



HAL
open science

Glutamine: Biochemistry, Physiology, and Clinical Applications

Dominique Meynial-Denis

► **To cite this version:**

Dominique Meynial-Denis. Glutamine: Biochemistry, Physiology, and Clinical Applications. CRC Press Taylor & Francis Group, 386 p., 2017, 9781482234299. hal-01594643

HAL Id: hal-01594643

<https://hal.science/hal-01594643>

Submitted on 5 Jun 2020

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Glutamine

Biochemistry, Physiology, and Clinical Applications

Glutamine: Biochemistry, Physiology, and Clinical Applications describes the different functions of glutamine (Gln) in animals and humans. Gln is both a nutrient and a signaling molecule, and its functions go beyond those of a simple metabolic fuel or protein precursor. This book has gathered together, in an unbiased and critical manner, all the available evidence and research on Gln including pathology (neurological diseases, intestinal diseases, critical illness, and cancer), physiology (successful aging), catabolic states, immunity, and exercise. Special attention is given to the potential benefit of Gln in states of insulin resistance and the role of Gln as a "conditionally essential" amino acid.

Features

- Promotes the signaling role of Gln in autophagy, which is an emerging concept in aging due to the fact that its increase can favor longevity.
- Considers how a high concentration of Gln and its accumulation in plasma and in the brain can induce toxicity and lead to severe central nervous system diseases.
- Demonstrates how Gln supplementation is beneficial for the recovery of intestinal mucosal integrity and for intestinal diseases and aging.
- Discusses why Gln supplementation in catabolic states is only warranted in the event of hypoglutaminemia and the absence of renal or hepatic failure.
- Highlights how Gln, as a promising biomarker or even as a therapeutic target in cancer, could have an important role in effective anticancer strategies.
- Includes future directions of Gln research.

The contributors are either pioneers or experts in the area of Gln from all around the globe, including Australia, Brazil, Canada, China, Europe, and the United States. This book is a valuable source of information for nutrition scientists, medical doctors, sports scientists, food scientists, dietitians, and anyone interested in nutrition. It is also a valuable resource for students in these fields and will be an important addition to university libraries.

Meynial-Denis

GLUTAMINE

Glutamine

Biochemistry, Physiology, and Clinical Applications

CRC Press
Taylor & Francis Group
an informa business
www.crcpress.com

6000 Broken Sound Parkway, NW
Suite 300, Boca Raton, FL 33487
711 Third Avenue
New York, NY 10017
2 Park Square, Milton Park
Abingdon, Oxon OX14 4RN, UK

K22989
ISBN-13: 978-1-4822-3429-9
90000
9 781482 234299



Edited by
Dominique Meynial-Denis

CRC Press
Taylor & Francis Group