Corporate Overview

June 2020

Forward-Looking Statements

This presentation includes forward-looking statements that reflect our current views with respect to, among other things, our plans to develop and commercialize our product candidates, including our interpretation of preclinical and clinical studies and the success and timing of our product development activities and clinical trials, including the timing for the B-SIMPLE4 Phase 3 trial and anticipated top-line results, and statements related to testing of our Nitricil technology against species within the *Coronaviridae* family, the timing of potential regulatory submissions, the sufficiency of our cash position, our needs for funding and our intention to pursue financing and strategic alternatives. These forward-looking statements are included throughout this presentation. We have used the words "anticipate," "assume," "believe," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "future," "will," "seek," "foreseeable", "targeted" and similar terms and phrases to identify forward-looking statements in this presentation. The forward-looking statements contained in this presentation are based on management's current expectations and are subject to substantial risks, uncertainty and changes in circumstances. Actual results may differ materially from these expectations due to risks and uncertainties including, but not limited to: the risk that we may not be able to begin enrollment as planned or that enrollment in or the conduct of the B-SIMPLE4 Phase 3 trial may be delayed or otherwise impacted as a result of the COVID-19 pandemic or other factors; the risk that results from the B-SIMPLE4 Phase 3 trial will not be received timely or will not achieve significance sufficient to support an NDA; our ability to complete any strategic alternatives and/or obtain additional funding necessary to continue our business and the further development of our product candidates, including any additional funding that may become necessary with respect to completing the B-SIMPLE4 Phase 3 trial, on a timely basis, or at all; the risk that the costs of the B-SIMPLE4 Phase 3 trial will exceed our expectations; risks and uncertainties as to the terms, timing, structure, value, benefits and costs of any strategic or financial transaction, and our ability to complete one at all; our ability to reduce cash expenditures; risks and uncertainties in our ongoing or future product development activities and preclinical studies, which may not prove successful in demonstrating proof-of concept, or may show adverse toxicological findings, and even if successful may not necessarily predict that subsequent clinical trials will show the requisite safety and efficacy of our product candidates; risks and uncertainties in the clinical development process, including, among others, length, expense, ability to enroll patients, reliance on third parties, potential for delays and that results of earlier research and preclinical or clinical trials may not be predictive of results, conclusions or interpretations of later research activities or additional trials; risks related to the regulatory approval process, which is lengthy, time-consuming and inherently unpredictable, including the risk that our product candidates may not be approved or that additional studies may be required for approval or other delays may occur and that we may not obtain funding sufficient to complete the regulatory or development process; the risk that disruptions at the FDA and other agencies could cause such agencies to cancel or postpone meetings or otherwise impact the ability of such agencies to provide regulatory guidance or feedback or timely review and process our regulatory submissions, all of which could have a material adverse effect on our business; risks related to the manufacture of clinical trial materials; any operational or other disruptions as a result of the COVID-19 pandemic, including any delays or disruptions to our evaluation of strategic alternatives or the conduct of the B-SIMPLE4 Phase 3 trial; and other risks and uncertainties described in our annual report, as amended, filed with the SEC on Form 10-K/A for the twelve months ended December 31, 2019, and in any subsequent filings with the SEC. Any forward-looking statement made by us in this presentation speaks only as of the date of this presentation. We undertake no obligation to publicly update or review any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by any applicable securities laws.

Novan, Inc.

- Technology spun out of UNC Chapel Hill – Dr. Mark Schoenfisch lab
- Established operations in 2008
- Publicly listed on the Nasdaq stock exchange in September 2016 (ticker: NOVN)
- Located in Morrisville, North Carolina near Research Triangle Park
- Over $250M in capital raised to-date from various dilutive and non-dilutive sources
- Advancing a portfolio of late-stage dermatology and anti-viral programs
- Virtual business model

