



## Studies show

# TLC essential for normal growth

By David Williamson

Scientists here have found additional evidence that tender loving care is essential for normal growth in youngsters.

The researchers have determined in animal studies that the touching associated with mothering behavior has a profound influence on the biochemistry of growth.

Dr. Saul M. Schanberg, professor of pharmacology, Dr. Cindy M. Kuhn, assistant professor of pharmacology and Dr. Stephen R. Butler, who completed his

M.D. and Ph.D. degrees at Duke this year, conducted the research.

A report of their most recent findings appeared in the Sept. 15 issue of Science magazine.

### Failure to thrive

In an interview, Schanberg said psychosocial dwarfism is a condition that prevents infants and young children who have not had "tender loving care" from growing normally. It occurs despite adequate nutrition and the absence of disease.

Until well into this century, he said,

before physicians and other health professionals realized the importance of "mothering," the illness claimed the lives of up to 90 percent of the infants in some orphanages and foundling homes in the United States and abroad.

Schanberg said he and his colleagues were originally studying how drugs and alcohol fed to pregnant rats affect the metabolism of certain chemical substances in newborn rat pups. These substances, called polyamines, appear to be important regulators of cellular growth and differentiation.

### Results varied

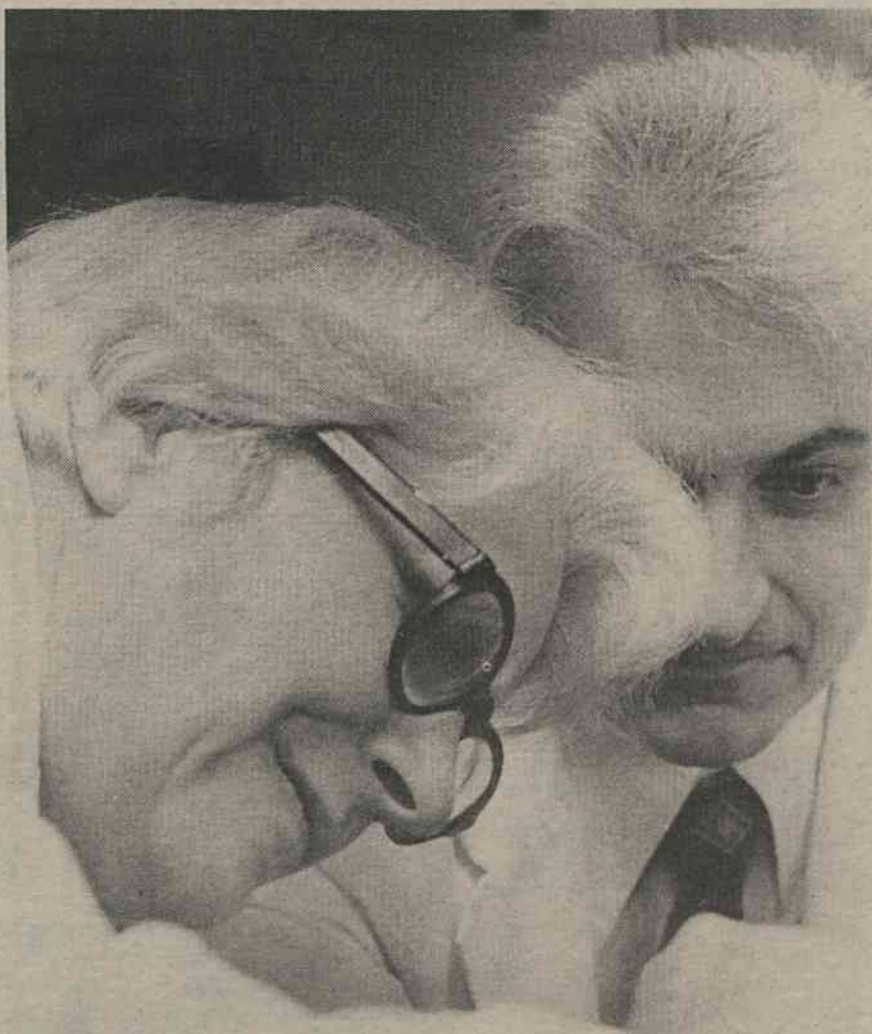
During the experiments, however, which involved analyzing brain tissue from the baby rats and took several hours to complete, the scientists found that they were getting varied results.

"At the beginning, we thought we were failing to control the environment of the pups properly in regard to temperature, humidity, nutrition or some other factor," Schanberg said.

"We later discovered that the activity of an enzyme known as ornithine decarboxylase (ODC), which is a sensitive index of organ growth and development, was decreasing significantly in the brains and hearts of rat pups less than an hour after the pups were removed from their mothers."

Further experiments linked the decline of ODC in the tissues to a similar decline in growth hormone. This hormone, secreted by the pituitary gland and carried by the blood stream, triggers some of the complex biochemical reactions that result in cellular growth throughout the body.

