Biochemical and Biophysical Research Communications **284,** 1 (2001)
doi:10.1006/bbrc.2001.4866, available online at http://www.idealibrary.com on IDEAL®

BREAKTHROUGHS AND VIEWS

Brief Commentary

Satyabrata Biswas
Indian Institute of Chemical Biology, Calcutta, India

Received February 15, 2001

In an article published previously in *Biochem. Biophys. Res. Commun.* (**148,** 795–801, 1987), the binding specificity of a lectin (Achatinin-H) was derived. There the authors actually used a mixture of 9-OAc-NeuAc and 7,9-diOAc-NeuAc instead of purified free 9-OAc-NeuAc in the agglutination inhibition studies and inferred that agglutination was inhibited by 9-OAc-NeuAc.

Furthermore, the authors cannot conclude that Achatinin-H has binding specificity toward 9-OAc-NeuAc without testing all other possible sialic acids (i.e., 7-OAc-NeuAc, 7,9-diOAc-NeuAc, 8,9-diOAc-NeuAc, and 7,8,9-triOAc-NeuAc) as inhibitors. Finally, the binding specificity of a sialic acid binding lectin (here Achatinin-H) can only be confirmed by desialylation (by sialidase) and resialylation of the erythrocytes with an appropriate sialic acid using specific sialyltransferase, followed by agglutination of those resialylated erythrocytes by Achatinin-H. But in this article, the authors did not perform those experiments and so their claim of a unique binding specificity of Achatinin-H toward 9-OAc-NeuAc is unlikely to be valid.

0006-291X/01 $35.00