

PO Box 9905 Washington DC 20016 Telephone 202-362-1809

## Prominent Duke Scientist Claimed Prizes He Didn't Win, Including Rhodes Scholarship

*By Paul Goldberg*

A high-profile cancer genomics researcher at Duke University claimed in multiple grant applications that he had been a Rhodes scholar, when, in fact, the Rhodes Trust states flatly that he was not.

Documents obtained by The Cancer Letter show that in biographies submitted to NIH, Duke oncologist and genomics researcher Anil Potti claimed variously to have won the prestigious scholarship in 1995 or 1996, depending on the version of the biography.

Potti also made the Rhodes claim in an application that resulted in a \$729,000 grant from the American Cancer Society.

"We don't have any record that Anil Potti was a Rhodes scholar," a  
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### NCI News:

## New NCI Director Varmus "Glad To Be Back," Says Goal Is To Control Cancer Through Science

*By Kirsten Boyd Goldberg*

With an energetic hop to the lectern, the new NCI director introduced himself at a town hall meeting at NIH July 12:

"Good afternoon, I'm glad to be back in the Natcher Center. I'm Harold Varmus."

Nobel laureate and former NIH director Varmus, who was sworn in as the 14<sup>th</sup> NCI director earlier that day by HHS Secretary Kathleen Sebelius, answered one key question and set forth some ground rules in his 45-minute appearance:

—Why did he take the job? "I like to work. I was looking for a new job, and, hey, this looks like a great job. So, we'll see about that."

—What to call him: "My first name is not Doctor. It's Harold, and I like to be called Harold."

—How to reach him: By email, [harold.varmus@nih.gov](mailto:harold.varmus@nih.gov).

—Style of operation: "Let's try to avoid the classic NIH retort: 'We're already doing it.'"

—Words to avoid: "Never refer to an abstraction like the department, the White House, or Building 1. Let's just talk about who said what to whom."

—More words to avoid: "Never use 'impact' as a verb."

Now, about that "NCI goal" established in 2003 by former NCI Director Andrew von Eschenbach to "eliminate suffering and death due to cancer"

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## Confronted, Potti Says He Was “A Nominee” For Rhodes

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spokesman for the Rhodes Trust said to The Cancer Letter.

Questions about Potti’s credentials seem consistent with the trail of errors acknowledged by his prominent and well-funded research group, whose work has been published in top-tier journals, including the New England Journal of Medicine and Nature Medicine.

This body of work has brought in millions of dollars in funding from the federal government and private sources, but has been marred by corrections and even corrections of corrections.

Errors in genomics research could have direct implications for patients. In three clinical trials currently enrolling patients at Duke, Potti and colleagues seek to correlate genomic analysis of tumors with patient outcomes. Recently, NCI told a cooperative group—Cancer and Leukemia Group B—to stop testing a genomic assay based on a Duke technology (The Cancer Letter, May 14).

In one of his applications for funds, Potti claimed to have been a Rhodes scholar, adding in parentheses “Australia.” In another, he added “Australian Board.”

Biographies submitted to NIH and obtained by The Cancer Letter state that Potti held a “research fellowship” at “Queensland Research Institute” in 1995-1996, the year he claimed to have been a Rhodes scholar.

Since no such institution exists, it’s almost certain

that the bio is referring to Queensland Institute of Medical Research. The institution states that he had never worked there.

The Cancer Letter sent an email with questions to Potti, his collaborator Joseph Nevins, and Duke administration officials. The questions focused on the Rhodes claim, but also touched on other apparent discrepancies.

Responding to everyone on the email CC list, including this reporter, Potti wrote: “Sounds like I need to call him to clarify ..... and probably also talk with you all to clarify. I was a nominee..... and several of the others can also be explained. –Anil.”

After that email, Potti and Duke officials didn’t respond to questions seeking details that could substantiate this response. Multiple calls and emails from The Cancer Letter were not acknowledged.

Officials at Rhodes Trust said that applicants—including those weeded out late in the selection process—are not entitled to refer to themselves as Rhodes scholars. “Although thousands of outstanding young women and men apply for a Rhodes scholarship each year, the Rhodes Trust self-evidently expects that an individual will only claim to be a Rhodes scholar after having been formally awarded the scholarship by the trustees,” the spokesman said.

The Oxford-based trust that administers the program doesn’t keep track of all unsuccessful applicants.

Rhodes officials said that geographical reality of being in Australia—if he was indeed there—should have alerted Potti to the fact that he was not a Rhodes scholar. “The Rhodes scholarships only apply for study at the University of Oxford,” a spokesman said. “Therefore Anil Potti would not be able to fund study at the Queensland Institute of Medical Research from a Rhodes scholarship.”

