



# SICKLE CELL/ STEM CELL RESEARCH

- LEGISLATION:** House Bill 371, Stem Cell Research Fund – Sickle Cell Disease – Funding
- SPONSOR:** Del. Shirley Nathan-Pulliam (District 10)
- COMMITTEE:** House Health & Government Operations Committee
- MCC POSITION:** SUPPORT

## TALKING POINTS:

- Please support House Bill 371, which devotes 5% of the Maryland Stem Cell Research Fund to adult stem cell research for sickle cell disease. This will ensure the Fund is used for its stated purpose: To produce cures & treatments.
- Sickle cell disease is a painful illness that primarily strikes African Americans and that has few treatment options for adult patients. Two years in a row, researchers applied for a grant from the Maryland Stem Cell Research Fund to study the use of adult stem cells to treat sickle cell disease, and both times the application was rejected.
- A recent paper in the New England Journal of Medicine showed that a clinical trial that used adult stem cells cured 9 out of 10 patients of sickle cell disease.
- HB 371 has no fiscal note -- a funding source already exists. The bill ensures some of the Fund will be used for applied research to rapidly save lives.



LEARN MORE:

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**BACKGROUND:** Nearly 80,000 Americans, mostly African Americans, suffer from sickle cell disease (SCD). The debilitating illness causes blockages, tissue damage, and can lead to strokes and severe episodes of pain. Organ damage frequently occurs, leading to a shortened life span. There is no cure, and research into SCD has traditionally been underfunded because it mainly strikes one segment of the population. While there are some effective treatments for children, few treatment options exist for adult patients.

In December 2009, a study published in the *New England Journal of Medicine* used adult stem cells from bone marrow to treat adult SCD patients. Even 2.5 years after the treatment, 9 out of 10 patients were considered cured of SCD. Maryland has a funding source that can be used for SCD: the Maryland Stem Cell Research Fund. This Fund is *specifically set aside* to pay for research into devastating conditions. Despite this, when Maryland researchers applied for a grant from the Fund to support SCD research using adult stem cells, they were turned down – twice.

In general, a large number of research projects involving ethical adult stem cells have been rejected in favor of research using unethical and thus far ineffective embryonic stem cells. In 2009, only 20% of funded projects involved either adult stem cells or research into cancer stem cells, both of which are considered “applied” research because they’re either treating patients now or are nearly ready to test in humans.

HB 371 has no fiscal note -- a funding source already exists. Devoting 5% of the Fund to SCD adult stem cell research ensures some of the Fund will be used for its stated purpose: applied research to rapidly save lives. While some have raised concern about dedicating a portion of the Fund to research a specific disease, the case of SCD is thus far unique. SCD is a painful illness that has been traditionally underfunded, few treatment options exist for adult patients, grants to study adult stem cell therapies for treatment of SCD have repeatedly been rejected, and a published clinical trial showed overwhelming success (90% rate of cure) in treating SCD with adult stem cells. HB 371 is needed now in order to make the treatment for SCD more widely available, thus using the Fund for what it was designed – saving lives in Maryland.

**CHURCH TEACHING:** “Science and technology are precious resources when placed at the service of man and promote his integral development for the benefit of all.” – *Catechism of the Catholic Church, paragraph 2293*

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