

INFOTAINMENT STUDY TEMPLATE

ABSTRACT

The aim of this program is to judge a participant's biological age based on fine lines and dull skin using Artificial Intelligence techniques.

Captures will be taken twice by using Infotainment web application on smart devices developed by BrighTex Bio-Photonics Artificial Intelligence algorithms.

Based on the participant's age and wrinkle severity it will recommend a control cream which is to be applied on left under eye and a product which is to be applied on right under eye improve their "skin age" by reducing fine lines..

Measurements are taken before and after the application of an anti-ageing product to determine the efficacy of the product.

It was concluded that out of 3 products A, B and C, product C reduced under-eye wrinkle severity by 19.5%.



Section 1: OBJECTIVE

The purpose of this study is to use Artificial Intelligence to determine the biological age of the participant and measure ageing parameters such as fine lines and wrinkles. Smart phones are used to take a selfie and upload to the server. Different anti-ageing products are recommended to the participants based on their age and wrinkle severity. Measurements are taken before and after application of an anti-ageing product to determine the efficacy of the product. It was concluded that out of 3 products A, B and C, product C reduced under-eye wrinkle severity by 19.5%.

Note: Panels who wear make-up will not necessarily see the same level of improvement.

Section 2: STUDYDESIGN

Participants for this program are identified from the in-cosmetics formulation summit. This program will include both the Male and Female participants aged above 18 years. Captures will be taken twice by using Infotainment web application developed by BrighTex Bio-Photonics Artificial Intelligence algorithms. App can be downloaded and used on any smart phones by the participants.

Section 3: STUDY POPULATION

Each study's protocol has guidelines for who can or cannot (inclusion and exclusion criteria) participate in the study. These guidelines, called eligibility criteria, describe characteristics that must be shared by all participants as part of the informed consent. The criteria differ from study to study. They may include age, gender, medical history, and current health status.

A total of 80 participants are enrolled where 49 participants undergone both the time points by using Infotainment web application. Participants are recruited from the in-cosmetics formulation summit. Interested candidates reported to the program coordinator at the summit for screening and participants who meet all of the inclusion criteria and none of the exclusion criteria will be enrolled.

INCLUSION CRITERIA:

A participant may be eligible for enrolment if all of the following criteria are met:

- Participants can be both male and female
- Age ranges from 18 and above
- Participant is free from any dermatological or systemic disorders which, in the opinion of the Principal Investigator, would interfere with the test results or increase the risk of an adverse reaction;
- Participant is dependable and able to follow directions as outlined in the protocol;

EXCLUSION CRITERIA:

A participant may not be eligible for enrolment if any of the following criteria are met:

- Subject has known allergies to cosmetics or personal care products;
- Subject is pregnant, planning a pregnancy, or is nursing;
- Subject exhibits and/or reports a history of an acute or chronic dermatologic condition of the face or that affects the eyelashes, eye diseases/disorders, which would preclude application of the test material and/or could influence the outcome of the study;
- Subject is currently undergoing chemotherapy or radiation.

Section 4: STUDY MATERIALS



- Product A consists of 0% active Ingredients and it is recommended to people who has mild wrinkles.



- Product B consists of 10% active ingredients and 90% water, it is recommended to people who has moderate wrinkles.



- Product C consists of 20% active ingredients and 80% water it is recommended to people who have severe wrinkles.

Section 5: STUDY PROCEDURE

5.1 Study Procedure

Stage1 (AT COFFEE NETWORKING BREAK):

- Participants steps in at 10:30 AM
- Understanding of the study
- Signing of the Consent
- Download/Launch the app
- Register using Conference ID, Password, Confirm Password and Email ID
- Select an option to the question, Wearing Foundation?
- Take a capture and proceed to see the results
- Participants are shown a table of results with Chronological age v Biological age as determined by the app.
- Participants are invited to visit the table and collect a small jar of product with the Product Number shown for their delegate number plus a second small jar labeled Control.

