

**32<sup>nd</sup> Annual  
B.R. Baker Memorial Lecture  
Friday, June 2nd, 2006**

Paul J. Reider, Vice President  
for Chemistry Research at  
Amgen, Inc.

Chemistry, Selectivity & The  
Biological Interface:  
"It's Better To Be Lucky Than  
Smart"



Left: Prof. Bruce Lipshutz, Paul Reider, Reba Baker, Prof. Norbert Reich

Below: Reception





## BAKER LECTURERS

1991	PETER G. SCHULTZ	UC BERKELEY
1990	SIR JAMES W. BLACK	KINGS COLLEGE
1989	ELIAS J. COREY	HARVARD
1988	RICHARD LERNER	SCRIPPS
1987	HARRY B. GRAY,	CAL TECH
1986	ALAN R. FERSHT	IMPERIAL COLLEGE
1985	STEPHEN J. BENKOVIC	PENN STATE
1984	CHRISTOPHER WALSH	HARVARD
1982	DANIEL V. SANTI	UC SAN FRANCISCO
1981	CARL DJERASSI	STANFORD
1980	LINUS PAULING	CAL TECH
1979	BRUCE N. AMES	UC BERKELEY
1978	JEREMY R. KNOWLES	HARVARD
1977	NELSON J. LEONARD	UNIVERSITY OF ILLINOIS
1976	JOSEPH BETTINO	YALE
1975	PAUL BERG	STANFORD

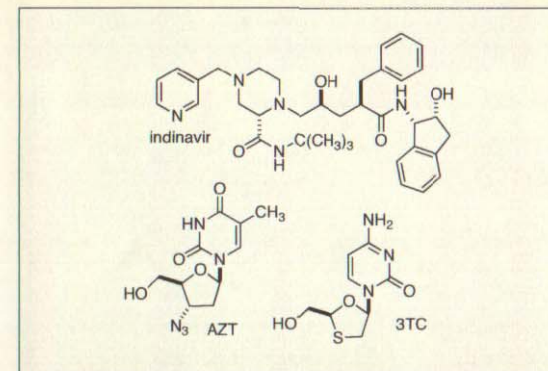
## Chemistry, Selectivity & the Biological Interface: "It's Better To Be Lucky Than Smart"

"At Merck Research Laboratories, Paul Reider created not only the single most impressive team of chemists, but has inspired them to look beyond practical solutions to chemical scale-up challenges and also find elegant solutions that contribute to basic science," says Scott E. Denmark, Professor of Chemistry at the University of Illinois, Urbana-Champaign. Reider now leads chemistry research at Amgen in Thousand Oaks, California.

While numerous programs at Merck prospered under Reider's leadership, three demonstrate his excellence in research management and in bringing complex new science to fruition at the manufacturing scale. These include programs on indinavir, a protease inhibitor for treatment of AIDS; etoricoxib, the company's newest COX-II candidate; and efavirenz, a nonnucleoside reverse transcriptase inhibitor for treatment of AIDS.

Reider's role in the indinavir (Crixivan) program had an enormous effect on the health and well-being of those affected by AIDS. He was charged with leading the chemistry team that developed a practical and efficient synthesis of one of the most complex and totally synthetic products on the drug market. Managerially, he was the driving force behind the successful implementation of the resulting process, first at the pilot scale and finally at the manufacturing level. Since there were no other protease inhibitors available at the time, all of this work was done under the scrutiny of the media and AIDS activists.

Indinavir (Crixivan) has five chiral centers and is a challenging target even at gram-scale. It is the key component of the "AIDS Cocktail"



During development, AIDS activists questioned Merck's views not only on its ability to supply the drug for a rapidly evolving clinical program, but to maintain a consistent supply of the Crixivan for compassionate use by those with AIDS. Under Reider's leadership, a Merck process team met with activists and their consultants to review in detail the chemical, process engineering, and production issues related to this drug. The result of these meetings was that the activists recognized that Merck, and in particular Reider's group, was doing everything possible to ensure the availability of as much of the drug as possible.

Throughout the pilot-plant development and manufacturing, Reider's commitment to, and considerable influence on, the program proved a major factor in achieving the lowest possible price for Crixivan. The synthesis, combined with superb process engineering made the drug affordable to many AIDS patients despite its extraordinarily high dose of as much as 2.4 g per day.