

September 21, 1998

MEMORANDUM

To: Members of the Duke University Board of Trustees

From: Nannerl O. Keohane

Subject: Summary of Activities

I am pleased to provide this report of activities since our May meeting of the Board of Trustees. I want to extend a special greeting to our new trustees: Frank E. Emory Jr., J. J. Kiser III, Christopher Lam, John A. Schwarz and the Rev. Charles M. Smith. I know each will bring distinctive experience and expertise to our deliberations, and we welcome them.

The October trustees' meeting will be part of a very important weekend for the university. Not only will we be gathering on Founders' Day weekend, but, as you know, we'll be formally launching the largest and most significant fund-raising campaign in the University's history. Our meeting also will coincide for the first time ever with meetings of the boards of visitors of the several schools and the University. A highlight of the weekend will be the Founders' Day address on Thursday, October 1, which will be delivered this year by Betsy Locke, president of The Duke Endowment. Betsy knows Duke as few people do, from her student days, as a member of the university administration, as the head of the Endowment's education division, and now as its president. I should note, by the way, that Christopher Lam, our Young Trustee, was one of our B. N. Duke Scholars, a program which, thanks to the generosity of The Duke Endowment, enables Duke to identify future leaders from the Carolinas and to provide scholarship support for them.

UNIVERSITY SCHOLARS

These first few weeks of a new academic year are always an exciting time on campus. This year was especially well launched with the announcement on September 12 of the splendid \$20 million gift to the University from Melinda and Bill Gates. This gift will help us begin a pioneering University Scholars program that will expand teaching and research across traditional disciplinary boundaries and across generations of brilliant students.

The principal goal of the University Scholars program, which will begin in the fall of 1999, is to identify intellectually gifted undergraduate, graduate and professional students and provide them with the resources, curricular freedom and extracurricular forums for cross-fertilizing each other's ideas in creative and novel intellectual collaborations. In many ways, this program is a natural evolution from our successful FOCUS program for freshmen, which this year offers some 375 first year students the opportunity to develop broader understanding of 13 separate thematic fields, all from an interdisciplinary perspective. Cathy Davidson, recently appointed vice provost for interdisciplinary studies, is leading the planning for the University Scholars program, which was originally conceived by Dean of the Faculty of Arts and Sciences Bill Chafe.

As I said in the news release announcing the new program, this wonderful gift from Melinda and Bill Gates joins two of Duke's highest priorities -- strengthening our financial aid endowments so we can provide a Duke education and experience for the best students regardless of their ability to pay, and creating innovative programs that will stretch the minds and enhance collaboration among the very brightest students. It is typical of Melinda and Bill to see the extraordinary potential for truly pioneering scholarly inquiry and to provide the

resources by strengthening our endowment to support some of our most brilliant students. We are truly grateful for their generosity, and for their vision.

UNDERGRADUATE LIFE

As Christoph Guttentag reported to 1,696 entering students and their parents at Convocation, the class of 2002 includes the brightest and most diverse first-year students in Duke's history. The middle 50 percent of their combined SAT scores ranges from 1320 to 1470, higher than those in last year's record class. And the Class of 2002 has 169 black students, 240 students with Asian heritage and 83 Latino and Hispanic students -- all records. We're pleased that there are 280 students from the Carolinas -- 216 from North Carolina and 64 from South Carolina. Our professional schools have also given high priority to enriching the diversity of our student body, and the results show it. Nowhere is this more visible than in our Medical School; 49 percent of the members of the class are women. Twenty-two percent of the class are underrepresented minorities -- double the national average and up 6 percent from last year's class at Duke. This progress reflects a more aggressive and systematic effort to identify and recruit underrepresented minorities by Dean of Medical Education Dan Blazer and Associate Dean and Director of Admissions Brenda Armstrong, who has done a superb job since taking on this important assignment a few years ago.

