the powder with hydrogen peroxide and massage the mixture onto their skin; after 10-15 minutes, the product is easily removed with water

# DMT310 Phase 2b Results: Moderate-to-Severe Acne

## Study Design

- Double-Blind, Randomized, Placebo Controlled
- Two treatment Groups: DMT310 + H<sub>2</sub>O<sub>2</sub> and Placebo + H<sub>2</sub>O<sub>2</sub>
- 181 patients (12 years and older) enrolled across 14 US clinical trial sites with an IGA baseline score of 3 or 4
- 12-Week duration of study
- Once weekly application

## Endpoints

- Absolute Reduction in Inflammatory Lesion Counts
- Absolute Reduction in Non-inflammatory Lesion Counts
- Investigator Global Assessment (IGA Scale = 0 to 4)
  - Responder classified as 2-Grade reduction and 0 or 1

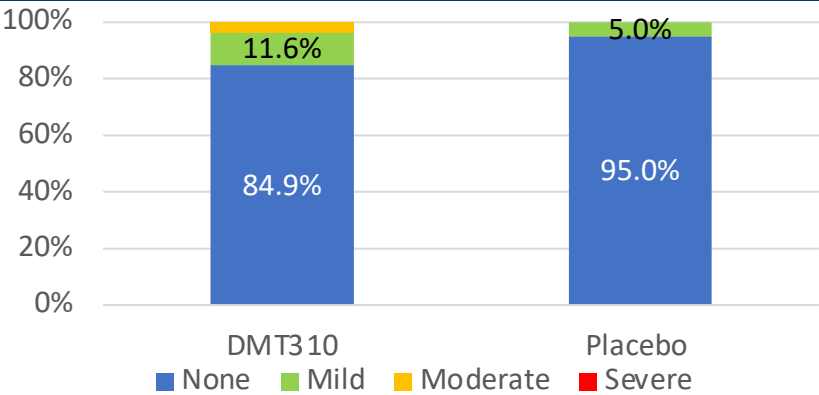
[\\*Same three primary endpoints required by FDA for Phase 3 studies](#)

## Treatment Emergent Adverse Events

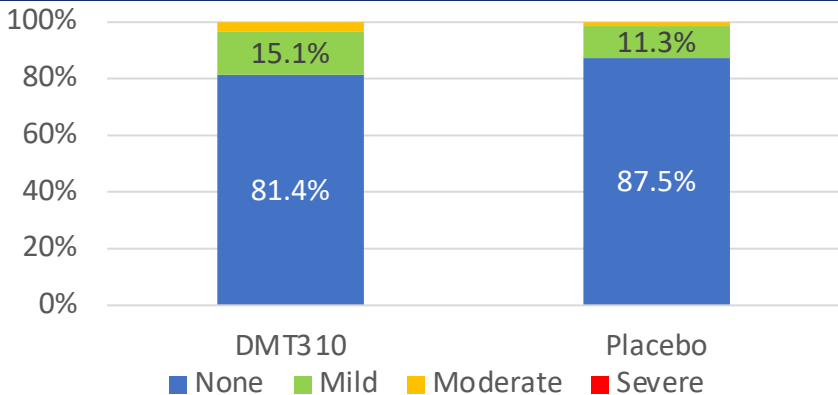
	DMT310 (N=91) N (%)	Placebo (N=90) N (%)
General disorders and administration site conditions	5 (5.5)	2 (2.2)
Application site erythema	4 (4.4)	1 (1.1)
Application site pruritus	2 (2.2)	2 (2.2)
Application site dryness	1 (1.1)	0 (0.0)
Application site exfoliation	1 (1.1)	0 (0.0)

