

QUARANSKIN

HANDBOOK

BY

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QUARANSKIN GENESIS

THE TEAM

We are a team composed of students based in Paris. We are participating in the 2020 iGEM competition, an initiative that challenges young researchers across the world to come up with solutions to real-world problems using synthetic biology.

OUR PROJECT

From the observation that social distancing measures linked to the pandemic have reduced physical contacts between individuals and limited their daily environment, we were interested in the consequences it could have on the skin microbiome.

To answer this question, we've developed this study based on collecting skin microbiome samples, to which you have chosen to participate.

Thanks to your contribution, we will have access to the microbial composition of four different body sites: hand palm, forearm, antecubital fossa (elbow bend), and the retro auricular (behind the ear).

These samples will be analysed by a sequencing company, which will read the DNA of the bacteria in the sample. From this, we can identify and compare the bacterial compositions in skin samples, to criteria linked to the answers in the questionnaire.

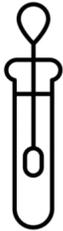
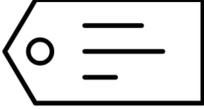
We are planning to compare these results to previous research on the skin microbiome, which may lead us to find differences due to the lockdown.

We think that the relative isolation of individuals due to the pandemic is a unique opportunity to characterize the parameters that influence the skin microbiome of European populations/residents.

On to the sampling!

PROVIDED MATERIAL

The kit that you have received by mail includes:

- This handbook 
- 6 swabs per person (4 for sampling, 2 spare) 
- 6 labelling stickers 
- 1 stencil of 16 cm² 
- 1 pre-paid return letter 

The email entitled *Quaranskin - step 2* you have received includes:

- 1 link to create an *Open Human account*
- 1 link to complete the online questionnaire



3 TASKS TO FULFILL

1 - CREATE AN OPEN HUMAN ACCOUNT

2 - SAMPLE YOUR SKIN MICROBIOME

3 - ANSWER THE QUESTIONNAIRE

1-CREATE AN OPEN HUMANS ACCOUNT

Open Humans is a secure platform that allows easy access and manipulation of data over a network (see openhumans.org).

If we ask you to register, it is first to provide you with an 8-digit identity number, and secondly. to send you information and exchange with you while preserving your anonymity.

Procedure :

1. Click on the Open Humans link in the email titled *Quaranskin - step 2*

2. If you don't have an account yet, create one by clicking on "Create account". Then enter a username and a name (see picture below). N.B.: you can put your real name, it will not jeopardise your anonymity!

Please log in to authorize "Quaranskin"

Log in to Open Humans

Username or Email or

 Continue with Facebook

 Continue with Google

[Reset password](#) | [Create account](#)

Create an Open Humans account

Imported data is private by default. An account must be your own, or someone you are a legal guardian for.

Username (public)

Name (public)

Email

Password



Receive Open Humans news and updates

Allow other members to contact me

I agree to the Open Humans [Terms of Use](#)

3. Read the consent form then click on "Accept"

Join 'Quaranskin'

Project In Development

This project that has not been reviewed and approved by Open Humans staff.

This project is in development. Only join if you know & trust the coordinator, and have been invited to join for testing purposes.

Please find the consent forms below: [English Version](#): [French Version](#):

4. You will be redirected to the project presentation page. You now have to give us permission to send you messages and results about your microbiome at the end of the study. Click on "Authorize project".


Project badge

Leader Amandine Maire
Organization Center for Research and Interdisciplinarity
Contact address paris-bettencourt-2020@cri-paris.org

This study aims to understand the impact of lockdown and other daily life changes induced by COVID19 pandemic on the skin microbiome

"Quaranskin" is requesting these permissions:

Permission to send you messages.
You will receive these as emails but your email address will not be shared with the project.

Authorization for adding data.
This project plans to add data to your Open Humans account, described below.

Each participant will have access to his/her skin microbiome profile analyzed after the bacterial DNA extraction and sequencing

Hide membership
If hidden, the project's badge will **not** appear on your public profile.

5. You have now joined the Quaranskin project! You will find your 8-digit identification code (called "Project member ID"). See picture below.