Leadership Team

Paula Brown Stafford, MPH
President and CEO

Carri Geer, Ph.D.
SVP and CTO

Elizabeth Messersmith, Ph.D.
SVP and CDO

John Gay, CPA
VP, Finance and Corporate Controller

Tomoko Maeda-Chubachi, MD, Ph.D., MBA
VP, Medical Dermatology

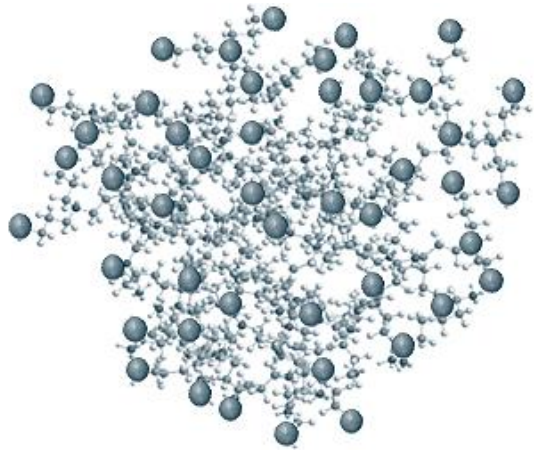
Proprietary Nitric Oxide (NO)-Based Technology Platform

- Macromolecular **New Chemical Entities (NCEs)**
  - **Storage**: ability to store therapeutic quantities of NO
  - **Tunability**: pH-controlled NO release profiles
  - **Targeted**: delivery of NO to site of infection or inflammation
  - **Stability**: druggable form of NO with shelf-life stability

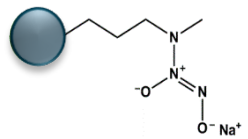
- Indication specific formulations with differentiated NO release rates
  - **Dual phase**: coadministration of the active gel with a pH-buffered hydrogel promotes NO release

- Our NITRICIL™ platform has allowed us to **successfully accomplish the stable storage and targeted delivery** of therapeutic amounts of NO to the site of infection or inflammation with what we believe is an attractive safety profile

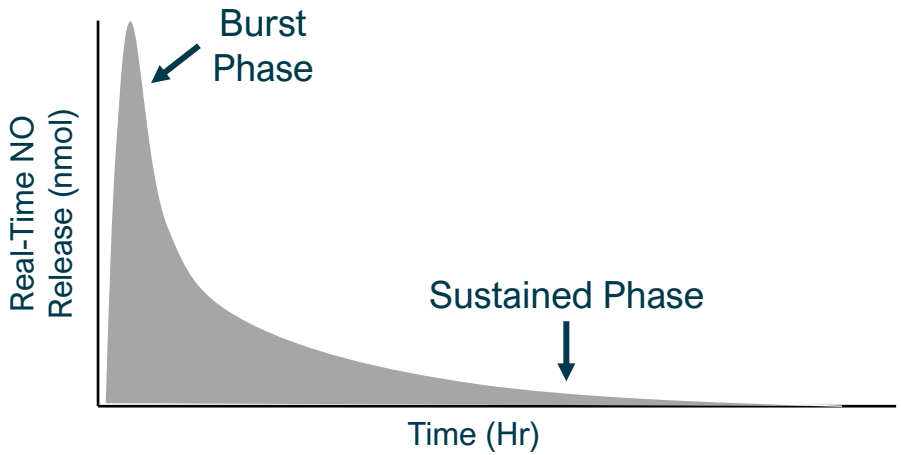
Berdazimer Sodium (NVN1000)



New Chemical Entity (NCE)



Real-Time NO Release



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Development Pipeline

Product Candidates	Indication	Preclinical	Phase 1	Phase 2	Phase 3
DERMATOLOGY					
SB206	Molluscum				
SB414	Atopic Dermatitis				
	Psoriasis				
SB204	Acne Vulgaris				
SB208	Tinea Pedis				
MEN'S AND WOMEN'S HEALTH					
SB206	Genital Warts				
WH504	High-Risk HPV				
WH602	High-Risk HPV				
GASTROENTEROLOGY					
Undisclosed	Various				
INFECTIOUS DISEASE					
Undisclosed	*Coronaviridae*				

