

The Michigan Neonatal Biobank is the culmination of collaborative efforts among the Michigan Department of Community Health, Wayne State University, Michigan State University, the University of Michigan and the Van Andel Research Institute. Each of the collaborators contributes expertise to the Biobank.



The Michigan BioTrust for Health is a State initiative to make leftover newborn screening samples more useful and available for medical or public health research. After newborn screening is completed at the Michigan Department of Community Health Laboratory, remaining dried blood spot samples are de-identified, labeled with a code and stored at the Michigan Neonatal Biobank for possible future research.



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**A Program of the
Michigan BioTrust
For Health**



What is the Michigan Neonatal Biobank?

The Michigan Neonatal Biobank is a Michigan non-profit corporation. The Biobank provides temperature and humidity controlled storage space for the Michigan Department of Community Health's archive of neonatal dried blood spot cards.

The dried blood spot cards hold residual blood from the State's Newborn Screening Program. There are approximately four million blood samples in the archive, collected from Michigan newborns during the past 25 years.

What can be measured in the dried blood spots?

More than 160 different analytes or polymorphisms are cited in literature as having been measured from dried blood spot specimens for epidemiological studies. The list includes not only biological markers such as DNA, but also infectious agents and potential environmental contaminants such as heavy metals.



What kind of research can be done with dried blood spots?

In addition to their use in screening newborns for certain disorders, dried blood filter paper specimens have been used to detect a number of other conditions and substances. It is possible to measure, for example, lead and mercury levels and alcohol and tobacco exposure, and to look for environmental or genetic links to many childhood disorders. New nanotechnologies make it possible to measure thousands of genes, gene transcripts, proteins, metabolites, infectious agents, drugs, and toxins from small samples when stored under optimal conditions.

Can clinical data be provided?

For approved studies the dried blood spot samples can be linked by the Michigan Department of Community Health to newborn screening results and statewide disease registries, and to live birth and death records.

Is there a fee for the samples?

A user fee is charged to cover the cost of storage and providing samples for research. Discounts are available to academic institutions, State public health agencies, and for large volume orders.

An additional fee is charged for linking the samples to information in the State's public health registries.

Contact the Biobank for a quote.



What is the process for approving research that uses the dried blood spots?

All requests to use the dried blood spots for research must have approval from the requesting institution's IRB, and must be submitted for approval to the Michigan Department of Community Health's Institutional Review Board and their Scientific Advisory Board.

Where can I get more information?

For more information contact the Michigan Neonatal Biobank at 313-577-2130 or [@mnbb@wayne.edu](mailto:mnbb@wayne.edu).