Also, officials at the trust said they were unaware of any scholarship that could be reasonably expected to be mistaken for theirs. “The Rhodes scholarships are highly prestigious and we would be concerned if our name was being misused,” the spokesman said. A list of Rhodes scholars is posted at <http://www.rhodeshouse.ox.ac.uk/section/rhodes-scholars-complete-list-1903-2009>.

Potti’s biographies submitted to NIH raise several questions about the oncologist’s whereabouts in 1995 and 1996.

According to these documents, Potti graduated from an Indian medical school—Christian Medical College of Vellore—in 1995. However, officials at the



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**Editor & Publisher:** Kirsten Boyd Goldberg

**Editor:** Paul Goldberg

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### BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME Potti, Anil	POSITION TITLE Research Fellow
eRA COMMONS USER NAME 	

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Christian Medical College, Vellore, India	M.B;B.S	1989 - 1995	Medicine
University of North Dakota School of Medicine, ND	Residency	1997 - 2000	Internal Medicine
University of North Dakota School of Medicine, ND	Chief Resident	2000 - 2001	Internal Medicine
Duke University Medical Center, Durham, NC	Fellowship	2003 - present	Hematology/Oncology

#### A. Positions and Honors:

- 1989 National Merit Scholar.
- 1995 Rhodes Scholar (Australia).
- 1997 Resident Teacher of the Year – UND School of Medicine.
- 1998 American Society of Clinical Oncology (ASCO) Travel Award.
- 1998 Young Investigator Award - AFMR/CSCR.

### BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME Potti, Anil, M.B., B.S.	POSITION TITLE Assistant Professor, Dept. of Medicine Assistant Professor, Duke Institute for Genome Sciences and Policy
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EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Christian Medical College, Vellore, India	M.B.; B.S.	1989-1995	Medicine
Univ. of North Dakota, School of Medicine	Residency	1996-2000	Internal Medicine
Univ. of North Dakota, School of Medicine	Chief Res.	2000-2001	Internal Medicine
Duke University Medical Center, Durham, NC	Fellowship	2003-2006	Hematology/Oncology

#### A. Positions and Honors:

- 1995 – 1996 Research Fellowship at Queensland Research Institute, Australia (Mentor: Gordon McLaren).
- 2003 – 2006 Research Fellow, Duke University (Mentor: Joseph Nevins)
- 1995 National Merit Scholar
- 1997 Resident Teacher of the Year – UND School of Medicine.
- 1998 American Society of Clinical Oncology (ASCO) Merit Award.
- 1998 Young Investigator Award - AFMR/CSCR.
- 1999 Alpha-Omega-Alpha (AOA) Honor Society Membership.
- 2000 UND Academic & Teaching Excellence Award.
- 2001 Cure for Lymphoma & Lymphoma Research Foundation Award.

medical college said to The Cancer Letter that he had graduated in 1996.

A third version of events appears in Potti's application for residency at the University of North Dakota. Documents attached to that application indicate that he received a Vellore medical degree in 1994. The application package, which was obtained by The Cancer Letter, doesn't mention Rhodes. The documents are posted at <http://cancerletter.com/special-reports>.

Potti started residency at the University of North Dakota in 1996 and went on to a fellowship at Duke in 2003. It's not publicly known whether the Rhodes claim was made in Potti's fellowship application to Duke.

When Potti first came to Duke, he was widely believed to have been a Rhodes scholar, sources said.

This common belief is reflected in a January 2007 newsletter published by the Duke Institute of Genome Sciences and Policy. The story about Potti joining the institute identifies him unambiguously as a "Rhodes Scholar." The newsletter is posted at [www.genome.duke.edu/press/genomelife/archives/.../GL\\_JanFeb07.pdf](http://www.genome.duke.edu/press/genomelife/archives/.../GL_JanFeb07.pdf). A copy of the article is posted at <http://cancerletter.com/special-reports>.

There is no indication that either Potti or Duke officials corrected the record.

### **Rhodes Claim Strengthened ACS Application**

Responding to an inquiry from The Cancer Letter, the American Cancer Society confirmed that Potti's application for a funded grant mentioned Rhodes.

"Dr. Anil Potti did apply for a mentored scientist award, which was funded. He submitted a curriculum vitae with his application that indicated he was a Rhodes (Australia) recipient," said an ACS spokesman.

According to materials on the ACS web site, the Rhodes credential could have been reasonably expected to give Potti an edge to obtain the highly competitive award. His \$729,000 award, categorized as a "mentored research scholar grant in applied and clinical research," started in July 2007 and runs through 2012.

ACS is financing Potti's research under mentorship of collaborator Nevins, the Barbara Levine Professor of Breast Cancer Genomics and director of the Center for Applied Genomics & Technology, a component of the Institute for Genome Sciences and Policy.

The research is focused on tailoring lung cancer therapies to individual patients. An abstract describing Potti's ACS grant is posted at <http://www.cancerportfolio.com/abstract.jsp?SID=224124&ProjectID=484163>.