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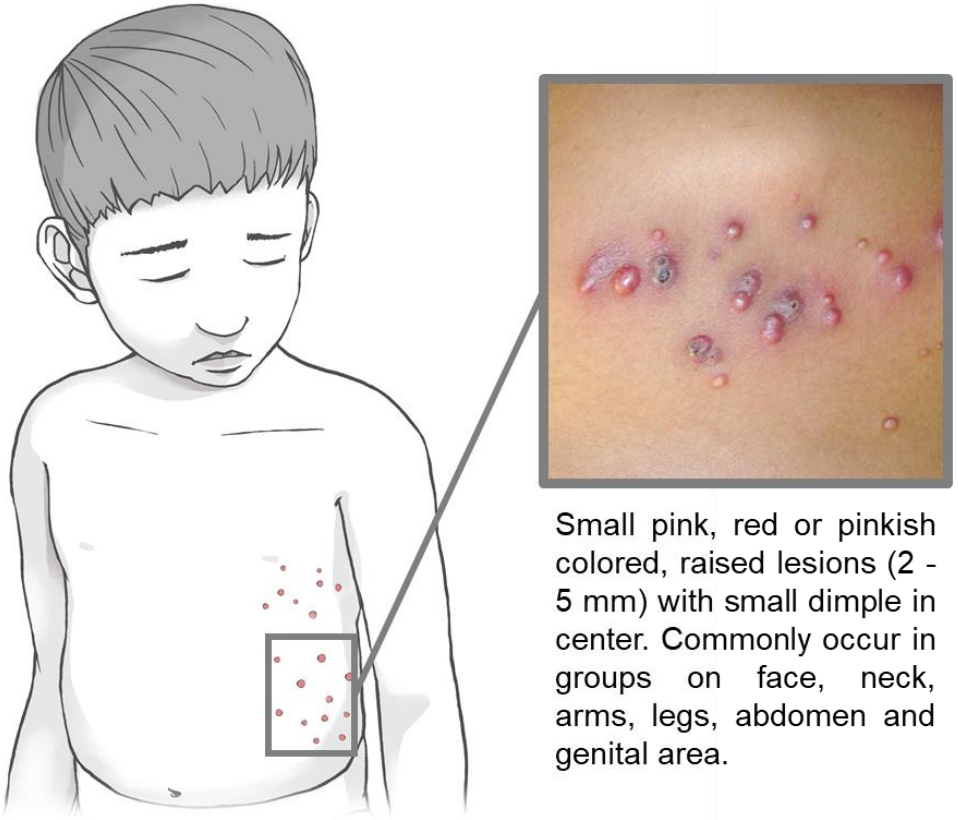
Molluscum Overview

Contagious skin infection caused by the molluscipoxvirus, a double-stranded DNA virus



Small pink, red or pinkish colored, raised lesions (2 - 5 mm) with small dimple in center. Commonly occur in groups on face, neck, arms, legs, abdomen and genital area.

- **No FDA-approved treatments indicated for molluscum**
- ~70% of patients below the age of 10
- Typically present with 10-30 lesions, up to 100+ in severe cases
- Average time to resolution is 13 months
- Current treatment options:
  - Physical therapies
  - Off-label Rx/OTC