Moving-in day was particularly exciting for our new first-year class. Hurricane Bonnie was approaching the state's southeastern coast, following roughly the same route Fran took two years ago. Anticipating the hurricane, Executive Vice President Trask authorized first-year students to move into residence halls on East Campus ahead of schedule, on Tuesday evening August 25 instead of the normal time the next day. Students and their families were alerted at their hotels, through media announcements, on our web site and by word of mouth, and 545 students checked into their residence halls that Tuesday night. By noon on Wednesday, some 90 percent of the class had checked in. I spoke to many parents and students during orientation who were truly impressed and extremely grateful for the efforts by people across the campus who made move-in so easy. Special tribute goes to Dean of Student Development Barbara Baker, who has refocused many of systems to ensure a smooth landing for our entering students, and to our student advisors and counselors, who responded eagerly to the daunting logistical challenges.

One old tradition -- the ritual of standing in long lines for various service -- is disappearing from Duke, thanks to a new apply-by-mail program for such things as the ID cards, post office boxes, long-distance calling cards and bank accounts. About 80 percent of the Class of 2002, for example, applied for the Duke card by mail. Another new feature to this year's orientation package was a CD-ROM called, "So ... You're There," that introduced students to Duke and Durham and provided such valuable information with sound and video clips as tips on parking, transportation and dining. We are beginning to see multiple benefits from our investments in technology and, more importantly, so are our students and their families.

Unfortunately, things didn't go as smoothly at the Marine Lab in Beaufort, due to a water spout spawned by Hurricane Bonnie. The roof of one of the lab's dormitories was ripped off, and the walls of the damaged dormitory collapsed. Debris from the stricken dorm also caused damage to the lab's library and auditorium. The lab's research vessels all made it through the storm without any damage. Fortunately, the lab had been evacuated and no one was injured, but the start of fall semester classes was delayed a week to allow workers to clean up and make emergency repairs.

On the subject of residential life, you will recall that I asked our administrative task force chaired by Provost John Strohbehn to work over the summer to flesh out a number of issues associated with the report on Upperclass Residential Life that a task force chaired by Deans Robert Thompson and Barbara Baker developed

last spring. The results of this summer's work will be reviewed with the trustees' Student Affairs and Academic Affairs committees in a joint session at our meeting in October, and will, I am confident, be the subject of robust discussion on campus this fall.

While most aspects of the first weeks of school have gone smoothly, we have, as you may have noted from reports in *The Chronicle* and other media, experienced a set of distressing incidents involving students, including a prank with explosives in Wannamaker residence hall, and excessively inebriated behavior at off-campus parties which led the Durham police to issue alcohol citations to 61 students. The Durham police are taking a more aggressive stance on the behavior of students when they live in the community. We are also working closely with the Durham police to investigate some recent assaults in neighborhoods near the campus.

I regret that we also have experienced a couple of racial incidents. University officials responded quickly and, I believe, appropriately to these incidents. In one, an employee made a racial slur to a Divinity School student; his supervisor promptly investigated, and took appropriate disciplinary action. The supervisor and Tallman Trask met with the student to apologize to him on behalf of the university and to offer support, as did I later in the day. Duke police are continuing to investigate the other incident which involved the scratching of racial slurs on an African American student's door in the residence hall. In a letter to *The Chronicle*, I reminded the campus that each of us has a responsibility to behave in ways that do not threaten others and a special obligation to work hard to foster a Duke that is just, fair and inclusive, a university that values its members for who they are and what they bring to the Duke community, and to support those who have been hurt by these incidents. I am grateful for the support that vice presidents Myrna Adams and Janet Dickerson and their staffs have provided the affected students, and to Dean Greg Jones and Dean Greg Duncan in the case involving the Divinity School student.

As I reported to the Executive Committee this summer, improving and coordinating communications with students is a high priority for the administration. It has become clear that Duke is not well served by the fragmentation of responsibility for decision-making on issues of significance to students. As you may have read in reports in campus media, I have appointed a committee of senior administrators to coordinate and decide major policy issues affecting undergraduates and to make sure the word reaches all concerned. Vice President for Student Affairs Janet Smith Dickerson will chair the group. I am optimistic that this policy group will do much to clarify the lines of responsibility at Duke, make it easier to reach decisions on key issues in a timely fashion and share information about those decisions with others who need to know about them. Joining Vice President Dickerson on the committee are John Strohbehm, Bill Chafe, Bob Thompson, John Burness, Tallman Trask, Judith Ruderman, Marion Shepard and Judith White.