Evaluation of credentials of both the applicant and the mentor are among criteria ACS uses in awarding

such grants. These criteria are posted on the society's website:

- Applicant: Their academic and scientific qualifications, potential to succeed as an independent investigator, and commitment to research as a career.
- Mentor: The appropriateness of the mentor's research qualifications in the proposed project area, the role of the mentor on the project, research productivity and prior success in fostering the development of cancer researchers.

The mentor is required to prepare a section of the application. The criteria are posted at <http://www.cancer.org/Research/ResearchProgramsFunding/FundingOpportunities/IndexofGrants/MentoredTrainingandCareerDevelopmentGrants/mentored-research-scholar-grant-in-applied-and-clinical-research>.

### **Rhodes Claim Vanishes**

A Rhodes scholarship is not the sort of credential that drops off a CV even when former scholars go on to become Nobel laureates or heads of state. Yet, the scholarship vanishes from Potti's biographies sometime in 2007.

A "biographical sketch" filed as part of an NCI grant that was ultimately funded (R01-CA116648-01A1) described Potti as a "1995 Rhodes Scholar (Australia)." The document doesn't mention the research fellowship in Queensland. The grant runs from Aug. 21, 2006 through July 31, 2010. The biography was obtained under the Freedom of Information Act.

Another brief bio, submitted as part of an unsuccessful application to the National Heart, Lung and Blood Institute, described Potti as a "1996 Rhodes Scholar (Australian Board)."

The Rhodes credential then disappears from a later bio, submitted as part of an NCI training grant that lists Potti as a member of the faculty who would provide training for young neurosurgeons. In that version of the bio, Potti states that in 1995 and 1996 he was a research fellow in Queensland.

Also, for the first time, Potti states that in 1995 he was a "National Merit Scholar." (In another bio, he claims to have been a National Merit Scholar in 1989.) Such scholarships are sponsored by various local and central government agencies and are difficult to verify.

Neither the Rhodes nor the National Merit Scholar claims appear as part of Potti's official profiles on Duke websites.

The three biographical sketches that were submitted to NIH are posted at <http://cancerletter.com/special->

[reports](http://www.duke.edu/web/surgery/neurosurgery/FINAL%20R25%20grant%2020080910.pdf). The entire neurosurgery application is posted at <http://www.duke.edu/web/surgery/neurosurgery/FINAL%20R25%20grant%2020080910.pdf>

### **Dreams of Australia**

Potti's account of his experience in Australia is remarkably detailed.

A recent biography submitted to NIH reads: "1995-1996 Research Fellowship at Queensland Research Institute, Australia (Mentor: Gordon McLaren)."

In another bio, he describes this fellowship as part of his 1996 Rhodes scholarship and cites his research project as an inquiry into "cardiac effects of beta-thalassemia/HgbE in southeast Asians."

If Potti was ever a research fellow at Queensland, the institution is not aware of this. "QIMR has no records of a person name Dr. Anil Potti ever having worked at the Institute," Trevor Greenway, human resources manager, said in an email.

Reached by The Cancer Letter, McLaren said he was "shocked," "saddened" and "flabbergasted" to hear that Potti described him as his mentor in Australia.

McLaren indeed spent a six-month sabbatical Queensland, from December 1994 through June 1995. However, he didn't know Potti at that time.

"This is really strange," McLaren said after a reporter told him about claims on government documents submitted by Potti. "I was there by myself, except for my wife."

McLaren said he met Potti in 1996, in Fargo, North Dakota. At the time Potti was a resident in internal medicine and McLaren chief of hematology and oncology section of the VA.

"He would have been aware of my having been on a sabbatical at Queensland," said McLaren, who is now a professor at the University of California, Irvine, and an oncologist in the VA Long Beach Healthcare System.

In Australia, McLaren didn't study the cardiac effects of beta-thalassemia/HgbE in southeast Asians. However, in Fargo he helped Potti prepare a poster on this subject.

"I helped him write it up for an abstract, so he could submit it for a poster competition for the American College of Physicians," McLaren recalled. Potti already had the data, which he brought with him from India, McLaren said.

The Rhodes story sounds familiar, too, McLaren said. "What I remember hearing about the Rhodes scholarship is that he had been awarded it, but about the same time he got into the residency program in North Dakota, and he was sort of hoping that they would hold

the place for him," he said. "It seems to me he said he was supposed to do the Rhodes someplace in Australia, and the latest I remember is they couldn't hold it for him, so he ended up not doing the Rhodes.

"What I recall is that he didn't ever do it."

According to copies of documents supporting his application to the University of North Dakota, Potti was in India at the time he said he was in Queensland. Documents show that from June 1, 1995, through April 1, 1996, he was a resident at University of Medical Sciences and Guru Teg Bahadur Hospital in New Delhi.

North Dakota appears to be his second residency, a fact not reflected in any of his bios.