# DMT310 Phase 2b Results: Local Tolerability

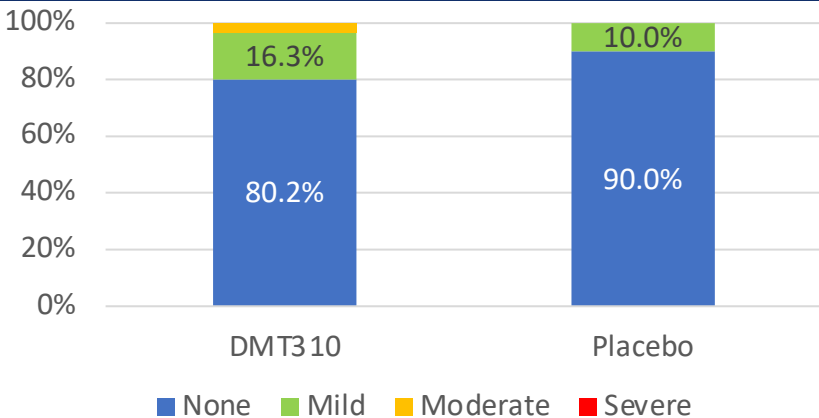
Erythema



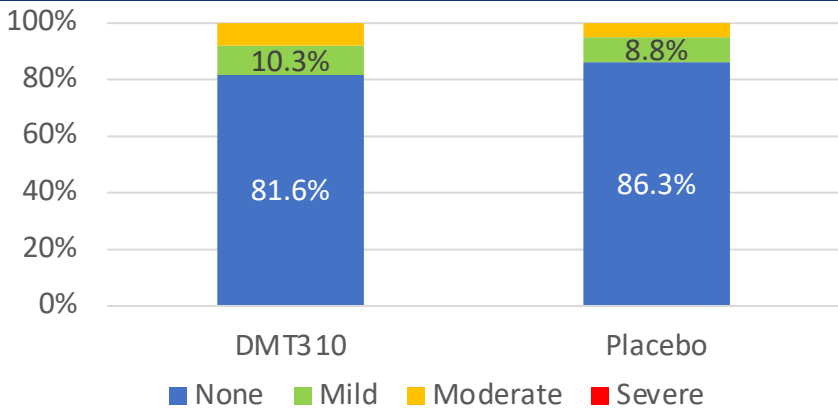
Dryness



Scaling

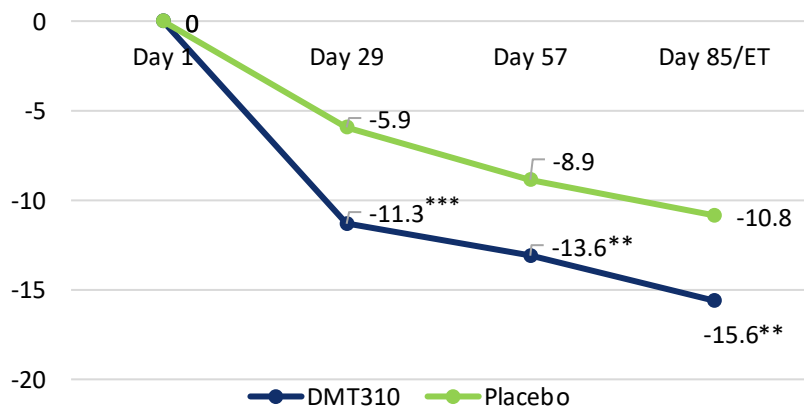


Stinging/Burning