I have enjoyed the opportunity to meet with our entering students and have also had a number of productive conversations with Jeri Powell, our new DSG president, and Jessica Moulton, this year's editor of *The Chronicle*. I expect to continue these and other opportunities to visit with students from across the campus during the coming year.

PROVOST SEARCH

I am most pleased that Professor Kathleen Smith of the Departments of Biological Anthropology and Anatomy and Zoology has agreed to chair a national search for a successor to Provost John Strohbehm when he retires next June. It is a very strong committee befitting its responsibility to identify and recruit an outstanding scholar and administrator to Duke's senior academic officer position. I am especially grateful that trustees Paul Hardin and Bob Richardson have agreed to serve on this search committee. Other members will include Professor John A. Board Jr. of the School of Engineering; geology Professor Bruce H. Corliss of the Nicholas School of the

Environment; Professor N. Gregson Davis of classical studies; University Secretary Allison Haltom; Professor Helen Ladd of the Sanford Institute of Public Policy; Professor Robert P. Mosteller of the School of Law; graduate student Eric Phifer; and Trinity senior Sheri Shepherd. I have asked the committee to seek internal candidates and candidates with previous experience at Duke, as well as outstanding candidates from outside the university.

FACULTY RESEARCH

Duke immunologist Smita Nair reported at the annual meeting of the American Society of Gene Therapy that a rare and powerful immune system cell called a dendritic cell can be trained to attack cancer throughout the body. The potential therapy, which has been largely funded by the National Institutes of Health, is now being tested in cancer patients at Duke, and its ultimate goal is to wipe out cancer cells and then keep the body protected from new cancer growth.

In a separate series of experiments in mice, researchers have demonstrated that gene-therapy techniques can successfully deliver proteins to block the formation of new blood vessels that are vital for the sustained growth of tumors. Although the effect was transitory, the rate of tumor growth in animals was decreased by two-thirds in most cases and was completely halted in others. With refinement, the cancer researchers hope to extend the time this type of therapy can be used to slow or halt the growth of tumors, which then could potentially be used in humans to provide more time to treat their cancer. That work is sponsored by the National Cancer Institute.

In July, Dr. Michael Colvin, director of Duke's Comprehensive Cancer Center, told a House subcommittee that dramatic advances in the understanding of cancer are leading to more effective means of preventing the disease and to better treatments when it does occur. He warned, though, that the translation of promising research into effective control of cancer is being jeopardized by an increasing scarcity of funds. He emphasized the need to increase support for clinical research in order to evaluate the potential human benefits of new drugs and other research advances.

In an important first step toward an effective treatment for sickle cell anemia, a deadly disease which strikes African Americans, Duke researchers have shown that they can use a new type of gene therapy to correct the defect in human blood cells. The results of their laboratory studies were published in the June 5 issue of the journal *Science*. The research team led by Bruce Sullenger from Duke's Center for Genetic and Cellular Therapies plans to begin testing the therapy in sickle cell patients within a few years. The work was funded in part by a grant from the National Heart, Lung and Blood Institute and from a Korean Academic Research Fund grant.

For the caffeine devotees among us, there is bad news. A Duke research team has found that drinking a few extra mugs of coffee each day can boost blood pressure, heart rate and stress levels enough to increase a person's risk of developing heart disease over a lifetime of even moderate caffeine consumption. In a study of 19 habitual coffee drinkers who wore "ambulatory" blood-pressure monitors throughout their daily jobs, James Lane, associate research professor of psychiatry, found that the equivalent of four to five cups raised blood pressure an average of five points, compared to days when they consumed only one cup. The effect occurred within an hour of consumption, and the subjects' blood pressure remained elevated throughout the day, the study found. Results of the study, funded by the National Heart, Lung and Blood Institute, were published in the journal *Psychosomatic Medicine*.

