

Although Some Achievers Are Overlooked, Awards Are Healthy For Scientific Enterprise

By Eugene Garfield

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The Scientist extends its congratulations to the men and women who will be honored by the National Academy of Sciences next week at the organization's annual meeting. Their achievements and the reasons for this moment of special recognition by the academy are recapped in Neeraja Sankaran's front-page report.

For some of these scientists--those who tend to keep a low profile as they go about their work--such highly visible acclaim may make them uncomfortable. They simply aren't used to the fanfare. For others (astronomer, author, and TV personality Carl Sagan comes immediately to mind), garnering awards and being in the public eye is old hat. But however the individual honorees carry their celebrity, you can bet they're all getting a lot of satisfaction from the recognition. Sagan--as used to stardom as he must be--told Sankaran that he is "delighted" to receive the academy's highest award, which honors his mastery over the years as a communicator of science to the public.

I'm aware that some in the science community have a distaste for awards in general, usually on the grounds that they create a potentially corrupting "star system." They feel that the pursuit of recognition can become an overriding motivation for an individual

and thus a distraction from the pure pursuit of research.

I disagree. By recognizing exemplary individuals, the annual NAS awards--like the Nobels, Gairdners, Laskers, and others--reaffirm science's pursuit of excellence. Awards provide inspiration to young researchers with the message that, if they apply their skills unfalteringly, they, too, may someday find their place in the glow of public recognition. Even more important--as with the NAS awards--they may gain the recognition of their peers.

It doesn't always work that way, of course; excellence is rarely rewarded by public recognition. Consistent with the view of Spanish philosopher Ortega y Gasset is the fact that the great machinery of science is fueled by the persistent energy of thousands of men and women who may never be singled out for their accomplishments.

Indeed, examples abound even of researchers with monumental achievements who, mysteriously, have been underrecognized-- either overlooked altogether when it came to the big prizes or forced to wait many years before appropriate recognition came their way. The 1940s Rockefeller Institute team of Oswald Avery, Colin MacLeod, and Maclyn McCarty is a perfect example of

the former; plant geneticist Barbara McClintock of the latter.

As covered extensively in a recent edition of *The Scientist* (J. Lederberg, Feb. 21, 1994, page 11), the Avery team's discovery a half-century ago that genes are made of DNA "transformed" the study of genetics. To many observers, it is a mind-boggling puzzle why they never received a Nobel Prize or why the prize is still denied the great team's lone survivor, McCarty.

Barbara McClintock, on the other hand, is a special case of delayed recognition. McClintock was indeed given a Nobel for her discovery of mobile, or "jumping," genes in plants. But although she had been elected to NAS, the Nobel award came to her in 1983, many decades after her work began leading the way for a generation of younger researchers.

With the Avery team, McClintock, and countless others, underrecognition or delayed recognition may be attributable to an individual's lack of charisma and a disinclination for self-promotion. In a

recent issue, we quoted Nobelist Alfred Hershey's remark

on why Avery and his collaborators did not win more widespread and visible acclaim for their work. "It was due to their modesty," he said. "They refused to advertise."

To explain the underrecognition phenomenon, the following irony also is worth considering: Recognition in the form of prestigious prizes often is awarded as a result of recommendations from scientists in the recipient's field; but it is frequently the case that the truly knowledgeable scientists in any given field are simply too busy at their lab benches to spend time making recommendations to awards committees. Thus, a meritorious candidate is apt to be overlooked now and then.

Overall, I support wholeheartedly the special tokens of recognition--the NAS awards, the Nobels, and so forth. In my opinion, they play a valuable role in the scientific enterprise. I only wish there were a mechanism to ensure that all of those who deserve such awards would at least be considered to receive them.