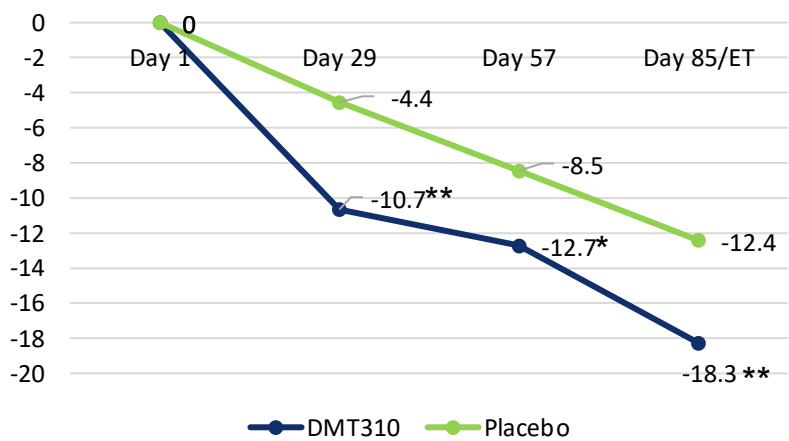


# DMT310 Phase 2b Acne Results: Lesion Counts

Mean Change from Baseline



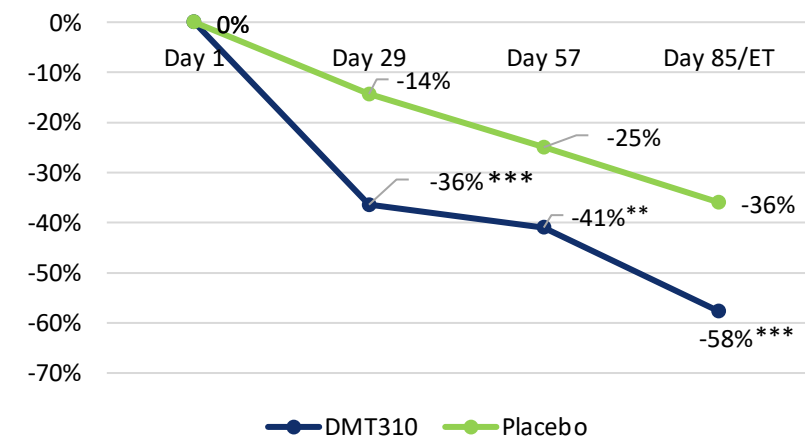
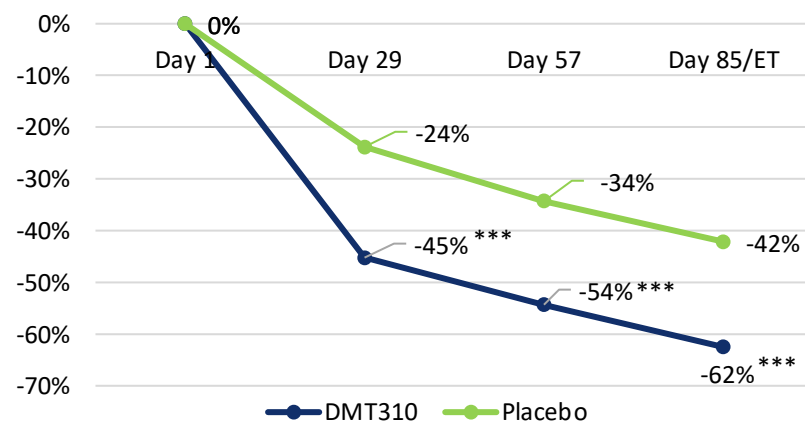
Inflammatory Lesions