Sample Table:

Delegate				AI Determined Information		
Delegate Number	Age	Male/Female	Wearing Foundation	Biological Age	Fine Lines	Product Number
1	30-40	M	No	30-40	Moderate	B
2	41-55	M	No	41-55	Moderate	B
3	18-29	F	Yes	18-29	Mild	A
4	56+	M	No	56+	Severe	C
5	18-29	F	No	18-29	Mild	A

Stage 2(AT NETWORK LUNCH BREAK):

- If they have not already visited the table to collect their small jar of product with the Product Number shown for their delegate number plus a control cream, they will be reminded to collect their products.

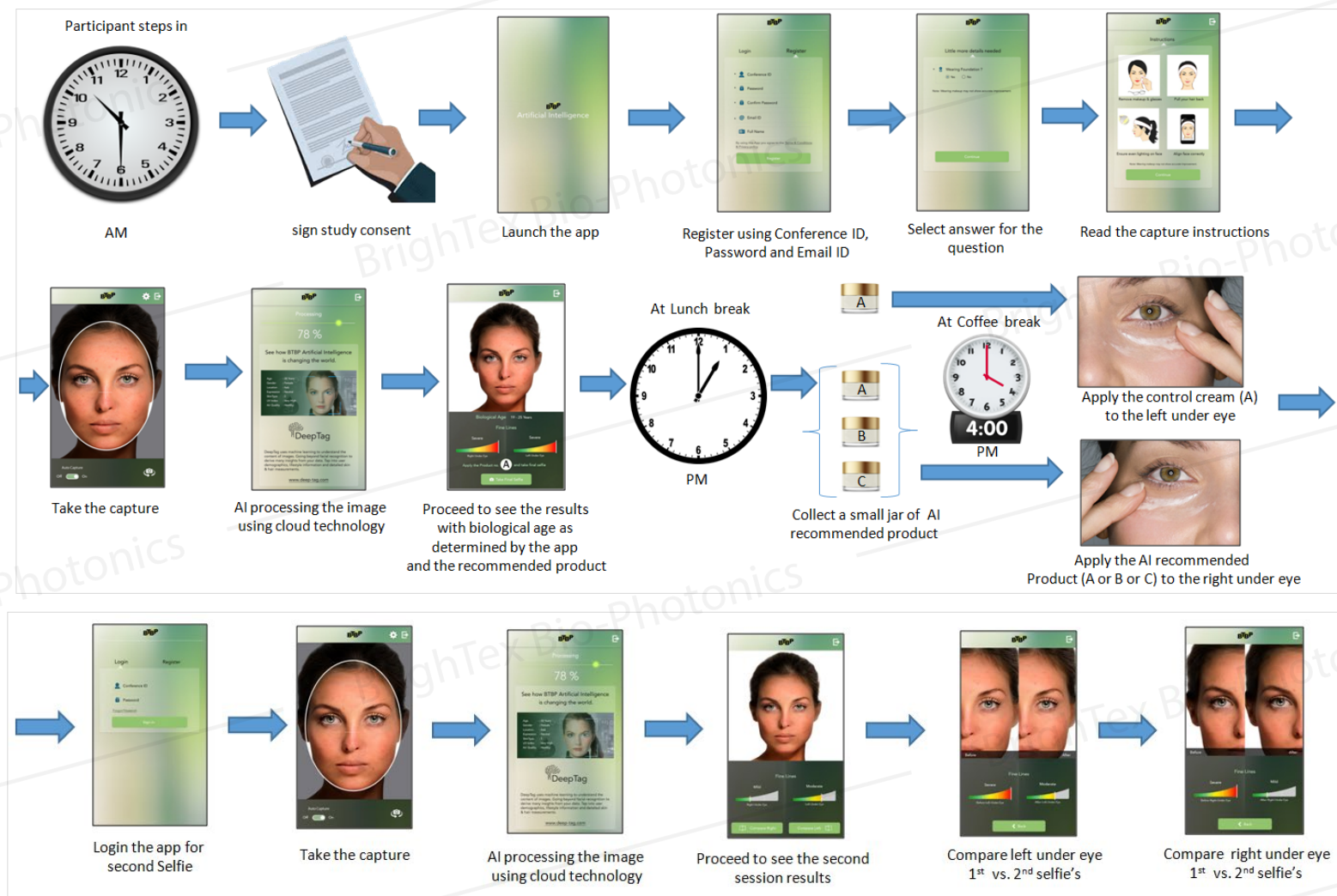
Stage 3(AT AFTERNOON NETWORKING COFFEE BREAK):

