Sine arabinoside (ara-C). Ara-C is an effective inhibitor of eu-
clonogenic survival.3 Kinetic studies, however, have indicated
that ara-CTP is only a weak competitive inhibitor of DNA polymer-
karyotic DNA replication.' Kinetic studies, however, have indicated
raises several issues regarding the intracellular metabolism of cyto-
te template function.6 As reported in our recent publication in
Blood, the authors suggested that there was a significant correlation among
surface antigen phenotype, expression of lysosomal enzymes, and func-
tional properties of this T cell subpopulation.' We have recently evaluated ANAE activity in a human helper cell
population also defined by two monoclonal antibodies, Leu3 and Leu8.
Previous studies have demonstrated that the effective helper


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SURFACE PHENOTYPE AND CYTOCHEMISTRY OF T CELLS

To the Editor:

Landay and coworkers recently reported that human T lympho-
cyte subpopulations exhibited different cytochemical patterns of
staining for lysosomal enzymes.1 They studied cells bearing epitopes
recognized by two monoclonal antibodies, D12 and 2D2. This
subpopulation, previously shown to belong to a subset of cells
capable of suppressing T cell proliferation,2 showed an increased
proportion of cells positive for the scattered granular pattern of
reactivity of the acid hydrolases acid phosphatase (AP) and alpha
naphthyl acetate acid esterase (ANAE) and was almost completely
negative for the dotlike pattern of reactivity of these enzymes. Thus,
the authors suggested that there was a significant correlation among
surface antigen phenotype, expression of lysosomal enzymes, and
functional properties of this T cell subpopulation.1

We have recently evaluated ANAE activity in a human helper cell
population also defined by two monoclonal antibodies, Leu3 and
Leu8.

Previous studies have demonstrated that the effective helper

It is obvious that incorporation of ara-C into DNA is dependent
upon the formation of ara-CTP. Other factors affecting (ara-
C)DNA formation would include rate of cell proliferation, time of
drug exposure and intracellular dCTP levels. The data by Raza et al
using sensitive and resistant P388 cells demonstrate that the resis-
tant cell synthesizes less ara-CTP than the sensitive cell.3 It is not
clear, however, whether the percent [3H]ara-C index represents an
absolute measure of ara-C incorporation into DNA. The authors
make this assumption without performing direct measurements of
(ara-C)DNA formation. For example, the percent [3H]ara-C index
decreases with increasing ara-C concentration. Our studies monitor-
direct incorporation of ara-C into DNA using cesium sulfate
density gradient centrifugation have demonstrated a direct relation-
ship with drug concentration and time of exposure.4,7 Further
interpretation of the percent [3H]ara-C index as compared to our
method of analysis will be required and we have initiated a collabo-
ration with Dr. Preisler’s laboratory to study their P388 cells.

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Surface phenotype and cytochemistry of T cells [letter]

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