

UNC Experiment Yields Liquid DNA

By **STEPHANIE HORVATH**
Staff Writer

Researchers at UNC have reached a scientific milestone, although they say specific applications for the findings remain up in the air.

University scientists have successfully created a liquid form of DNA, a discovery that could prove important in the technological field.

The latest issue of the Journal of the American Chemical Society featured a paper describing the experiment, which was the result of collaboration between chemistry professors Royce Murray and Holden Thorp and graduate student Tony Leone.

While the practical uses of the discovery have not yet been fully explored, Thorp said the liquid DNA could be used for microelectrical applications, such as one day perhaps building a computer run by DNA.

Leone said the computer industry is always looking to make machines smaller, and the liquid DNA, which is the consistency of molasses, might be a good electrical conductor.

"The (DNA) molecule by itself is not able to do it," Leone said. "In this liquid form, the DNA is conductive."

Murray said liquid DNA also is soluble in a number of common experimental solvents, whereas solid DNA is only soluble in water. This application will allow scientists to study and process DNA in different ways. Experiments that cannot take place in water, such as organic reactions involving DNA, can now be studied.

"We can't stand up and say there are

any practical applications, but there are things we can explore," Thorp said.

Murray said the catalyst for the experiment came almost ten years ago, when he was searching for a process to make chemical materials molten. He found that if polymers—a type of chemical compound that consists of repeating structural units—were added to solid substances, they disorganized the solid's ordered structure.

Murray said a particular polymer, ethylene glycol, successfully converted the solid to a liquid on every test.

Thorp and Murray first had the idea to apply the experiment to DNA shortly after the initial research. Leone was assigned to the study as a part of his graduate work.

"I've interacted with (Leone) regularly, and he's done a remarkable job in his thesis research," Murray said.

Thorp, Murray and Leone plan to continue studying the new form of DNA. Leone said the experience has opened up new possibilities for him.

"It made me consider an academic career where I hadn't before," he said. "I always thought I'd get a Ph.D. and go into industry. But you can't do stuff like this on industry—these off-the-wall ideas."

Leone said the first successful test involving DNA was performed about a year ago, and Murray and Holden are now filing patents on the discovery.

"It's exciting," Holden said. "We weren't sure if this was going to work. When (Leone) got these liquids together it was a eureka moment."

The University Editor can be reached at udesk@unc.edu.

DTH Wins Statewide Journalism Awards

Staff Report

The Daily Tar Heel took home two N.C. Press Association awards at the annual ceremony held Thursday night at the William and Ida Friday Center.

Arts & Entertainment Editor Ashley Atkinson won second place in the criticism category for three music reviews. And the DTH staff won third place in the special section category for Defining a Decade, which chronicled the major players and events of the 1990s in the nation, state and UNC campus.

The DTH competed with more than 100 newspapers from across the state with circulations between 15,000 and 34,999. It was the only college newspaper to win an award.

Atkinson, a junior who won first place in the same category last year, said "I am

honored to even be in the company of professional journalists, much less win an award as a professional journalist."

The judges, taken from newspapers in New York and Pennsylvania, described Atkinson's work as "snappy prose (with) strong opinions on lively, topical subjects. Fun."

DTH Editor Matt Dees said the award for Defining a Decade was particularly meaningful because it was a total newsroom effort. "The project was ambitious and far-reaching, which meant it required a good deal of research and planning ahead," he said. "But under the leadership of (last year's editor) Rob Nelson, it came out beautifully."

The judges characterized the decade project as a "novel approach to ring in the new millennium, an instant history of the past 10 years."

AUCTION

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Glover, who attended high school in Chapel Hill, knew what the deal was with Old East but never expected the Department of University Housing to assign her there when she transferred from UNC-Charlotte.

Glover and Han are living large. Three large windows. Lofted furniture. Hardwood floors. Good locale.

"We're so hype about our rooms," Glover said, looking over to Han. "Well, I'm so hype."

Han and Glover are a duo that feeds off one another's energy.

"Personally, I feel really privileged to live in Old East," Han added.

The semester, according to the women, has been enjoyable and sans the battle between the sexes. "The guys were really friendly," Han said. "We didn't have any backlash."

But one complaint of both women was not having enough opportunities to interact with more students living in the residence hall. Guys and gals.

Han recalled a breakfast social where everyone "grabbed their food and left." And Glover echoed the void: "I just feel like we really haven't had a forum to get together."

But one day last semester, a friend got a call asking him if he wanted to help raise money for the Dance Marathon while Han and Glover were visiting.

He asked his visitors if they had any ideas, and the rest was history.

