

GRATIOT COUNTY

Much still to be done with PBB

New program at Emory University aims to help families still afflicted by chemical incident 40 years later

By Linda Gittleman

For The Morning Sun

When PBB was accidentally mixed with animal feed and subsequently entered the food chain in the mid 1970s, no one knew the impact on human health.

In the more than 40 years since that disaster and the state of Michigan began the studies, the effort to learn more has been a hard, uphill climb.

However, since Emory University began where the state left off (in 2004) due to a loss in federal funding, more information has been learned: The fire retardant PBB is a gift that keeps on giving and it can affect new generations.

In an effort to change that, Emory is beginning a new program that may help reduce the amounts of the fire retardant — produced at Velcol Chemical in St. Louis — that's still found in the bodies of local and state residents, some of whom weren't even born when the accident happened.

They are looking for people with high levels of PBB in their systems who may want to participate in the new program.

Dr. Michele Marcus has been leading the studies and provided an overview of the results of the studies so far for the Pine River Superfund Task Force and a large group of first time visitors Wednesday night.

About 5,000 people became part of the first

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registry or study and it included farm families and chemical factory workers. But when Emory University took over, no health updates had been made in years

Workers at the chemical plant and their families were excluded from the study in the early 1990s and were only reintroduced later.

What they found from the first study were complaints of skin rashes, hair loss, memory problems, muscle and joint problems, and liver and thyroid problems.

But the health problems didn't end there.

Twenty years later, Marcus said, they learned that women exposed to PBB had more than twice the thyroid problems than the national average.

Other medical issues involved problems with digestive systems, lymphoma and cancer.

And they found out still more.

The daughters of women exposed to PBB experienced earlier puberty, were shorter in stature and, as adults, had more miscarriages.

The boys had urinary and genital problems and experienced slower growth in puberty.

And, there appeared a repeat of the health problems that the first generation suffered.

Marcus said one man told them, "I have the same problems as my father."

This was long after PBB production had ended.

Studies showed them that chemical workers at the plant retained the highest levels of PBB in their systems.

The group with the second largest amounts of PBB were their families.

People with the third

highest levels were the farm families and the fourth were those who lived near the Pine River in St. Louis.

The rest of Michigan residents made up the group with the lowest levels.

The staff from Emory believe the PBB "inheritance" can be blamed on epigenomes — the regulators of DNA.

"Environmental chemical exposures can impact (the regulators of DNA)," Marcus said, pointing out however that PBB does not cause changes in the DNA itself.

They still need much more information and are hoping people from the original study and their families who haven't already been retested will participate again.

They also want to study the medical records of those who have died and are meeting with state health department officials to find out how that may be done without legal consequences.

Another big problem is that when Emory came to Michigan to conduct the tests, they heard repeatedly from people throughout the area that their physicians knew nothing about PBB.

Marcus said she hopes to receive funding to start courses for health care providers and share the information with others in the environmental and health care fields.

Establishing a central data base, critical to research and disseminating information is also on the agenda.

Those wishing to participate in the studies or programs — or those wanting more information — may contact: PBB Registry@Emory.edu or call 1-888-892-0074.

Or, you may call the Michigan Department of Health and Human Services at 1-800-649-6942.