- When all the delegates have their creams, we ask them to generously apply the control cream to the left under eye and the jar with their AI recommended product on their right under eye.
- As the panel is settling at the end of the day, delegates take their final Selfie.

Stage 4(RESULTS AT THE START OF DAY 2):

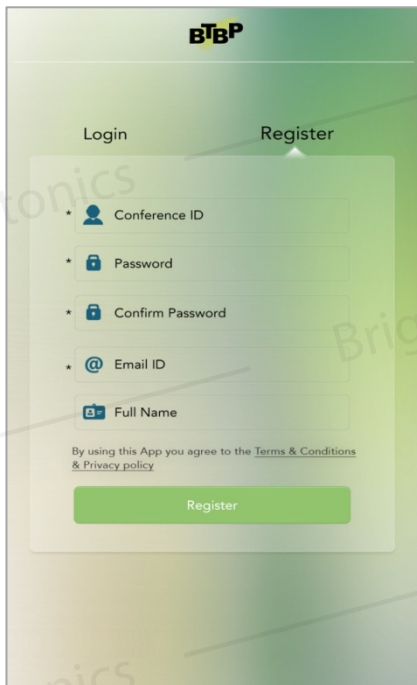
- Discussion on the results again in more meaningful detail during the InfoTainment talk

5.2 Study Procedure – Flow Diagram



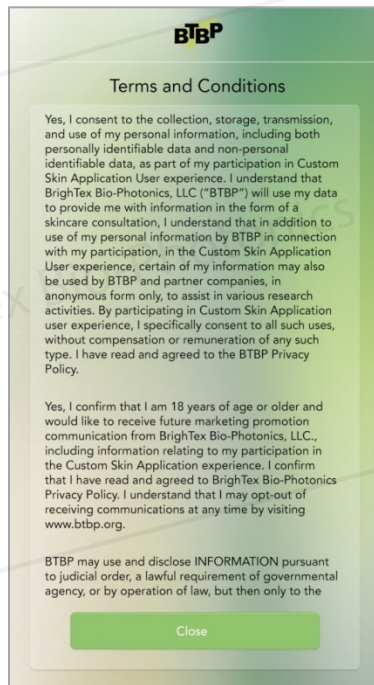
5.3 Infotainment Web Application Flow

Registration Screen



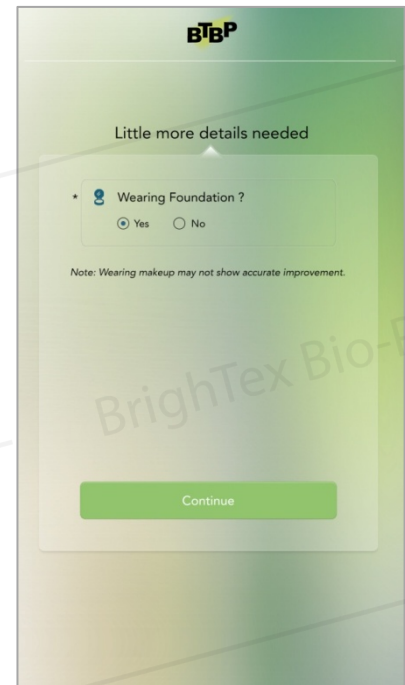
The Registration Screen features the BTBP logo at the top. It has two tabs: 'Login' and 'Register', with 'Register' being the active tab. Below the tabs is a form with five input fields: 'Conference ID' (with a person icon), 'Password' (with a lock icon), 'Confirm Password' (with a lock icon), 'Email ID' (with an @ icon), and 'Full Name' (with a name card icon). Below the form is a link: 'By using this App you agree to the Terms & Conditions & Privacy policy'. At the bottom is a green 'Register' button.