Keep this number, you will have to indicate it on your samples and when answering the questionnaire.

Info Data

Project membership

Joined: July 19, 2020
Project member ID: 98277144
Membership status: Visible
Project data status: Private

[Message project](#) Send a message to project coordinators.

[Hide membership](#) Click here to make your membership in this project private.

[Make data public](#) This option is only available to members that have activated the [Public Data Sharing](#) feature.

[Leave project](#) Immediately revoke all permissions, and optionally delete data deposited by the project.

Recent Members

[See all members...](#)

Project information

Managed by: Amandine Maire
Center for Research and Interdisciplinarity

Joined by: 5 members

Launched:

Project website:

Contact email: paris-bettencourt-2020@cri-paris.org

Project informed consent: [View informed consent](#)

Uploaded data: Each participant will have access to his/her skin microbiome profile analyzed after the bacterial DNA extraction and sequencing

2-SAMPLE YOUR SKIN MICROBIOME

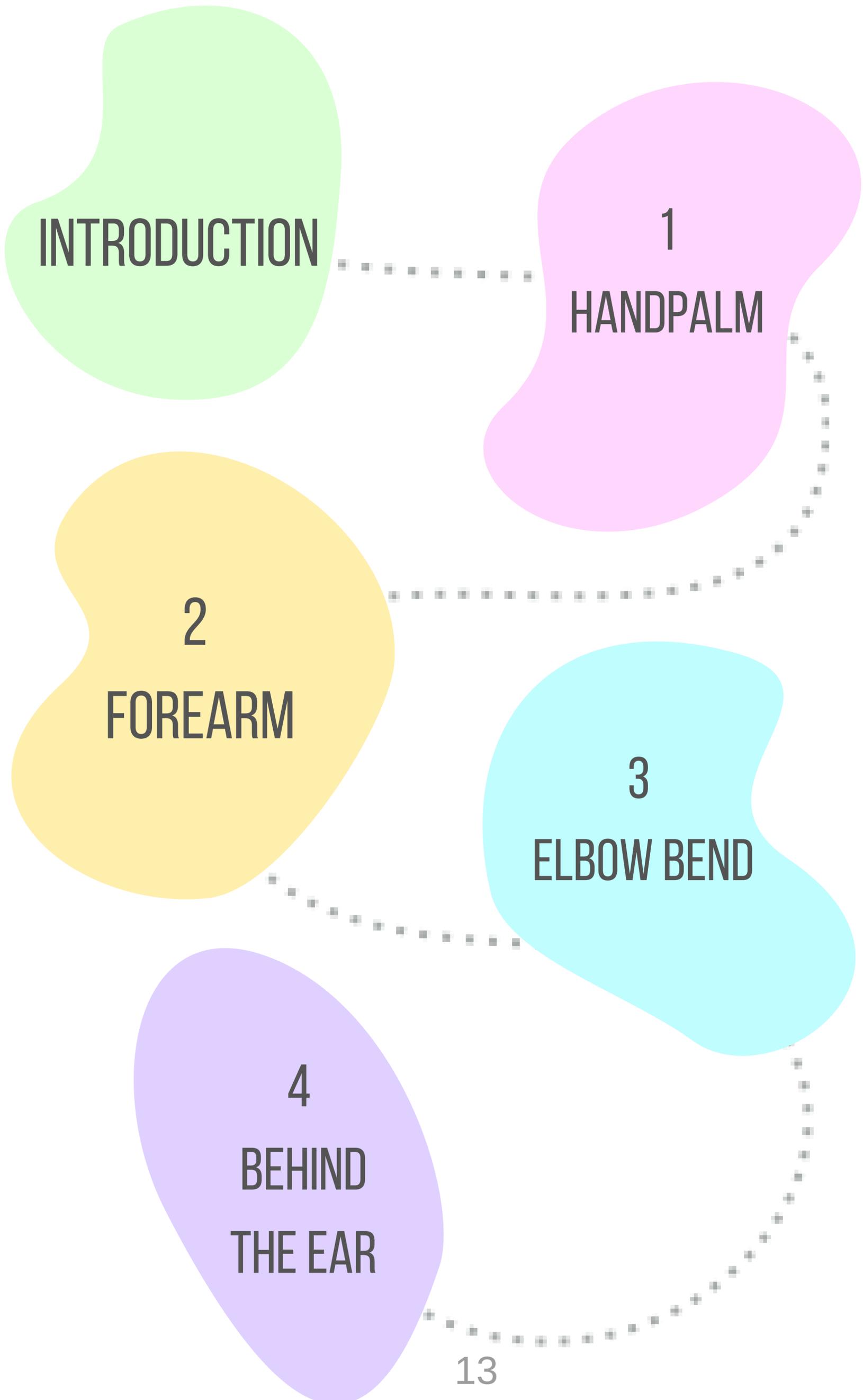
PRE-SAMPLING PRECAUTIONS

Before sampling, be sure to observe the following

measures:

- Do not take a shower during the 24 hours prior to sampling.
