

Proposal for Study of
the Effects of Sickling and the Carrier
State of G6PD deficiency in the Population
of the Collaborative Study

Principal Investigators:

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Objectives

To study the effects of sickling and of the carrier state of G6PD deficiency on the course and outcome of pregnancy; and the growth and development of children with sickle-cell trait, and G6PD deficiency.

Background

Sickle cell anemia and glucose 6 phosphate dehydrogenase (G6PD) deficiency anemia are two genetically determined hemolytic anemias found in very high frequency among the Negro population of the United States.

The gene for S hemoglobin is inherited as an incomplete dominant so that the heterozygotes show sickle-cell trait while the homozygotes have frank anemia. It is estimated that approximately 10% of Negroes in the United States are sicklers while about 3 per 1000 have anemia. The hazards of sickle-cell anemia are well known: recurrent episodes