

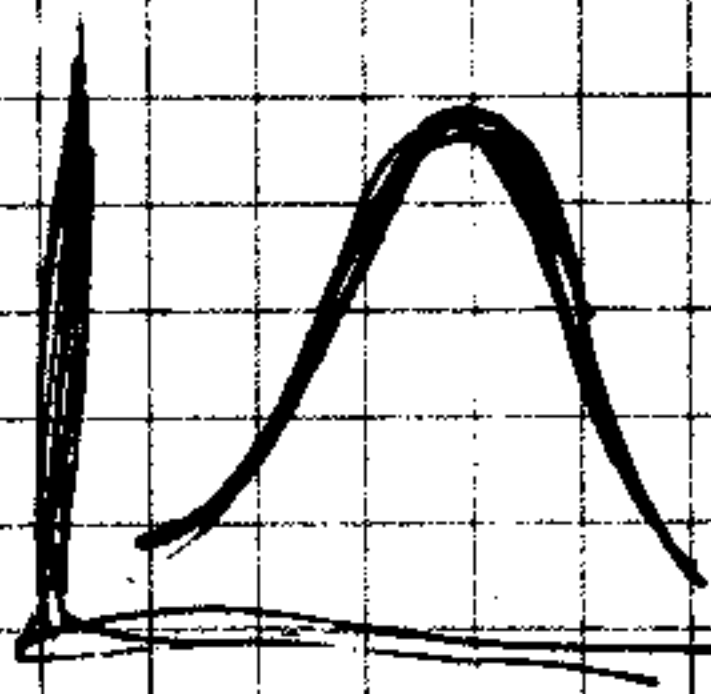
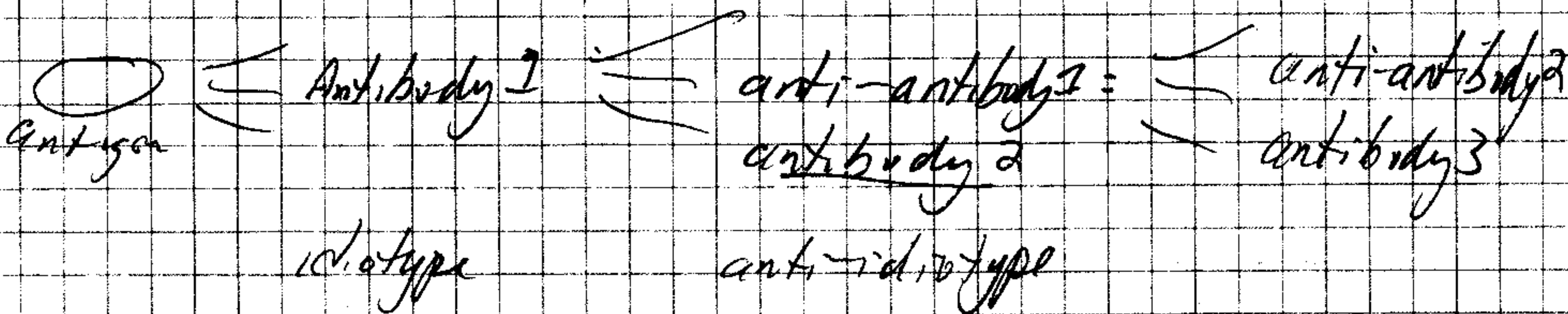
Alan S Perelson, Los Alamos

11-25-91
Monday Seminar

Addressing complexities of the immune system with
mathematical models and computer simulation

antigen \rightarrow binds specific cell \rightarrow that cell
replicates &
secretes Ab

Antibody Network



Immune system model

① binary code 0100
 trinary 0120

② recognition
 (vary % recognition)

site 1 = 3 kcal
 2 = 2 kcal



③ dual recognition sites

④ diploid

1 cell makes → A suppressed or
 → B

⑤ length variation

⑥ # antigens should be \gg # of binary sites