

JOINT CONGRESS  
ON CHEMORECEPTION

July 1980 Noordwijkerhout  
Holland

COLLECTION OF  
PROVISIONAL ABSTRACTS

### Taste preferences and appetite following somatostatin injection.

Some patients after i.m. injections of Somatostatin (SRIF) pleaded dysgeusia and appetite lack. Intraperitoneally (Ip) or intraventricularly injected dihydro-SRIF elicits in rats and in baboons a dose-dependent decrease of food intake (1). SRIF has been considered to regulate the rate of entry of nutrient from the gut and the nutrient homeostasis.

Since SRIF has been found localized to the ventro-medial hypothalamic nucleus (2) that is involved in food intake, taste preference changes could be detected, which could have contributed to decrease food intake. Male Wistar rats, were therefore allowed to feed ad libitum a complete and balanced diet, and to drink deionized water and one sapid threshold solutions. The body weight, the fluid and food intake were monitored daily. Ip daily injections of the solvent were made, as well as of SRIF solution. The following conclusions have been drawn:

- 1) Solvent injected rats eat during the light period significantly less than SRIF-IP injected rats; the lesser the dose of SRIF, the higher the food intake. During the dark period the solvent injected rats eat significantly more than SRIF-injected rats, however high the dose of SRIF injected.
- 2) During light period, total fluid intake is significantly lower in solvent-injected, than in SRIF-injected rats. Significant are too salt-, sour-, sweet-taste preferences differences, not instead bitter ones. During the dark period no taste preference is significant.

SRIF can therefore enhance food and fluid intake and modify taste preference, preferably during light, when Melatonin is at its lowest level.

1) LOTTER E.C., S.C. WOODS & D. PORTE jr., VI ICPFFI, Paris, 1977

2) BROWNSTEIN M.J., A. ARIMURA, H. SATO, A.V. SCHALLY & J.S. KIZER: *Endocrinology*, 1975, **96**, 1456