Campus Calendar

Today

noon — Take action to support striking workers in Mexico who make UNC products!

All those interested should meet outside the **Campus Y** basement at noon for a **candle procession and march**.

3 p.m. — All sophomores and juniors interested in learning more about the **Class of '38 Summer Abroad Fellowship** should attend the **information session in Union 226**.

The award allows students to pursue independent projects abroad for the 2001 summer.

7 p.m. — **What is the purpose of religion?**

Come to the **Frank Porter Graham Lounge** to hear the **Baha'i perspective** and share your own views.

7:30 p.m. — The **Carolina Teaching Fellows Program** will host a **date auction** featuring **ladies, gentlemen and celebrities of the UNC campus** in 100 Hamilton Hall.

Admission is \$3. Proceeds will benefit the N.C.

Children's Hospital

8 p.m. — **Health for Habitat**, a partnership between the schools of public health, medicine, pharmacy and dentistry and Habitat for Humanity, will sponsor a **dance party at Players**. Its purpose is to raise funds for the construction of affordable housing in Orange County.

Saturday

7:30 p.m. — The world premier fashion show of **Global Essentials Retailer and Apparel** will take place at the Durham Civic Center.

The show, hosted by Taylor Thomas and D.J. Dynasty, will feature **celebrity athletes and recording artists**. Tickets cost \$20 and are available at Schoolkids Records or at the door.

For more information, call Racheal Keesee at 914-7133.

The Daily Tar Heel

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Matt Dees, Editor, 962-4086
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LOTTO

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moral implications of using a lottery to boost state revenue.

"And I don't think it's in the state's best interest to encourage that kind of compulsive behavior," he said.

Owens said he understands that lot-

teries carry potentially negative consequences but added that the bill will at least force the state's hand on the issue.

"The thing I hate to see is money leaving the state," he said. "If our neighboring states did not have lotteries, I wouldn't be introducing this bill."

The State & National Editor can be reached at stntdesk@unc.edu.

CABINET

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improving the mental health care system, providing long-term care for senior citizens and continuing to serve children.

"Our department is committed to helping the most vulnerable in our society," Hooker Buell said.

But she said that in light of the state's current budget shortfall, one of the department's more immediate priorities will be finding a way to make health care in North Carolina more fiscally efficient.

"We're going to look with a fine-tooth comb at everything we do — looking for

areas to make more efficient, looking for areas to cut," Hooker Buell said. "But this also gives us an opportunity to be creative and come up with new ideas."

Health and Human Services and Transportation traditionally have the two largest budgets of any Cabinet agencies in the state.

Tippett also cited the state's budget deficit as one of the main problems his department will have to address.

But Tippett said the state legislature recognized the need to maintain quality public transportation in North Carolina.

He added that one of the state's more immediate needs is repairing old roads. "There are many roads that we have simply worn out," he said. "We have to resolve the maintenance issue."

Thomas Wright was also appointed Thursday to the post of director of the Office of State Personnel.

The State & National Editor can be reached at stntdesk@unc.edu.

Nominate Outstanding Individuals for Honorary Societies!



The Order of the Golden Fleece Recognizes individuals—students, faculty, staff members and alumni—of demonstrably high character and who have made some specific long-lasting, innovative and extraordinary contributions to the University community.



The Order of the Grail-Valkyries Recognizes students who have demonstrated excellence in scholarship, leadership, character and service. The Order continues to challenge its members to make substantial contributions to the University and community.



The Order of the Old Well recognizes students of high character who demonstrated exemplary and generous humanitarian service and who have served in a capacity such that their service contributions have not been previously recognized.



Society of Janus Founded in 1957 and 1999. Recognizes students and staff members who have made outstanding and lasting contributions to the quality of residence hall life primarily through programming.



Frank Porter Graham Graduate and Professional Student Honor Society Recognizes outstanding service provided to the University and community by graduate and professional students and those who have made significant contributions to the development of graduate and professional education at the University.

Applications available at www.ils.unc.edu/~mehfa/honorary.html, Davis Library, or the Front Desk of the Union.

Applications due by 5:00pm on February 6, 2001.

CHECK OUT A FEW OF THIS WEEK'S EVENING SPECIALS AT RICK'S

- Baby Salad Greens with Goat Cheese, Granny Smith Apples, Toasted Pecans and Balsamic Vinaigrette
- Chicken Parmesan: A Sautéed Boneless Chicken Breast with Marinara and Fresh Parmesan Cheese over Linguini
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Upcoming Events
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Mariachi Band

Call for dates
967-9060

Sat. Jan 27
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Mon-Thurs DINNER 5:30-9:30
Fri & Sat 5:30-10:30
closed Sunday