Terms & Conditions Screen



The Terms & Conditions Screen displays the BTBP logo and a title 'Terms and Conditions'. It contains two paragraphs of text. The first paragraph is a consent statement: 'Yes, I consent to the collection, storage, transmission, and use of my personal information, including both personally identifiable data and non-personal identifiable data, as part of my participation in Custom Skin Application User experience. I understand that BrighTex Bio-Photonics, LLC ("BTBP") will use my data to provide me with information in the form of a skincare consultation, I understand that in addition to use of my personal information by BTBP in connection with my participation, in the Custom Skin Application User experience, certain of my information may also be used by BTBP and partner companies, in anonymous form only, to assist in various research activities. By participating in Custom Skin Application user experience, I specifically consent to all such uses, without compensation or remuneration of any such type. I have read and agreed to the BTBP Privacy Policy.' The second paragraph is a confirmation statement: 'Yes, I confirm that I am 18 years of age or older and would like to receive future marketing promotion communication from BrighTex Bio-Photonics, LLC., including information relating to my participation in the Custom Skin Application experience. I confirm that I have read and agreed to BrighTex Bio-Photonics Privacy Policy. I understand that I may opt-out of receiving communications at any time by visiting www.btbp.org.' At the bottom is a green 'Close' button.

Questionnaire Screen



The Questionnaire Screen shows the BTBP logo and a title 'Little more details needed'. It contains a single question: 'Wearing Foundation ?' with two radio button options: 'Yes' (selected) and 'No'. Below the question is a note: 'Note: Wearing makeup may not show accurate improvement.' At the bottom is a green 'Continue' button.

Instructions Screen



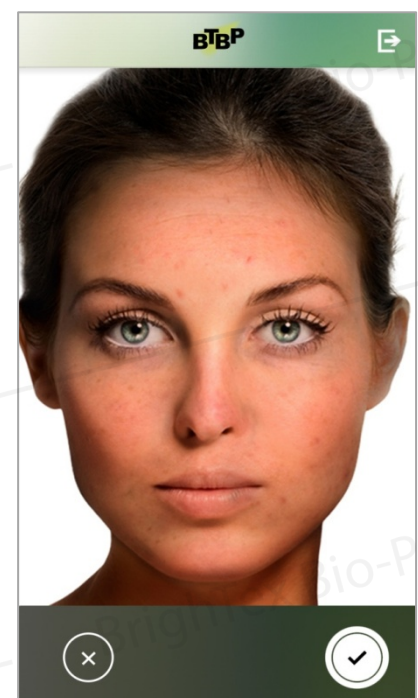
The Instructions Screen displays the BTBP logo and a title 'Instructions'. It features four instructional images with captions: 'Remove makeup & glasses' (woman removing glasses), 'Pull your hair back' (woman pulling hair back), 'Ensure even lighting on face' (woman with a light source icon), and 'Align face correctly' (woman with a phone icon). Below the images is a note: 'Note: Wearing makeup may not show accurate improvement.' At the bottom is a green 'Continue' button.