In a promising first step toward a simple transplant procedure that could augment current treatment for damaged

hearts, Duke researchers have shown that immature muscle cells transplanted from the leg of an animal to its heart apparently can "learn" to act like heart muscle, significantly boosting the ability of damaged hearts to contract. The experiments, reported in the August issue of the journal *Nature Medicine*, show that a tiny plug of muscle taken from an animal's leg and injected into the same animal's severely damaged heart muscle can boost contraction between 34 percent and 100 percent. The research was led by molecular biologist Doris Taylor with financial support from the American Heart Association and a grant from the National Science Foundation Engineering Research Center.

In another important study funded by the National Science Foundation and the Department of Energy, Duke ecologists have found further evidence that the northern U.S. Central Plains will likely undergo drastic ecological changes due to 21st-century global warming. They reached this conclusion by analyzing how the region changed between grassland and forest due to past climate changes. Botany professor James Clark reports that immediately after the last ice age, the region underwent many such short-term cycles of warming and cooling. He says this shows the region is highly susceptible to climate changes, like the ones expected to result from global heating due to the so-called greenhouse effect in the decades ahead.

In research a little closer to home, a Duke Wetland Center sediment study of environmental conditions from about 180 B.C. to the present reveals that the most dramatic changes have occurred only since World War II in the coastal estuaries of North Carolina's Neuse and Pamlico river systems. By evaluating buried pollen and plant remains, as well as gleaning past water chemistry from layers of sediment, wetland center paleoecologist Sherri Cooper found that the human impact on the water quality of both estuaries is especially evident over the last 50 years, as reflected by large increases in sediments, nutrients and metals. She said a big jump in ragweed pollen, for example, is a clear sign of land-disturbing activities upstream and on the estuaries' shores, because ragweed prefers to grow in disturbed areas where they out-compete other plants. Her work is funded by the Water Resources Research Institute of the University of North Carolina.

In another important advance in understanding environmental impact, the first year's results from a Duke Forest research facility that exposes open-air forests to high carbon dioxide levels suggest that Southeastern forest trees could grow up to 12 percent faster in the higher CO₂ atmosphere expected by 2050 from fossil fuel combustion and other human activities. The scientists' goal is to get an early look at how ever-increasing CO₂ levels emanating from industrial smokestacks, vehicle exhausts and forest-clearing -- the same human causes being blamed for forecasted global warming -- could change future ecosystems. Although the initial results showed a marked increase in growth, the scientists who conducted the study said such high growth rates probably will not be sustained as the experiment continues. The research is funded by the Department of Energy. Professor William Schlesinger of the Departments of Botany and of Earth and Ocean Sciences led the research team.

A group led by John Simon, Duke's George B. Geller professor of chemistry, found that the UV-A range in sunlight turns a natural molecule on the skin into a form of oxygen that speeds up the aging of the skin. It is important to note that this form of radiation is not blocked out by some of the sun screens now on the market, underscoring the importance of using a screen that blocks both types of ultraviolet radiation -- UV-A and UV-B. The research was supported by the National Institute of General Medical Sciences. Simon was featured in a number of national television broadcasts and major print media.

Duke researchers have discovered yet another health benefit of religious activity: it maintains lower blood pressure. More than a dozen studies conducted at the Medical Center have shown how religious activities improve health, from boosting immune function to speeding recovery from depression. The latest study of 4,000 North Carolinians ages 65 and older, found that the more religious the person is, the lower his or her blood pressure. This, of course, is not news to our divinity school. The research was funded by the National Institute on Aging and published in the August issue of the *International Journal of Psychiatry in Medicine*.

DUKE AND DURHAM

Our effort to sell nine old homes owned and rented by the university in the Trinity Heights neighborhood next to East Campus is moving along very well. Five houses already have been sold and university real estate director Jeff Potter reports that two were near closing as of this writing. He's confident the two others will be sold soon. This, as you know, is part of our effort to attract faculty and staff to live near the campus and, at the same time, help encourage home ownership and stabilization of neighborhoods bordering our campuses. The proceeds from the sale will help support the many programs Duke is developing in these neighborhoods and in local schools as part of our Neighborhood Partnership Initiative.

