

# Gene Study Essential

Advances in human genetics must continue in spite of possible misuse of new knowledge

► THE POSSIBILITY that harm could come from scientific discoveries cannot be used as an excuse to delay research until man is a more moral being, the Third International Congress of Human Genetics in Chicago was told.

Dr. Curt Stern, professor of zoology and genetics at the University of California, Berkeley, said that man should not be denied the possibilities of new discoveries on genetic variability because there is the possibility of misuse of the findings.

"Whether we like it or not," Dr. Stern said, "we must face the fact that all men are not born equal, especially in intelligence potential. Differences in the environment in which children are brought up are not the only factors which influence their intelligence potential."

Speaking on genes and people, Dr. Stern referred to discoveries about peas and mice, corn and flies, bacteria and viruses.

"There is no limit to the number of stories which one could tell about genes and people," he said in a humorous vein. "It is amusing to say, as J. B. S. Haldane once did, that all love poetry owes its existence to a microscopic bit of matter, the sex chromosome—but have you every seen a naked chromosome compose a sonnet?"

More seriously, he discussed the inequalities with which children are born. He said that just as heredity can produce mental illness, it can also bring about mental superiority.

"We are different in the genes we receive at conception, different in health

and disease, intelligence, endowment and personality traits," he reported. "Differences in the environment in which children are brought up are not the only factors which influence their intelligence potential."

Citing studies comparing adopted and "natural" children, he said that "children born into the upper social layers score considerably higher on intelligence tests than those of the lower layers, but children adopted into the upper groups score only moderately higher than those adopted into the lower group."

Dr. Stern referred to a recent discovery that patients with a rare inherited disease, called the adrenogenital syndrome, score higher than average in intelligence tests. In this disease, the adrenal glands produce excessive amounts of male sex hormone.

We do not always like the truths that scientists discover, Dr. Stern implied. "Truth and the search for it can be suppressed not only by ill will but by good will," he emphasized. Nevertheless, there should not be any moratorium on research.

## GENETICS

### Genetic Surgery Is Far Away for Humans

► OPTIMISM concerning application of genetic experiments to improve mankind is unwarranted now, a Canadian pediatrician told the Third International Congress of Human Genetics meeting in Chicago.

"The success of experiments in genetic transformation and transduction in microorganisms has encouraged some to hope that techniques of directed mutation could become available to benefit man," Dr. Charles R. Scriver of the Montreal Children's Hospital said.

Although striking and sometimes controversial experiments in genetic surgery have in fact been performed in multicellular systems, he explained, public demand seems likely to outstrip scientific resources for the treatment of many forms of genetic disease.

One practical example exists where basic principles have been used to control gene replication and transcription to advantage in man, he conceded.

"This is the control of viral ophthalmitis (eye inflammation) through the use of a uridine analogue" placed on the conjunctiva, or mucus membrane lining the eyelids and covering the front surface of the eyeball.

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