

## Maclyn McCarty (1911–2005)

The editorial board lost a real soul mate when Maclyn McCarty passed away on January 2nd at age 93. While attending the theater with friends, one of the many activities that he enjoyed, he collapsed.

“Dr. Mac” was revered worldwide for his remarkable experiments that led to the identification of DNA as the genetic material. This totally unanticipated discovery, and the revolutionary 1944 paper describing it by Avery, MacLeod, and McCarty (1), was highlighted in the *Journal of Experimental Medicine* on the occasion of its 35th and 50th anniversaries. The anniversary issues were accompanied by an introduction in 1979 by Joshua Lederberg (2), and a “retrospective” in 1994 by Mac himself (3). The latter article beautifully summarizes “how we identified the pneumococcal transforming substance as DNA” with illustrations from lab notebooks.

At the time that DNA was found to be the genetic material, the Avery laboratory was virtually alone studying the phenomenon of pneumococcal transformation. They knew that crude extracts of smooth encapsulated pneumococci could transform rough non-encapsulated pneumococci to express an authentic capsule in a heritable way. But the project was moving slowly until Mac joined the lab in late 1941. With his pivotal talents in biochemistry, DNA was identified as the basis of heredity in just 2 years. A detailed summary and bibliography of Mac’s rich scientific accomplishments will appear in the *JEM* in the coming months.

Here we honor our friend as an editor, and describe some of his special skills and preferences. Mac became an editor in 1963, and he had only stopped reviewing manuscripts on a regular basis late in 2004. He agreed to stay on as Editor Emeritus and we looked forward to his valuable perspectives for the new From the Archive section of this *Journal*. Happily, we continued to see him outside of our



Mac and Marj in 2003, enjoying the celebrations on the 50th anniversary of the discovery of the structure of DNA.

editorial meetings when he came to his office on campus or for other Rockefeller University events. He was always characteristically bedecked in colorful ties with pastel hues, which were handmade gifts matching the dresses of his spirited wife, Marj.

As an editor, his incisiveness concerning the science of a manuscript was legendary. Although he would complain that he felt more and more removed from the topics under consideration, he could extract the themes and significance in papers from many fields with the skills of a great biochemist. When the paper dealt with his own area of microbial pathogenesis, cell walls, and polysaccharides, his world of experience and standards were inspiring.

As a critic, he displayed his scholarship in rather lengthy and beautifully crafted evaluations, all written with superb penmanship (for an example see reference 3). He abhorred abbreviations, which were for him overly used barriers to clear communication. He detested even more an author’s carelessness in assembling figures and tables, reference citations, and all the other necessary details of a complete scholarly manuscript. Most distinctively, he was

always a gentleman and stressed the positive aspects in his reviews. He especially valued papers uncovering new mechanistic insights and those showing clarity and precision in thinking and writing.

Mac was passionate about experimental medicine and his contributions and service were towering. Few match the significance and elegance of Maclyn McCarty. We feel very fortunate to have had this gentle scholar in our midst.

*The Editors*

*The Journal of Experimental Medicine*

### REFERENCES

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2. Avery, O.T., C.M. MacLeod, and M. McCarty. 1979. Studies on the chemical nature of the substance inducing transformation of pneumococcal types. Inductions of transformation by a deoxyribonucleic acid fraction isolated from pneumococcus type III. *J. Exp. Med.* 149:297–326.
3. McCarty, M. 1994. A retrospective look: how we identified the pneumococcal transforming substance as DNA. *J. Exp. Med.* 179:385–394.