

CONSENT FORM

Background

Every person has a natural body odor. In humans, body odor is partly caused by bacterial populations that live on the skin, called the skin microbiome. These bacteria digest compounds found in sweat and produce many different molecules responsible for odor. Every person has a unique microbiome. Your personal skin bacteria, along with other factors like genetics and lifestyle, determines your natural body odor. The goal of our project is to better understand the relationship between underarm bacteria and body odor. Sometimes, body odor may be seen as repulsive, gross, or a sign of bad hygiene. At other times, body odor may be attractive, comforting, or sensual. We believe that major variations in both the strength and the qualities of body odor can be linked to specific types of bacteria on the skin.

If we can identify and isolate the bacteria associated with specific body odor profiles, we may be able to provide "good" bacteria to people who want to control their skin microbiome. For example, these bacteria might reduce body odor or make it more pleasant. Because smell is highly subjective, we also want to gauge public opinions about body odor. When is body odor strong, mild, pleasant or unpleasant? These opinions about body odor will be correlated with bacterial profiles that we measure in the lab, to determine which bacteria are the major causes of odor.

Participants in this study are invited to provide a sweat sample, which contains the bacteria of your skin microbiome. We may also ask you to evaluate different odors, including sweat, that we will provide. This project is part of the work from the international Genetically Engineered Machine (iGEM) Paris Bettencourt team.

Purpose

There are three purposes of this project. First, we hope to increase public awareness and involvement in bioengineering and synthetic biology through being part of a research.

Second, we are trying to build a database of body odor and its intensity with a matching microbe population.

Third, in the process of building the database, we hope to discover a natural variant of odorous bacteria that does not produce unpleasant smell. This can be related to the genetic information carried by the host, which may further relate to personal information. These mutated bacterias can be used to produce low-cost probiotic cosmetic products without actually increasing the density of skin microbes.

Procedure

Our research will be done at the « Centre de recherche Interdisciplinaire ». You have different ways to participate in our study :

- You can collect your sweat using our kit that you send back to us. We will concentrate your odor and send it anonymously to other people that will rate it. You will be able to see how people rate your smell on our online platform.
- You can smell different odors from a kit that we will send you, and fill a form. The aim is to rate and identify the smell of the odors, but also to guess personal informations related to the person who is giving its smell sample. You will receive the

anonymous information of this person to see if you guessed right !

- You can both give your sweat, and smell samples.

We ask you not to wear any deodorant, antiperspirant, perfumes or scented cosmetic products on the day of sample collection, this would alter the smell and the microbiome flora. More instructions are given in the kits on the « How to proceed » paper.

What will happen to the sweat samples you send us :

- In one hand, we will extract the genetic material from your microbiome (DNA).
- Then we will send this DNA to a special laboratory that can sequence it (reading out the complete genetic code in each sample).
- The sequencing company guarantees the strict confidentiality of all data and information resulting from this project. All data, results and materials remain the sole property of the customer (us) and GATC (the sequencing company) will not acquire any intellectual rights resulting from information or materials generated as a result of this project.
- In the other hand, we will concentrate the odor from your pad and send it back to people to smell it.
- After the project is over, any remaining part of your sample will be destroyed.

For the odor evaluation :

- The pad with the concentrated body odor from the participants will be sent to other participants, who will smell them and rate them.
- They will rate them based on the intensity of the smell and how pleasant the smell is to them personally.

What will happen to the information in this project :

- We will replace your name and any other traditional identifiers we get from you by code numbers.
- We will place the coded information in open access scientific databases available over the internet to anyone using our platform, whether they are scientists or citizen scientists just like you.
- The coded information will be available on our platform to anyone who wants to analyze it.

Potential Risks

Physical risks:

There is minimal physical risk involved in this study. Participants may be allergic to the cotton pad we are using for sample collecting and get irritating skin. However, the possibility is extremely low. Smelling the sample may cause short-term physical reaction, including headache and nausea, which should not have long-term effect.

Social and psychological risks:

As we don't consider this to be a traditional study, participants may be questioned by friends or family members on why they are involved. Although it is physically comfortable to wear the cotton pads, it might be socially awkward to some people. It can also be disheartening to get an undesirable result of the participant's own body odor.

Exposure of personal information:

As researchers, we will protect the personal information of the participants, including the smell score, traditional identifiers and genetic information. Some human DNA will be gathered with the bacterial DNA but will not be used. However, under the situation that our system is intentionally hacked or we are required legally to provide the information, they may be exposed unexpectedly.

Potential Benefits

At current stage, there is no direct benefit to the participants, except for the excitement of participating in new application researches and getting to know more about their body odor and skin microbe, which can be potentially related to their health situation.

However, in a long run, the involvement may help the creation of probiotic cosmetic products that can eliminate body odor in a more healthy and cheaper way.

Alternative Participation

You can participate in three ways: you can send us your sweat sample, volunteer to smell different odors, ones we create using microorganisms and others from sweat people send us, or you can do both. For participants who only smell the samples, no personal information will be collected.

Volunteers

There is no payment involved in this study. Participants are voluntary and wouldn't be compensated even if a cosmetic product is made and sold on the market in the future. The researchers of this study will take charge of the shipping costs. Financially, there are no costs or benefits for the participants.

Rights to Withdraw

Participants have the rights to withdraw from the study at any point of time in the process. Once the individual decides to withdraw, the sample will be destroyed, all personal information will be deleted from the record and any online data related to this person will be taken down.

Confidentiality

Traditionally personal identifiers, such as name and address, will only be available to the researchers (a couple of people in our iGEM Paris Bettencourt team). Before we process the samples and before we send them out to other participants for smelling, the information will be replaced by numbers. However, the personal informations will be published in our online database afterward and will be accessible by the public.

The personal information, including DNA sequence, collected by the researchers will not be provided to other agents, unless legally required and mandatory. If such situation happens, we will notify the participants before handing in the information. The information would also not be used for other research.

Contact Information

You can contact us at the following : igemparisbettencourt2014@gmail.com

Principal Investigator of the iGEM Paris Bettencourt team: Ariel Lindner ablindner@gmail.com

Advisors of the iGEM Paris Bettencourt team: Edwin Wintermute ehwintermute@gmail.com / Ian marcus ianmmarcus@gmail.com

Authors of the consent form: Shuyi Sylvia Yang ysy940121@gmail.com / Alexandre Evans alexandre_evans230@hotmail.com

People carrying out this study: iGEM Paris Bettencourt 2014 team

Agreeing to participate means :

- you have read this consent and the research study was explained to you.
- your rights as a research participant have been provided to you.
- we will let you know about new informations or changes in the study that may affect your willingness to stay.
- by agreeing you do not give up any of your legal rights.
- you are consenting to take part in this research study.

Signature and date

Parental permission form

You have the option of having your child or teen to take part in a research study. This is a parental permission form. The goals of this form is to give you information about what would happen in the study if you choose to have your child to take part and help you decide if you want your child to be in the study. It provides a summary of the information the research team will discuss with you.

Agreeing to participate means :

- you and your child have read this consent and the research study was explained to both of you.
- you and your child's rights as research participants have been provided to you.
- we will let you know about new informations or changes in the study that may affect your willingness to stay.
- by agreeing you and your child do not give up any of your legal rights.
- you are this child's legal guardian and you agree to have the child named above to take part in this research study.
- Your child still has the right to decline to participate even if you consent to their participation.
- your son is consenting to take part in this research study.

Signature of the parent(s) and date

Signature of the child(ren) and date