



Healthy Mood Support





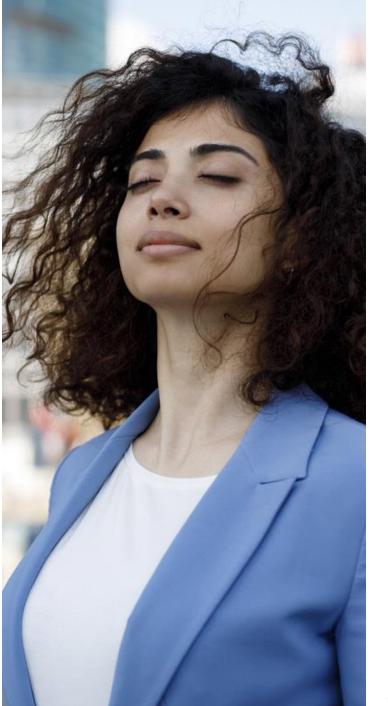
#### **Brain Health**

### Introducing HOWARU® Calm

For brand owners looking to support large majority of adults who report experiencing stress in their everyday lives, introducing our clinically studied probiotic for mood support.

Stress levels faced by adults today:

Everyday Stress 65%







### **Manage Stress**

Manages the psychological reactions to stress



#### **Balanced Mood**

Balances and regulates general feelings of stress



### **Mental Well-Being**

Promotes overall mental well-being



#### **Relaxed Mindset**

Promotes overall relaxed state of mind



## **CALM-** Clinical Trial Summary



### **Study Aim**

Assess the effect of Lacticaseibacillus paracasei Lpc-37®\* on stress and anxiety



### **Study Design**

Randomized, double-blind, placebo-controlled, single-site study

\* Note: Lacticaseibacillus paracasei Lpc-37<sup>®</sup> is formerly known as Lactobacillus paracasei Lpc-37<sup>®</sup>



### **Study Method**

- 120 healthy men and women, 18-45 years of age enrolled in the study
- Lpc-37<sup>®</sup> at 17B CFU per day
- Trier Social Stress Test (TSST) as a challenge triggering perceived and physiological stress responses

#### Primary outcome:

 Efficacy on heart rate before, during, and after the TSST

### Secondary outcomes:

 Measures of general psychometric assessment including perceived stress, cortisol analyses, blood pressure and online diary measures including sleep quality, health, well-being and mood

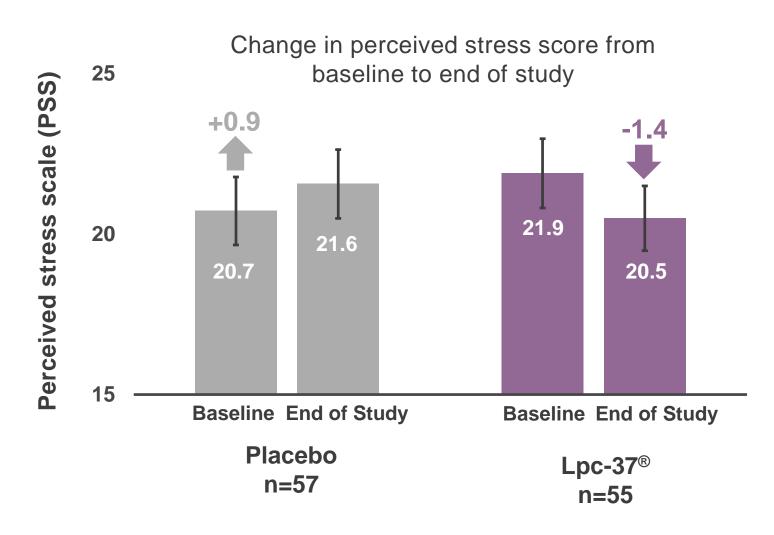
### **CALM-** significantly less perceived stress





### **KEY FINDINGS**

The Lpc-37<sup>®</sup> group reported significantly less perceived stress compared with the placebo group after 5 weeks (p=0.048).



Patterson et al. Neurobiol Stress. 2020 Nov 24;13:100277. doi: 10.1016/j.ynstr.2020.100277. PMID: 33385020.