In August, a new Community Outreach Partnership Center -- involving Duke, UNC-Chapel Hill, the Durham County Land Trustees, the City of Durham, and other organizations -- designed to help revitalize six neighborhoods in the southwest central area of Durham was officially opened on Chapel Hill Street in Durham's West End. The center is sponsored jointly by the University of North Carolina at Chapel Hill and Duke University through a three-year, \$400,000 grant awarded last September by the U.S. Department of Housing and Urban Development. The center will serve residents of the Burch Avenue, Lakewood Park, Tuscaloosa-Lakewood, Lyon Park, Morehead Hill and West End neighborhoods, six of the 12 neighborhoods that are the focus of our Neighborhood Partnership Initiative. These six neighborhoods face many challenges, and the Center is designed to provide a wide array of services ranging from personal financial counseling to information on tenant rights and programs for the area's burgeoning Latino population. I am grateful that trustee Dan Blue could represent Duke at the opening of the center in which UNC-Chapel Hill Chancellor Michael Hooker, Durham City Manager Lamont Ewell, and other community leaders participated.

Duke is expanding its America Reads literacy program for Durham school children this year to include faculty and staff volunteers as well as undergraduate and graduate student tutors. School officials tell us that the remarkable progress of students in these schools, in the state's competency tests, would not have been possible without the considerable investment of time that Duke tutors devoted to the America Reads program. America Reads, which in Durham is a joint venture between the federal government, Duke University, Glaxo Wellcome and the Durham Public Schools, helps place literacy tutors from Duke in local schools. Durham schools that are participating include E.K. Powe, George Watts, Lakewood and Forest View elementary schools and Morehead Montessori Magnet School -- which are targeted in our neighborhood partnership.

Duke's relationship with the Durham community was recognized when the university received an \$84,000 grant to build on the programs started last year with the Durham public schools. The grant, from an anonymous donor, will permit the expansion of arts and literacy programs in the seven public schools that serve 12 neighborhoods around Duke. It also will provide ongoing support for a liaison between the schools and the university's Office of Community Affairs.

A collaboration of Duke's Master of Arts in Teaching Program and Durham's Northern High School has been awarded a grant totaling \$100,000 from Apple Computer. The grant will support Northern's international studies program and provide a technology training ground for Duke students. This grant follows two previous grants to Duke and the Durham Public Schools from AT&T and IBM.

One other collaboration occurred this summer when 11 Durham school teachers traveled with a team of Duke environmental researchers to Belize. The aim of this teacher-researcher partnership is for the public school teachers, most of whom teach at middle schools, to develop new interdisciplinary curriculum tools in their lessons. The teachers will share their experiences with their colleagues through a special web site launched by the Nicholas School of the Environment.

In July, the university joined Campus Compact, a national coalition of colleges and universities whose aim is to support campus-based public and community service. Resources generated by the coalition's other 575 members will be available to Duke as it increases service opportunities and the role they play in complementing classroom education. Betsy Alden in the Kenan Ethics Program is coordinating Duke's involvement with Campus Compact.

WASTE SITE

Good news on two other environmentally-related issues. I'm pleased to report that a quarter-acre site in Duke Forest that was used to bury radioactive waste and unneeded chemicals in the 1960s has been excavated and the materials have been removed and properly disposed of. The university had used the site to bury its low-level radioactive waste from medical procedures and research because it was believed the site's physical properties minimized the chances of runoff and leaching of waste. At the time, burial was the government's prescribed disposal method of such waste. Since 1970, all of Duke's radioactive waste has been shipped away to a commercial waste firm for disposal. The work led by Wayne Thomann, director of environmental and occupational safety, is an example of how Duke can work effectively with the community to address potentially controversial issues.

I am also pleased to report that efforts by officials in Orange County to site a landfill in a section of the Blackwood Division of Duke Forest, which is intensively used for research, appear to have ended. This is the site of the CO₂ research I mentioned earlier in this report. Both the Department of Energy and NASA have invested millions of dollars in research at this site and have easements from the university to continue that research for up to a decade, effectively precluding its use for a landfill. Since the trustees had urged us to oppose this inappropriate effort to seize a Duke Forest research tract of great importance for environmental research and to the federal government, I know you will be pleased to learn that the coalition of Orange County municipal governments that had considered this site is now looking at alternative means to address their landfill needs. Dean Norm Christensen of the Nicholas School and his colleagues continue to offer their expertise to Orange County and other municipalities that face landfill issues.

