

by Mary Bryant

On July 1, her first official day of work, M.R.C. Greenwood made a bit of local history by taking office as UCSC's first woman Chancellor. Likely, she will make a lot more history by the time she's done.

At age 53, Greenwood said she plans to make her job as Chancellor her last before she retires.

Greenwood replaces interim chancellor Karl Pister, 70, who had been at UCSC since 1991.

Maybe better known as the city on the hill, UCSC has grown from a small liberal arts college to a bustling medium-sized university with a wide variety of programs from Natural Sciences to the Humanities. Part of Greenwood's test at UCSC will be to define and promote UCSC's graduate programs and research.

UCSC has often made headlines for engaging social activism, while keeping its reputation as a premier research institute under wraps. Expect that to change.

When Greenwood says that UCSC is a "jewel" among research universities, she means that. Convincing people outside academics of UCSC's worth may be quite a job for the East Coast born, raised and careered science graduate.

However, for the present, the fact that Greenwood took the job at UCSC may do more to venerate the university.

Renowned for her own research into the genetic causes for obesity was elected to the Institute of Medicine of the National Academy of Sciences in 1992, she also helped set science policy for President Clinton for two years.

Four days into the job, Greenwood spent two hours meeting with *The Post*, an offer of time that suggests she is most sincere when she says she wants UCSC to get better acquainted with its home town.

Most interesting of Greenwood's interview may be her candid perspective on the future of scientific research in the U.S. Also, in three separate sections, Greenwood talks about her life, the city on the hill and the role of modern American universities.

On M.R.C. Greenwood.

Greenwood was born in Gainesville, Florida, and raised in the upper New York state

Greenwood On The Hill

On the Record: M.R.C. Greenwood UCSC's First Woman Chancellor



UCSC's Chancellor M.R.C. Greenwood

town of Auburn. She attended public high school. Her full resume is 46 pages long.

In 1968, she graduated summa cum laude from Vassar College with a degree in biology. Five years later, she earned her Ph.D. from Rockefeller University in physiology, developmental biology and neurosciences, followed immediately with postdoctoral study in human nutrition at Columbia University. Her work on nutrition, especially around diet and weight control, has been widely published.

Greenwood has taught at Columbia, Vassar and the University of Washington Medical School. She was director of the Adipose Tissue Laboratory at Columbia's Obesity Research Center from 1981 to 1985, and at the same time gained her professorship at Vassar. From 1986 to 1989, she was the chair of Vassar's department of biology and the

college's John Guy professor of Natural Sciences.

Moving from the East Coast in 1989, she accepted a professorship to U.C. Davis's departments of nutrition and internal medicine.

In 1993, Greenwood took a job which she termed transformation, a job she said taught her more in two years than she had learned since kindergarten.

Appointed to Clinton's White House as Associate Director for Science of the Office of Science and Technology Policy, Greenwood served as top policy setter in the U.S. for two years.

Greenwood has a 34-year-old son who lives in Arkansas, an 11-year-old granddaughter, is divorced and lives with two cats. She resides in Santa Cruz in the Chancellor's home at the campus, and said she will keep her residence in Davis. She will receive an annual salary of \$173,200.

The Post: Whenever you are

having one of those days where you just don't want to be where you are, where do you wish you were? The classroom, the laboratory or Washington D.C.?

Greenwood: I'm a Katherine Hepburn fan. I probably have lots of company in that category. Katherine Hepburn gave an interview several years ago when she was asked ... If you could do it over again [what would want to do again]? ...

I'm afraid I entirely agree with her, which is [to say] there's no place I want to go back to. I have liked everything I have done. I loved being a student. I loved my early days as an assistant professor. I enjoyed it when I was in the early peak of my research career. I have thoroughly enjoyed being a dean, I loved being in Washington, and I hope that I'm going to like being a Chancellor.

I do think that any serious academic, and I consider myself one,

always has to have a life of the mind, so when I get tired or when I find that I am being pushed ... I frequently retreat to reading what's new in science or thinking about my data events. ...

I guess what I'll do when it's a really bad day is walk and sit on the deck of the Chancellor's house and sit and look out at the bay, and remember this is a beautiful place and worth the effort.

The Post: Are you a feminist?

