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NEWS

THE UNIVERSITY OF TEXAS
(SOUTHWESTERN)
MEDICAL SCHOOL AT DALLAS



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DALLAS--The University of Texas (Southwestern) Medical School has established a laboratory in which geneticists are able to detect various forms of abnormalities in children prior to or after birth, stemming from abnormalities in chromosome number or rearrangement of the genetic material.

Dr. Costas D. Kastritsis, associate professor at the medical school, heads the new "Human Cytogenetic Clinical Service Laboratory" whose operation is based on medicine's increased ability to detect and predict genetic problems.

Chromosomal abnormalities account for a significant percentage of mental retardation. Mongolism, for instance, is associated with the existence of an extra chromosome of a particular type.

"We can detect practically all kinds of chromosomal anomalies in number," the doctor said, adding: "Suppose a 35-year-old woman becomes pregnant. Every statistic we have shows that she has a higher risk of having an abnormal child due to a genetic accident than a mother of a younger age. If her doctor wants to know if a chromosomal problem exists in this pregnancy, he can perform an amniocentesis procedure which involves drawing of some fluid from the amniotic sac; the procedure is practically 100 per cent safe. The doctor can send the sample to us and we can tell if the developing embryo is chromosomally abnormal."

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first add human cytogenetic lab

In other procedures, the laboratory performs analyses of peripheral blood lymphocytes and bone marrow. In the case of a suspected leukemia the blood specialist needs to know, in some instances, whether it is of a type where "Philadelphia chromosomes" are present.

The laboratory can perform similar tests on potential parents, especially when previous pregnancies have resulted in the birth of chromosomally abnormal children. "If parents have one retarded child, they will want to know if the retardation was caused by an inheritable trait, or---as is more often the case---if it was the result of an accident during the production of the ovule. This may affect their decision on having another child," explained the geneticist.

The laboratory's services are designed to benefit area physicians who might not have the necessary specialized personnel and equipment for such genetic testing.

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