Capture Screen



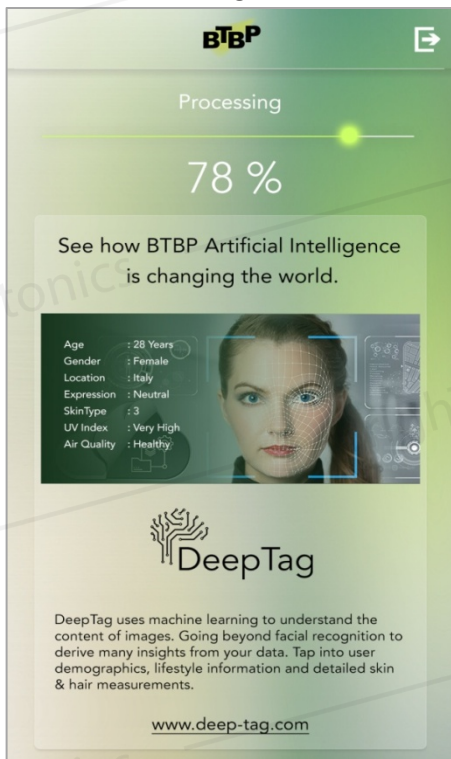
The Capture Screen shows a live camera feed of a woman's face. A white oval frame is overlaid on the face, with a white crosshair in the center. At the bottom, there is a toggle switch for 'Auto Capture' (currently 'Off') and a camera icon.

Preview Screen

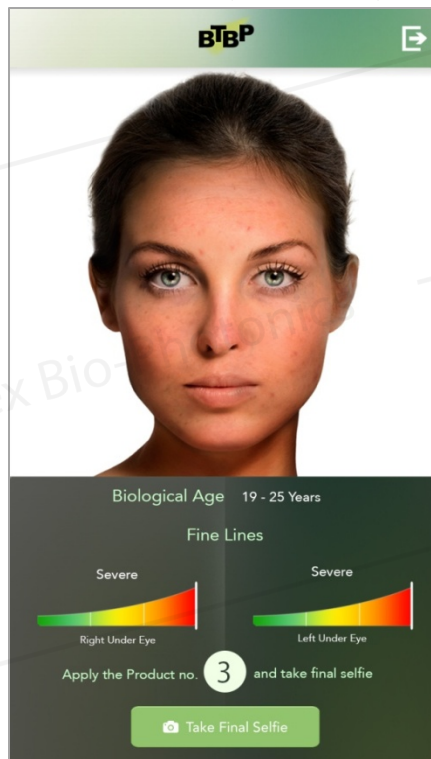


The Preview Screen shows a processed image of the woman's face. At the bottom, there are two circular buttons: a 'Close' button (with an 'X') and a 'Confirm' button (with a checkmark).

