

Memo from  
JOSHUA LEDERBERG

To: Herr Luder Temmen

AUG 8 1973

reply to your letter of July 31

Your simple question does not have a simple answer. I don't think we can say more than the conclusion that proteins have evolved conformations that enable them to recognize specific sequences of DNA, just as other proteins can recognize disaccharides or other substrate conformations. The binding forces are presumably similar to those involved in enzyme-substrate interactions, or antigen-antibody, or DNA-DNA itself. However, we have, I believe, little specific information, and we should always be prepared for surprises.

I am sending you enquiry on to Professor Mark Ptashne at Harvard, who can give you a much better informed and up-to-date answer on the basis of his own experience.

Sincerely,

See, e.g. his papers in

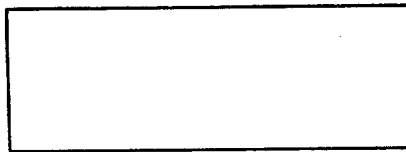
Proc. Nat Acad Sci, U.S., 70:1531 (May '73)

and

Chapter 11, "Repressor and its Action",

in Hershey, A.D. (ed.), 1971,

"The Bacteriophage Lambda", Cold Spr. Harbour.



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