LSU Medical Center develops new AIDS test

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NEW ORLEANS — LSU Medical Center researchers and a New Orleans-based biotechnology company announced Wednesday the development of a new test for the AIDS virus that they say could become the standard by which all other AIDS tests are judged.

Dr. James Robinson, the test's inventor, and Dr. J. Craig Cohen, president of AUG Inc., said the new test — called the AUG Native Antigen Assay — is unlike anything on the market today and appears to be more accurate and sensitive than current commercially available AIDS tests.

Cohen, who also serves as an LSU Medical Center microbiology professor, said the new test could be approved by the federal Food and Drug Administration for general use in 1½ to 2 years.

The new AIDS test has been used on 400 previously tested serum samples and detected every reported positive result as well as some that were reported as negative but actually appear to be positive, Cohen said.

AUG Inc. will apply before the end of the year for an FDA "Investigational New Drug" license, which will allow a larger number of samples to be tested in licensed laboratories where results are expected to be confirmed, he said.

The FDA requires 5,000 to 10,000 tests before it will consider approving the new procedure, Cohen said, adding that he hopes the test can be marketed in Louisiana.

Preliminary results indicate that the new AIDS test "appears" to provide greater accuracy than the Western Blot — the test currently used to confirm the AIDS virus, he said.

"We really see it replacing some of the technologies out there if the results hold up," Cohen said.

"These results are very promising," Robinson added. "It's very exciting to say that our test may be more effective and sensitive."

Cohen and Robinson also said the AUG Native Antigen Assay differs from standard AIDS tests in other important ways:

- It has shown a lower false positive rate.
- It can be adapted to numerous other viruses, including all of the human retroviruses, the herpes viruses and a large number of animal viruses.
- It is a safer test to manufacture because the production requires smaller volumes of virus culture than commercial tests.
- It is relatively inexpensive to produce.

Cohen also noted that the new test is "truly a Louisiana product." Its development was made possible through the "successful collaboration" among LSU Medical Center, AUG Inc. of New Orleans, and two Baton Rouge-based companies, he said.

The Louisiana Seed Capital Corp. and Louisiana Partnership for Technology and Innovation, which specialize in the growth and development of technology intensive firms, pooled their resources to promote the growth of AUG, Cohen said.

AUG Inc. was founded by Cohen in 1989 as a private laboratory that performs DNA testing.
and develops new biotechnology.

Robinson said the AIDS test he invented with developmental assistance from Cohen detects antibodies to the outer coat of the AIDS virus rather than to internal core proteins. The outer coat plays a more important role than the proteins in stimulating the immune system to make antibodies to the virus, he said, which can limit the spread of the virus.

Because current AIDS tests use a purified virus in which most of the outer coat is stripped away, Robinson said, they detect antibodies mainly to the internal core proteins.

"That's a very costly and hazardous procedure because of the bulk of the virus involved," he said.

By using the outer coat of the virus in its "native state," Robinson said, the new test is able to produce a more sensitive test.

"Track record" will ultimately decide which test is the standard-bearer, he said.

The researchers say an estimated 900,000 to 1.4 million people are infected with the AIDS virus in the United States, and the number of new cases is growing. There are expected to be 80,000 cases diagnosed in the year 1992 alone, they say.