

beta cells of the endocrine portion of the pancreas during the advancing growth from the preruminant stage to the ruminant stage in buffalo calves. This is in agreement with the presence of ACPase activity in alpha and beta cells of pancreas in adult sheep¹⁰, but differs with the findings of higher ACPase activity in beta cells compared to alpha cells in the pancreatic islets of adult cattle⁹. While no such activity was observed in the exocrine portion in buffalo calves, in agreement to similar findings in adult sheep¹⁰, these results disagree with the presence of ACPase activity noted in the exocrine pancreas of adult cattle⁹. The ACPase activity was reported to be directly related to the insulin status during the postnatal development of rat pancreas¹⁴. This lysosomal marker enzyme probably assists in decreasing the number of beta cells, thus affecting the insulin concentration with advancing age.

The reports in cattle and sheep pancreas^{9,10} showed no ATPase activity in the exocrine tissue which is in contrast to the present findings of the presence of this enzyme whose activity remained constant in the preruminant, the transitional and the ruminant stages in the buffalo calves. The activity of ATPase in the endocrine pancreas increased uniformly with age in both alpha and beta cells in buffalo calves. This is in agreement to the similar presence of this enzyme in these two types of cells in adult sheep pancreas¹⁰ which is in contrast to a strong activity in beta cells as compared to the alpha cells in cattle⁹, with the conclusion that the high enzymic activity illustrated very intense metabolic processes in beta cells. The relatively increased ATPase activity in the endocrine part indicated the more active stage of endocrine pancreas, as compared to the exocrine part in the buffalo calves, suggesting a higher turn over rate of insulin and glucagon during early postnatal stages of rumen development.

These differences in the histochemistry of the pancreatic islets of the growing buffalo calves are, in our opinion, an expression of peculiarity of this species of farm animals.

1. Bjorkman, N., Hellerstrom, C., Hellman, B. and Petterson, B., *Z. Zellforsch.*, 1966, **72**, 425.
2. Wegmann, R., Lageron, A., Guha, S. and Petkov, P., *Ann. Histochem.*, 1967, **12**, 137.
3. Gepts, W. and Toussaint, D., *Ann. Endocr. (Paris)*, 1963, **24**, 688.
4. Petkov, P., Verne, J. and Wegmann, R., *Ann. Histochem.*, 1965, **10**, 257.
5. Petkov, P., *Histochemie*, 1967, **11**, 305.
6. Petkov, P., Galabova, R. and Gospodinov, C., *Histochemie* 1968, **15**, 318.
7. Sotelo, O. and Wegmann, R., *Ann. Histochem.*, 1969 **9**, 35.
8. Bjorkman, N., Hellerstrom, C., Hellman, B., Peterson, B. and Rothman, U., *Z. Zellforsch.*, 1963, **59**, 535.
9. Petkov, P., Gospodinov, C. and Chrand Galabova, R., *Histochemie*, 1970, **23**, 127.
10. Galabova, R., Gospodinov, Chr., Qgneva, V. and Petkov, P., *Ann. Histochem.*, 1971, **16**, 91.
11. Leat, W. M. F., in *Physiology of Digestion and Metabolism in the ruminant*, (ed.) A. T. Philipson, Newcastle upon Tyne, England: Oriel Press, 1970.
12. Barka, T. and Anderson, P. J., *Histochemistry theory, practice and bibliography*, Hoeber Medical Division, Harper and Row Publisher Inc., New York, 1963.
13. Michael, E., *Vet. Review.*, 1976, **24**, 59.
14. Puri, R. B., Sahib, M. K., Kidwai, J. R. and Anjaneyulu, K., *Indian J. Exp. Biol.*, 1976, **14**, 478.

ANNOUNCEMENT

INTERNATIONAL CONFERENCE ON SPACE PHYSIOLOGY

The Centre National D'Etudes Spatiales (CNES) will organise an international conference on Space Physiology on Toulouse (France) from 1 to 4 March 1983.

Five main topics covered during the Conference are:

(1) Programme and results of the first French manned space flight; (2) Sensory-Motor Physiology; (3) Circulation and Hydro-Mineral Balance; (4) Calcified tissues, Muscles, Bone and Calcium Metabolism;

(5) Prospects. The programme for the poster session will be as follows: (2) Sensory Motor Physiology; (3) Circulation and Hydro-Mineral Balance; (4) Calcified tissues, Muscles, Bone and Calcium Metabolism. The abstracts of paper should be sent before 15th November 1982.

Further information may be had from: Centre National Detudes Spatiales, Department des Affaires Universitaires, 18 avenue Edouard Berlin—31055 Toulouse Cedex.