



Environmental Polymorphisms Registry Newsletter

Message From Dr. Shepherd H. Schurman

Hello, and thank you for being a part of the Environmental Polymorphisms Registry (EPR). I am writing to let you know about some exciting new research activities underway. Many of you have taken part in these follow-up activities already, and we recently invited others who have not yet done so to join in. Your participation makes this research possible. Thank you for being a part of our team. I look forward to our continued partnership.

Comprehensive Genetic Testing is Underway

In the past, we have been able to conduct genetic testing on only portions of your DNA. With new technological advances, it is now affordable and feasible to conduct whole genome sequencing (WGS), a genetic test that lets us look at all of your DNA. The information that we gain through WGS will help us learn even more about the relationship between genes, the environment, and disease.

Thousands of EPR participants have already agreed to let us carry out WGS on their DNA sample. We recently reached out to participants who haven't yet let us know about being included in WGS. If you received an invitation to take part in WGS, we have your sample already and all we need is your permission to conduct the testing. The larger the number of samples sequenced, the greater the power we will have to detect variations in DNA that may have an impact on human health and disease.



Additional Blood Samples

All EPR participants provided a small amount of blood at enrollment. Over the years, the blood samples have been used for multiple research projects. As a result, we will need additional blood from some participants in order to perform WGS.

If you received a request to provide another blood sample, and you are able to donate in the near future, we'll be able to include you in this round of WGS. EPR has partnered with Quest Diagnostics to allow you to donate your sample at a time and place that is convenient for you. You will only need to complete an online consent form (link sent by email) and visit a Quest location near you. Once we receive your sample, we will send you a gift card in appreciation of your time and effort.

Targeted Surveys

Some EPR participants have told us they have diabetes or eczema, and we would like to collect some additional information about their condition. If you have received an email about one of these brief online surveys, please take a few minutes to complete it.

Recent Scientific Findings From the EPR

Thanks to the contributions of thousands of EPR participants like you, we are gaining new insights that may lead to new approaches for disease prevention on a personal level, and ways to tailor medical treatments to suit individual patients.

For example, researchers from NIEHS and Rice University studied EPR participants with asthma, and found that asthma patients with a specific genetic profile have more intense symptoms following exposure to traffic pollution, as compared to other asthma patients who have a different genetic profile. Understanding how specific genetic profiles interact with road pollution can allow medical providers to make specific recommendations for specific patients that can lessen the severity of symptoms and improve the quality of life for people with asthma.

More details are available at the following link:

[Toll-like Receptor 4 Pathway Polymorphisms Interact with Pollution to Influence Asthma Diagnosis and Severity](#)

It's Easier Than Ever to Keep in Touch With the EPR!

Updating or verifying your contact information is easy and can be done online, by mail, or over the phone. We ask you to do this so we are able to contact you to participate in voluntary follow-up studies. Please contact us with any questions you may have.

For more information:

Call 866-809-1261

Email info@eprdna.niehs.gov

Visit us online at www.dnaregistry.niehs.nih.gov

Do You Know Someone Who Would Like to Join the EPR?

If you have a friend or relative who would like to enroll, we would love to hear from them. In order to be in the EPR, you must:

- Be 8 years of age or older.
- Be able to donate a blood sample of about 1 tablespoon.
- Agree to update your contact information every year.
- Agree to be contacted for voluntary follow-up studies.



For their time and efforts, volunteers will be compensated at least \$20.

To join, please contact the EPR at 866-809-1261 or info@eprdna.niehs.gov.