

The current long-hair. . . . trend among the younger generation is not revolutionary, but a "renaissance," according to a New York labor arbitrator, because "longer hair is the traditional mode for men while short hair has historically been the exception."

As reported in the *New York Times*, the arbitrator, Theodore W. Kheel, made the statement in a decision in which he ruled that New York City bus drivers could wear beards and sideburns.

Among the points made:

"All over the world, flowing beards have stood for wisdom, strength and fatherliness.

"In the early civilizations of the Mediterranean, the great men of the mind were all bearded: Abraham, Moses, Jesus, Aristotle, Plato.

"In fiction and folklore, this tradition has been carried over to such varied characters as King Arthur, Father Time and Santa Claus.

"When artists have drawn the face of God, it has often been with a flowing, white beard. The creator was painted this way by Michelangelo in the Sistine chapel.

"Uncle Sam is always drawn with a mustache and a little goat-like chin beard."

He didn't mention Blackbeard the Pirate.

- S. S.

## MISSOURI ALUMNUS

VOLUME 59 NUMBER 4  
JANUARY 1970

The *Missouri Alumnus* is published eight times a year - September, October, November, December, January, February, March, April, May, and June - by the Alumni Association of the University of Missouri-Columbia, 312 Jesse Hall, Columbia, Missouri 65203. Steve Shron, editor; Ginny Glass and Betty Brophy, assistant editors; Paul Bower, staff photographer. Design consultant, Paul Fisher, professor of journalism. Second class postage paid at Columbia, Missouri, and at additional mailing offices. Annual membership is \$5.

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# A WHOLE-MAN APP

By Jim Robison

Future doctors need to develop the habits of



Some 20 slide-tape recorded packages (above), each covering different topics, are available at a ratio of two sets per topic for each 16 students. The study-conference area (right) also provides a place for, left to right, Duane Nanson, S. J. Greenberg and Dave Berland to study for their anatomy class.



# ROACH TO MEDICAL EDUCATION

self-education in order to keep up with rapidly expanding medical knowledge

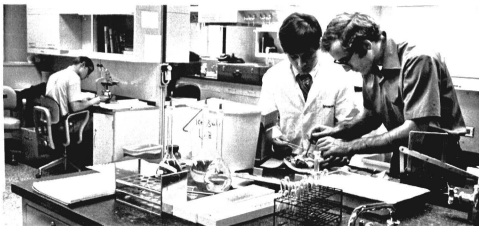
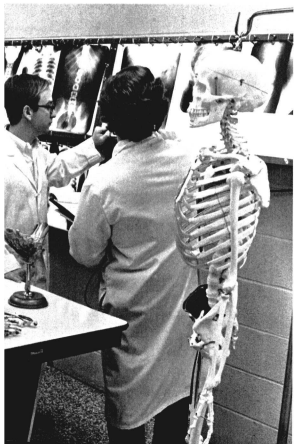
After more than three years of planning by the School of Medicine — and some \$2 million of state and federal funds — the realities faced by today's practicing physicians are helping to shape a new approach in the preparation of tomorrow's doctors.

"When we looked at the typical practicing physician and his approach to everyday medical problems, we began to see that the Medical School curriculum had not really prepared the student for dealing effectively with some important aspects of the 'real' world," Dr. Donald A. Senhauser, chairman of the Medical School education committee, said.

"For instance," he said, "the emphasis had been primarily on the acquisition of facts with little

effort to show him how to integrate and utilize those facts to solve a medical problem. His role was primarily as a passive receiver of information, rather than an active participant in his own education. He, therefore, failed to develop the habits of self-education which are so necessary to a physician in this era of rapidly expanding knowledge."

In addition, the practicing physician had never been formally shown the interrelationships between the basic sciences and his clinical work during the first two years of medical school. It was not until the third and fourth years that the new M. D. put the fragments of medical knowledge he had acquired into a meaningful package as he treated patients.



The laboratory where Clyde Watson (left) and Jeff Waters dissect a specimen, is open 24 hours a day and contains study carrels.

In trying to bring these realities of the practicing physician more in line with the teaching of the medical student, the School of Medicine settled on a relatively new approach now centered in the recent three-story addition to the medical center complex.

Here special laboratories have been constructed to provide each of the 200 first and second-year medical students with his own private study area immediately adjacent to laboratory benches and special facilities for closed-circuit television presentations, a unique "dial-a-lecture" telephone system, and space for the use of an array of auto-tutorial equipment.

Noting that the Columbia campus's Medical School is one of only 16 of the more than 100 in the country that have developed these types of labs, Dr. Senhauser said "this is a major change in the instruction of medical students. We're beginning to put the mass of information each student must master into an overall meaningful package."

Today at the Medical Center each first year student is learning at his own individual rate as he takes a specially programmed course in medical statistics. The entire course is taught by the use of a simply-computerized instructional machine.

"Everyone learns best when he establishes his own need to know," Dr. Senhauser said, "and that might be at 10:30 p.m. at night."

Whatever time it might be (the new labs are open 24 hours each day) the student will soon be able to pick up the phone adjacent to his study area to clarify the lecture he may have heard earlier in the day or a lecture he heard two weeks before. By simply dialing a special number the student will be hooked into a computerized bank of tape-recorded lectures. Anytime — day or night — the student may "dial-a-lecture" to get help on his particular problem.

Through the rapidly expanding activities of the newly developed Learning Center of the Educational Resources Group, headed by Dr. Merlyn Herrick, more than 20 specially prepared slide and tape instructional messages are now available to each student. Covering a variety of topics ranging from a "how-to-do-it" program on the "Determination of Bleeding and Clotting Time" to a straight lecture on "Diseases of the Anterior Pituitary" — the sight and sound presentations can be used with earphones at the students' lab study desks or in carrels at the Learning Center.

Closed-circuit television facilities for each lab, expected to be in use by mid-summer 1970, will provide an additional learning tool. Whereas the traditional lecture/demonstrations could be viewed by only a relatively small number of students, future demonstrations in the labs will have an unlimited potential for close-range viewing via the television eye.

"With the emphasis on self-learning, the entire psychology of teaching is reversed," Senhauser said. "The student is learning more on his own motivation and less on the basis of someone else's desires. With the new labs we try to teach the young physician to keep up with current medical developments. We realize that within five years after graduation, much of what the new doctor was taught will be outdated."

Although the advantages of the new labs tend to emphasize the benefits to students, the faculty, too, is finding advantages in the use of the labs. By fully utilizing the labs professors can concentrate more on the content of presentations and less on the logistics of presenting a demonstration or setting up a lab display. The logistics of ordering equipment and supplies for all the student labs is now handled almost entirely by the lab technical staff, a separate department in itself.

Already the labs have had an effect in re-orienting some courses away from a strictly departmental approach to teaching medicine. The emphasis now is on the interrelationships of the various systems of the body — the biochemistry, physiology, or the anatomy — regarding a particular medical problem.

Of all the types of student laboratories instituted in medical schools throughout the country, Dr. Senhauser feels that the new labs in use at Missouri are the most flexible to cope with curriculum changes which will undoubtedly occur during the lifetime of any building.

And he added: "This aspect of flexibility is important because it is quite amazing how walls and spatial arrangements, rather than ideas, dictate what may happen within an institution . . . Love-lace's 'Stone walls do not a prison make . . .' to the contrary."

"No medical school being planned for the future," Dr. Senhauser said, "would think of building student labs without basing them on the multi-disciplinary approach similar to those we have used." □