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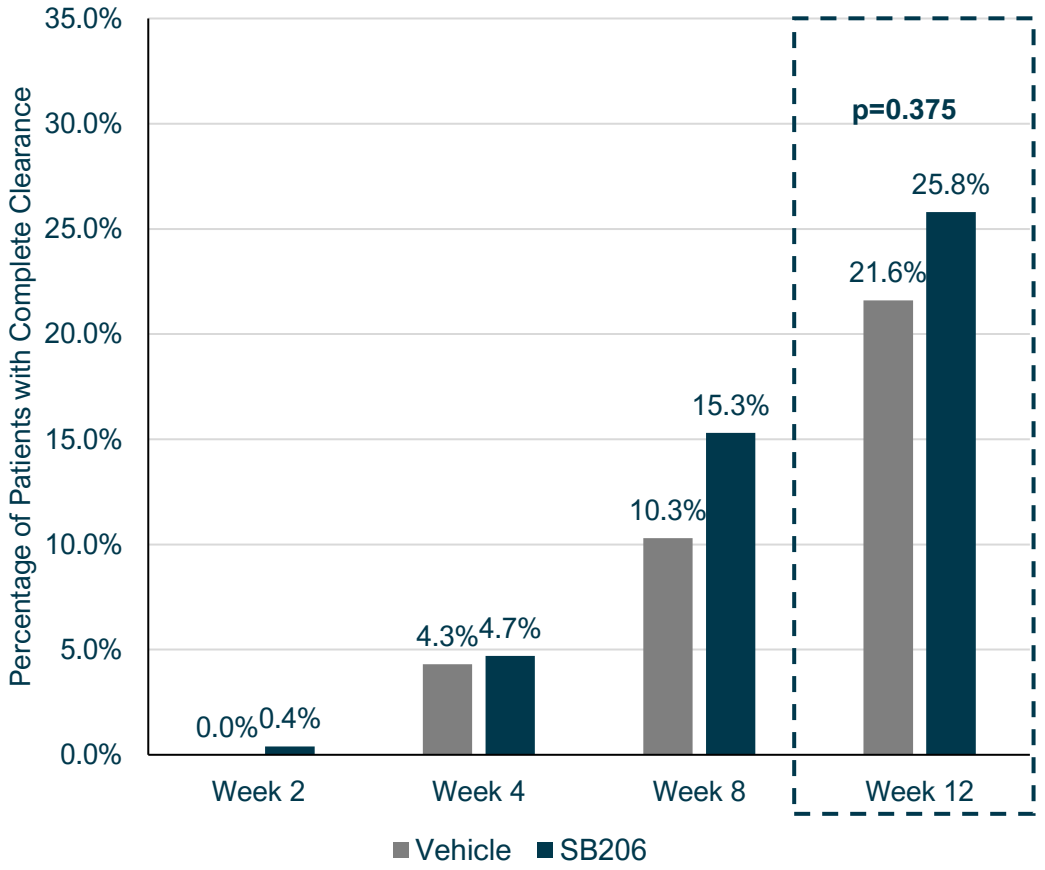
SB206: Product Candidate for Molluscum

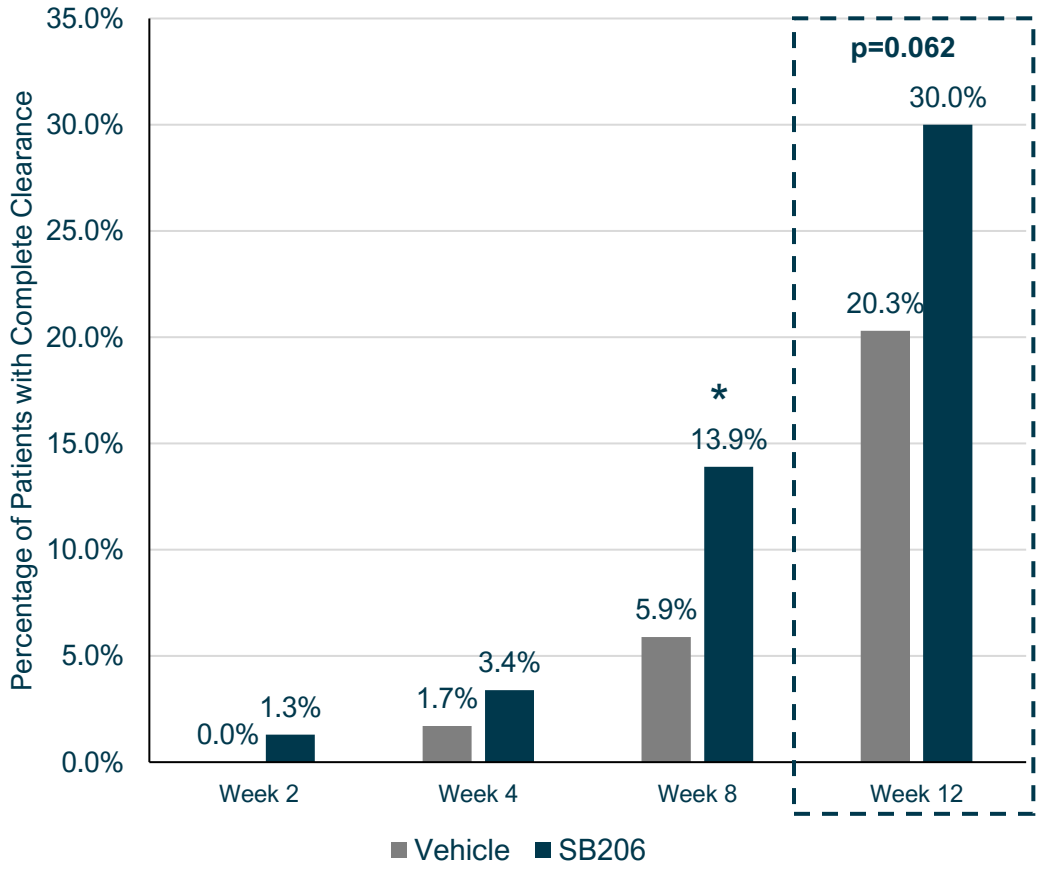
- December 2018: Positive Phase 2 top line results announced
- March 2019: End-of-Phase 2 FDA meeting with FDA completed
- June 2019: “B-SIMPLE” (**B**erdazimer **S**odium **I**n **M**olluscum **P**atients with **Le**sions) Phase 3 trials enrolling and dosing patients
- August 2019: Enrollment of 707 patients completed in August 2019 (~10 weeks)
- January 2020: Top-line efficacy results were announced
- February 2020: additional efficacy and safety analyses announced
- April 2020: FDA Type C meeting conducted and meeting minutes received

