2nd Generation
CHDS Daughter
3Gs and PEDIGREE

Three Generations Study (3Gs) and Prenatal Environmental Determinants of Intergenerational Risk (PEDIGREE)

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

STUDY BACKGROUND AND PURPOSE

You are being invited to participate in two research studies being conducted by the Child Health and Development Studies (CHDS) in Berkeley, CA. The first study, Three Generations (3Gs), is funded by the California Breast Cancer Research Program. The second sub-study, Prenatal Environmental Determinants of Intergenerational Risk (PEDIGREE), is funded by the Breast Cancer and Research Environment Program, a joint effort of the National Institute of Environmental Health Sciences and the National Cancer Institute. You are being asked to participate in these studies because you and your mother participated in the CHDS during your mother's pregnancy with you. The CHDS was a study of pregnancy and early child development that began over 50 years ago at Kaiser Permanente.

3Gs and PEDIGREE are studies of the second generation of CHDS participants and their daughters. The purpose of these studies is to look at how the environment might affect health beginning in the womb, as people age, and at how it might play a role in the development of disease across generations. These studies will help scientists learn about the relation between certain environmental factors, like chemicals in the environment, and the risk of developing breast cancer and other important women's health conditions.

These studies will be conducted by researchers at the CHDS, which is a part of the Public Health Institute, and researchers at Columbia University's Mailman School of Public Health. The Public Health Institute is a non-profit organization dedicated to promoting health and quality of life for people in California and throughout the world.

WHO IS BEING INVITED TO PARTICIPATE

The 3Gs study will ask 4000 women whose mothers were participants of the CHDS to participate in a telephone interview. About 1000 of these women will also be asked to participate in a second phase of the study which includes an in-person visit and bio-specimen (blood, urine and saliva) collection. Any daughter(s) age 9 or older of these 1000 women will also be invited to participate in the 3Gs study by completing the in-person visit with their mothers. They are important because they will add the third generation to the first and second generations of families already participating in the CHDS and allow researchers to study health across three generations.

The PEDIGREE study will ask about 400 women who participate in the 3Gs in-person visit to give permission for the CHDS to obtain a copy of their past mammogram film(s) from the facility where they received this service. For those who agree to participate in PEDIGREE, their blood may receive further testing. This will not require another blood draw as the blood already collected for 3Gs will be used.

STUDY PROCEDURES

By signing this consent form, you agree to participate in the in-person phase of the 3Gs study and the PEDIGREE Study (mammogram collection and blood test). You may refuse to participate in any part of the visit and may withdraw from the study at any time.

If you decide to participate in the 3Gs study's in-person visit and PEDIGREE study's mammogram collection and blood test:

1. You will be contacted by phone and asked to schedule a visit.

2. At the scheduled time, a member of the 3Gs team will visit you. The examiner will be a certified phlebotomist (a person who is certified to draw blood) or a licensed practical nurse. The visit can take place at your home or place of work (or other location that you choose) and it will take about 30 minutes of your time. The examiner who visits you will have gone through a rigorous background check before being allowed to make visits. The person will show you identification when she arrives.

3. S/he will ask to measure your blood pressure, height, weight and waist size.

4. S/he will request a blood sample. If you agree, s/he will draw three 10 ml tubes of blood and one 2.5 ml tube (which is equal to approximately total of two tablespoons) from a vein in your arm.

5. S/he will ask for a sample of your urine and will provide you with a urine cup.

6. S/he will ask for a sample of your saliva and will provide you with a saliva collection tube to spit in.

7. S/he will assist you with filling out a form which lists all current medications and supplements, like vitamins, herbs or other over-the-counter products, you are taking.

8. S/he will ask for your signed mammogram authorization form(s), giving permission for the CHDS to obtain a copy of your past mammogram film(s) from the facility (or facilities if applicable) where you received this service.

USE AND STORAGE OF BLOOD, URINE, AND SALIVA SAMPLES

The samples (blood, urine, and saliva) you provide will be stored at a secure laboratory facility with a protected, computerized inventory system. Your samples will be labeled with a study identification code and no personal identifiers such as your name, initials, or birthdate will be used.