### **1998 ASCO Merit & Travel Awards?**

The Cancer Letter was unable to verify two less prestigious awards listed by Potti.

All three biographies submitted to NIH and obtained by The Cancer Letter state that in 2001 Potti won awards from the "Cure for Lymphoma & Lymphoma Research Foundation." The honor is cited as "Junior Faculty Award" in one application and simply as an "Award" in the other two.

"In 2001, two organizations merged to create the Lymphoma Research Foundation and grant records from that transition period do not show that the Foundation awarded a grant to someone by that name," said a spokesman for Lymphoma Research Foundation.

One of his bios states that in 1998 he won a "Travel Award" from the American Society of Clinical Oncology. Two other versions state that he won the ASCO "Merit Award" during the same year. There is no record of Potti receiving either a merit or a travel award at the 1998 ASCO annual meeting, society officials said. "Dr. Anil Potti is a one-time recipient of ASCO's Travel Award and Merit Award," a spokesman said. "In 2005, he received the Travel Award and in 2006, he was given the Merit Award for his abstract, 'A genomic strategy to combinatorial therapeutics in solid tumors'."

Geoffrey Mearns, interim provost of Cleveland State University and a former federal prosecutor, said that "anyone who submitted a false statement to a federal agency in connection with grant funding has potentially violated a federal statute." Title 18 of U.S. Code, Section 1001 makes it a federal crime to make a false statement to the government, said Mearns, who handled prosecution of organized crime figures at the Eastern District of New York and later prosecuted one of the men convicted in the bombing of the federal building in Oklahoma City.

Another class of statutes, where the victim is not the government, can also come into play in cases where credentials are misstated. “If that statement was transmitted using the mails or if it was transmitted in a wire interstate, then that can be wire fraud or mail fraud,” Mearns said.

Federal prosecutors look for a pattern of false statements before they select a case for prosecution. “Generally speaking, federal prosecutors are going to be reluctant to get themselves involved in what may appear to be either a civil dispute or a research or administrative matter,” Mearns said. “But if they were convinced that there is a broad pattern of deception, they might be more inclined to conduct an investigation.”

The North Carolina Medical Board has the authority to discipline physicians for “unprofessional, immoral, or dishonorable conduct,” or “crimes of moral turpitude.”

### **Duke Defended Potti’s Science, Clinical Trials**

Duke University’s administration has been supportive of Potti and Nevins throughout the controversy over their scientific findings.

Genomic research led by the two scientists has brought millions of public and private dollars to Duke. The duo’s connections with the industry are considerable. According to a recent disclosure, Potti is a member of the scientific advisory boards of Eli Lilly and Co., GlaxoSmith-Kline, and CancerGuideDx.

Nevins has been a member of the scientific advisory boards of Johnson & Johnson, Millennium Pharmaceuticals, CancerGuideDx, and the Erbitux Biomarker Advisory Board of Bristol-Myers Squibb. He holds equity in Expression Analysis Inc.

Both Nevins and Potti are listed on Duke-held patent applications describing “methods for using genomic signatures to predict oncogenic pathway activation and for predicting chemotherapy sensitivity.”

Though many scientists doubt the group’s findings and question appropriateness of clinical trials based on their technology, Duke uses Potti and his message of “personalized medicine” to draw patients to the center. The commercials are posted at <http://www.youtube.com/watch?v=diWKtw0yQ7I&feature=channel>. Potti’s photos also figure on the center’s brochures.

The Nevins and Potti team emerged as pioneers of personalized medicine in 2006, when Nature Medicine published their paper claiming that microarray analysis of patient tumors could be used to predict response to chemotherapy.

However, two biostatisticians at the MD Anderson

Cancer Center attempted to verify this work when oncologists asked whether microarray analysis could be used in the clinic. Keith Baggerly and Kevin Coombes, the statisticians, found a series of errors, including mislabeling and an “off-by-one” error, where gene probe identifiers were mismatched with the names of genes.

Baggerly and Coombes said they devoted about 1,500 hours to checking Potti’s and Nevins’s work. These efforts—dubbed “forensic bioinformatics”—resulted in a paper in the November 2009, issue of the *Annals of Applied Statistics*.

“Unfortunately, poor documentation can shift from an inconvenience to an active danger when it obscures not just methods but errors,” the paper stated. “Patients in clinical trials are currently being allocated to treatment arms on the basis of these results.”

The two raised questions about Duke’s randomized phase II single-institution trials that used the Nevins and Potti technology to assign patients to treatment (NCT00545948, NCT00509366, and NCT00636441). Baggerly and Coombes argued that these trials “may be putting patients at risk.”

After publication of this paper, Duke suspended the three trials, one of which (NCT00636441) was co-sponsored by the Department of Defense (The Cancer Letter, Oct 2, Oct. 9, Oct. 23, 2009). It’s not publicly known whether Potti’s biography submitted to DOD listed the Rhodes credential. A FOIA request for the application is pending.

