Record Nr. UNINA9910437833303321

Titolo Nutritional and Physiological Functions of Amino Acids in Pigs

[[electronic resource] /] / edited by Francois Blachier, Guoyao Wu,

Yulong Yin

Pubbl/distr/stampa Vienna:,: Springer Vienna:,: Imprint: Springer,, 2013

ISBN 3-7091-1328-8

Edizione [1st ed. 2013.]

Descrizione fisica 1 online resource (305 p.)

Disciplina 636.408522

Soggetti Animal physiology

Veterinary medicine Food—Biotechnology Animal Physiology

Veterinary Medicine/Veterinary Science

Food Science

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Note generali Description based upon print version of record.

Nota di bibliografia Includes bibliographical references and index.

Nota di contenuto Introduction -- Anatomical characteristics of the gastrointestinal tract

and digestive glands of pigs during development -- Development of the gastrointestinal tract in pigs -- Development of the digestive glands in pigs -- Development and renewal of the intestinal villi in pigs -- Terminal digestion, amino acid absorption/metabolism and microbiota in the pig intestine during development -- Terminal digestion of polypeptides and amino acid absorption by the pig intestine epithelial cells during development -- Developmental amino acid metabolism in the pig small and large intestine epithelial cells --Development of the micro-ecological system in small and large intestine of piglets -- Physiological functions of amino acids in pigs --Structure and functions of amino acids: an overview -- Synthesis and degradation of proteins in pigs -- Factors that affect amino acid metabolism in pigs -- Amino acids and hormone secretion in pigs --Amino acids, gene expression and cell signaling in the pig intestine --Amino acids and immune functions -- Amino acids and obesity, diabetes and dyslipidemia -- Methodology for research on amino acid

-- Methods for amino acid analysis -- Surgical techniques used for research in amino acid nutrition -- Measurement of protein digestibility in pigs -- Measurement of synthesis and degradation of proteins -- Methods for measuring amino acids of endogenous origin in pig intestines.

Sommario/riassunto

This book provides developmental data regarding piglets (with a focus on the gastrointestinal tract), data related to amino acid metabolism in pigs, data related to nutritional and physiological functions of amino acids in pigs, nutritional requirements for amino acids in pigs, signaling roles of amino acids, methodological aspects in amino acid research and the pig model for studying amino acid-related human diseases.