For the 3Gs study, we will be testing a sample of blood from 300 of the expected 1000 participants who will provide blood samples. You may be one of the participants whose blood will be tested. The selected samples will be tested to measure the amount of possible environmental contaminants in them. Environmental contaminants include chemicals used in the growing of food and in gardening (pesticides), chemicals used in household cleaning products, chemicals used to make household products resistant to fire (flame retardants) and industrial chemicals which may be present in the environment and in everyday products.

The PEDIGREE study will also be testing a blood sample. The blood samples will be tested to measure the amount of change in the chemical groups attached to the DNA (DNA methylation) which measures gene activity. Your mammogram will be used to measure your breast density. Higher breast density is known to carry higher risk of breast cancer. The mammogram film will be scanned into a secure computer and software will be used to measure the breast density. The mammogram will not be used for diagnostic

purposes. Original mammograms will be promptly returned to the lending hospital or radiological facility.

One of the purposes of these studies is to store blood, urine, saliva samples and mammogram films from study participants to use in the future for studies that are not yet planned. The CHDS has been able to contribute to scientific and medical knowledge because 50 years ago many of the mothers and fathers provided blood samples that were kept for future study. By adding your samples to this collection, you will enable researchers to expand the use of this resource to add to scientific and medical knowledge.

If you agree, your samples and a copy of your mammogram film(s) will be stored for future research studies in areas such as women's health, environmental exposures, and genetics. In the future, features other than breast density that can be seen in your mammogram may be studied. For example, the structure of the breast.

CONFIDENTIALITY

All information obtained in these studies will be kept strictly confidential. All study staff have signed a confidentiality agreement and have been specifically trained not to share information from any participant with anyone, including other members of the participant's family. Your information and samples will be assigned an ID number, and names, addresses, and phone numbers will be removed. The list of names and matching ID numbers will be stored separately from the other study information and they will only be available to the data collection team at the CHDS.

The results of future studies that use the study information may be published or presented to scientific groups, but information is presented in summary form and you will not be identified by name in these publications or presentations.

WHAT RESEARCHERS WILL DO WITH COLLECTED MATERIALS

In the future, scientists from other research organizations and universities may want to do research using the information (data) or de-identified samples. All research involving the testing of your samples will be carefully reviewed and approved by the CHDS scientists and the Institutional Review Board (a formal committee that reviews research studies to protect the rights of participants) at participating research institutions.

Research partners may include universities, as well as for-profit and non-profit research organizations. The CHDS will only approve projects with the potential to benefit the health of the public. It is possible that the results of the research performed on samples collected as part of the 3Gs and PEDIGREE studies may someday lead to the development of a health test or other commercial product or service. You will not receive any personal financial benefit from any use of your samples.

Study scientists and research partners will be able to use information collected from your blood, urine, saliva samples, and mammogram film(s), including that found in DNA (such as genes), together with the information you provided in questionnaires. This will help us learn more about how people's health is affected by things in the environment and behaviors, in combination with characteristics found in DNA.

Your consent at the end of this form allows you to specify if researchers can use your blood, urine, saliva samples, mammogram film(s), and if they can look, specifically, at your DNA for such scientific purposes.

USE AND SHARING OF INFORMATION GAINED FROM THIS STUDY

By participating in these studies, you give us your permission to use the information you provided in the questionnaire, the samples, and mammogram film(s) collected during this study, which may be combined with past collected information, for future research studies in areas such as women's health, environmental exposures, and how health is related across the generations.

Your samples and information will be stored for as long as these studies are able to maintain them securely and they may continue to be used in research studies even after your death. In the event that the study can no longer store the samples securely, we will destroy them in accordance with standard protocols.

RESULTS OF THE STUDY

We plan to publish the findings of our studies in scientific journals. We are happy to provide you final study reports or reprints of any journal articles, when they are completed, at your request to the study director, Dr. Cohn. As the findings of the study are published, the CHDS and 3Gs websites will be updated to include summaries of these results.

Testing of the collected samples will be done in a research lab and the tests are not for clinical use (meaning they are not intended to be used by doctors for diagnosing or treating medical problems). Your mammograms will be scanned into a computer and will then be used to measure the breast density by reading the mammogram film(s). If you wish, you will have the opportunity to learn how your results compare to other participants in this study. These results are not measured by a radiologist and should not be used to make decisions about your health care. If you are concerned, you can discuss these results with your doctor.