Non-Inflammatory Lesions

\* p < 0.05  
\*\* p < 0.01  
\*\*\* p < 0.001

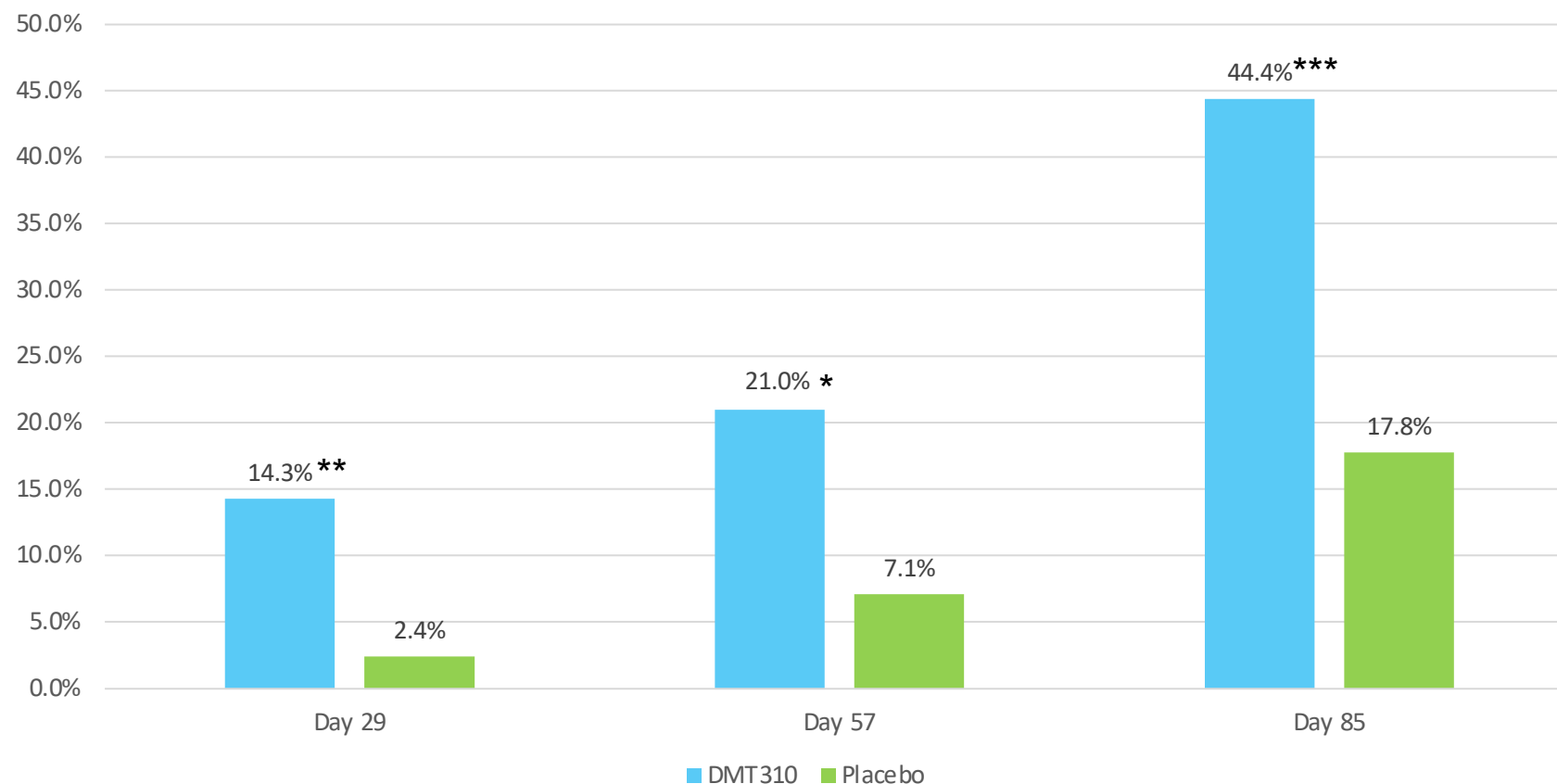
Percent Change from Baseline



# DMT310 Phase 2b Acne Results: IGA

## Investigator Global Assessment (IGA)

Responders classified as  
2-Grade change in IGA  
Scale *AND* an IGA = 0 or 1



\*  $p < 0.05$   
\*\*  $p < 0.01$   
\*\*\*  $p < 0.001$



# DMT310 Phase 1b Results: Mild-to-Moderate Psoriasis

## Study Design

- Phase 1b Proof-of-Concept, open label study
- Single Treatment Group: **DMT310 + H<sub>2</sub>O<sub>2</sub>**
- 30 patients (18 years and older) enrolled across three US clinical trial sites with psoriatic plaque covering 2% to 30% of BSA
- 12-Week duration of study
- Once weekly application

## Endpoints

- 6-point Investigator's Physician's Global Assessment (PGA) at the target lesion site at Week 12
- 6-point Investigator's Psoriasis Area Severity Index (PASI) scale at the target lesion site at the Week 12
- Pruritus Visual Analog Scale (VAS) assessment of the target lesion

## Key Findings

- DMT310 achieved a PGA score of 0 or 1 for the target lesion in 29.6% of patients at Week 8
- DMT310 demonstrated a total PASI Score of 0 or 1 for the target lesion in 25.9% of patients at Week 8
- DMT310 demonstrated a 19.6% reduction from baseline in pruritus at Week 8
- DMT310 was safe and well tolerated, with only three reported AEs and no SAEs
  - Two of the three AEs were evaluated as being related to treatment

