

# Well-being and attention in medical scientists

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| <b>Submission date</b><br>27/11/2023   | <b>Recruitment status</b><br>No longer recruiting | <input type="checkbox"/> Prospectively registered<br><input type="checkbox"/> Protocol                                  |
| <b>Registration date</b><br>01/12/2023 | <b>Overall study status</b><br>Completed          | <input type="checkbox"/> Statistical analysis plan<br><input type="checkbox"/> Results                                  |
| <b>Last Edited</b><br>17/12/2024       | <b>Condition category</b><br>Other                | <input type="checkbox"/> Individual participant data<br><input checked="" type="checkbox"/> Record updated in last year |

## Plain English summary of protocol

### Background and study aims

Medical scientists have dual commitments to clinical care and research efforts. Such commitments can create hectic and stressful work schedules, which may impact well-being and cognition. This study tests the hypothesis that mindfulness coaching plus wearable-based lifestyle monitoring can benefit such individuals.

### Who can participate?

Physician Scientists affiliated with the UC San Diego Medical Scientist Training Program aged between 20 and 45 years old

### What does the study involve?

The study involved mindfulness coaching plus wearable-based lifestyle monitoring. Mindfulness coaching will be provided in small group sessions led by two psychological health experts as coaches. The coaches lead three sessions (each lasting 1.5 hours) spread over one academic quarter for each small group. The group meetings will be held virtually to maximize accessibility and comfort for the participants and will be scheduled per the participants' mutually preferred times. In each session, the coaches will conduct mindfulness exercises and lead an interactive discussion on health, well-being, resilience, leadership training, and self-compassion. Different mindfulness tools and perspectives will be suggested and discussed by the facilitators and by the participants themselves to address work-life challenges. The participants will be encouraged to share their sources of support (e.g., exploring sources of strength, stress management techniques, and spending time with loved ones). Focused mindfulness practice will be offered and taught at each session. At the end of each session, participants will be encouraged to prepare to share a tool or thought that was discussed at the next session. Intervention group participants will each be provided with a Garmin Vivosmart® 4 (a wearable device) to passively monitor and receive feedback on lifestyle factors (physical activity, heart rate, sleep quality and stress) via an app coupled to the Garmin for the duration of the intervention.

### What are the possible benefits and risks of participating?

Benefits to participants may include improvements in well-being and/or cognition. This is a minimal-risk study.

### Where is the study run from?

The University of California San Diego School of Medicine (USA)

When is the study starting and how long is it expected to run for?  
January 2021 to December 2022

Who is funding the study?  
National Institutes of Health (Grant: NIH/NIGMS 1T32GM121318-01) (USA)

Who is the main contact?  
Jyoti Mishra, jymishra@ucsd.edu (USA)

## Contact information

**Type(s)**  
Public, Scientific, Principal Investigator

**Contact name**  
Dr Jyoti Mishra

**ORCID ID**  
<http://orcid.org/0000-0001-6612-4557>

**Contact details**  
9500 Gilman Drive MC0875  
La Jolla  
United States of America  
92037  
+1 8582322855  
jymishra@ucsd.edu

## Additional identifiers

**EudraCT/CTIS number**  
Nil known

**IRAS number**

**ClinicalTrials.gov number**  
Nil known

**Secondary identifying numbers**  
Nil known

## Study information

**Scientific Title**  
Mindfulness coaching with digital lifestyle monitoring enhances selective attention in medical scientists

**Acronym**  
WellMSTP

**Study objectives**

Mindfulness coaching with digital lifestyle monitoring will enhance well-being and cognition and medical scientists

**Ethics approval required**

Ethics approval required

**Ethics approval(s)**

Approved 29/01/2021, University of California San Diego Institutional Review Board (9500 Gilman Drive, La Jolla, 92037, United States of America; +1 858-246-4777; hrpp@ucsd.edu), ref: 180140