Greenwood: I think first you need to define being a feminist. Back when I was young, being a feminist was a thing to be very proud of. It meant that you believed that women were equally competent in this world and ought to have the same opportunities and be paid equivalently for the work that they do. I certainly believe that [this] is still true, but there have been new revisionist definitions of feminism which I might not agree to. I don't know that I would describe myself as a "femi-nazi" for example. Anyone who understands feminism would probably understand the irony of that term.

The Post: Why do you use initials instead of a first name?

Greenwood: When I was 12 years old, like many young women, I was in to reinventing myself. One of the things that my friends did at the time was take our initials and make names out of them. One of my friends initials were F-L-O. She became Flossie. It lasted a week. My initials were M-R-C. I became Marcie and it stuck.

The Post: I understand it used to be more common for women to use their initials. I understand some women scientists who published their work used their initials to avoid being recognized as a woman.

Greenwood: I would be less than honest if I didn't tell you that when I first started publishing papers, the issue of what to do came up. I did realize at the time that I was clearly ahead of the curve here because I had already started using my initials. ... It certainly was the case that the fact that I used my initials occasionally resulted in individuals not knowing that I was female and there were at least two incidents in my early career in which I turned up at a meeting where they were clearly not expecting a woman.

The Post: Any "glass" ceilings you remember running into on your way up?

Greenwood: There have

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been, and there continue to be times when I am startled by the fact that I am the only woman ... and there are no people of color in the room. ... I don't know that I would describe the experience as having hit a glass ceiling, so much as finding I am in an environment in which I am still a novelty.

The Post: Some day when you leave UCSC, what are the things you will be remembered for?

Greenwood: Well, I think it is a little early in my administration for me to be specific about what I think my legacy will be. ... [Instead of an agenda] I come to [UCSC] with some priorities. In my case, the priorities are maintaining and developing the quality of the faculty [and] improving our attractiveness to students so that we get some of the brightest and most interesting students in California.

On Running the Hill

With about 10,000 students and 3,000 staff, UCSC qualifies as a small town, one slightly larger than the City of Capitola.

At UCSC, there are 4,319

seats in general classrooms (lecture halls), 1,239 seats in class laboratories (e.g. science or photography), 1,202 seats in open laboratories (like computer labs), and additional seats in seminar rooms. Not that UCSC is just a place students attend class. UCSC is also part of the local economy.

Based on spending projections of faculty, staff, students and campus visitors in the county, UCSC estimated that in 1991 the university was directly responsible for about \$194.7 million of the county's economy. UCSC also calculated that if you count the number of jobs this spending adds in the county and project the spending of those workers, UCSC can claim the university indirectly supports about \$433.5 million of the local economy.

This would suggest that should UCSC grow, so will the county. However, there are some problems with growing UCSC, including finding housing for the students who already draw heavily on the area's low-income housing supply. Unlike some communities that have welcomed university expansion, UCSC has mostly gotten a cold shoulder from town when administrators want-

ed to let out the university's gown. Greenwood will most certainly have to gain the community's backing before UCSC will see much growth.

Presently, the college's future forecasts predict the student population will increase to 15,000.

But facility and enrollment growth will only be part of Greenwood's challenge. Like other universities in the state, faculty growth has not kept up with student attendance. While the enrollment has stayed fairly flat at UCSC since 1991 [see accompanying chart], the number of tenured professors, including lecturers with employment security, dropped from 432 in 1991 to 390 in the school year 1994-95.

The Post: UCSC was initially promoted in the 1960s as a innovative, liberal arts college, a retreat from big universities with big classrooms. But, in 32 years, UCSC has changed. It is bigger. It is more dedicated to sciences. What happened to the original ideals on which UCSC was founded?

Greenwood: We are certainly a larger campus than when we started, and the larger you get the

harder it is to have a sort of hands-on personal feeling. I still see UCSC as very innovative. ...

Unfortunately, regardless of what it's original inception was, UCSC is a public institution. We are no longer state supported. We are only State assisted.

The faculty-to-student ratio has gone up and I see very few prospects that it will come down again. ...

I think we are still going to be innovative, [and] we are still going to be student centered [even if] the models we use to be innovative and student centered are [not] the same as they were at the inception of the institution.