Complete Clearance of All Lesions (ITT[1]) by Week

B-SIMPLE1



B-SIMPLE2



In an integrated analysis of the two pivotal trials, SB206 demonstrated a statistically significant (p=0.038) complete clearance rate (27.9%) vs. vehicle (20.9%) at Week 12

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* p-value <0.05

1. Intent-to-Treat Population (ITT): consists of all subjects who were randomized, and missing data imputed as treatment failures.

Summary of SB206 B-SIMPLE1 & B-SIMPLE2 Results

- Top-line efficacy results announced January 2020
  - SB206 was near statistical significance for the primary endpoint in B-SIMPLE2, and was statistically significant for the secondary endpoint and multiple pre-specified sensitivity analyses
  - Similar analyses with B-SIMPLE1 demonstrated the trial is reasonably consistent and supportive of B-SIMPLE2
  - In an integrated analysis of the two pivotal trials, SB206 demonstrated a statistically significant complete clearance rate at Week 12
- Safety results announced in March 2020
  - Treatment emergent adverse events (“TEAEs”) profile found to be favorable for SB206
  - Subjects treated with SB206 showed a lower occurrence of scarring through the Week 24 visit when compared to vehicle

Path Forward: Preliminary B-SIMPLE4 Trial Design and Timing

- FDA Type C meeting conducted on April 1, 2020 and meeting minutes received
  - Based on guidance the Company received during the meeting and subsequently contained within the meeting minutes, Novan is preparing to conduct one additional pivotal trial ("B-SIMPLE4"), which, if successful, could be supported by the previously completed B-SIMPLE2 trial in a future NDA
- B-SIMPLE4 trial design based on B-SIMPLE1 & 2 learnings:
  - Number of patients: approximately 750 (1:1 randomization)
  - Maintain stratification of one and two-subject households
  - Inflammation of molluscum lesions as measured by BOTE[1] (beginning of the end) added as a stratification factor
  - Implementation of additional patient and caregiver training and retention efforts
- Timing:
  - Novan has begun the planning and start-up phase for B-SIMPLE4
  - Novan is targeting enrolling the first patient for B-SIMPLE4 in September 2020, and if the trial is initiated on this timetable, the Company would expect top-line efficacy results late in the second quarter of 2021[2]

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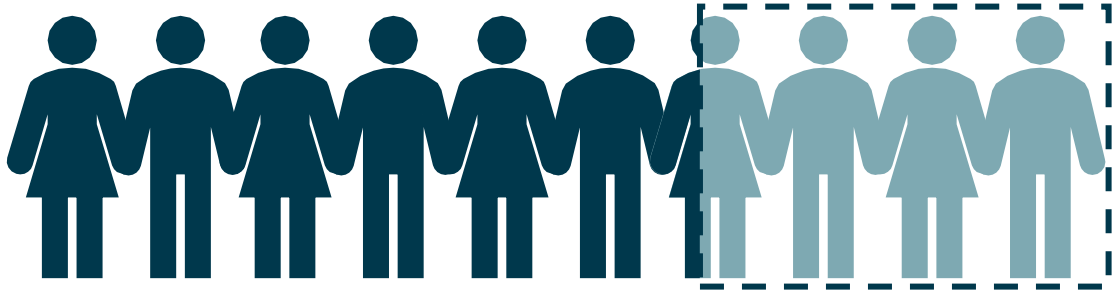
1. Butala, N., et al. "Molluscum BOTE Sign: A Predictor of Imminent Resolution." *Pediatrics*, vol. 131, no. 5, 2013, doi:10.1542/peds.2012-2933.
2. The initiation and execution of B-SIMPLE4 may be further impacted by the COVID-19 pandemic.

