

## REQUEST FOR YOUR PARTICIPATION IN RESEARCH

### TITLE OF THE STUDY

Insulin Pump Usability Study

### FUNDING SOURCE

This project is externally funded through a contract with the U.S. Food and Drug Administration (FDA), HHSF223201810158C

### NAME OF THE RESEARCHERS (STUDY PERSONNEL)

- Shannon Clark, PE (Co-Primary Investigator): CEO and Human Factors Engineer at UserWise, Inc.
- Dan Nathan-Roberts, Ph.D. (Co-Primary Investigator): Assistant Professor in the Industrial and Systems Engineering Department at San Jose State University.
- Additional researchers will be assigned once the study is scheduled.

### PURPOSE

The purpose of this usability evaluation is to help test the product design and obtain user opinions. Keep in mind we are evaluating the product; we are not evaluating you or your abilities.

Before you decide whether to participate in this research, it is important for you to understand why the research is being done and what it will involve. The risks are that you may handle a device with a needle and distilled water and may experience negative emotions, such as frustration and annoyance. Participants will receive a token of appreciation up to \$80. See the section, “Token of Appreciation,” for details. Documentation stating your identity will be kept secure and will not be made publicly available. If the research results are published, your identity will remain secure to the extent permitted by law. The decision to participate in this research study is up to you. Your participation is completely voluntary. Ask a member of the research team about anything that is not clear. If you would like more information, read more details below and decide whether or not you want to participate in this research study.

Not all aspects of the study are being disclosed up front but will be provided after the study, during a debriefing.

### PROCEDURES

There are two study sites, but you will be assigned to one site. The study sessions may take place at one of the following locations:

San Jose State University:

In room 495, Engineering Building  
One Washington Square  
San Jose, CA 95192-0085.

UserWise, Inc.:  
919 The Alameda  
San Jose, CA 95126

A researcher will be with you in the study room and will be moderating the study session. Additional researcher(s) may either sit in the room next to the study room to observe via a one-way mirror or may observe real-time via video. The audio-visual system in the rooms may provide audio to the study room. You will be able to communicate with the researcher at any time. All sessions will be recorded. Only the researchers will have access to recordings, which will be stored on a password-secured hard drive or on a password-protected server (i.e., Google Drive).

This research study is looking at the usability (ease of use) and safety of an insulin pump and its associated accessories (the **Study Device**). The Study Device (insulin pump and its accessories) have been approved or cleared by the FDA for use and sale.

You may be given a brief description of general use of the device or training on safe use of the devices before use and then will perform tasks and answer questions related to the tasks, such as how easy or difficult it was for you to perform each task. A member of the research team will be present to watch as you perform each task. By signing this form (for all participants), you give your permission to be photographed and audiovisual recorded for the purpose indicated in this form. The media will be de-identified by permanently blurring or obscuring any participant identifying features from the shoulders up in any publicized files prior to release. If you do not wish to be photographed, recorded, or video recorded, you may not participate in this research study. A member of the research team will collect the Study Device and all study-related material before you leave the research facility. This will be the end of your study session.

When you arrive at the study session, you will be greeted by a member(s) of the research team. You will not inject or deliver any medication to yourself or anyone else as part of this study.

At the end of your participation in the study, the Study Device and study-related materials will not be available to you and will have to be returned to the research team. The Study Device include components that contain a real needle. Water will be used in place of the active medication; however, you will not take any medicine or be asked to inject yourself or anyone else with a needle, during this study. Instead, you will simulate the injection into an injection pad that will be strapped to a manikin. During the product evaluation session, you will be asked to perform some tasks with the Study Device, working on your own as needed.

The first study session is estimated to last between approximately 60 and 90 minutes. Based on random selection, you may be invited to participate in a second study session, estimated to last approximately 60 minutes. Eligibility to participate in the second study session will be disclosed upfront and will not be dependent on your performance. The total expected duration of your participation is estimated to be up to approximately 2 hours if you participate in both study

sessions, with a break in between that may vary from one hour to one week. You will be asked to perform physical and cognitive tasks, during the study sessions.

At the end of the study, you will fill out a post-study questionnaire to collect further subjective feedback and demographic information.

It is important that you follow the research team's instructions throughout the study. If you have questions or want further information, contact a member of the research team.

### **COVID-19 SAFETY**

Precautions are being taken for your safety and the safety of the study team to minimize the risk of COVID-19. Please notify the study team if you fall ill within 14 days of your study session with flu-like symptoms or if you are diagnosed with COVID-19.

### **POTENTIAL RISKS**

Your participation in this study is voluntary. You can refuse to participate in the entire study or any part of the study at any point. You have the right to skip any questions you do not wish to answer.

Study personnel will stop the test session if, at any time, they believe that there is an immediate risk of harm to you. During this research study, you may be handling a product that contains distilled water or decontaminated water, using ultraviolet light. In the case that the device has a needle in it, it will contain a sterile needle. Please keep in mind that some of the components available for use, during the session, contain needles, so be very careful when handling the equipment and let the study personnel know, at any point, if you feel unsafe.