The Post: Growth has been one of the county's "hot-but-ton" topics. Are you ready to take on the issue of growth?

Greenwood: I'm not suggesting that we intend to or are likely to grow any differently than we have already agreed with the local area in the long-range development plan. ... That plan does call for us to develop residential housing on the campus. ... [But] we do have some growth expectations over the next decade.

Some of that growth, will surely take place at Santa Cruz.

Some of this growth in this new age of technology and virtual universities, may result in students being our students; that is, being our registered students but not necessarily being here on the campus all the time.

The Post: UCSC has lost some of its tenured staff due to early retirements and a decline in recruiting new faculty. Is this just a problem for UCSC?

Greenwood: Most institutions have gone through a period where they were growing rapidly, through the '70s and early '80s. They were acquiring a very large group of faculty members who are roughly about my age now.

We lost a lot of the founding faculty of this campus, for example, and a substantial number of the big names at Berkeley [among other universities who] also retired. We also have a fairly large group of faculty [who] I would call still highly productive, but they are certainly well [past] the middle of their career.

The Post: Is part of your job then to grow staff positions in a way so that there is room for younger professors and attract more faculty to UCSC?

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Greenwood: Yes, we are in a position now that California is coming out of the recession and there is not a lot more money, but there is some more money available to the university. We, along with the other campuses, are beginning to, if you will, restock some of the faculty that we let go. ...

You know, everyone hesitates to offer tenure track positions to individuals when the economic forces might force you to have to withdraw [the positions]. And also, you know, when the university [suffered] severe budget cuts, of course, we were much less attractive to the ... younger faculty who were looking for a place to come to make their careers.

The Post: UCSC is certainly among scientists recognized for research vigor. Do you think that professors typically deliver their instruction with as much vigor as they do their research?

Greenwood: I have no way of evaluating that yet. ... This campus has gotten more national recognition for its attention to the student learning climate than most of the other campuses. I don't mean this as a negative comment on the other campuses, but this is the campus that got picked out as a university campus that cares about its undergraduates.

The Post: Is there room to improve based on your understanding of the university?

Greenwood: There's always room to improve. At teaching or the research, and there's room to improve both. Here and at Berkeley, I might add.

The Post: Traditionally, UCSC has remained somewhat separate from the town. The university hasn't really had a history of influencing the community's ideals. Should this change?

Greenwood: Well, I know that this may have been the history, but I have been remarkably impressed with the work of my predecessor, Karl Pister. He spent a lot of his time and energy, and I think very successfully, in working with the community, getting us better known in the community, participating personally in community initiatives.

The Post: Chancellor Pister helped lead the charge to integrate kindergarten through community college (K-14) public schools in the Monterey Bay region with UCSC. Do you support integration?

Greenwood: I am quite impressed with the kind of relationships that we have established. Monterey Bay Educational Consortium, I think, is a very important thing that Chancellor Pister and the other educational leaders of the area have pulled together, and I certainly intend to encourage that [alliance].

The Post: Beyond public schools and the city of Santa Cruz, should UCSC be part of the county?

Greenwood: I think it should. ... I know that the perception and the reality of UCSC are not the same thing. I have already discovered that. While there is a perception that we don't do something, in fact if you look more closely, in fact we are doing things.

The Post: To succeed at your job as Chancellor, you are going to have to be good at raising money to build programs, construct buildings and attract research funding. Are you good at fundraising?

Greenwood: I guess we'll see won't we. ... I do believe that any Chancellor's fund raising opportunities depend a great deal on the confidence the alumni and the community [have in the university]. Fund raising is certainly a major part of any modern chancellor's job.

The Post: Are there particular challenges to fundraising at UCSC?

Greenwood: We have a special set of challenges here, in that we are a relatively young institution. ... Many of our alumni are right now in the middle of their career, so we are not in a situation [similar to the one] when I was at Vassar. Vassar was well over 100 years old. There were alumna who were dating back to the early part of the century, many of whom were in a position to will parts of their estates or make bequests to the institution.

The Post: A lot has been made about the fact that UCSC doesn't offer grades. Would UCSC be considered more academic if the university offered grades?

