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"BIONIC PERSON" FAR FROM REALITY CLAIMS RESEARCHER WHO WILL SPEAK AT UD NOVEMBER 14

DAYTON, Ohio, October 31, 1978 --- "Artificial Organ Development: The Pitfalls of Imitating Nature," will be the topic under examination Tuesday, November 14 at the University of Dayton when Kenneth H. Keller, the University of Minnesota's chairman of Chemical Engineering and Materials Science, speaks at the invitation of the UD chapter of Sigma Xi, the national research honor society.

Keller will deliver a general, public lecture at 7:30 p.m. in O'Leary Auditorium on the first floor of Miriam Hall. At noon on the same day he will talk to members of Sigma Xi and their guests in the eighth floor lounge of Miriam Hall. There is no admission charge for either lecture.

Although the notion of replaceable body parts has crept into our culture's thinking during the last decade, limitations in human technology will keep the image of a "bionic" human just that--an image, according to Keller. The overall ignorance of precisely how organs function, coupled with the problems of manufacturing extremely small and complex organ substitutes, means hope for replacing bad hearts and livers with artificial substitutes should be kept under control, he adds.

One of the principal problems encountered by researchers such as Keller is that of devising materials that can come into contact with blood without damaging it. Another problem, according to Keller, is that of the more than 1,000 chemical structures of organ molecules, scientists have discovered only about 100. This high degree of chemical specificity makes it next to impossible to artificially replicate body organs, he claims.

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"Yet, by recognizing these difficulties and accepting the limitations they impose, more realistic and promising approaches to artificial organ development may become possible and are now being exploited," Keller has written.

From 1972 to 1973, Keller was a visiting scientist in the Department of Surgery at the University of California. He has also worked on the creation of an artificial heart and liver with the implant development group at the University of Minnesota.

He received both Bachelor of Arts and Bachelor of Science degrees from Columbia University in 1956 and 1957, respectively. In 1964 he received a doctorate in Chemical Engineering from John Hopkins University. In addition to his present post in Minnesota, Keller has been acting dean of the Graduate School and chairman of the Biomedical Engineering Program. Through his alliance with a dozen different scientific and technical boards and committees, Keller is in the forefront of discussions on the development of artificial organs and blood damage.

Sigma Xi at UD each year sponsors a program of speakers which has included local researchers as well as those from other Universities across the nation. Herbert Simon of Carnegie Mellon University, who won the Nobel Prize in economics this year, spoke at UD last year at the invitation of Sigma Xi on the subject of artificial intelligence.