The university’s internal investigation at the time included a review of the scientific underpinnings of the trials. Duke’s Institutional Review Board turned to three directors of cancer centers and a separate, independent panel of biostatisticians. Sources said three biostatisticians were involved.

Citing recommendations of these panels, Duke officials restarted the trials. This was announced in a statement signed by two Duke deans, who declared that “an examination of the underlying scientific methodology that had been published by the Duke investigators, and used in these trials, was confirmed by reviewers’ own independent analysis using the respective datasets and prescribed methods of analysis,” which led the reviewers to conclude that “the approaches used by the Duke clinical predictors are viable and likely to succeed.”

The statement was signed by Michael Cuffe, vice dean, medical affairs, at Duke University School of Medicine, and Sally Kornbluth, vice dean for research (The Cancer Letter, Jan. 29).

However, some very important information

remained shielded from public view at the time Duke made its announcement. First, the text of the report prepared by outside scientists was not released. “While the reviewers approved of our sharing the report with the NCI, we consider it a confidential document,” Cuffe said to The Cancer Letter at the time.

Also, Duke never identified any of the outside experts who were consulted.

Duke officials apparently didn’t realize that sharing the report with NCI was inconsistent with their intent to keep it confidential.

Once the report made its way into the institute’s hard drives and file cabinets, it became subject to provisions of the Freedom of Information Act, and was obtained by The Cancer Letter.

The report and a related document are posted at <http://cancerletter.com/special-reports>.

The documents were redacted to eliminate the names of individuals involved in Duke’s investigation and to protect trade secrets and patentable data.

Experts asked by The Cancer Letter to review these documents noted that Duke deans Cuffe and Kornbluth were inaccurate in their description of the document’s substance and conclusions when they announced completion of the investigation and resumption of the clinical trials earlier this year.

“Having read the committee’s report, we must disagree with Duke’s representation of the committee’s findings,” Baggerly and Coombes said in an email after reviewing the documents released under FOIA. The committee stated that “In our review of the methods ... we were unable to identify a place where the statistical methods were described in sufficient detail to independently replicate the findings of the papers,” and further noted that the Duke investigators “really need” to work on “clearly explaining the specific statistical steps used in developing the predictors and the prospective sample assignments.

“Duke’s statement implies other members of the scientific community should be able to replicate the reported results with the data available,” Baggerly and Coombes said. “Having tried, we can confidently state that this is not yet true.”

In another setback to the Duke group, NCI last May eliminated a biomarker test from an ongoing phase III clinical trial.

The decision by the NCI Cancer Therapy Evaluation Program last May to remove the Lung Metagene Score (LMS) assay from the trial conducted by the Cancer and Leukemia Group B challenges a Duke technology that has not previously attracted scrutiny.

NCI officials said the assay was eliminated because the institute was “unable to confirm the score’s utility.”

The decision eliminated the assay from the 1,525-patient trial of adjuvant chemotherapy in non-small-cell lung cancer was based on a biostatistical review that was prompted in part by problems in other aspects of work by the Duke group.

The LMS is a prognostic model that was being tested for its ability to identify non-small-cell lung cancer patients who may be at high risk of recurrence.

The assay is different from the previously questioned work by Duke scientists. While earlier assays were used to predict sensitivity to chemotherapy, the function of the LMS was to gauge the risk of disease recurrence.

### NCI News:

## **Varmus Takes Helm Of NCI With No Promises, No Clichés**

(Continued from page 1)

by 2015. (It was printed on the back of NCI business cards, according to an employee who asked Varmus to comment).

Varmus had this to say about that:

“In this administration, we are going to make every effort to control cancer through science. That’s as far as I go. We can’t make promises that will be elusive, and frankly—” The rest of his statement was drowned out by applause.

The introduction of the new NCI director took place without the usual speechifying, without a PowerPoint presentation, and with Varmus clearly running the show. He gave NIH Director Francis Collins 60 seconds to speak, more than enough time for Collins to gush:

“Harold is the best person on the planet to take the reins of the National Cancer Institute at this propitious moment, with such opportunities both in the basic and the clinical areas—and with such experience, and such skills, and such smarts, to be able to lead this enterprise,” Collins said. “This is going to be a glorious good time, I’m quite sure of that!”

### **“Why Would I Want To Come Back?”**

Varmus opened with a soliloquy on why he took the job:

“Why would I want to come back to the NIH at this moment to run the NCI, especially after having already been the director of the whole place?

“There is no better time in my view of working in

cancer research for the last 40 years to lead the nation's cancer research efforts. Now, I know other directors of the NCI have gotten up before the NCI and said that, but this time we mean it. We mean it for some very substantial reasons. We have known over the last 20 to 30 years with increasing certainty that cancer is a genetic disease. We know something about some of the bad things that happen to the genome of a cell that becomes a cancer cell. We know something about the immune response and a little bit about how the cancer cell behaves in its local environment.

