"Phenome India: A step towards participatory and precision medicine"

Phenome India-CSIR Health Cohort Knowledgebase (PI-CHeCK) is a project initiated by the Council of Scientific and Industrial Research (CSIR) to identify India specific risk factors for cardiometabolic diseases. This unique study will provide scientific insights as a step towards personalized and precision medicine.

What is PI-CHeCK?

PI-CHeCK is a long-term cohort study initiated by CSIR. It is an attempt to represent the diversified Indian population through all its labs spread throughout the country. The study will, therefore, encompass the population and genetic diversity throughout the length and breadth of the nation.

The health cohort study will help collect data on multiple parameters which will include clinical questionnaires, lifestyle and dietary habits, body composition measurements, scanning based measurements, blood biochemistry and molecular assay-based data.

AIM OF PI-CHECK

- 1. To understand and determine the risk factors that might lead to complex metabolic disorders.
- 2. Creation of a biorepository i.e., storage of biological samples for future research.
- 3. A step towards developing India specific normative values/equations for various health parameters and modalities not available in literature.
- 4. A step towards development of diagnostics by utilizing the knowledge generated through these assays and analysis.

WHO CAN ENROLL IN THE STUDY?

• All CSIR permanent employees, pensioners and their spouses

WHY SHOULD YOU ENROLL IN THIS STUDY?

Enrolling in this study would not only **benefit you directly**, but you would also be **contributing** to **society** at large.

A. **HOW WILL YOU BENEFIT?**

- 1. <u>Health & Wellness Benefit</u>: This would be similar to a **complete health checkup** where you will get a general idea of your overall health and well-being
- 2. <u>Preventive Medicine</u>: You may discuss these test results with your physician or health consultant to get an opinion on your health status. This will help in taking timely precautions.
- 3. **Free of cost:** Participation in this study will ensure that your comprehensive health examination is done without any charge.

B. HOW WILL IT BENEFIT THE SOCIETY?

With data being the "New oil", **Your contribution** will help us collect data on the health parameters of the Indian population. This will aid in:

- 1. <u>Development of risk/prediction scores</u>: By utilizing this data, the research group will gain insight into the cardio-metabolic risk factors for the Indian population which will be a step towards developing India specific risk prediction scores.
- 2. <u>Creation of a biorepository</u>: Your samples would be stored in a biorepository and may be used in future research.
- 3. A step towards development of standard health parameters for Indian population: The data will be a step towards establishing normative values, equations, and standards for multiple parameters of the population, which are not known in the current healthcare setting.
- 4. <u>Development of precision medicine:</u> The data collected will be a step towards developing precision medicine. Instead of using the "one size fits all" approach where the same treatment is recommended for everyone, outcomes obtained in the study can be used in future to develop tailored therapeutics.

TESTS TO BE CONDUCTED



Determine the relative proportion of fat, water and muscle mass in a human body and its segment

•BLOOD BIOCHEMISTRY

Analysis of blood biochemistry including LFT, KFT, CBC, Thyroid, Lipid Profile, Iron Profile, Glucose, Vitamins etc.



A non-invasive technique to measure stiffness and fat content of liver



SPIROMETRY

For assessing lung function by measuring volume and flow rates



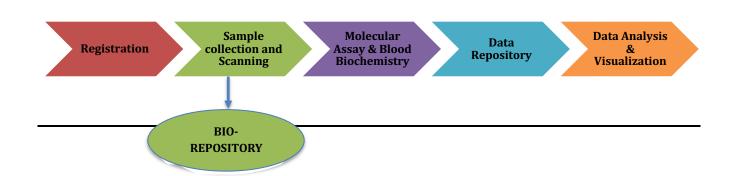
Helps in determining small airways dysfunctioning

•ELECTROCARDIOGRAM (ECG)

A non-invasive test that records the electrical activity of the heart



PROCESS FLOW



FREQUENTLY ASKED QUESTIONS (FAQ)

1. Do I have to register to be a part of this study?

❖ Yes, enrolment in this cohort is mandatory. You can register yourself on the CSIR Cohort web portal (www.csircohort.org). The steps to be followed for registration are defined in the last page of this brochure.

