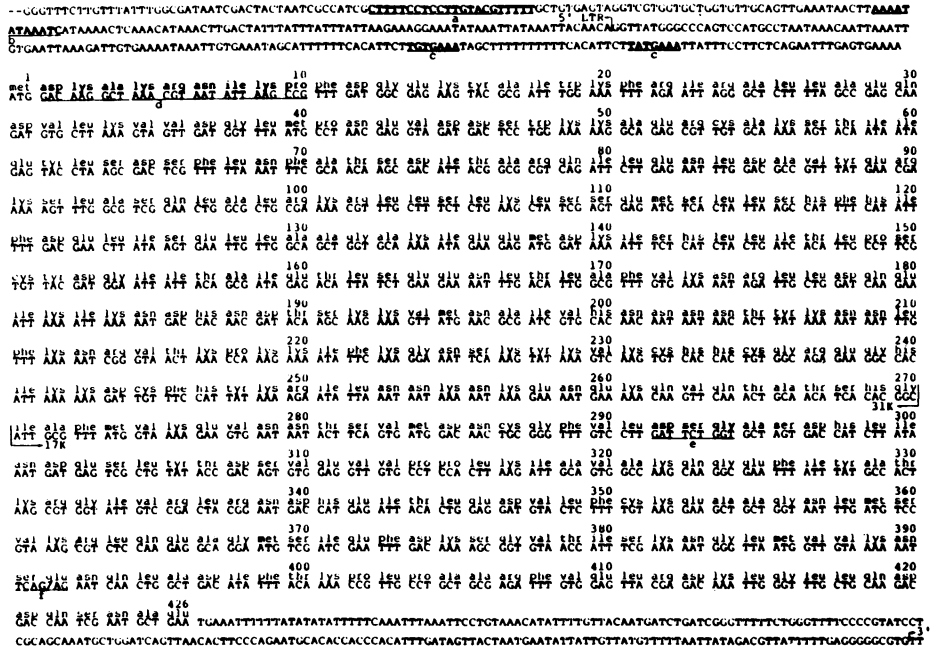
Volume 17 Number 5 1989 Nucleic Acids Research

The nucleotide sequence of *Drosophila melanogaster* copia-specific 2.1-kb mRNA

Kenton Miller, Julie Rosenbaum, Valerie Zbrzezna and A.Oscar Pogo

Laboratory of Cell Biology, The New York Blood Center, 310E. 67th Str., New York, NY 10021, USA
Submitted January 23, 1989 EMBL Accession no. X13719

Three major cDNA clones that spanned the copia gene were subcloned into M13mp18 and both strands were sequenced by the dideoxy chain termination method. By determining the entire nucleotide sequence and by a detailed analysis of the splice junction it was demonstrated that the 2.1-kb copia RNA originates from the processing of a 5-kb RNA precursor (1). It is not a defective molecule, as has been assumed (2) and contains coding sequences for a 48-kD polyprotein. Underlines indicate: a, 5' start site; b, polyadenylation signal; c, putative enhancer (3); d, amino terminal of the 48-kD copia gag-like polyprotein (1); e, active site of a retroviral protease (4); f, splice site. L-shaped arrows indicate the 5'and 3' LTR, and the putative cleavage site in the 48-kD protein that generates the 31-kD copia protein and a 17-kD viral protease.



References:1. Emori et al.(1985) Nature 315 773-776. 2. Flavell et al. (1981) Nucl. Acids Res. 23 6269-6291. 3. Mount, S.M. and Rubin, G.M. (1985) Molec. Cell Biol. 5 1630-1628. 4. Dickson et al. (1984) In: RNA Tumor Viruses, Mol. Biology of Tumor Viruses (Weiss, R., Teich, N., Varmus, H. and Coffin, S., eds.) Cold Spring Harbor, NY, pp 513-648.