"But suddenly, we have incredible specificity, thanks, in part to genomics, in part to information technology, in part to deep understanding of biochemistry and cell biology. We have a portrait emerging of all the cancers, happening one cancer at a time, happening with difficulty and not without mistakes. This is creating an opportunity both for doing even better science than we have done before, because we know the parts, and we know how the parts interact, and it predicts much greater and more rapid advances in cancer control. I say 'control' advisedly. I'm not talking simply about therapies and drug control, I'm talking about preventing cancer, anticipating it and diagnosing it, and making accurate prognoses as well as treating it. It's these opportunities that create the most profound incentive to come and take the helm at this time.

"The second thing is something that may come as a surprise to some of you, and that is, I'm satisfying my old envy of institute and center directors, something I call 'IC envy.' When I was director here in the '90s, I felt I had very little control over scientific programs, and I really didn't have any money to spend. There was hardly any money in the Office of the Director. Things are a little better there now for Francis, and hopefully that will make him happy. But the institutes and centers ran the show and they largely still run it. That, I've learned especially in my last 10 years running Memorial Sloan-Kettering, with its programs and clinical care, is what is fun about being in charge of an institution.

"The third issue has to do with my profound affection for the NIH. It is the most glorious manifestation that I know of what government and democracy are capable of doing.

"I remind you this is not my simple return. It's my re-return to the NIH. I came here in 1968 after being interviewed in 1966, and joined the laboratory of Ira Pastan, as a totally naive medical resident, didn't know anything about science. I was brought in to this incredible family of scientists and clinicians and many other kinds of people who were working to use the

powers of science to try to control disease. My life was completely transformed. I worked with Ira on the molecular genetics of E. coli. I learned the importance of working with model organisms to understand profound problems in human disease. I learned technologies and, in good time, thanks to the courses offered at NIH at the time, I and many of my fellow so-called Yellow Berets went back out into the diaspora, in my case the University of California, San Francisco, where I received much of my support from the NIH and worked as a happy academic for many years, over 20. So the idea of being on the campus that is dedicated to both supporting science across the country, and indeed around the world, and doing great science of its own here on campus and training people, is a remarkable pull for me.

"The fourth issue is a very simple, pragmatic one that I think any economist will understand. Namely, I needed a job. I decided to leave Memorial Sloan-Kettering a while ago. I just stepped down 10 days ago. I loved that job, it was great, but I'd done it for 10 and a half years. I succeeded in doing the things I wanted to do, and I like to work. I was looking for a new job, and, hey, this looks like a great job. So, we'll see about that."

#### **"The Adventures Forthcoming In The NCI"**

Varmus said he will have three "basic principles" in running NCI:

1. "Everything that we do and everything that we say will be based on evidence."

2. Although "big science" and "mega-teams" have a role, "we have to remember that the great achievements of science have almost always begun with an individual scientist—a lone explorer—working in his or her lab, having an unexpected idea. This is an essential precept to remain faithful to if we are going to retain the stature of the NCI, the NIH, and American science."

3. The open exchange of information. "Scientific thought usually begins with individual scientists, but it also depends strongly on the community of scientists who share, validate, and expand ideas. Scientists who publish in a manner that promotes the free and open dissemination of knowledge. Scientists who are generous with their knowledge, with their material, and with their methods. This is especially true for work supported by the government and hence by taxpayers."

Next, Varmus outlined "the adventures that will be forthcoming in the NCI," cautioning that his remarks didn't represent a full agenda. First, he said he plans to give attention to "the repair of some things

that are obviously dysfunctional in the system.” These include:

—The clinical trials system, responding to the Institute of Medicine report recommending restructuring of the NCI clinical trials cooperative groups. “This is a very important moment for us to try to get the clinical trials system into a much better shape. This is also a remarkable opportunity, because all of us who are paying attention to how therapeutics are developed for cancer know that we have a tremendous opportunity before us to use genetic information, to think about how therapies are chosen and used. We have opportunities not as fully realized as I’d like for finding biological markers to follow disease and response to therapy in new ways. We need to think about how clinical trials are redesigned to take advantage of these new scientific opportunities.”

—Under-utilization of the Mark O. Hatfield Clinical Research Center on the NIH campus. “This in a sense was my baby, a project that began during my tenure as director. I feel strongly about the building. Yet we know it’s not being optimally utilized. It should be full of patients from all around the country. It should be doing the most adventurous clinical research in the world. We need to figure out how to pay for that and get people everywhere in the country excited about using it. I’ll be giving a lot of attention to that.”

—Cancer drug approval and regulation. Varmus praised an NIH-FDA initiative announced earlier this year to support regulatory science. “The methods that are currently used need to be readjusted to a modern era in which there is genetically based selection of therapies and new ways to monitor effectiveness of therapies and new ways to approve therapies.”

