

completely map the human genome is that the map location of individual genes can often provide clues to the involvement of a gene in a particular genetic disorder. Indeed, as an illustration of this approach, the β subunit of S100 protein is one of the first genes assigned to chromosome 21 for which a large body of experimental evidence suggests a functional role in the central nervous system (11, 12, 16). Therefore, our results suggest that future studies on the role of S100 protein in the pathogenesis of the neurological features of DS are warranted.

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Technical Comments

ACTH Regulation and IL-1

Recently, three reports (1, 2) were published describing the release of adrenocorticotropin (ACTH) in response to interleukin-1 (IL-1) administration. A Perspective (3) describing, for the most part, conflicting results of the three reports was included in the same issue. We would like to point out that Uehara *et al.* (4) recently found that one preparation of IL-1 α and two preparations of IL-1 β were without effect on the release of five hormones, including ACTH, from cultured anterior pituitary cells, irrespective of whether pituitaries from male or female rats were used. Furthermore, IL-1 β appears to be a potent stimulator for ACTH release in vivo, but IL-1 α has very little such effect (5). Finally, in a recently published study, ACTH-releasing activity was blocked by immunoneutralization of endogenous corticotropin-releasing factor (6). In addition, we tested (4) the Cistron preparation of IL-1 β [effective in (1)], which did not stimulate ACTH release in vitro.

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