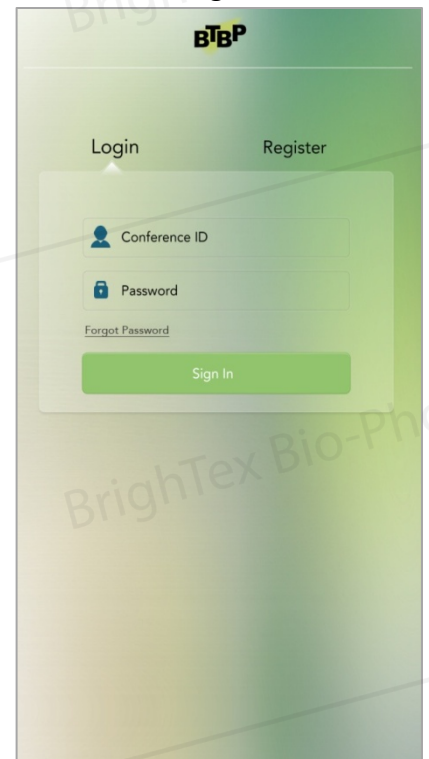
Processing Screen



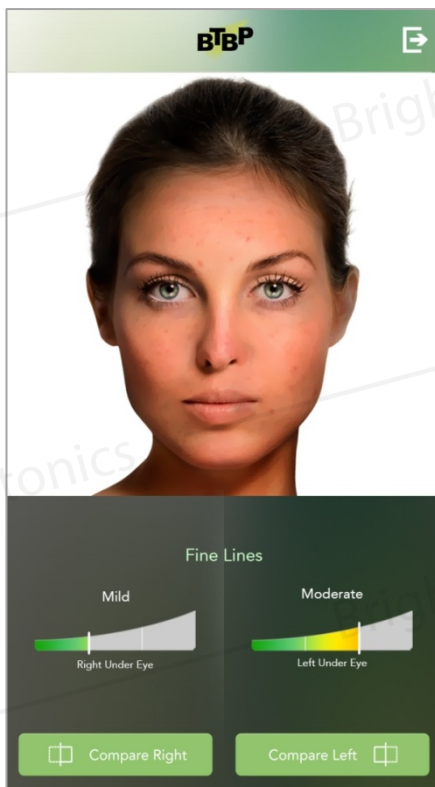
Results Screen (first session)



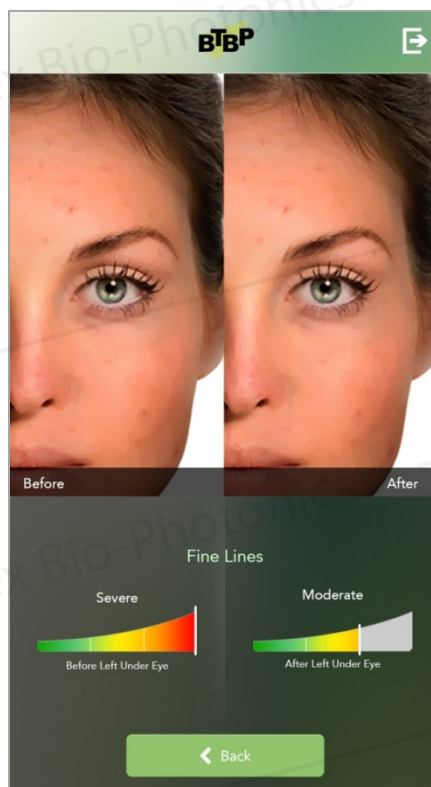
Login



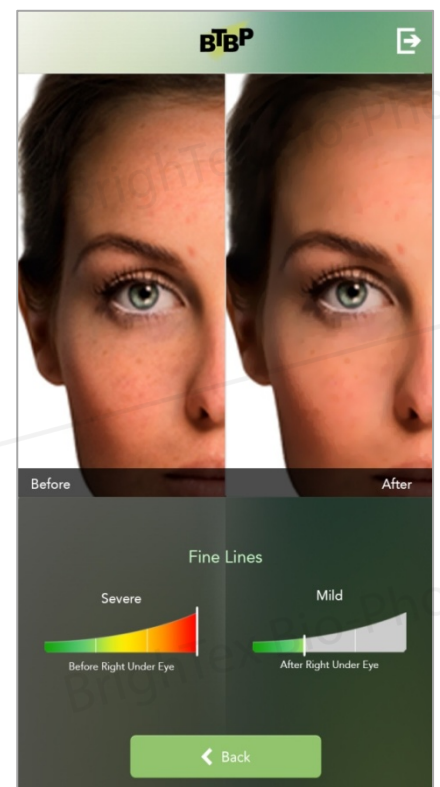
Results Screen (second session)