Greenwood: Rockefeller [University in New York] did not have any grades. No grades at all, and it is considered to be one of the premier research graduate schools in the country. ... There was only an annual evaluation of your performance by the Dean and your mentor. Some students found that very helpful; other students found it very stressful. Students who were very used to grades, some

of them didn't do very well in that environment. Some of them left. Others flourished in it. I was one of those.

The Post: Is it harder to work for a grade or an evaluation?

Greenwood: I think it really depends. It depends on the circumstances. I think that the reality for most working scientists; for most academic scientists, is you are always working for a written evaluation. Your work is constantly evaluated.

The Post: In Santa Cruz County the only marine research laboratory is Long Marine's Lab. Does this present UCSC with a unique opportunity for the development of marine sciences?

Greenwood: We have a superb group of marine biologists here. ... This can, and should be, one of our strengths now and for the future. There are many people who think that the collection of marine biologists that we have here right now is superior to just about any place else in the country.

On What It Takes for Universities to Survive

If you thought that civilization's bastions of academic freedom might actually survive the '90s unscathed, think again. Much of the current debate in higher education focuses on two topics: integration and outcomes.

The Post: Is the role of the UC system to prepare its students to get jobs in the workplace?

Greenwood: I don't think that the purpose of higher education is to train the student for a specific job. The purpose of higher education is to provide a student with the tools to allow them to select a variety of careers and to be successful in those careers. Now, some of what we have to teach them is specific. I mean you can't be a laboratory scientist if you don't have a clue how to work in a laboratory. ...

I think there is a trend right now to think of higher education as "in preparation" for the work force.

The Post: And you don't agree with the assumptions that drive the trend?

Greenwood: I just don't think that is its sole motivation or its main motivation.

The Post: So you think industry should still bear the

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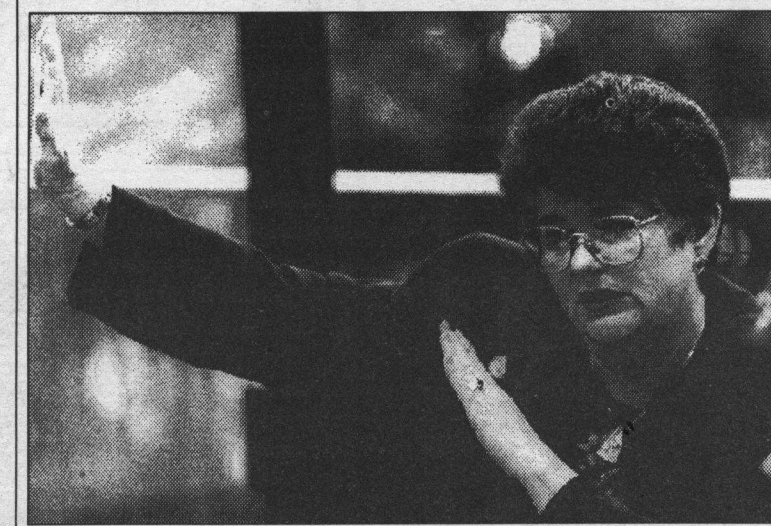
responsibility for taking the capable learner out of the higher university and teaching them what they need to do to succeed in a specific industry?

Greenwood: I think we need to be much better partners. I think higher education should not be afraid, or unwilling, to listen to what our industrial colleagues are telling us about what they need, or what they see lacking in the students that come to work for them. I do not think that the specific short-term needs of today's industries should dictate the curriculum of an undergraduate institution. This is an important distinction here.

The Post: Among the trends in higher education are students returning to campus via computer modem. Also, there has been a call for students to spend more time in class to graduate. What do you think of these trends?

Greenwood: One of the most disturbing trends in higher education right now ... is this idea that the only thing that goes that's of any real value in the university is sometimes called "seat" time. That all you really need to worry about is how the professors and the students are doing in this setting. [However] that is a very small part of what a student gets out of an education, particularly [at] an institution that is part of a research university network. ...

Now, I think there is a need



What we have seen in several rather notable incidents around the country, is that the embryo research that has been done, has been done in a much less regulated environment than it might have been done had it been a part of the federal portfolio. This continues to be very controversial; it has just come up again.