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**VISITING SCIENTIST**—Professor Denise Albe-Fessard, a neurophysiologist from Paris, and Dr. Bruno J. Urban, professor of anesthesiology, work together on an experiment in the neurosurgery lab. The French scientist said that over the past few years, she has become acquainted with Dr. Blaine Nashold, professor of neurosurgery, and as a result of their shared interest in suppression of pain, their respective laboratories are working together on a common project to seek to discover the "best way of suppressing pain messages." Albe-Fessard spent a month at Duke recently, and Nashold has visited her lab at the University of Paris. Urban, director of Duke's Pain Clinic, also participated in the experiments regularly during the Parisian's visit. (Photo by Parker Herring)

## Professional news

Dr. David C. Sabiston Jr., James B. Duke Professor and chairman of the Department of Surgery, received a Distinguished Alumnus Award yesterday from the University of North Carolina at Chapel Hill.

A 1943 graduate of UNC, Sabiston was one of five alumni honored during University Day ceremonies.

Dr. M. Bruce Shields, assistant professor of ophthalmology, will deliver a paper and present two courses on glaucoma at the Annual American Academy of Ophthalmology Meeting in Kansas City this month.

Dr. Charles E. Llewellyn Jr., associate professor of psychiatry and head of the Division of Community and Social Psychiatry, will attend the Southern Psychiatric Association meeting this month on Hilton Head Island, S.C. Earlier this year, Llewellyn was a workshop leader during the annual spring meetings of the N.C. Group Behavior Society.

### 'Collecting Medical Books'

G.S.T. Cavanagh, curator of the Trent Collection, will speak this afternoon at 4 p.m. on "Collecting Medical Books."

The talk, sponsored by the Josiah C. Trent Society for the History of Medicine, will be given in the History of Medicine Reading Room, Seeley G. Mudd Building.

All interested persons are welcome to attend.

## Feeling part of Duke led to happy partnership

"I became imbued with everything that was going on there. It's just a great institution. What they did for me made me feel I was a part of Duke."

Arthur Siegal of Marion, S.C., had this to say recently as he recounted his experiences as a patient at Duke.

Because he had come to feel a part of Duke, he wanted to help provide for the future of Duke, just as he had been able to do for his family.

### Three steps

He discussed his situation with Eleanor Kinney, the medical center's estate planning officer, and found how he could best help Duke, while further providing for his own future and that of his wife, Shirley.

There are three steps to estate planning, Kinney explained. First, the potential donor's financial situation has to be clearly understood (totally in confidence, of course). Then this is matched with the most appropriate opportunity for giving.

"And the third step is to find out what aspect of the medical center the person is most interested in helping," Kinney said.

"Mr. Siegal wanted his gift to go to our most critical area of need, which is unrestricted endowment."

### Plans for the future

Over a period of more than six months, Siegal and his attorneys, Duke law graduates Charles Speth and William Buice, worked out with Kinney the details for setting up a unitrust.

Simply stated, Siegal made a substantial gift to Duke and established a trust arrangement whereby Duke invests the assets and will pay Siegal and his wife an income for life. There are significant tax advantages involved in this type of trust gift.

"Gifts such as these are doubly pleasing in that they provide for the future of the medical center while benefiting the donors during their lifetimes," John S. Thomas, director of medical center development, said.

"We are deeply indebted to Shirley and Arthur Siegal for their generous endowment gift. It's really a happy partnership for the future."

Kinney's role in such financial planning

is provided as a free service to prospective donors by the medical center. And this service significantly expedites the planning.

"Setting up a trust can be a complicated process, but we tried to make it easier for the Siegals and their attorneys," Kinney said.

She also emphasized that all unitrusts are different, and that there are many resources for the kind of gift the Siegals gave to the medical center.

"The gift is tailored to the particular situation of the donor," Kinney explained.

### From lights to 'everything'

A member of the Davison Club since 1977, Siegal formerly owned a firm which manufactures fluorescent lights.

He sold the company, Marvel Lamp Co., in 1974, and now is doing "a little of everything," he says. He is a major franchiser of Peddler Steak Houses as chairman of the board of Steaks Sophisticated, Inc., director of the Colonial State Bank of Marion and a member of the Civitan Club there.

## Take the stairs, speaker says

By William Erwin

Climbing five or more flights of stairs a day might reduce your chances of having a heart attack, according to a Stanford University professor of epidemiology who will speak on heart attack risk factors here this afternoon.

The professor, Dr. Ralph S. Paffenbarger, will speak in Room 3031 (Barrus Surgical Conference Room, purple zone, third floor) at 4 p.m. His talk is "Physical Activity and Risk of First Heart Attack."

In a study of Harvard male alumni published last month, Paffenbarger found that men who climb five or more flights of stairs a day, walk five or more blocks a day or engage in strenuous sports, such as running or tennis, are much less likely to have heart attacks than men who do not get as much exercise.

"Light sports" such as bowling or golf do not seem to provide the same protection against heart attacks, the professor found. The study was published in the American Journal of Epidemiology (Vol 108: 3, 161-175).

Paffenbarger spoke yesterday on breast cancer risk factors before and after menopause. His visit here is sponsored by the Division of Cardiology and the Comprehensive Cancer Center's Epidemiology and Biostatistics Program.

## On tour today

A second group of students from Northwood High School in Pittsboro are touring the medical center today. The twenty students, juniors and seniors, are accompanied by their teacher, Gail McLaughlin, RN. Another group from the school was on tour last Friday.