There is a small risk that you may get a needle-stick injury if you are not careful when handling the components containing needles, during the study. If these risks occur, the study personnel will stop the testing and seek first aid for any injury. If necessary, a paramedic will be called. Additionally, you might become fatigued by the end of the visit or may experience negative emotions, such as frustration and annoyance. If you have any concerns or experience distress, during the study, please tell a member of the research team, immediately. This study has been reviewed by the San Jose State University's Institutional Review Board.

### **POTENTIAL BENEFITS**

This study will contribute to the general understanding of medical device safety and effectiveness measures in relation to human-device interactions.

This research is not designed to diagnose, treat, or prevent any disease. You have the option of whether to take part in the research.

### **TOKEN OF APPRECIATION**

You have been invited to participate in either one or two study sessions. Participants will receive a token of appreciation for participating in the full study. Your eligibility for a second session

will be determined at random and disclosed upfront and will not be dependent on your performance:

- Either \$40 for completing one session lasting approximately 60 minutes or \$75 for completing one session lasting approximately 90 minutes (determined at random).
- \$40 for completing a second session if you are invited at a specific later date (lasting approximately 60 minutes).

If you are an SJSU student, you may opt for course credit that approximately matches the length of the session(s) instead of receiving the payment amount.

You will not receive a token of appreciation for travel-related costs to participate in this study.

Payment will be made within fifteen (15) business days of your participation in the study session(s).

You will not have to pay anything to participate in this study.

## **CONFIDENTIALITY**

Any information you acquire related to this usability evaluation session is confidential. By signing this form, you agree that you will not discuss this evaluation with anyone. Also, as we are trying to get individual opinions, please do not relate your experience or opinions to other potential participants.

Documentation stating your identity will be kept secure to the extent permitted by law, and if results are published, your identity will remain secure as well.

If you volunteer to take part in this study, information about you will be collected and analyzed; this will include information such as your age, ability to read and understand English, occupation, education level, and whether you have experience using insulin pumps.

Your name will not be used in any reports from this study. Any personally identifiable data that is captured will be stored and analyzed, using an identifier randomly assigned to each participant before the trials. All of your study data will be kept in a secure location and confidential. Computer-based files will be available only to authorized research members, using access privileges and passwords.

By signing this form, you authorize us to use one or more of your deidentified images or pictures captured in video and photographs of your participation in study activities for more general purposes, such as illustrating technical presentation slides and technical articles.

## **PARTICIPANT RIGHTS**

Your participation in the evaluation is completely voluntary. You may decide to stop your participation at any time. If you decide not to participate, there are no adverse consequences to you, and you will not lose any benefits to which you would otherwise be entitled.

If you decide to participate, you will be asked to sign and date this Participant Agreement, and you will receive a signed and dated copy for your records. You are free to withdraw (stop your participation) at any time, without giving a reason and without penalty or loss. Tell a member of the research team if you want to stop participating in the study.

If you withdraw from the study, the data collected up to the time of your withdrawal will continue to be used.

You will be informed of important new information or any changes in the study or devices that may affect your decision to continue participation in the study. You will have an opportunity to discuss the new information with a member of the research team before deciding to continue or not.

Your participation in the study may end at any time with or without your permission, due to any of the following reasons:

- You decide to withdraw.
- Your research team decides you should be withdrawn for any reason.
- You do not follow the instructions for participation.
- A regulatory health authority, such as the FDA or the IRB, has stopped the study.

## QUESTIONS OR PROBLEMS

You can ask questions about this consent form or the study before you decide to start the study, at any time during the study, or after completion of the study.

- For further information about the study, please contact Shannon Clark ([UserWise@userwiseconsulting.com](mailto:UserWise@userwiseconsulting.com) or 650-701-7746) or Dr. Dan Nathan-Roberts ([dan.nathan-roberts@sjsu.edu](mailto:dan.nathan-roberts@sjsu.edu) or 408-924-7501).
- Complaints about the research may be presented to the Industrial and Systems Engineering Department Chair, Yasser Dessouky ([yasser.dessouky@sjsu.edu](mailto:yasser.dessouky@sjsu.edu) or 408-924-4133).
- For questions about participants' rights or if you feel you have been harmed in any way by your participation in this study, please contact Dr. Richard Mocarski, Associate Vice President for Research, San Jose State University, at 408-924-2479 or [irb@sjsu.edu](mailto:irb@sjsu.edu)

In case of emergency, dial 911 or go to the closest emergency room or hospital.

**SIGNATURES**

I have read this information and consent form in a language that I understand, and its contents were explained to me. I voluntarily agree to be in this research study for the purpose listed above. All of my questions were answered to my satisfaction. I will receive a signed and dated copy of this form for my records. I am not giving up any of my legal rights by signing this form.

**Participant Signature**

\_\_\_\_\_  
Participant's Name (printed)      Participant's Signature      Date

**Researcher Statement**

I certify that the participant has been given adequate time to learn about the study and ask questions. It is my opinion that the participant understands his/her rights and the purpose, risks, benefits, and procedures of the research and has voluntarily agreed to participate.

\_\_\_\_\_  
Name of Person Obtaining Informed Consent      Signature      Date