# DMT310 Phase 2 Trial: Moderate-to-Severe Rosacea (Topline Results 2H22)

## Study Design

- Double-Blind, Randomized, Placebo Controlled Study
- Two Treatment Groups: DMT310 + H<sub>2</sub>O<sub>2</sub> and Placebo + H<sub>2</sub>O<sub>2</sub>
- 180 patients (18 years and older) enrolled at 24 clinical trial sites in US with IGA baseline score of 3 or 4
- Study duration of 12 weeks
- Once weekly application

## Endpoints

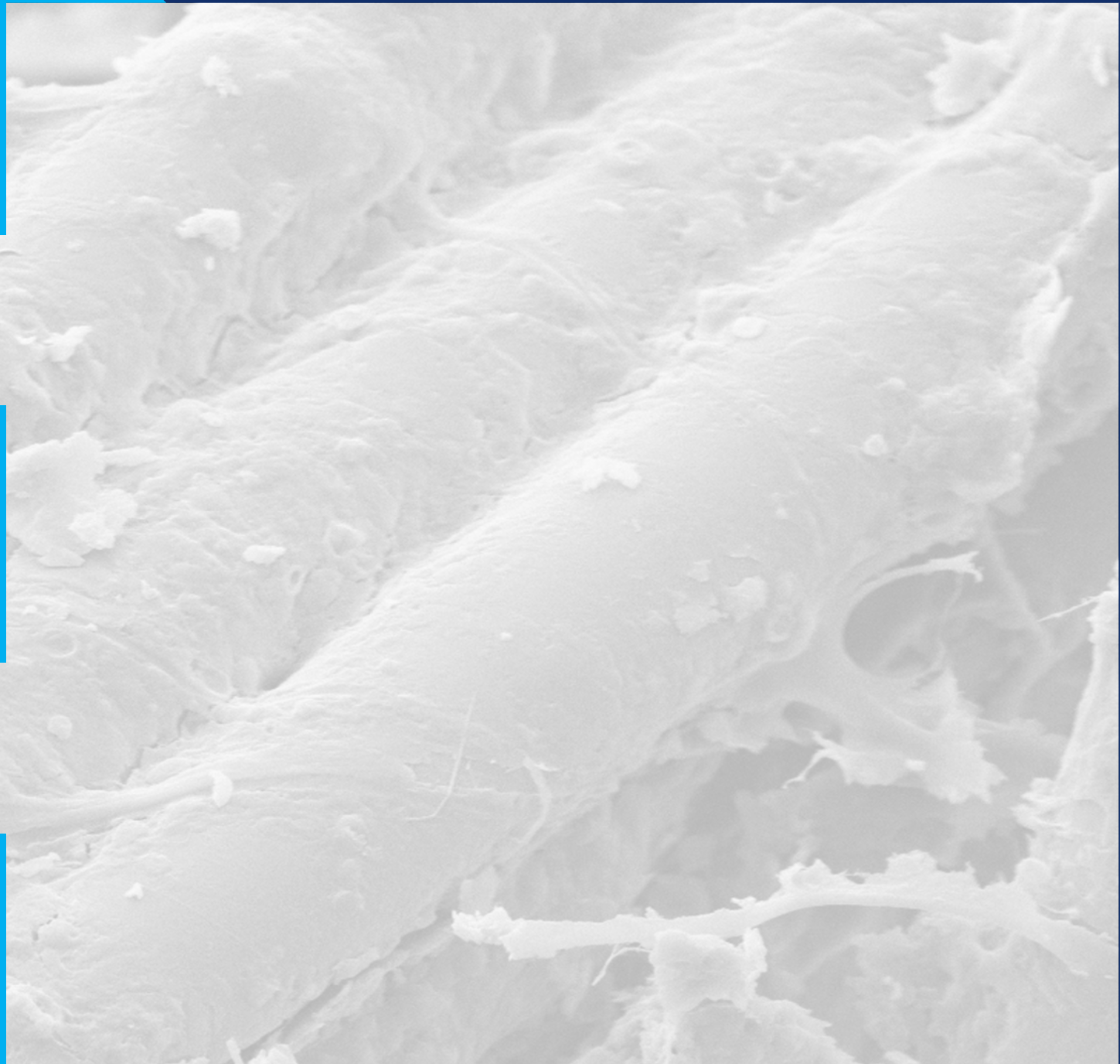
- Absolute Reduction in Inflammatory Lesion Counts
- Investigator Global Assessment (IGA Scale = 0 to 4)
  - Responder classified as 2-Grade reduction and 0 or 1