Also, Varmus said a working group of the National Cancer Advisory Board is “drawing up a series of suggestions for things for me to pay attention to.” The report is scheduled for release in September.

Varmus said he will be looking at programs and “looking as I go for problems that need attention.” He will call on extramural experts for help in reviewing programs.

### **Framing Questions For Cancer Research**

Varmus said that over the next year, he plans to “stage a series of meetings inviting people from across the range of disciplines” to try to establish “a list of provocative, answerable questions that will help our scientists think about what the next steps ought to be” in cancer research.

“There is an often-noted paradox in the public press that we must now confront,” Varmus said. “Namely,

despite the extraordinary progress we have made in understanding the underlying defects in cancer cells, and despite a few significant or even dramatic advances that we have had clinically, it has to be acknowledged that we have not succeeded in controlling cancer as a human disease to the extent that I believe is possible, either through prevention or treatment.

“We need to ask ourselves honestly why we have not succeeded at the level that we aspire to. What needs to be done?” Varmus said.

“We need to think a little more clearly about how we frame the questions that we are trying to answer, so that we know what we are actually trying to achieve,” he said. “This means doing a kind of question formulation process that is not as simple as saying, ‘How do I cure cancer?’

“Trying to answer the question of why a cell becomes dependent on an oncogene and converts to a cancer cell is one of those underlying questions we need to frame in the best possible way and anticipate answers that are scientifically meaningful and answers that will be provocative for the development of new therapeutics,” Varmus said.

Another example would be trying to understand the association between obesity and certain cancers, Varmus said. “The questions that we need to answer in the next five to eight years have not been as yet very succinctly defined,” he said.

Varmus indicated that he will take a cautious approach to paying for infrastructure. “We need as a institution to be building infrastructure, but I’m concerned about simply saying we are going to go out and pay for infrastructure, because it’s always tempting to provide infrastructure thinking that will help science, and we have to be very careful about calibrating our interest in infrastructure against scientific needs,” he said.

### **Greater Attention To Global Health**

NCI should “expand the range of what we do” in certain areas, Varmus said. This includes giving greater attention to global health, which has been an area of interest for him over the past 10 years. “I’ve been concerned that cancer is not on the global health agenda, even though as populations abroad age, cancer is becoming an increasing source of burden of disease,” he said. “This means more than just doing some projects in China or having people from poor countries come to the NIH to be trained. It means actually developing programs that are suitable for improving health in poor countries. Tobacco control, vaccination against

oncogenic viruses—there is a long list of things we could think about doing in a more organized way.”

Other topics of interest:

—“How far should we go in the pipeline of therapeutics?”

—“How developments in health information technology can be utilized to do comparative effectiveness research.”

—“We need to think about ways to get new knowledge more quickly into the practice of oncology.”

In wrestling with these topics, Varmus said he plans to seek out other NIH institutes and centers, as well as advocacy groups, scientific societies, other federal agencies, and industry. “I will be doing a lot to make those relationships stronger,” he said.

In working with industry, Varmus said he is “a strong proponent of the idea that we should manage conflicts, not forbid them.”

#### **“Guidance To Those Who Will Work With Me”**

Varmus outlined what he called his “style of operation,” or “guidance to those who will work with me closely or even not so closely.”

“I know, you all know, that cancer is a serious matter. But the seriousness of cancer doesn’t mean we can’t enjoy what we do, we can’t keep our sense of humor. I’ve heard you laughing, I must have some sense of humor. We need to pay attention to the way in which we do things, not just the fact that we are working on this serious problem.”

First request: “Never refer to an abstraction like the department, the White House, or Building 1, rather than referring to the person who is behind whatever that statement is. Let’s just talk about who said what to whom.”

“Secondly, when someone makes a suggestion, whether it’s inside or outside, let’s try to avoid the classic NIH retort: ‘We’re already doing it.’ Let’s recognize that things can change. Orders don’t have to be followed, unless they are right. It is the government, but it’s not the military. Let’s question things.

“I don’t want anybody to say to me, ‘This is the way we’ve always done it.’ Things are going to be changing and they are changing already.

“Let’s promote greater informality. My first name is not Doctor. It’s Harold, and I like to be called Harold.

“Words matter. How we say things makes a difference. I hope we can minimize the use of clichés, euphemisms—‘translational medicine,’ ‘personalized

cancer care’—without making clear definitions of what we are talking about.

“My father thought he practiced personalized medicine,” Varmus said. “He knew his patients personally. Let’s try to get clear about what we mean when we use these terms.”

His other pet peeve: “My former colleagues in the NIH director’s office will know, never use ‘impact’ as a verb.”