—M.R.C. Greenwood

to make information and courses available to people who are not able for a variety of reasons to participate in a campus, but I think it's wrong to assume that the only education the students are getting is in the classroom.

The Post: Are public schools doing enough to prepare students for a university setting?

Greenwood: Clearly, there are a lot of things that our public schools could be doing to better prepare students, but the schools are different. Some schools actually do a wonderful job of preparing students for college and/or for life. Others, for a variety of reasons, are doing less than a good job. Students come to college now with a different set of skills than when many of us went to college.

They are not as good in their verbal and writing skills as perhaps we think a previous generation was, although I go back and talk to folks who say no,

no, no; [college freshmen] couldn't write 25 years ago either. They just don't write in a different way now. Before they couldn't write their thoughts well, now they don't write the language well. They think well but they don't write the language well.

Of course, our students come to school now much more sophisticated. I mean, they have had a lot more experience working, most of them. They have had a lot more experience, if you will, in what my son calls "street" smarts. Most of them drive, many of them have been across the country by the time they are 18. That didn't happen 25 years ago.

The Post: Is it more difficult for undergraduate students to get in to the UC system, than to stay in the system?

Greenwood: I think for some individuals, the [eligibility] standards to [gain admission to]

UC may be the biggest barrier, but once they have managed to surmount those barriers ... I don't see any evidence that it's that much easier to stay in the institution.

I think our institutions are still pretty challenging. ...

[However, on the topic of eligibility I think one area we need to focus on is admissions.] There are really no very good predictors for how students are going to do in college. ...

We have students who were valedictorians [in high school] not do very well. We have had students who, at least based on their high school grades, were marginal ... [turn out to be] brilliant. I am very sensitive to that, because it's one of those areas where much too much certainty is imputed to numbers, and is not warranted by what we actually know about outcomes.

The Post: What is your opin-

ion of the proper role of affirmative action in the university, both in terms of admissions and also in terms of programs?

Greenwood: I think it's extremely important that the progress that we have made in including women and minorities and people who are challenged in various ways ... in the public institutions must continue. This is important to our future. This is where much of the talent of the future resides.

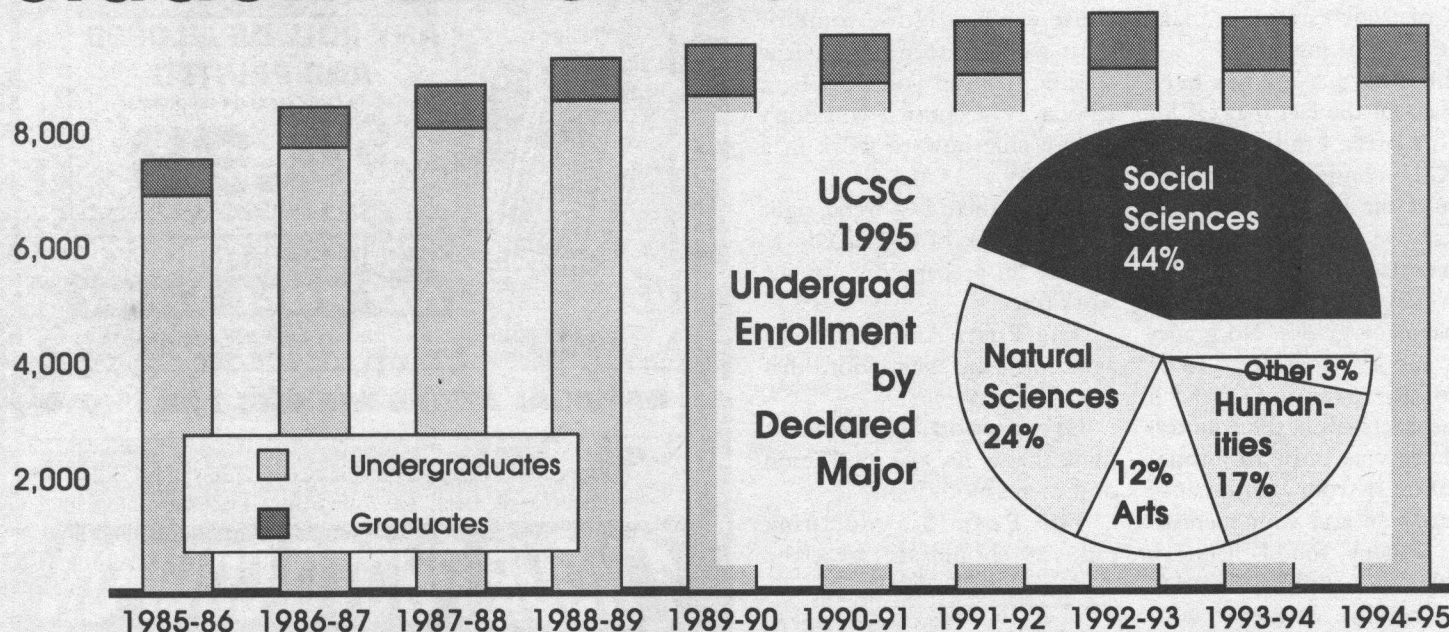
We are looking at a state where the majority of our citizens will not come from some of the traditional groups and it's very important that we maintain the quality and the leadership for the future.