## Timing

- First Patient, First Visit: 2H21
- Last Patient, Last Visit: 2H22
- Topline Results: 2H22

# DMT410

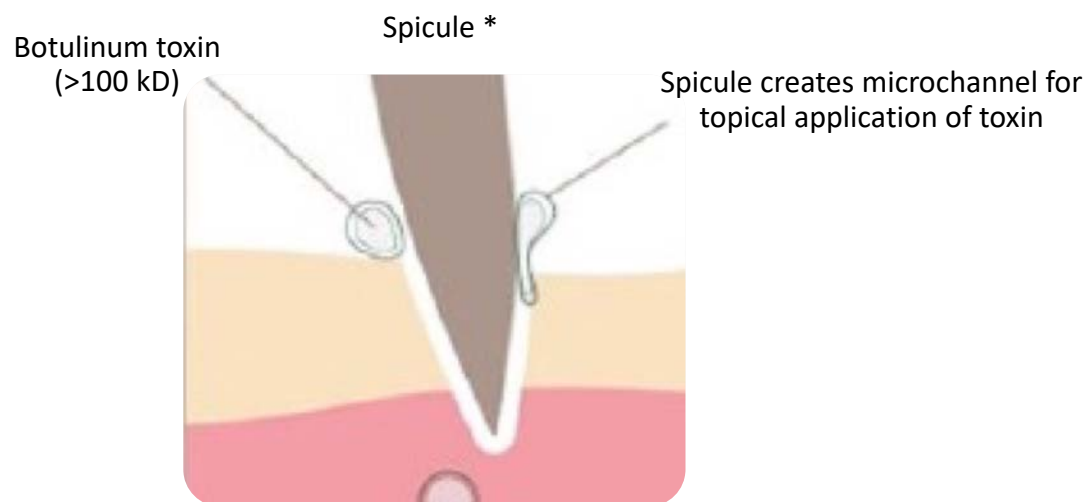
Enabling Topical Application  
of botulinum toxin



# DMT410 Overview

## DMT410's Combination Regimen for Botulinum Toxin

DMT410 is a combination treatment regimen that uses sponge technology to allow for needle-free topical application of botulinum toxin, which customarily must be injected



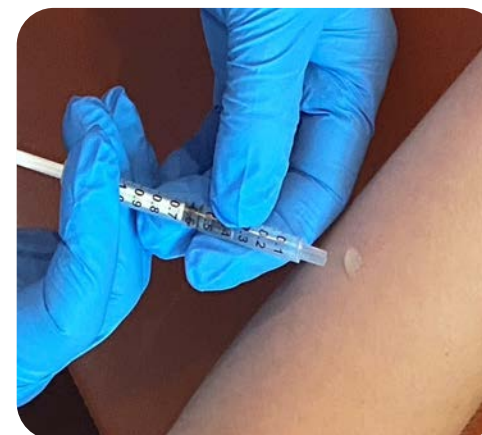
\* Spicules average about 200  $\mu\text{m}$  in length, 10-15  $\mu\text{m}$  in diameter

## Simple Application Process of DMT410

Sponge mixture is massaged into the treatment area to enhance spicule penetration and create microchannels

Sponge mixture is then removed after 10-15 minutes

Botulinum toxin is expressed from a syringe in precise amounts onto the skin and massaged into the treatment area, taking advantage of the newly created microchannels



# DMT410 Adds Potential Benefits of Botulinum Toxin versus Injections

## Molecule Size

- Botulinum toxin molecules are between 400-900 kDa and are currently injected for clinical efficacy
- DMT410 creates microchannels in the skin that are large enough to allow topical penetration of botulinum toxin into the dermis for more targeted treatment