- Do not wash your hands in the hour prior to sampling.
- Maintain sterility of tubes prior to sampling by keeping tubes sealed.
- Save 30 minutes for sampling and answering the questionnaire.

SAMPLING PROTOCOL



INTRODUCTION

With the swabs provided, you can sample 4 body sites. Below, are the necessary instructions.

PRELIMINARIES

Sit down and relax ! You can now take your material out and take a pen.

FILL IN THE STICKERS

Each "quaranskin" sticker has a number (01, 02, 03, 04) corresponding to a body site. You have left to:

1. Write down your 8 digit ID number (legibly) on each sticker
2. Cut and stick the sticker on the tubes

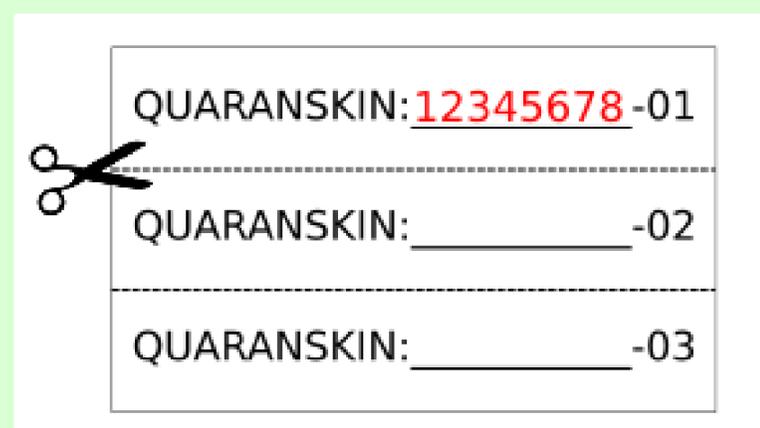
Body sites code :

01 - Handpalm

02 - Inner forearm

03 - Elbow bend

04 - Behind the ear

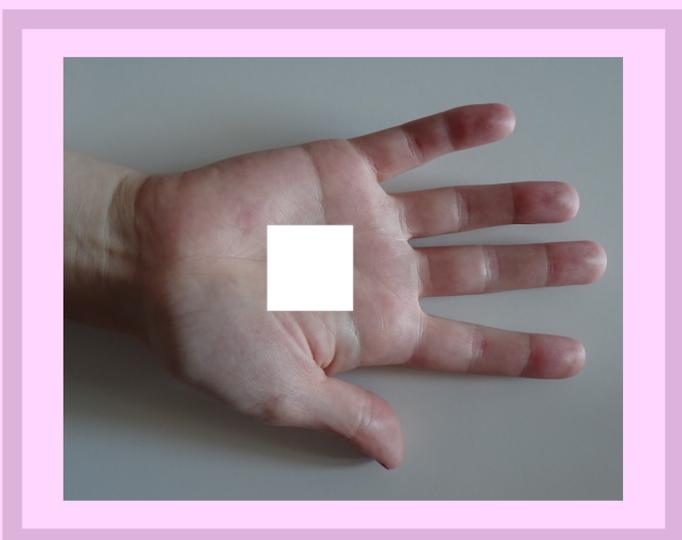


The diagram shows a rectangular sticker divided into three horizontal sections by dashed lines. A scissors icon is positioned to the left of the first dashed line, indicating where to cut. The first section contains the text "QUARANSKIN: 12345678 -01", where the ID number "12345678" is highlighted in red. The second section contains "QUARANSKIN: _____ -02". The third section contains "QUARANSKIN: _____ -03".

