State and Local

A&M researchers link hormone body control of blood volume

By Molly Fisher Reporter

Two Texas A&M University medcal scientists who are researching a ecently discovered hormone called NF can explain why swimming can use the urge to urinate.

ANF, which stands for atrial na-iretic factor, is produced in the tria of the heart and then secreted to the bloodstream. It was discovred by a Canadian scientist in 1981. It is believed the heart reacts to hanges in blood volume by producg ANF, which tells the kidneys to crete salt and water. The greater e amount of pressure on the heart alls, the greater amount of ANF is

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"When you are in a pool, blood is ushed from your limbs toward ur chest," physiologist Dr. Bruce njamin said.

"The blood then puts pressure on ur heart, making it think you have much blood volume," he said. "It acts by making you have the urge

Benjamin and Dr. Thomas Peter-n are researching the importance ANF at normal levels found in the

Benjamin said most recent re-arch has been aimed at the effects NF has on the body in either very gh or low amounts.

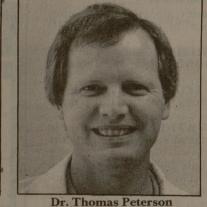


Dr. Bruce Benjamin

'Our interest with ANF is based on the normal function of the hormone, and with this understanding we can then see how it applies to other areas," he said.

The work of Peterson and Benjamin has possible applications in the areas of hypertension, congestive heart failure and other sodium heartrelated diseases.

Peterson said, "Other researchers have information from patients with heart failure or other conditions where the kidneys aren't excreting enough salt and water, which indi-cates that these people have in-creased levels of ANF.



"These high levels of ANF should trigger the kidney to dump excess body fluid, but why this doesn't occur in these patients isn't under-stood," he said.

Benjamin said, "ANF definitely has a role as a therapeutic agent. It can help hypertensive patients by decreasing their blood pressure. But we want to know if its normal circulating concentration does anything important, or if it is too low to be of important measure.

One theory on how the heart helps control blood volume is that

production and secretion of ANF works together with "stretch" receptors in the heart, Peterson explained.

The stretch receptors can detect when the blood volume of the body has been stretched beyond normal limits, and then they will cause the kidneys to increase excretion of salt and water, Peterson said.

The researchers are trying to find out how much the kidneys are reacting to the stretch receptors and how much they are reacting to the ANF.

Peterson and Benjamin said they are concerned with how ANF works to control blood volume and how ANF communicates with the kidney. The two scientists are experiment-

ing with dogs and monkeys. One experiment involves the removal, from several dogs, of the part of the heart that produces ANF and then the in-crease of the dog's salt intake. The result should have been an

increase in blood volume in a direct relationship to salt intake, but none was shown, Benjamin said.

Along with various studies done with the effects of ANF on dogs and monkeys, one study the two scientists have done involves putting animals on different salt diets, he said. This allows the researchers to see how a high, low and normal sodium diet changes the production of ANF.

In Advance

Resources institute to open 21st state water conference

By Bob Grube Staff Writer

The Water Resources Institute at Texas A&M will sponsor its 21st Water for Texas Conference **at Rudder Tower Thursday and** Friday.

This year's conference theme is "Urban Water Resources Management," and the issues of water supply management, water demand management and water quality management will be covered.

The conference features 17 speakers from across the country, including Texas A&M President Frank E. Vandiver, state of California Water Consultant Harvey Banks and Myron Knudson from the Environmental Protection Agency in Dallas.

Conference registration begins

Thursday on the second floor of Rudder Tower at 7:30 a.m. and continues until noon.

A banquet will be held at the College Station Hilton on Thurs-day at 7 p.m., and a luncheon will be held at the Memorial Student Center at noon on Friday

The \$40 charge for faculty covers the luncheon, banquet tickets and a copy of the proceedings. Students will be admitted free

with a current A&M ID. However, students must pur-

chase tickets for the luncheon and banquet separately. Luncheon tickets are \$8 and

banquet tickets are \$15. Those planning to attend the

luncheon or banquet should inform the institute as soon as possible for a reservation. For more information, call the

institute at 845-8571.

Correction

An article in The Battalion Monday incorrectly stated that voter registration cards are available at local post offices. Actually, the cards are avail-

able from the office of the county tax assessor-collector.

The story also said the cards

are available from the registrar's office. However, the reference was to the Brazos County voter registrar's office. Cards are not available at the campus registrar's office

The Battalion regrets the errors

Candidate: Texas must review needs to balance budget

By Sandee Smith

Reporter Republican lieutenant governor andidate David Davidson said Tuesday night at the local Republi-can headquarters that the way to balance the state budget is to review the eeds of Texas.