**Study design**

Interventional

**Primary study design**

Interventional

**Secondary study design**

Randomised controlled trial

**Study setting(s)**

Internet/virtual, University/medical school/dental school

**Study type(s)**

Prevention

**Participant information sheet**

See study outputs table

**Health condition(s) or problem(s) studied**

Well-being

**Interventions**

Mindfulness Coaching

Participants will be randomized using a simple randomization method into the intervention or a waitlist control group. The intervention is a digital approach (delivered on Zoom) with group mindfulness sessions led by two psychological health faculty members as coaches. For these sessions, participants will be divided into sub-groups by career stage: pre-clinical medical scientist training program (MSTP) students, MSTP graduate students, or clinician/junior faculty. The coaches will lead three sessions (each 1.5 hours) spread over one academic quarter for each sub-group. The group meetings will be held virtually to maximize accessibility and comfort for the participants and will be scheduled per the participants' mutually preferred times. In each session, the coaches will conduct mindfulness exercises and lead an interactive discussion on health, well-being, resilience, leadership training, and self-compassion. Participants will be asked to turn on their videos for the duration of the sessions and to share personal opinions and life experiences. In these sessions, the primary goal for the coaches will be to listen attentively and promote well-being. They will also aim to validate and acknowledge challenges that participants face as physician-scientists in training or as early career faculty. Different mindfulness tools and perspectives will be suggested and discussed by the facilitators and by the participants

themselves to address work-life challenges. The participants will be encouraged to share their sources of support (e.g., exploring sources of strength, stress management techniques, and spending time with loved ones). Focused mindfulness practice will be offered and taught at each session. The participants will also discuss potential changes to the physician-scientist environment that would facilitate well-being if implemented. At the end of each session, participants will be encouraged to consider a tool or thought that was discussed to share at the next session. Intervention group participants will each be provided with a Garmin Vivosmart® 4 (a wearable device) to passively monitor and receive feedback on lifestyle factors (physical activity, heart rate, sleep quality, and stress) via an app coupled to the Garmin for the duration of the intervention.

### **Intervention Type**

Behavioural

### **Primary outcome measure**

1. Subjective well-being measured using a combination of the Mindful Attention Awareness Scale (MAAS), Short Warwick Edinburgh Mental Well-Being Scale (SWEMWBS), Self-Compassion Scale (SCS), and the Maslach Burnout Inventory (MBI) at baseline and post-intervention
2. Objective cognition measured using the BrainE neurocognitive platform at baseline and post-intervention

### **Secondary outcome measures**

Neuroplasticity underlying cognition measured using electroencephalography (EEG) recordings synchronized to the BrainE neurocognitive platform assessments at baseline and post-intervention

### **Overall study start date**

01/01/2021

### **Completion date**

31/12/2022

## **Eligibility**

### **Key inclusion criteria**

Physician Scientists affiliated with the UC San Diego Medical Scientist Training Program

### **Participant type(s)**

Healthy volunteer, Carer

### **Age group**

Adult

### **Lower age limit**

20 Years

### **Upper age limit**

45 Years

### **Sex**

Both

**Target number of participants**

43

**Total final enrolment**

43

**Key exclusion criteria**

Individuals not affiliated with the UCSD Medical Scientist Training Program

**Date of first enrolment**

01/10/2021

**Date of final enrolment**

01/12/2021

## **Locations**

**Countries of recruitment**

United States of America

**Study participating centre**

University of California San Diego School of Medicine

9500 Gilman Drive

La Jolla

United States of America

92037

## **Sponsor information**

**Organisation**

University of California San Diego Medical Center

**Sponsor details**

9500 Gilman Drive

La Jolla

United States of America

92037

+1 858-246-4777

irb@ucsd.edu

**Sponsor type**

Hospital/treatment centre

**Website**

<https://health.ucsd.edu/>

**ROR**

<https://ror.org/03aw5sn18>

## **Funder(s)**

**Funder type**

Government

**Funder Name**

National Institutes of Health

**Alternative Name(s)**

Institutos Nacionales de la Salud, US National Institutes of Health, NIH

**Funding Body Type**

Government organisation

**Funding Body Subtype**

National government

**Location**

United States of America

## **Results and Publications**

**Publication and dissemination plan**

Planned publication in a high-impact peer-reviewed journal

**Intention to publish date**

01/06/2025

**Individual participant data (IPD) sharing plan**

The datasets generated during and/or analysed during the current study will be stored in a publically available repository, datadryad.org. The type of data stored includes all data outcome variables collected and analysed for the study. The data will be freely available for download post-publication of the research. Consent was obtained from participants for de-identified data sharing. The data will be de-identified and do not have any personal health information for participants. The data are de-identified with no ethical or legal restrictions.

**IPD sharing plan summary**

Stored in publicly available repository

**Study outputs**

| Output type                                   | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|---|---------|--------------|------------|----------------|-----------------|
| <a href="#">Participant information sheet</a> |         | 22/03/2016   | 28/11/2023 | No             | Yes             |