STEP 1 - HAND PALM

We are looking to collect a 4x4 cm² zone of the skin microbiome at the center of the palm of your hand.

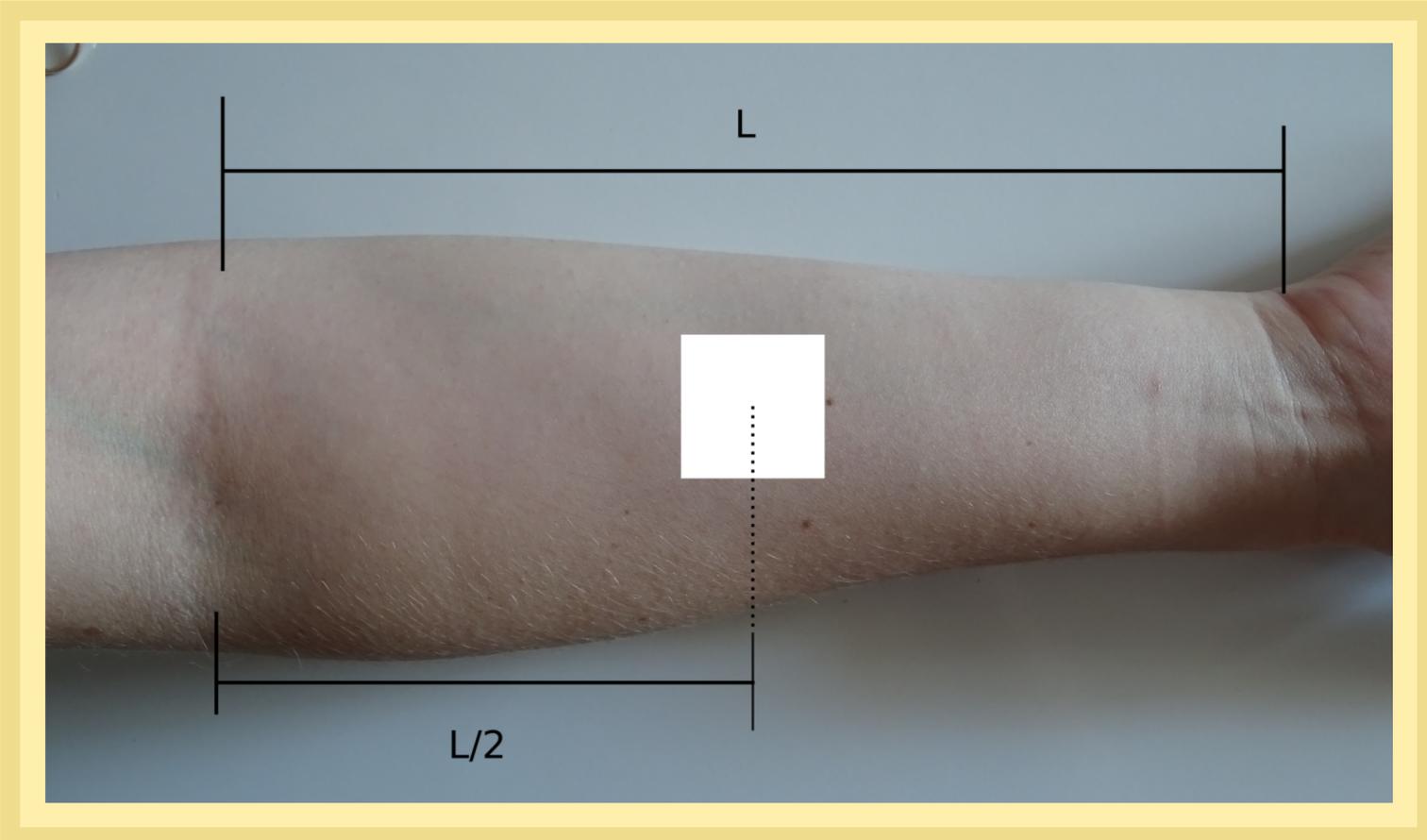
1. Lay your non dominant hand flat on the table
2. To have a good estimation of the area to be sampled, use the stencil and position it at the center of your palm **without touching your skin.**
3. Observe the sampling area to get an idea of the sampling surface, and then take away the stencil.
4. Open tube **#01** (for the hand), be sure not to touch the wooden stem or the cotton bud!
5. Proceed onto making 50 swipes on the sampling zone. Be sure to use enough pressure (the stem of the swab should slightly bend, but don't break it!).
6. Carefully reinsert the swab into it's case, being sure to not let the cotton swab touch the sides or any other surfaces.



