

# Brain research at UNC will need more funding

UNC News Bureau

If the many holes in present theories of how the brain works are filled in, recent neurobiological discoveries by UNC scientists may help to alleviate mental deficiencies and even increase the intelligence of the normal man.

But Dr. Edward Glassman, the director of UNC's Neurobiology Program recently said more funding is needed to fill these holes in our knowledge.

Glassman and his collaborator, Dr. John Wilson, have for eight years researched chemicals in the brain that may be associated with learning and memory storage.

With greater neurobiological knowledge," said Glassman, "we can begin to answer such questions as, 'What is it that the mentally retarded need? What deficient processes of their brains can be improved?'"

"But I'd be greatly surprised and disappointed," Glassman says, "if such findings did not eventually apply to everyone. And if we can raise the IQ of a retarded person, think what we could do for a normal person, or, for that matter, a genius."

Without artificially raising their own IQs, members of Glassman's research group have made steady contribution to neurological knowledge. According to a recent article in *The New Scientist*, the group's research is the most comprehensive in the world on the role of RNA and protein in brain function. These chemicals are involved in making learning permanent.

The most recent discovery, brought out in the research of Dr. Barry Machius in the UNC labs, is that during a learning experience phosphate attaches to certain proteins in the nucleus of brain cells.

How important this discovery is will

remain unknown, said Glassman, until more is known of this most complex of living organs, the brain.

"Discoveries of the type recently found in our labs will remain a mystery," said Wilson, "unless much more money is made available for basic research in this field."

Though their knowledge is still very sketchy, neurobiologists do have theories as to how the brain acts to learn and to store memories. And the recent discovery of the role of phosphates fits into some of these ideas.

Glassman and Wilson point out that when a person learns something, new "pathways" are formed in the brain. This probably entails no synthesis of new chemicals, but changes in chemicals already present in brain cells. The shape of these chemicals changes. This changes the properties of the brain cells so that electrical currents can travel more freely through the new pathway.

If these changes in chemical structure are not followed by the processes necessary for memory fixation, the molecules quickly return to their old shapes and the pathway is not functional. The person forgets whatever experience was coded on that pathway.

For memory to be permanently stored, new chemicals must be made, probably RNA and certain proteins. This RNA is believed to act by leading to the formation of certain proteins which act to make newly formed pathways permanent. Once this fixation process is complete, the memory coded in that pathway often remains with the person all his life.

But as a person grows older, this process of memory storage becomes less and less efficient. Older people gradually are less able to store memories, and eventually become senile. Thus we find some old people who well remember events of 30 years ago, when their memory fixation system was working well, but who cannot remember what happened yesterday.

Glassman admits this theory is far from complete. But he hopes that as more and more knowledge is gained, better theories can be constructed which can help us understand how our brains work. And knowing how they work, we'll know better what to do when our brains don't work.



Jogging has recently become recognized as an excellent way to keep in shape. Beverly Bridges and Debbie Andrews have decided to take up the habit, so you might see them some

afternoon on the UNC outdoor track. (Staff Photo by Scott Stewart)

# Population Center appoints officers

The Carolina Population Center Thursday announced the appointment of two deputy directors and a director of international programs.

Dr. Hans E. Krusa was named deputy director for administration and Dr. Thomas L. Hall deputy director for programs.

Dr. Richmond K. Anderson was named director of the Population Center's International Programs Office.

Krusa came to Chapel Hill from the Ford Foundation where he was a consultant on family planning to the government of India. From 1940 until 1968 he was on the faculty of New York University where he served as the Sears Foundation Professor of Retail Management. He holds the Ph.D. degree from New York University and the Master of Science in Public Health degree from UNC.

Hall came to the Carolina Population Center from the Johns Hopkins School of Hygiene and Public Health where he was

Health where he was a professor in the department of international health. Author of a number of books and articles on health planning and health manpower, Hall is a graduate of both Harvard School of Public Health and Harvard Medical School. He holds a Ph.D. degree from the Johns Hopkins School of Hygiene and Public Health.

Anderson, a specialist in both nutrition and population problems, has published more than a score of articles in these specialty areas. He was associated with the Rockefeller Foundation for many years, and from 1964 until 1970, was director for the Technical Assistance Division of the Population Council. He came to the Population Center from the Josiah Macy, Jr. Foundation where he was program director. Anderson holds the M.D. and Ph.D. degrees from Northwestern University and the M.Ph. from Johns Hopkins. Cornell College in Iowa conferred upon him the D.Sc. honorary degree in 1958.

# Strong criticizes foes

## SG revamp defended

by Cathy Brackett  
Staff Writer

Jay Strong, chairman of the Commission on the Goals and Organization of Student Government, replied Friday to recent criticisms of the plan to reorganize Student Government.

"A select group of students have maliciously mounted a campaign of misinformation, deceit and trickery in order to confuse the student body and distort the intentions of the presidential commission of 16 students, who for more than four months studied the problems and purposes of Student Government," Strong said.

Strong specifically mentioned a resolution against the plan passed by the Avery Dormitory house council and a

pamphlet written by student legislator Marilyn Brock which criticized the plan. He said Brock's pamphlet, entitled "Facts on Reorganization," presents "few facts and much personal opinion."

"The pamphlet does not accurately present facts and it confuses rather than explains the issue," Strong said.

In the pamphlet, Brock questioned how the proposed Campus Governing Council, which would be composed of 15 members as compared to the current 55-member Student Legislature (SL), could better represent the student body.

Strong said that interest in the larger body had declined and cited as evidence the fact that six SL seats will have no candidates in the upcoming student elections.

Brock could not be reached for reply on Strong's comments.

Strong also denounced the Avery

resolution, passed by the 12 members of the house council, which he said "shows little real understanding of what the presidential commission proposal will do." He cited these points:

"The Campus Governing Council will not in any way prevent student participation in Student Government, as charged by Avery. The fact that 28 seats will go uncontested in Tuesday's election demonstrates clearly that students are not interested in participating in Student Government as it now stands.

"The Campus Governing Council will not curtail representation, as charged by Avery, but will provide more equitable representation by protecting the interests of undergraduates, graduates, men, women and blacks.

"The Campus Governing Council is not unconstitutional on the grounds of discrimination. However, it does make provisions to protect against covert forms of discrimination in its minority representation clause.

"The Campus Governing Council would not be a ruling class elite. Instead, it will provide proportional representation to undergraduates and graduates, protect both women and blacks, and create larger legislative districts, thereby forcing the candidates to be more visible and speak to the issues."

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