If your blood sample is one of those tested for environmental contaminants by the 3Gs and DNA methylation by the PEDIGREE studies, you will have the option of choosing to have the results of these tests sent to you. Again, these results are not designed for medical use and the information you receive may not suggest any actions you can take to reduce your health risk or exposure to these compounds. However, if you do choose to receive these results we will provide you with as much information as we can, and will refer you to available resources to help you understand them.

Even though we don't know right now whose blood will be tested for the 3Gs and PEDIGREE studies, we are asking you to decide now, if your samples are used, whether you would like to have the results returned to you at the conclusion of the study. Some women's blood might be tested for both 3Gs and PEDIGREE and other women's blood for only 3Gs or only PEDIGREE. You can show us your decision regarding this information by marking the check box on the final page of this document.

You will be provided with results from the measurements of your blood pressure, height, weight, and waist size. The examiner will give you these results at the conclusion of the visit. These results are for your information and are not to be used to assess your risk for disease. You may contact your health care provider with concerns or questions.

POSSIBLE RISKS

The procedures in this study are considered to be safe and pose minimal risk to you. There may be some discomfort associated with routine blood drawing, such as minor bruising, the possibility of bleeding, or infection at the site where the blood was drawn. In rare cases, it can cause fainting. In the extremely unlikely event that you sustain an injury as a result of the blood draw, you will need to see your own doctor. The study will not be able to provide medical care or reimbursement for a research-related injury.

We will not request mammogram films until they have been reviewed by a radiologist for breast abnormalities and all appropriate follow up has occurred.

A potential risk would be the loss of privacy or confidentiality if unauthorized people had access to study records. The security measures we take make this a highly unlikely event. Information about how we maintain your privacy is described in greater detail in the "Confidentiality" section above (or the "Certificate of Confidentiality" section below). It is possible that mammograms could be mishandled in shipment. Mammograms will be shipped by FedEx or UPS, which have reliable systems for tracking materials in transit. The researchers are not aware that there have been any problems with shipping these kinds of films on other studies conducted.

If your samples are tested for environmental contaminants as part of the 3Gs and PEDIGREE studies and you have chosen to receive the results of these tests you may receive information that is surprising or concerning to you. The study staff will provide information as available about your exposures and participants can share their results with their medical care providers if they choose.

POSSIBLE BENEFITS

There are no intended individual benefits from participating in these studies. We do not expect the research results from these studies to be the kind of information that you, your doctor or nurse practitioner would use to make decisions about your health care. Your participation in these studies may add to overall understanding of how illness can be prevented, starting in early life. You may feel satisfaction having made an important contribution toward possible benefits to health of women in the future.

If your blood sample is chosen to be tested in the 3Gs and PEDIGREE studies for environmental contaminants and you choose to receive your results, you may gain some knowledge about your exposure to chemicals in the environment. These results may not provide any clear benefit to you and we may not be able to provide you with information about how to reduce your exposures for chemicals that are tested. However, participants in other studies have found that learning their results led them to consider making changes to reduce their exposures for some chemicals where the exposure source was known.

If you choose to receive results of the breast density score, you may decide to discuss the results with your doctor about your personal risk of breast cancer.

You will be provided with results from the measurements of your blood pressure, height, weight, and waist size. The examiner will give you these results when the visit is completed. These results are for information and are not to be used to assess your risk for disease. You may contact your health care provider with concerns.

COMPENSATION

For your time and effort, you will receive $25 for completing the telephone interview and you will receive $50 for completing the in-person visit (bio-specimen samples and mammogram collection). At the conclusion of your participation in these studies, we will send you a check in the appropriate amount, based on your level of participation ($25 for the telephone interview and $50 for the in-person visit).

VOLUNTARY PARTICIPATION

Participation in these studies is completely voluntary. You are free to refuse to participate in any part of the study or to refuse to answer any questions. Your decision whether or not to participate in the study will not

affect your medical care or health insurance in any way. Refusal to participate will involve no penalty or loss of benefits to which you would otherwise be entitled and you may discontinue participation at any time without penalty or loss of benefits to which you would otherwise be entitled.

If you choose to participate in the in-person visit of the 3Gs study and choose not to participate in the mammogram collection (PEDIGREE) you may do so without penalty. However to participate in PEDIGREE you must also participate in 3Gs.

