Genetics-new tool for improving man?

By DAVE FULLER

In the deepest depths of the brain, biologists and physiologists are finding unexpected and heartening answers to questions about Man's basic nature — answers which tend to reaffirm the majesty of man.

Scientists studying the cellular make-up of the neural system gave that message at Stanford University Friday evening during a "Symposium Celebrating Humanity" attended by more than 1,000 persons.

Dr. John Nicholls, a Stanford physiologist, and Dr. Gilbert S. Omenn, an associate professor of medicine from the University of Washington, discussed their research as it relates to the uniqueness of the human brain.

To illustrate their underlying point — that science and the arts have much to say to and about one another — pianist Artur Rubinstein, 88, joined Stanford Nobel prize-winning scientists Linus C. Pauling and Joshua Lederberg in a panel after the lectures.

The symposium was an attempt to show that scientific research is not leading toward a concept of Man as a passive victim of animal instincts, controlled by a mechanical brain. Instead, science may soon reveal that Man's nature is "more glorious and inspiring than ever dreamed," according to Dr. Edward Rubenstein, associate dean of postgraduate education at Stanford Medical School.

Rubenstein, who came up with the idea for the symposium, said that studies in neuro-biology are leading to discoveries which "should reaffirm man's ideals of selfless love and the reverence of the values for which we live."

At the heart of this discovery will be proof that genetic traits present at birth can be developed — or deterred — drastically at critical times of life, in effect determining to a much greater extent that previously believed the course a person's life might follow.

"We are discovering much more flexibility than had been anticipated," commented Dr. David A. Hamburg, professor of psychiatry and biological sciences at Stanford. He moderated the panel.

Looming on the horizon is a time when scientists may have "the ability to delineate special traits at a very early age and provide the kinds of environments that will aid and abet these traits," Hamburg said.

Although the picture might conjure scenes from "Brave New World," the scientists hope such discoveries will bring Man a renaissance of faith in himself as the creative controller of his own abilities.

Artur Rubinstein is a perfect example of what the melding of natural traits and a nurturing environment can create, Hamburg said. When Rubinstein was only three years old, for instance, he exhibited his first passionate interest in playing the piano and was encouraged by his parents. The result was one of the world's greatest living artists.

"Yet, so many of us never are able to find that particular match of skill, ability, circumstance, passion and interest that allows us to pursue our talent," Lederberg noted.

Nicholls and Omenn discussed experiments and clinical evidence which suggest that, even though inherited genes are ready at birth to determine a person's traits, there is also much room for flexibility.

"This means there is a chance to improve dramatically "upon the basic genetic make-up, Nicholls said.