1. E. AMUNDSEN (*Institute of Physiology, University of Oslo, Norway*).
No abstract received.

2. Hypotensive Peptides from Amphibian Skin. ADA ANASTASI (*Farmitalia, Laboratori Ricerche, Milan, Italy*).

A screening of the skin extracts of more than 200 species of amphibia from all over the world has been made while searching for new biologically active peptides.

The structure and the eledoisin-like action of physalaemin, the first highly active peptide isolated from the skin of the South American amphibian *Physalaemus fuscumaculatus*, have been described. The isolation of a hypotensive peptide from the skin of *Rana temporaria* and its identity with plasma bradykinin have also been reported.

Some interesting new peptides have been found recently which possess eledoisin or bradykinin-like activity or show pharmacological actions which cannot be related to eledoisin or bradykinin. They are studied one by one with regard to their biological and chemical properties. A few of them have already been isolated and their structure determined; the purification of the others is in progress.

Two peptides with eledoisin-like activity have been extracted from the skin of the *Phyllomedusae rohdei* and *hypochondrialis;* the electrophoretic and chromatographic behavior of the second peptide gave evidence of a structure different from that of eledoisin and physalaemin.

Bradykinin-like peptides are present in various species of *Ranae* and *Phyllomedusae*. The skin of *P. rohdei* contains at least three peptides structurally related but not identical with plasma bradykinin. Two of them possess remarkable hypotensive action.

A series of small peptides containing tryptophan which have been named tryptokinins, has been found in the skin of *P. rohdei* and *P. hypochondrialis*. Two of the tryptokinins that do not show activity with the usual pharmacological tests have the following structures: Pyr-Pro-Pro-Try-Val·NH_2; Pyr-Pro-Pro-Try-Met·NH_2.

3. Physiological Influence on the Liberation of Human Plasma Kinin at Low Temperatures. DESIRÉE ARMSTRONG, G. L. MILLS and F. SICUTERI (*Dept. of Pharmacology, Middlesex Hospital Medical School, Univ. of London, England; and Centro Cefalée, The Medical Clinic, Univ. of Florence, Italy*).

The reported kininogen depletions which occurred in "untreated" human serum or plasma samples collected during parturition[1-4] have been shown to be accompanied by accumulation of high concentrations of kinin which parallel the ensuing degree of kininogen depletion.[1,5].

We have now shown[6] that this eruptive accumulation of kinin is initiated by lowering the temperature of the plasma and that it is a manifestation of a general property possessed, in greater or lesser degree, by all human plasma.

Measurements of kininogen depletion, and also of kinin production in the presence of kininase inhibitors, show that spontaneous kinin generation is normally minimal at 37°. Its rate then increases as the temperature is reduced below 37°, and can be controlled, at will, by merely lowering or raising the temperature.

We have attributed the mechanism of this "cold accelerated reaction" to changes in the structure of the human kininogenase molecule, or a precursor, which are brought about by the dissociation of hydrophobic bonds. In plasma at 37° these bonds tend to maintain the enzyme in an unreactive state. But, having a positive enthalpy of formation they are weakened by a fall in temperature, which thus leads to changes in the configuration of the enzyme and so to the revelation of the kininogenolytic property.

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4. Immunologic Studies of Components of the Kallikrein–Kinin System. C. W. AUNGST, N. BACK, B. CASTILONE and G. A. TSUKADA (*The Roswell Park Memorial Institute, and the State Univ. of New York, Buffalo, N.Y., U.S.A.*).

Immunologic studies of crude urinary kallikrein (UKK), purified pancreatic kallikrein (PKK), and synthetic bradykinin (BK) were undertaken. Antisera were prepared in the rabbit by intramuscular injection with Freunds' complete adjuvant. By means of Ouchterlony and immunoelectrophoretic techniques, five bands were revealed when UKK was developed with UKK antiserum and two bands when PKK was developed with PKK antiserum. Eight bands were seen when normal serum was developed with UKK antiserum: two bands in the albumin region, two in the α_1, two in the α_2, and a definite band in the 7S γ-globulin region. Adsorption of