Finally, don’t expect miracles. “Just because when I was here, the NIH budget started to double, don’t expect me to increase the budget magically. Things will probably be tough for a while. So we are going to have to try to better with what we have, working and hoping for better economic times, like those that ushered in the doubling of the NIH budget. I didn’t wave a wand. I was here in good times, the economy was strong, we weren’t fighting two wars. We can’t expect budgets to turn around overnight. What we can expect of ourselves is that we do a better job of shepherding the considerable funds we already have.”

Varmus also thanked his immediate predecessor, John Niederhuber, “for his effective service.”

#### **New Deputy: Douglas Lowy**

In his first personnel announcement, Varmus said he selected Douglas Lowy as his deputy director. Lowy “will be serving as my alter ego, going to meetings I can’t get to, working by my side,” Varmus said. “He won’t be alone as a deputy. There will be other deputies, at least one with much greater experience in clinical work.”

Lowy is deputy director of the NCI Center for Cancer Research and chief of the Laboratory of Cellular Oncology. He began his laboratory at NCI in 1975. He was one of the inventors of the human papillomavirus vaccine.

Lowy replaces Anna Barker, who served as deputy director under both von Eschenbach and Niederhuber. She is director of the NCI Center for Strategic Scientific Initiatives. Barker stepped down as deputy director as of July 12 and will continue as director of the CSSI until she leaves NCI on Aug. 31.

A videocast of the town hall meeting is available at <http://videocast.nih.gov/summary.asp?Live=9433>.

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*NIH News:*  
**NIH, Wellcome Trust Support  
Genome Studies In Africa**

NIH and the Wellcome Trust, a global charity based in London, announced a partnership to support population-based genetic studies in Africa of common, non-communicable disorders such as heart disease and cancer, as well as communicable diseases such as malaria.

The studies, to be conducted by African researchers, will use genetic, clinical and epidemiologic screening tools that identify hereditary and non-hereditary components that contribute to the risk of illnesses.

Called the Human Heredity and Health in Africa project, or H3Africa, the effort will receive \$5 million a year from NIH for five years starting in the 2011 fiscal year, which begins Oct. 1. NIH also provided \$750,000 in the current fiscal year to begin organizing the project. The Wellcome Trust will contribute at least \$12 million (£8 million) over the next five years to H3Africa, as well as administrative support, advanced training and scientific consultation. In addition, the African Society for Human Genetics will provide in-kind support, particularly organizing researchers in Africa.

Researchers selected for H3Africa funding will establish or enhance local research facilities in their

home country and use genome-wide scanning and sequencing technologies to identify genetic changes that contribute to the disorder selected for study. Previous genetic research suggests that populations in Africa have greater genetic diversity than populations in Europe and Asia.

Because of the greater genetic variation in African populations, compared to European or Asian populations, the project may help researchers identify rare genetic variations that may affect patients in all parts of the world. As new genetic factors contributing to diseases are identified, researchers may be able to use them to develop new ways to diagnose disease as well as open new pathways to treatments.

The African Society for Human Genetics helped organize the two working groups that will help guide the initiative. They are led by Sekou Traore from the University of Mali's Malaria Research and Training Center, in Bamako, Mali, and Bongani Mayosi, chief of the Department of Medicine at the University of Cape Town, South Africa.

Administrative details and funding mechanisms are still being worked out, though the NIH and Wellcome Trust will employ their standard procedures for making awards. The National Human Genome Research Institute will manage H3Africa on behalf of the NIH Common Fund.



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**Employment Announcement**

FACULTY POSITION IN HEALTH POLICY  
Center for Health Policy and Outcomes  
Memorial Sloan-Kettering Cancer Center  
New York, New York

Memorial Sloan-Kettering Cancer Center is seeking mid-career and senior level faculty members to join a cadre of established, interdisciplinary and collaborative health policy and outcomes researchers as part of a new health policy center. Faculty in the Center will focus on the areas of comparative effectiveness, health care cost-containment, quality of care, health information technology, endpoints for drug and device studies, and improving end of life care. A background and record of publication in one or more of the listed topic areas, or a related area, is highly desirable. Applicants can be specialists in any number of disciplines ranging from health services research to health economics, with an MD or PhD degree. Prior research in cancer is not required, but successful applicants would be expected to develop a portfolio of inquiry in cancer prevention, screening or treatment, and to collaborate with others studying policy issues related to cancer care.

MSKCC is an equal opportunity employer with excellent compensation and benefits packages. Please send electronic versions of a cover letter, a statement of current and future research interests, a Curriculum Vitae, and a few relevant publications.

To inquire or apply, please contact the office of: Dr. Peter B. Bach, Center for Health Policy and Outcomes, c/o Katherine Wong, Memorial Sloan-Kettering Cancer Center, 307 East 63<sup>rd</sup> Street- 3<sup>rd</sup> Floor, New York, NY 10065, [Wongkl@mskcc.org](mailto:Wongkl@mskcc.org).