If you participate now, but change your mind and wish to withdraw from the study at any time in the future, you may do so by sending written notification to the study director at the address provided at the end of this form. If you withdraw from 3Gs and PEDIGREE, we will destroy your samples and any information you provided as part of these studies including your contact information. We will not be able to remove your information from studies already conducted on your samples or information, but any identifiable information and unused samples will be destroyed after your written notification of withdrawal is received.

CERTIFICATE OF CONFIDENTIALITY

To help keep information about you confidential, the research team has been granted a Certificate of Confidentiality from the Department of Health and Human Services (DHHS) for information collected as part of the Three Generations Study. This Certificate does not cover PEDIGREE at this time. This certificate adds special protection for research information about you. It will protect the investigators from being forced, even under a court order or subpoena, to release information that could identify you. Still, the Public Health Institute Institutional Review Board and other regulatory agencies may need to review research documents for purposes of data and quality control. The researchers may also release identifying information in some circumstances. For example, they may disclose medical information in cases of medical necessity, or take steps (including notifying authorities) to protect you or someone else from serious harm, including child abuse. In addition, federal agencies may review our records under limited circumstances, such as a DHHS request for information for an audit or program evaluation. This Certificate does not mean that the DHHS approves or disapproves of the project.

FUTURE CONTACT

At some time in the future, we may want to contact you again to participate in other studies related to the CHDS. In these studies, we may ask you to fill out other surveys, complete an interview or give new samples. If asked, you will be free to decline participation in future studies.

BILL OF RIGHTS OF STUDY PARTICIPANTS

California law requires that all research participants be informed of their rights.

As a study participant, you have the right:

- To be told about the nature and purpose of the study.
- To be told about the procedures in the study.
- To be told about any discomforts and risks to be expected from the study.
- To be told about benefits to be expected from the study.
- To be told of the other choices you have and how they may be better or worse than being in the study.
- To be told what sort of treatment is available if any complications arise.
- To be given the opportunity to ask questions about the study or the procedures.
- To be given the opportunity to withdraw from the study at any time.
- To receive a copy of the signed and dated consent form.
- To be free of pressure when considering whether you wish to agree to be in the study.

WHO TO CONTACT

For any questions concerning these studies, or if you are not satisfied with the manner in which these studies are being conducted, we encourage you to contact the study Director, Dr. Barbara Cohn, by phone at (510) 649-6390, by email at bcohn@chdstudies.org, or by mail at the Child Health Development Studies, 1683 Shattuck Ave., Ste B, Berkeley, CA 94709.

Or you may report (without giving your name if you choose) any complaints to the Institutional Review Board by contacting Ms. Debora Pinkas, IRB Administrator at (510) 285-5500 or by addressing a letter to the Institutional Review Board, Public Health Institute, 555 12th Street, 10 Floor, Oakland, CA 94607.

STATEMENT OF CONSENT

I have read the above and am satisfied with my understanding of these studies, their possible benefits, risks, and alternatives. My questions about these studies have been answered. I agree, or disagree, to the uses of my blood, urine, and saliva samples and mammogram as indicated below:

I agree that my blood sample may be stored, used and analyzed for the purposes of this research study and future, as yet unnamed, research studies, as described in this consent form. **Yes____ No____**

I agree that the sample of my urine may be stored and used for future, as yet unnamed, research studies. **Yes____ No____**

I agree that the sample of my saliva may be stored and used for future, as yet unnamed, research studies. **Yes____ No____**

I agree that the samples I provided may be used to study my DNA; including genes and other information in my DNA that might be related to health. **Yes____ No____**

If my blood sample is used for the Three Generations study or PEDIGREE, I want to receive the results of tests done on my blood sample. **Yes____ No____**

I agree that a copy of my mammogram film(s) may be stored, used and analyzed for the purposes of this research study and future as yet unnamed, research studies, as described in this consent form. **Yes____ No____**

If my mammogram film(s) are used for the PEDIGREE study, I want to receive a report of the study results. **Yes____ No____**

I hereby voluntarily consent to participation in the research study as described. I have been given a copy of this 8-page consent form to keep for my records.

_____ _____
Signature of Study Participant Date

_____
Printed Name of Study Participant

_____ _____
Signature of Witness Date