APPOINTMENTS

A number of appointments to key administrative positions across the university occurred over the summer.

Dr. Michael Orbach is the new director of the Duke Marine Laboratory. He replaces Dr. Joseph Ramus, who retired after serving in that position for 10 years. Orbach joined the Marine Lab faculty in 1993 and is a professor of marine affairs and policy and director of the Coastal Environmental Management Program.

Stephen A. Cohn, a 15-year Duke Press veteran, has been named director of Duke Press effective October 1. Cohn will succeed Professor Stanley Fish, who is leaving to become dean of arts and sciences at the University of Illinois in Chicago.

The Divinity School has named Willie James Jennings associate dean for academic programs and Ken Nelson as assistant dean of Duke Chapel. Jennings received his Ph.D. in religion at Duke and has been on the faculty since 1990. He said he sees special promise in the Divinity School's potential to develop leadership for the black church. Nelson, also a Duke alumnus, will also serve as director of religious life at the University. In his new job, he will coordinate and encourage the ministries of more than 20 different religious groups on campus. The

Rev. Janice A. Virtue has been named associate dean for continuing education and strategic planning at the Divinity School. She came from the Perkins School of Theology Southern Methodist University.

Leo Charette is the new director of the University's Career Development Center, beginning his new position November 2. He comes to Duke from William and Mary where he received a number of national recognitions for innovative approaches to career counseling as director of that university's office of Career Services.

And, Juliann Tenney, a former assistant secretary of commerce for North Carolina, has joined Duke Law School as director of strategic initiatives. She's a 1979 graduate of the law school.

ATHLETICS

Our new athletic director, Joe Alleva, has hit the ground running and the fall sports season had started well, from football to our newest sport, women's crew. Duke athletes also enjoyed particular success over the summer in international competition. Let me highlight just a few examples.

In late May, Vanessa Webb captured the NCAA women's tennis title. Vanessa is the first woman at Duke to win an individual NCAA crown. Vanessa and her teammates finished second in the team competition, which is the highest that Duke has ever placed in that event. And in July, golfer Jenny Chuasiriporn electrified the sports world by forcing an 18-hole playoff in the U.S. Women's Open -- the most prestigious of all women's professional tournaments -- by sinking an improbable 45-foot putt on the final hole. Her expression of joy and disbelief as that putt fell into the cup ran in newspapers across the country and on all of the sports highlight shows. And even though she lost in a 20-hole playoff the next day to Se Ri Pak of South Korea, Jenny represented herself and her school so well that the phones rang off the hook for days in the sports administration office. Following up on that success, Jenny was runner-up in the U.S. Amateur championships held later in the summer.

Also, three of our basketball players -- mens' team members Trajan Langdon and Elton Brand, and womens' team member Peppi Browne -- represented the United States in international basketball competitions. Each of these players will benefit from their international experience and, when combined with the promising early success of our fall teams, gives us confidence that the upcoming year will be exciting for Blue Devil fans.

Finally, we are excited about the new Michael Krzyzewski Human Performance Lab. This high-tech facility, located in the first floor of the Finch-Yeager Building, will bring together many different disciplines to investigate ways to prevent injuries -- from leg fractures and concussions in soccer players to the impact of running, jumping and stopping on basketball players. Researchers will not limit their investigative work to elite athletes either; they also will study ways to keep amateur jocks like myself healthy. Coach K helped persuade Nike, with whom he's had a longstanding relationship, to purchase much of the lab's equipment for Duke. Coach K, who is rightfully proud of the lab, said its main role is to "find out results which will help people so that they don't get injured."

I hope you find this summary of highlights of activities since our last meeting to be useful. There are so many interesting people and events at Duke that in this report I could provide only selected highlights. I, of course, would be happy to provide additional information about any of them or other issues of interest to you.

I look forward to seeing you at our meeting.

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