Dear CLUE II participant:

Thank you again for having donated a sample of blood to the CLUE II program in 1989 for our research serum bank. You, and the other 32,319 participants have helped greatly in our continuing search for clues to why cancer attacks some people and spares others.

Using serum samples from the CLUE programs of 1974 and 1989, we have had 42 papers published in medical journals. A few of the findings that you made possible are the following:

- People who develop lymphomas (tumors of the lymph glands) are more likely to have been infected with the Epstein-Barr virus than other people.

- Infections with at least two viruses (Chlamydia and Cytomegalovirus) are related to hardening of the arteries.

- Breast cancer does not seem to be related to the major hormones produced in the body.

- Cancer of the ovary was found to be more common among women who had low levels of some hormones from the pituitary gland and high levels of some masculinizing hormones.

- Although a diet with lots of vegetables and fruits has consistently been associated with a lower risk of cancer, it now seems most unlikely that this is directly related to either vitamin A or beta-carotene.

- We have led the efforts to find other protective substances in vegetables. Some, especially some carotenoids, offer hope of being protective against cancer. While this is exciting, others must confirm our findings before we can be sure of this. (Don’t be misled by the media’s tendency to think that a single study offers proof. When dealing with the complexities of human beings, scientists know that no finding can be accepted as truth until at least one other study in a different group of people comes to the same conclusion.)
Just now, we are completing a major study of breast cancer as part of a joint effort of several East Coast research centers. A major goal of this study is to see if pesticides are related to breast cancer.

To make our CLUE specimens ever more useful, we need additional information. We have carefully reviewed all the items that might be related to the development of cancer to find what information appears most promising in the near future. After much consultation, we have condensed a wealth of possible questions into a questionnaire which should be ready soon.

As the publicity for the CLUE II program said, solving the problem of what causes cancer is very much like completing a jigsaw puzzle. Many pieces may seem to fit but fail to match up when tried. When one does fit, it only provides clues to the next piece of the puzzle. How long it will take to put the whole puzzle together is uncertain, but with your help we have found a few of the pieces. Working with other research centers and with your additional help, more pieces will be tried, some will fit, and the goal will come closer. So when your questionnaire arrives, please spare a little time to give us some more clues.

With thanks and best wishes,

Sincerely,

Kathy J. Helzlsouer, MD, MHS
George W. Comstock, MD, DrPH