## **CALM-** Consumer Perception Study Summary



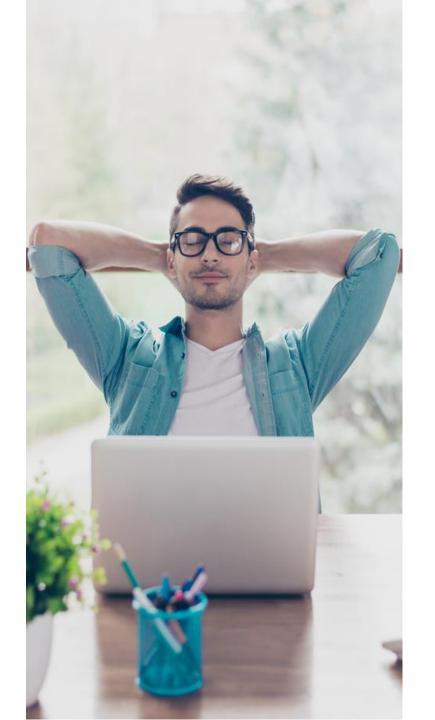
### **Study Aim**

Assess the effect of Lacticaseibacillus paracasei Lpc-37® on stress



### **Study Design**

In-home use test Randomized, single-blind, placebo-controlled, single-site study



### **Study Method**

- 190 healthy yet stressed men and women 18-65 years of age
  - Lpc-37® at 17B CFU per day
  - Line Scale (0-100) to measure stress and anxiety levels
  - Likert Scales (1-5) to measure level of agreement with various statements related to stress and mental focus

### **Study Objectives:**

Participants completed questionnaires
prior to the start of product consumption
to determine an individual baseline. At
both 4 weeks and 8 weeks, participants
completed the same questionnaires

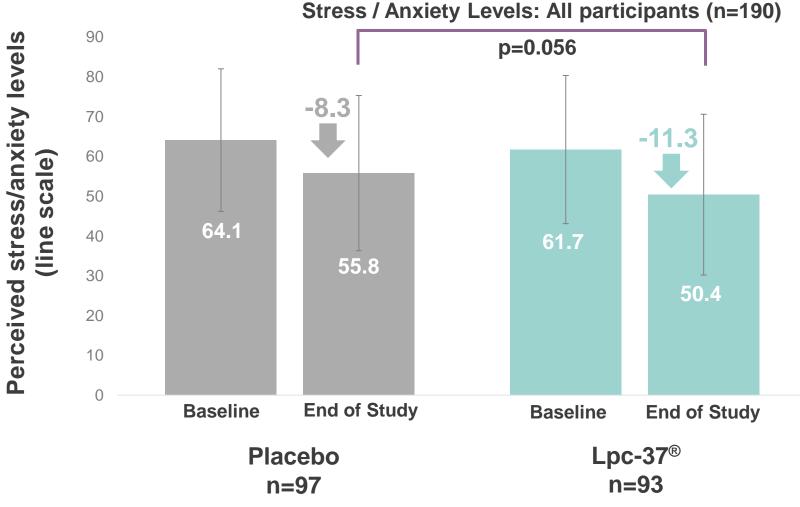
<sup>\*</sup> Note: Lacticaseibacillus paracasei Lpc-37® is formerly known as Lactobacillus paracasei Lpc-37®

### Among all participants, the Lpc-37<sup>®</sup> group showed a trend towards less stress at end of study



Participants perceived they were less stressed

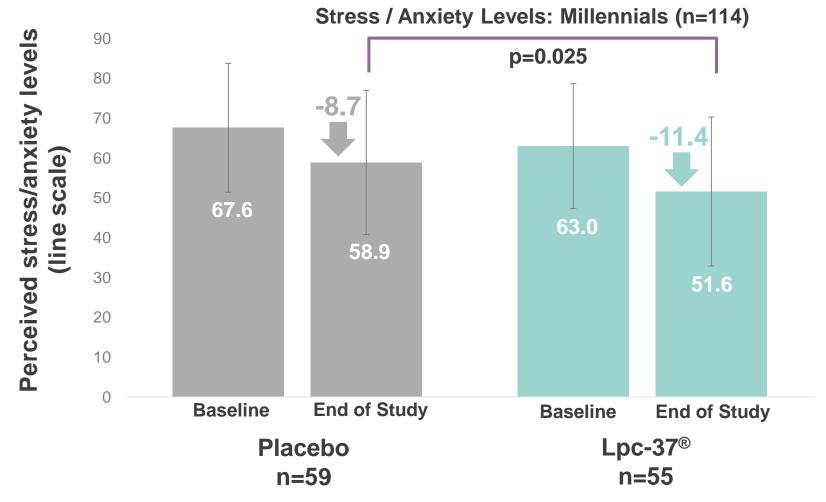
Thinking about your daily life, please rate your Stress / Anxiety level on a typical day:



# Among Millennials, the Lpc-37<sup>®</sup> sub-group were significantly less stressed compared to Placebo group



Thinking about your daily life, please rate your Stress / Anxiety level on a typical day:



<sup>\*</sup> p value is Placebo vs. Lpc-37 at End of Study (8 weeks)





### Calm

Clinically demonstrated to relieve perceived stress and promote a relaxed state of mind.

17B CFU | Lacticaseibacillus paracasei Lpc-37®\*

### **Benefits**



Helps to manage the psychological response to stress



Promotes mental well-being



Helps balance and regulate general feelings of stress

<sup>\*</sup> Note: Lacticaseibacillus paracasei Lpc-37 is formerly known as Lactobacillus paracasei Lpc-37





https://www.howaru.com/calm/

