

Colaboración de Profesores extranjeros

El Dr. Russell A. Runnells, actualmente profesor y jefe del Departamento de Patología Animal en el Michigan State College, ha tenido la gentileza de acceder a nuestra solicitud de colaboración con "Anales" remitiéndonos, por intermedio de nuestro colega el Prof. Agdo. de Histología, Dr. B. E. Epstein, el trabajo que a continuación se publica.

El Dr. Runnells es hombre de gran experiencia en la docencia y su personalidad muy conocida y apreciada en los EE. UU. Fué profesor en Iowa State College y luego Director del Departamento de Anatomía en el Michigan State College hasta el año 1948, en el que pasó al cargo que actualmente desempeña y, encontrándose cercano a su retiro de la docencia en la cual ha cumplido una acción de gran mérito.

La Dirección de Anales se complace en agradecer al Prof. Runnells la atención dispensada al ofrecernos, en forma concisa pero plena de experiencia en su fondo, la colaboración solicitada.

The place of the morphological sciences in the veterinary curriculum

by

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In the sequence of the basic medical sciences which comprise the preclinical course of the veterinary curriculum the morphological sciences (embryology, histology, and gross anatomy) come first. It is obvious that before a student can understand the functions of the organs and systems (physiology), or their disturbed structure and function (pathology), he must be well acquainted with the normal development and the

structure of the animal body from the time of fertilization of the ovum until the adult animal has reached maturity. This latter is the goal of the study of the morphological sciences.

The ideal and most interesting way to obtain an understanding of the structure of the animal body is to integrate the study of embryology, histology, and gross anatomy.* This can be done by approaching the study by way of embryology. A study of the early embryology of the chick is a suitable beginning. After the three primary germ layers have reached the stage in their development where the various tissues begin to differentiate, the subject of histology can be introduced and the basic tissues studied in the conventional manner.

From the basic tissues the study can lead to the bony framework. This study however should be brief — merely a study of the types of bones, their names, their relationship to one another, and their regional functions. No attempt should be made at this point to learn the details relative to the peculiarities in shape which are associated with the attachment of muscles and ligament, or the position of blood vessels and nerves. These details can be learned best in their functional relationship to muscles, ligaments, blood vessels and nerves when these are studied later.

After this brief study of the skeleton is completed dissection begins. Since the skin is the first part of the body to be encountered this is the proper time to study its histology. Next come the muscles, ligaments, blood vessels and nerves, both from the standpoint of their gross and microscopic structure, and their relationship to each other and the skeleton.

With the completion of the study of the skeleton, the muscles and the peripheral blood vessels and nerves the study should naturally proceed to the internal organs and systems. The study here also can be made in an integrated manner. It begins with a return to the study of the development of the organs and systems in chick and pig embryos and advances to the histologic and then the gross structure of each organ. In this manner the student obtains a detailed and integrated knowledge of the development of the body, its cellular composition, and its structure. Finally the course can be completed with a comparative study of the morphological differences occurring in the various species of animals.

These courses in anatomy prepare the student for a consideration of normal body functions which follow, and eventually for the study of disturbed structure with the resultant disturbed functions which constitute disease. Without a thorough understanding of the morphological sciences as they pertain to the body student is not prepared properly for this final subject (pathology) in the preclinical curriculum.