

COLUMBIA SPECTATOR ARCHIVE

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Talk Highlights Univ. Achievements in Science

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Citing the new face of the “biological revolution” that has emerged in the 21st century, Columbia University Provost Jonathan Cole opened the first University lecture of the century with an insightful look into the latest scientific developments in the study of HIV.

Cole began the lecture relating the important role the University has played in every field of scientific research and discovery in America. From the decoding of the complete human genome to the discovery of the causes of fatal diseases, Cole said, “Columbia has been a world leader in scientific discovery. Our future must proceed in that tradition,” Cole said.

Wayne Hendrickson, a Columbia professor in biochemistry and biophysics since 1984 and the keynote speaker in last evening’s lecture, has played a significant role in that tradition.

A member of the prestigious American Academy of Arts and Science, Hendrickson has been involved in researching the HIV virus for over a decade and has been committed to the development of a vaccine for the disease.

“It is my disposition to be opti-

mistic in the unraveling of the mystery of HIV and AIDS," Cole recalled Hendrickson saying to him in a previous meeting. Hendrickson related the intensive research he and his colleagues have done in decoding the HIV puzzle to his audience of Columbia professors, faculty members, and graduate students focused in biochemistry. Their research has led to the increase in the life expectancy of AIDS patients by over 20 years and made the creation of a preventative vaccine more realistic than ever.

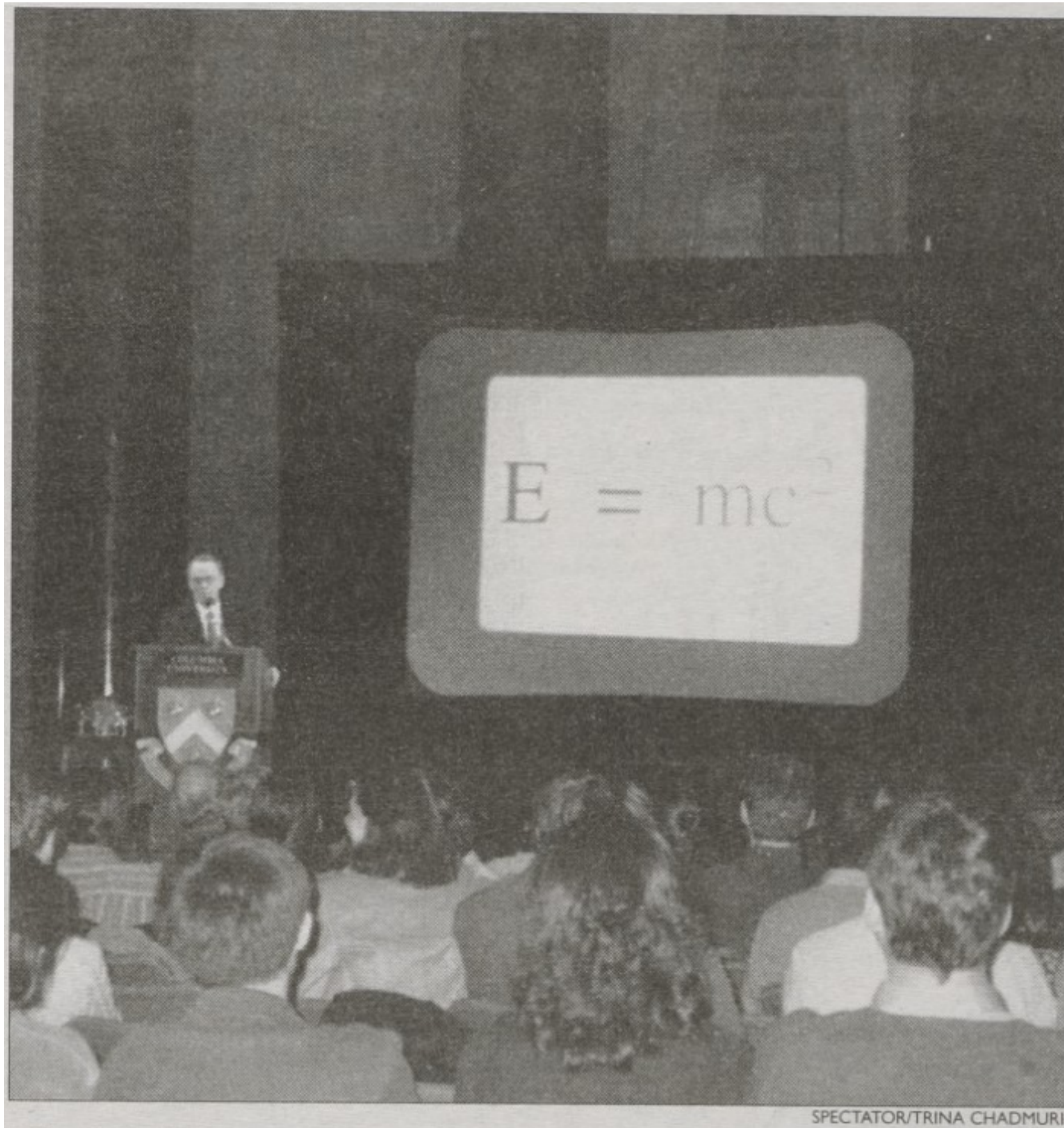
The developments in HIV and AIDS research and the correlation between treatments and delayed mortality have left Hendrickson confident that in a decade's time, a vaccine for HIV will be developed, "allowing one to become immune for life." Detailing the research he has done in the Howard Hughes Medical Institute at Columbia, Hendrickson spoke about the complexities of decoding the mysteries of the HIV virus.

He and other researchers have been in constant search for the "Achilles' Heel" of the HIV virus, using a process called crystallography, which provides incredibly detailed and complex pictures of the virus' molecular structure, to discover the best way to attack it.

An x-ray photograph, revealing the expulsion of new HIV molecules from a human white blood cell infected by the deadly virus, was among the slides Hendrickson presented.

Though Hendrickson himself is astonished by the incredible advances that have been made in HIV research since the first patient was studied in 1981, he stressed that more research is needed to reach the goal of AIDS immunity.

Before an effective vaccination can be found, it will be necessary to chart the molecular structure of the virus, as well as the complete reaction between the virus and the human blood cells, Hendrickson said.



SPECTATOR/TRINA CHADMURI

The first University Lecture of the new century focused on Columbia researchers' efforts to discover an AIDS vaccine.