US Market Opportunity & Patient Flow in Molluscum[1]

~3.4 million

prevalence in the US



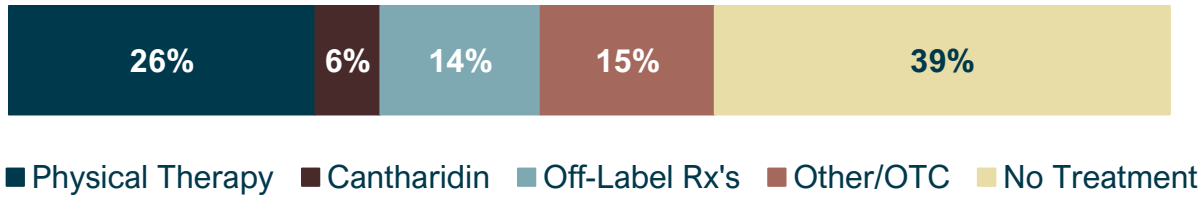
~1.3 million

diagnosed per annum

Pediatricians

Manage ~80% of patients

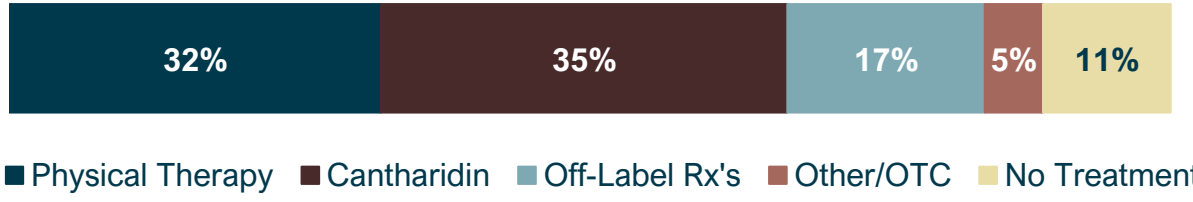
2019 Treatment Split (approximate)



Dermatologists

Manage ~20% of patients

2019 Treatment Split (approximate)



The unmet need for an effective and safe topical treatment has remained high

1. Syneos Health Consulting Primary (n=40 Pediatricians, n=39 Dermatologists, n=4 Pediatric Dermatologists) and Secondary Research (2019).

Financial Overview

- Cash and cash equivalents: ~$21.8M as of March 31, 2020
- On June 15, 2020, shares outstanding of 79,337,105
- In April 2020, announced engagement of H.C. Wainwright & Co., LLC to assist the Company in exploring and evaluating a range of strategic and financial alternatives, intended to maximize shareholder value
- On June 15, 2020, secured a $20.0M equity line through Aspire Capital Fund, LLC
- As of June 25, 2020, Novan anticipates that its current cash runway provides sufficient capital to conduct additional SB206 Phase 3 pivotal trial, with top-line efficacy results targeted for late 2Q 2021

Investment Highlights

Creating the world's leader in nitric oxide-based science, technology, and clinical translation in support of delivering safe and efficacious therapies

- Nitricil™ technology platform allows stable, tunable, and targeted delivery of therapeutic quantities of NO
- Over 3,400 patients worth of clinical data demonstrating anti-microbial and anti-inflammatory properties
- Significant potential market opportunity with SB206 for the treatment of molluscum contagiosum; no FDA approved Rx treatments
- Near-term major inflection point: SB206 Phase 3 B-SIMPLE4 top line results targeted for late 2Q 2021[1]
- Pre-clinical anti-viral opportunities in COVID-19 and Women's Health
- Additional late-stage dermatology and therapeutic area opportunities

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1. The initiation and execution of B-SIMPLE4 may be further impacted by the COVID-19 pandemic.