On Science, Medicine and National Politics.

Likely, you could meet a lot of people and not meet a person

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By Year, UCSC Student Enrollment



Total enrollment for fall 1995 was 9,923 (8,876 were undergraduates). 59% of Students were women, 41% were men. Of the undergraduates, about 1,300 students were over the age of 25 years.

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who knows more about scientific research going on in America than Greenwood, especially federally-funded scientific, technological and medical research. You also probably couldn't find someone with her opinions forged by the bright fires of the nation's capitol.

Greenwood worked nearly two years in the Clinton White House as Associate Director for Science at the Office of Science and Technology Policy (OSTP). During this time, she was at the center of some of the most pivotal debates raging in the country, including Clinton's decision not to permit National Institute of Health funding of embryonic tissue research.

The Post: Is our learning of how to use technology and science keeping pace with our development of technology and science?

Greenwood: Scientists could stand to have a better background and a better understanding of the sort of fundamental context of humanities, ethics, social sciences, and the arts. Sometimes we forget that most scientists don't understand the underpinnings of current social theory. They are very willing to criticize their colleagues that don't understand too much about basic science. I also think we have an obligation to learn more about the fields of ethics, the fields of social theory, current art and humanities.

The Post: During your tenure in Washington D.C., I understand one of the decisions made was that NIH funds could not be used for certain kinds of embryonic research. What role should public opinion play in the laboratory?

Greenwood: Well, embryo research is a very special case, and this is a very complex issue. ...

It's a very complex case because there is good news and bad news with embryo research. Without embryo research, lots and lots of infertile couples, or infertile individuals would have virtually no chance of being able to conceive and carry a child; however, because of the both religious and political context in which embryo research is set ... much of the research in invitro fertilization and embryo research has been done outside of the federal arena.

The bad news about the ban on embryo research, and the previous ban on fetal tissue

research, is that all that meant was federal government was not going to support that research; not that the research would not be supported.

What we have seen in several rather notable incidents around the country, is that the embryo research that has been done, has been done in a much less regulated environment than it might have been done had it been a part of the federal portfolio. This continues to be very controversial; it has just come up again. ...

The ban that the President announced was very specific. It did not allow the creation of embryos for the purposes of research. ... There are certainly scientists, myself included, that believe that one has to be very sensitive to the political and moral reservations that people have.

The Post: Do you believe most individuals understood the issues behind this debate?

Greenwood: What this [lack of federal funding] means is that ... the contraceptives that will allow you to interfere between the time that the sperm begins to enter the egg and before it fuses with the egg nucleus to form a zygote (the beginning of an embryo), that those contraceptives will not be developed in this country. They will be developed in countries where post-fertilization research is possible. Some of that work will take place only in the first six to eight hours or six to 18 hours after fertilization.

One of the great points for so-called male contraceptives ... is to prevent the fertilization. By doing that, you prevent conception. That should be, in theory, more acceptable to those who believe that life begins at the moment of fusion of a nucleus; at the time a zygote is formed.

The Post: In the wake of a rush to market-place-driven health care reform, how concerned should Americans be about what's happening with medical research funding?