## No Injections Necessary

- Current treatments (i.e., hyperhidrosis) require 10-20 injections in each axilla that can be painful for patients
- DMT410's topical application had favorable tolerability in recent hyperhidrosis clinical trial

## Increased Coverage

- Currently, botulinum toxin is injected into the muscle or intradermally which limits the spread to the area around the injection
- The creation of numerous microchannels allows topical application of toxin to more easily deliver treatment to a larger surface area

## Additional Uses

- Multiple aesthetic conditions: fine lines, pore size, sebum production, luminosity, brightness, etc., where botulinum toxin has shown improvement, but difficulty of targeted treatment with injections has limited its commercial opportunity
- DMT410's topical delivery allows the toxin to reach the layer of skin necessary for treatment of these aesthetic conditions



# DMT410 Phase 1b Results: Axillary Hyperhidrosis

## Study Design

- Open-label, two-arm study
- Two treatment Groups: DMT410 + H<sub>2</sub>O<sub>2</sub> and DMT410 + H<sub>2</sub>O
- 10 adult patients enrolled at a single site in the US
- 4-Week duration of study
- **DMT410: One application of sponge powder, followed by one topical application of BOTOX®**

## Endpoints

- Percent of patients with ≥50% reduction in gravimetrically measured sweat production from baseline
- Percent of patients with gravimetric sweat production of ≤50mg
- Percent change in gravimetric sweat production

## Phase 1b Results: Reduction in Sweat Production

	DMT410 (N=20*) Response Rate
Decrease in gravimetric sweat production ≥ 50%	80%
Gravimetric sweat production <50mg	85%
Change in gravimetric sweat production	-75%

\* Each patient contributed 2 axillae to the analysis:

- 1 axilla received DMT410+ H<sub>2</sub>O<sub>2</sub>
- 1 axilla received DMT410+ H<sub>2</sub>O
- There was no difference observed between the two treatment arms

# DMT410 Phase 1b Trial: Facial Aesthetics

## Study Design

- Open-label, single-arm study of 10 adult patients enrolled at one clinical trial site in the US
- One application of sponge mixture, followed by one topical application of BOTOX®
- Patients will be assessed at Week 4, Week 8, Week 12 and Week 16 post application

## Key Findings

- DMT410 was well tolerated and produced no potential distant spread of toxin Adverse Events
- DMT410 demonstrated improvements in luminosity, brightness, and Global Aesthetics
- DMT410 reduced pore size, sebum production, and fine lines

## Endpoints

- Moderate to severe glabellar, lateral canthal, forehead lines
- Luminosity
- Brightness
- Pore size
- Sebum production
- Global Aesthetic Improvement
- Laxity under the eye
- Fine lines under the eye

## Treatment Emergent Adverse Events

System Organ Class Preferred Term	DMT310 (N=10) N (%)
Any Adverse Event	0 (0.0)
Any Potential Distant Spread of Toxin Event	0 (0.0)
General disorders and administration site conditions	0 (0.0)

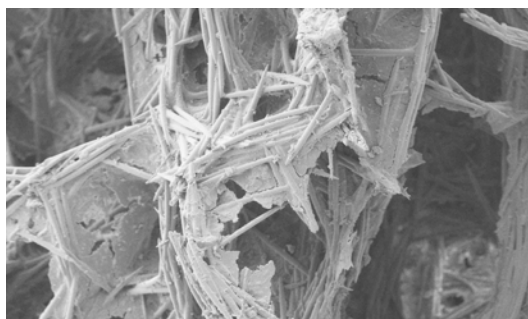
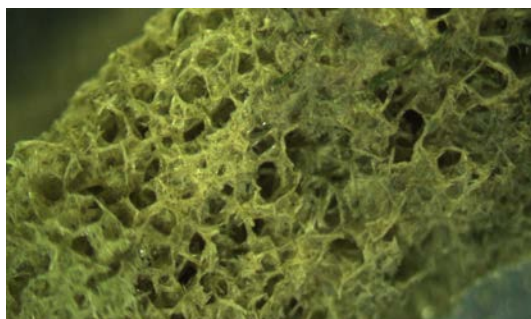
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