Compare Left side screen



Compare Right side screen



Section 6: STUDY EVALUATIONS

6.1 SKIN FEATURE TO BE STUDIED

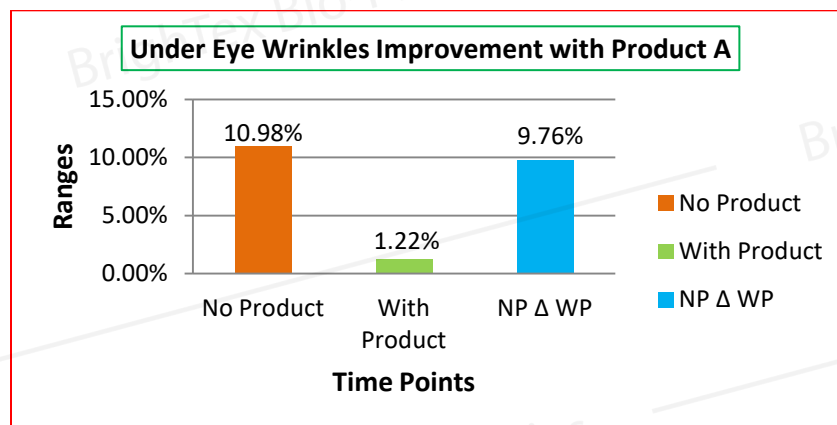
Under Eye Wrinkles

Structural changes in specific parts of the dermis and the subcutaneous tissue producing a fold, ridge or crease on the skin is considered as a wrinkle.



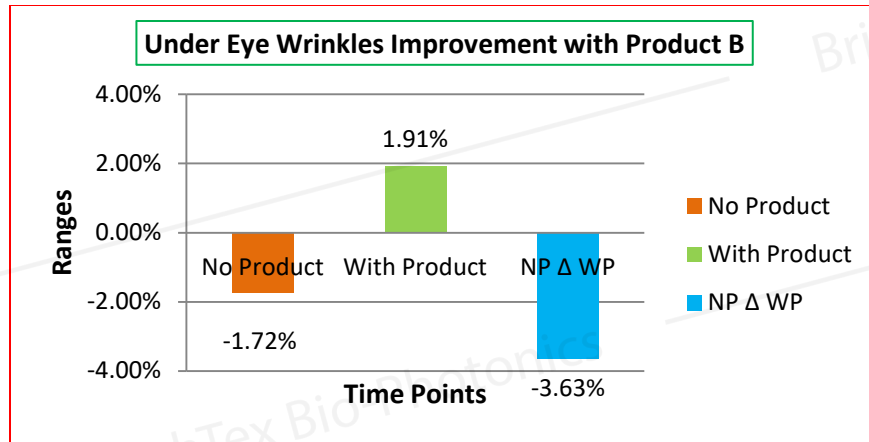
Measured Parameter: Under eye wrinkle severity

Under eye wrinkle severity:



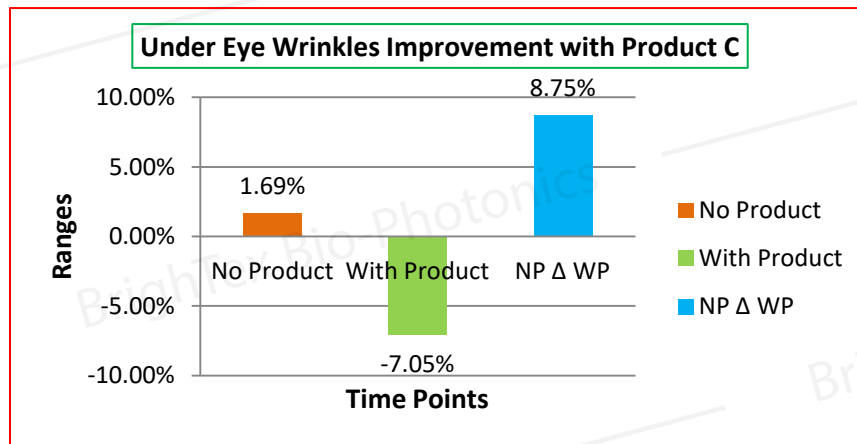
Observations:

- Product A had no significant difference.
- This product is recommended for younger participants who would not have many wrinkles.