STEP 2 - FOREARM

This time it is a 4x4 cm² area at the center of your inner forearm. To do this:

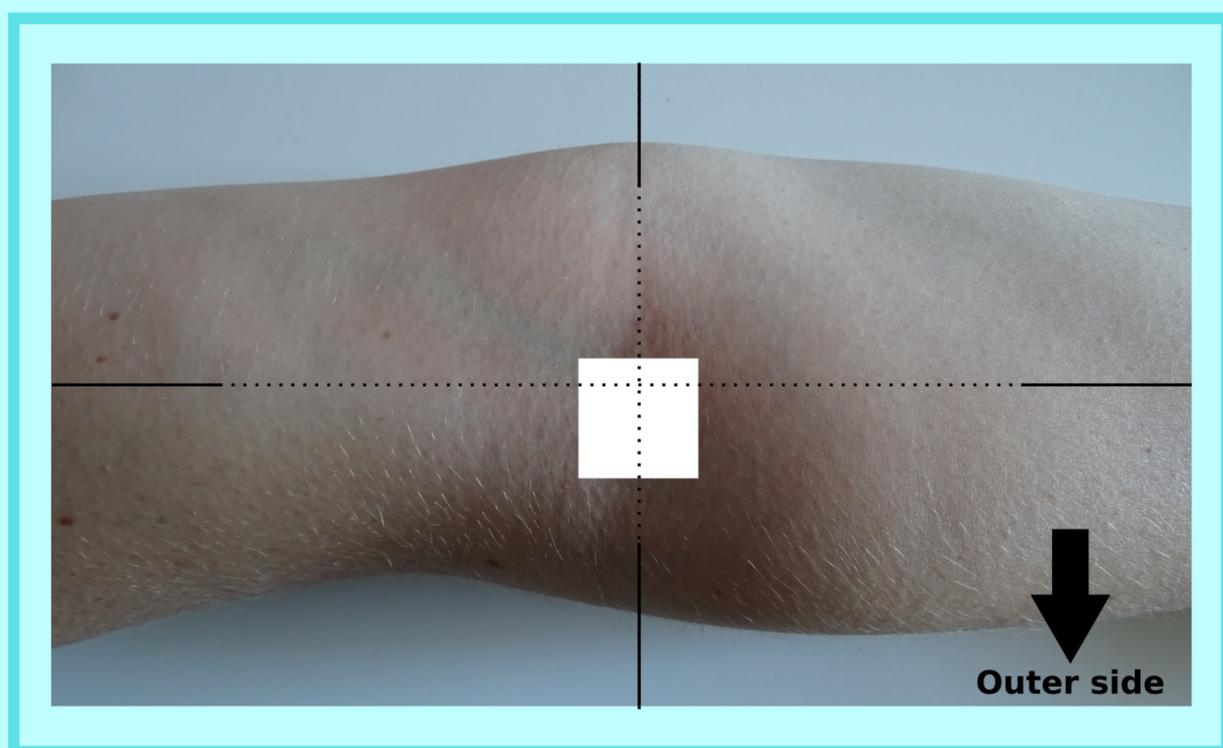
1. Lay the front of the same arm flat.
2. Repeat steps 2 to 6 followed for hand microbiome sampling using tube **#02**. See photo below.