Greenwood: Very. ... The scariest thing [is that] the managed care movement is dominating the country, [and] at the moment, the managed care movement is completely in the hands of the insurance companies. The advantage of that is that the cost of health care has been dropping. [And] there are many positive aspects to a managed care, please don't misquote me. ... [However] there are two major downsides as I see it.

One is, we have to recognize that managed care is an industry.

This is not a philanthropic, educationally-driven, or feel-good organization. This is a hardnosed business, and unlike other hardnosed businesses, at least to date, they have seen no obligation to reserving any of their profit to reinvest in health care research. That's very notable if you notice where the money is going. The money is going to the companies, it's going to the stockholders, and it's going to very large, well paid salaries for some of the folks which are making this operation run.

The Post: What does this mean for clinical research?

Greenwood: It's going to be extremely difficult for us to maintain the kind of clinical investigative environment that we have had in the past because ... the incentives for preserving the research environment [and] for allowing patients [access to] experiment [treatments are missing].

[Insurance companies are arguing experimentation] cannot be accepted until [the procedures] are cost effective, [and they will not provide the funding] to invest in research to see if they are cost effective. ...

I think that the overall funding of medical research in this country is going to get very much squeezed. I think people really don't appreciate that very well right now but they probably will in another few years.

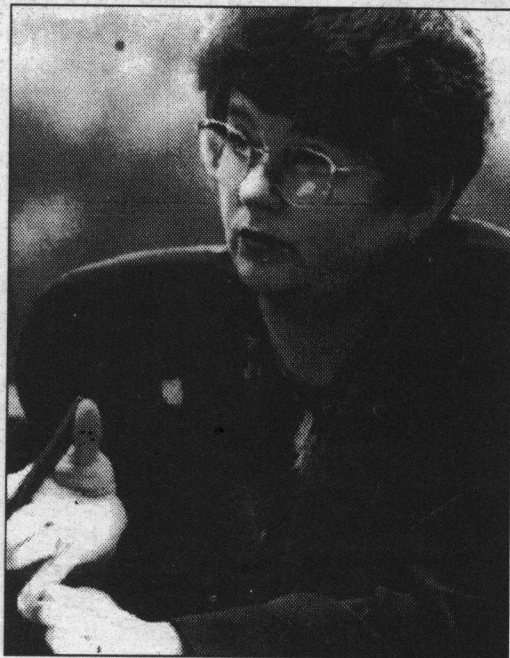
The Post: Your boss at the OSTP in Washington D.C. was criticized for not better protecting federal dollars for scientific research. Was this a fair criticism?

Greenwood: No. Jack Givens is one of the most thoughtful, and most well-informed, people in Washington about what the issues are. ... The OSTP has been working in an unbelievably difficult environment. Both [political] parties have agreed to decrease the deficit and to work toward total deficit reduction within our lifetime. And the consequences of that is that the discretionary budget is shrinking. ...

And the recent decision, for example, to decrease the defense budget, above what even the Pentagon wanted, is going to have an impact on the overall scientific effort in this country because money has to come from somewhere.

The Post: In *Science Magazine* Givens is quoted as saying that the country should set a goal of 3 percent of the Gross Domestic Product (GDP) to be dedicated to research. What are the kinds of things Americans would get back

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I'm a real academic. I've come up through the academic route, I really believe in the purposes of higher education in this country. I think it is probably the most important thing anyone can do with their life.

— M.R.C. Greenwood

weight, then there is probably a series of strategies and some of them may be pharmacological, behavioral [and/or] diet-driven [strategies] that are important for people to have available to them. ...

Now, in my view, the problem of seriously studying and developing our understanding of obesity has been very much colored by the public interest in body weight, the media's por-

trayal (particularly of young women), so that we have really lost sight of the body ideal versus the [concern about] health related issues. ... You have a much higher probability of morbidity or mortality if you are substantially underweight. Once you get 20 to 25 percent above weight, statistically, your risk begins to accelerate.

The Post: Among all the new specialities, is there still room for

basic science?

Greenwood: There should be more room for basic science and maybe even less for some of these other things. ... I do think that it's very important that we preserve our basic science research base. From the point of view of academic institutions that's where most of the emphasis needs to be because what we are doing is creating new knowledge. □