Observations:

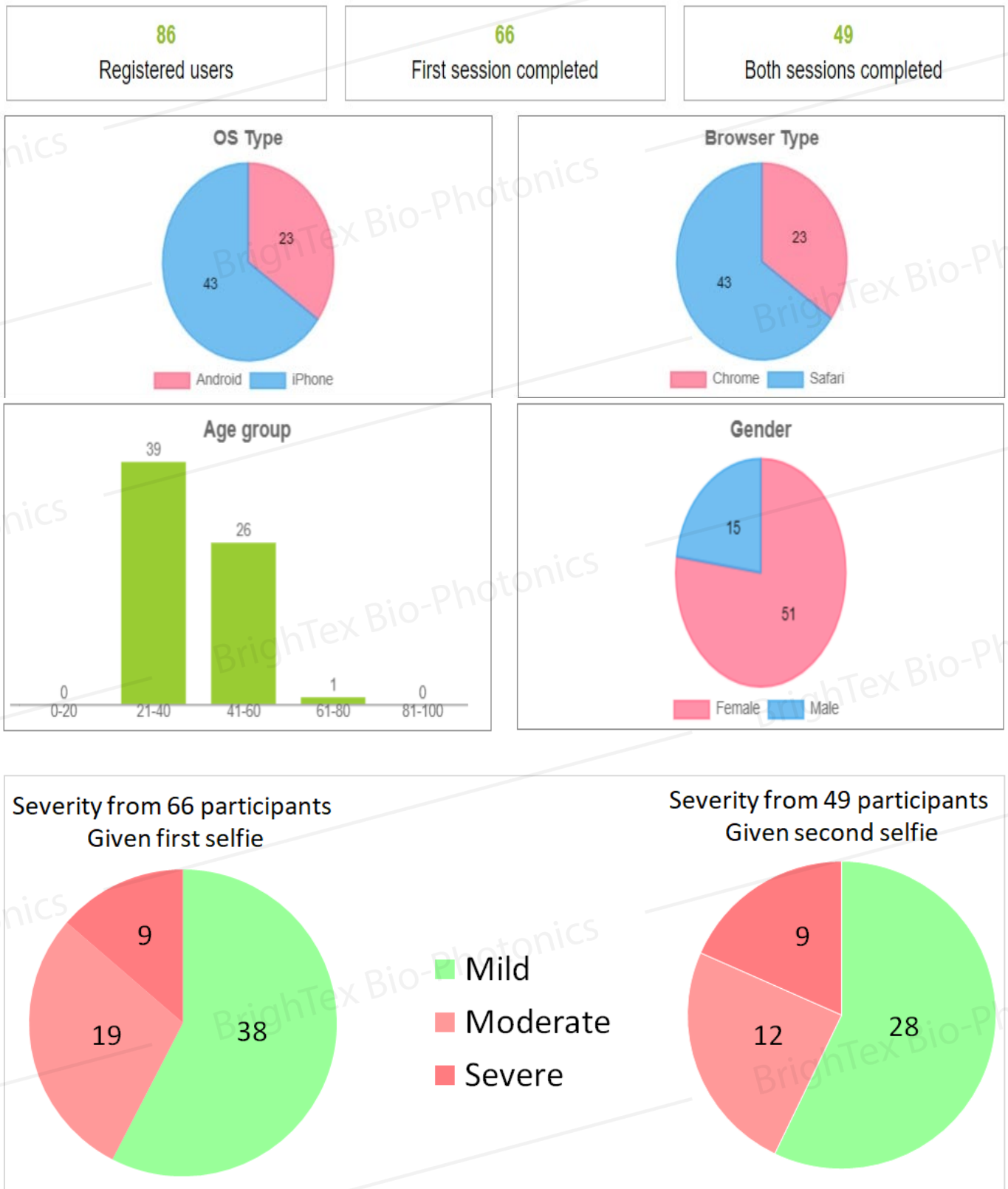
- Product B had no major difference.
- This product is recommended for younger participants who would not have many wrinkles.



Improvements Observed:

- Product C had a major difference.
- This product is recommended for old users who would have wrinkles.

6.2 Study Results



Observations:

- Data is normalized to the minimum severity score and calculated the percentage value of reduction
- Results for Product C saw a normalized improvement of 19.5% in the under-eye wrinkle's appearance.
- Product C was recommended for study participants whom the AI judged to have at least moderately severe under-eye wrinkles.