Davidson, a 47-year-old Austin usinessman and graduate of Trin-y University, has been campaigning gainst Lt. Gov. Bill Hobby for the past 10 months and focusing on his olutions to the state's budget prob-

Davidson said the financial problems are due to increased state spending and too many upper management employees.

"Over the last 12 years, state spending has increased by 400 per-cent," he said. "Inflation is responsi-ble for only 133 percent of that in-crease." During that time, he said,

the state's population rose by only 30 percent

Davidson said 69 percent of the state's budget is committed to projects before the legislators get to it, leaving less for them to work with.

Most of the budget that is out of the control of the legislature in-cludes money for education, mental health and retardation, highways and the prison system.

The legislature needs to get con-

trol of the budget before it can make the needed changes in spending," Davidson said. "The present divi-sions in the budget were made in the days when state money was plenti-

ful. Davidson said one key difference between the two candidates is that he is in favor of a constitutional ban on

state income taxes while Hobby is against the ban.

"I don't believe in increasing tax-

es," Davidson says. "I believe in liv-

ing with what we've got. "During the 14 years Hobby has been in power, a layer of fat has developed in the state agencies. The fat can be reduced without losing public services

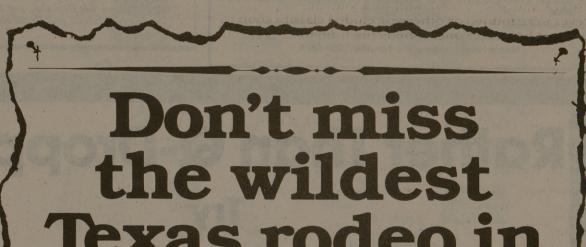
According to Davidson, New York and California have fewer state employees per capita than Texas.

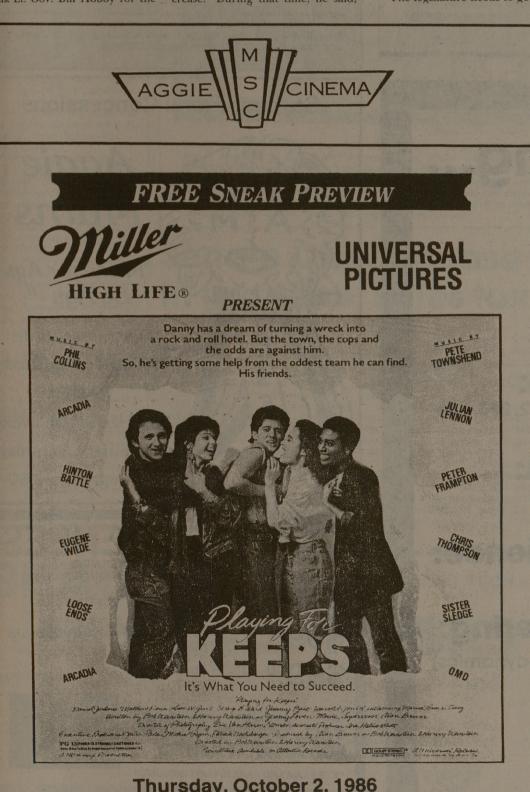
This is an unnecessary excess, Davidson says. "There are people

occupying offices in Austin who don't provide any services to the people of this state.

Davidson said the state must keep from spending faster than it collects revenues.

"By exercising stewardship and good management techniques, the state could grow over the next few years without additional taxes," Davidson said.





Thursday, October 2, 1986 **Rudder Auditorium** 7:30 p.m.

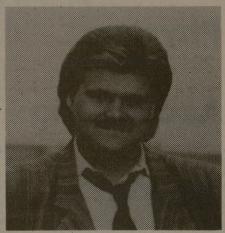
PRIZES • **RAFFLES** Limited Seating. Be There Early! **PRIZES** • **RAFFLES** "Playing for Keeps" opens in theatres nationwide on October 3rd.

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The Texas Prison Rodeo is back and it's bigger and better than ever. Every Sunday in October some of the toughest cowboys and wildest stock in Texas get-it-on in the dirt. This is real rodeo so hair-raising that only convict cowboys would dare try it.

We also have the biggest line-up of musical stars in the rodeo's history. Next Sunday we'll present the 1985 **Country Music Association Entertainer** of the year, Ricky Skaggs.

Tickets are \$7 and \$8 and available at all Ticketron locations. All proceeds go toward prisoner rehabilitation programs.



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"The Wildest Rodeo Behind Bars For ticket information call: TDC (409) 295-6371 or Teletron (713) 526-1709