2. Do I have to fill the questionnaire?

❖ Yes, it is mandatory to fill out the questionnaire. Filling the questionnaire may take about 30 minutes. But you have the option to save the answers and continue later at your convenience. However, the questionnaire must be filled completely before booking the slots for the tests/scans.

3. When do I have to come for the tests?

❖ Once the dates for sample collection are finalized by the coordinator of the lab, then you will have the option to book the slots at your own convenience at your respective chosen CSIR lab.

4. Can I reschedule my pre-booked slot?

❖ Yes, you can reschedule your pre-booked slot by getting in touch with your lab coordinator.

5. Can I take my routine medicines before the tests?

- ❖ Yes, People on medications like anticoagulants, antihypertensive or thyroid need not stop their medicines before sampling.
- ❖ Diabetic people can take their medicines for sugar control, only after blood sample collection and food intake on the day of the test. People who are diabetic will always be prioritized over others for sample collection.

6. Are there any side effects of any of the tests?

- No side effects are caused from these tests. All of the scanning modalities and investigations are safe and do not expose you to any ionizing radiation.
- ❖ Also, you will be questioned prior to the test in the online web portal to rule out any contraindications or exclusion from performing a test.

7. Who will have the access to test reports?

Only you will have access to the reports.

8. What data/reports will I be able to access?

❖ Basic Biochemistry and reports of Liver, Lung, ECG and BCA assessment will be provided/uploaded. The participant can access or download the report anytime.

9. Is the information from sample analysis secure?

- ❖ The sample will be barcoded and stored securely.
- * Researchers and staff who will analyze the data will have access to de-identified anonymized data only.

10. What if I wish to withdraw from the study?

❖ Yes, you can withdraw from the study at any point of time.

11. What is the cost of each test?

❖ All the tests will be free of cost and would only require you to come in a fasting state to the respective CSIR lab during registration.

INSTRUCTIONS TO BE FOLLOWED ON THE DAY OF BLOOD SAMPLE COLLECTION

Q. Do I have to come empty stomach?

• Yes, it is mandatory to come fasting. Breakfast will be provided at the center after blood collection and liver scan.

Q. How many hours of fasting is required?

• Minimum 10 hours of fasting is to be ensured.

Q. Can I drink fluids during the fasting period?

• You can only have water during your fasting period. No other fluids are allowed. You will be provided breakfast after sample collection

Q. Do I need to wear any specific clothing?

• You may come in loose comfortable clothing. Avoid tight clothing and application of oil or moisturizer on the day of test.

Q. Who will take my sample?

• A trained phlebotomist will be collecting the blood sample.

Q. How much time will it take for testing?

• It will take 30 to 40 minutes if you have opted for all scanning modalities.

STEPS FOR REGISTRATION/ HOW DO I ENROLL?

1. On the homepage of the portal, click on 'Register' or click on 'Login' window, and then click on 'Register Yourself' in the Sign-In/Registration window.



- 2. Upon clicking on 'Register Yourself', you will be taken to the next screen wherein you have to register using your valid mobile number or email id. After entering a valid mobile number or email id, you will need to enter the captcha as displayed on the screen.
- 3. If the captcha entered is incorrect, the same shall be displayed. Upon entering the correct Captcha, click on 'Get OTP' to move to the next screen wherein the OTP sent to your mobile number/email id has to be entered.
- 4. After entering the correct OTP, click on 'Verify OTP' to move to the next screen. In the next screen, you are required to fill in your details and then click 'Submit'.
- 5. Upon submission of data, a screen will be displayed thanking you for showing your interest in the research. A message in this regard shall also be sent to your registered mobile number/email id.
- 6. If your participation in the study is approved, you will be sent the password for signing in to the portal. Your registered mobile number/email id shall be the username for signing in the portal. In case you forget the password, there is a 'Forgot Password' link in the Signin/Registration window itself to help you out with a new password.

Let's participate in this study to have a healthy CSIR contributing towards a healthy India.

For any queries, please free to contact at <u>csircohort@igib.res.in</u> or your respective lab coordinators.