STEP 3 - ANTECUBITAL FOSSA

The antecubital fossa corresponds to the inner hollow of your elbow. The principle is the same:

1. Extend your arm.
2. Repeat steps 2 to 6 followed for hand microbiome sampling using tube **#03**. See photo below.

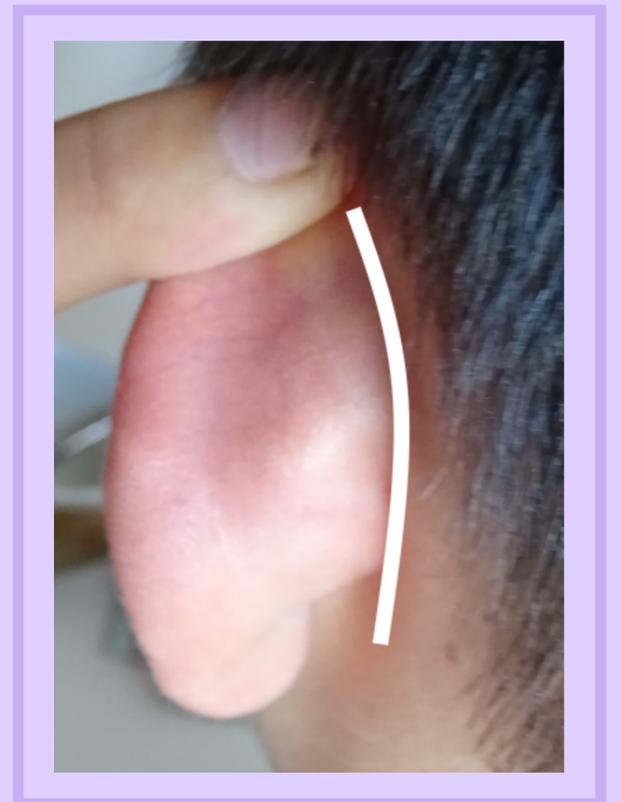


STEP 4 - RETROAURICULAR FOLD

The retro auricular fold is the part of the skin just behind the ear at the junction with the head.

You cannot use the stencil for this area.

1. Open tube **#04**, be sure not to touch the wooden stem or the cotton bud!
2. Place the cotton bud on the retro auricular fold and swipe 50 times on this area.
3. Carefully reinsert the swab into its case, being sure to not let the cotton swab touch the sides or any other surfaces.



SEND OUT THE SAMPLES

Return your samples as soon as possible, ideally within 24 hours after sampling. If there is any delay, please keep your precious samples in cool dry area before postage.

To return samples:

1. Place the 4 tubes properly labeled in the white bubblewrap-lined envelope.
2. Mail the envelope at your post office!

3-ANSWER THE QUESTIONNAIRE

In order to use your samples, we need some information about your current lifestyle.

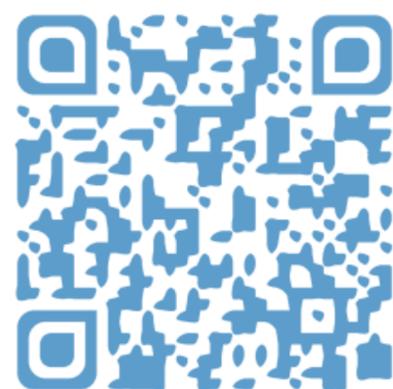
For this purpose we ask you to fill in an online questionnaire via the Framaform platform.

Link to the questionnaire:

<https://framaforms.org/participation-quaranskin-en-1594637099>

(You received this link in the email entitled *Quaranskin - step 2*)

Duration: 20 min.



OUR PARTNERS



Fondation
Bettencourt
Schueller

Reconnue d'utilité publique depuis 1987



Catalysing a fruitful future



OPEN HUMANS

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GENEWIZ[®]

THANK YOU

We will come back to you as soon as possible, to tell you everything you've always wanted to know about these little wonders that populate your skin!

The iGEM Paris Bettencourt team