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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Physiological pathways of PAD activity and citrullinated epitope generation -- from citrullination to specific immunity and disease in rheumatoid arthritis -- The role of citrullinated proteins in the pathophysiology of rheumatoid arthritis -- Protein citrullination: the link between rheumatoid arthritis and periodontitis? -- From genes and environment to anti-culture immunity in rheumatoid arthritis: The role of the lungs -- Neutrophils and their contribution to autoimmunity in rheumatoid arthritis -- Deimination in skin and regulation of PAD expression in keratinocytes -- Importance of citrullination on hair protein molecular assembly during trichocytic differentiation -- Deimination in the peripheral nervous system: A wallflower existence -- Deimination in multiple sclerosis and experimental autoimmune encephalomyelitis -- Protein hypercitrullination in CNS demyelinating disease reversed by PAD inhibition -- Deimination in prion diseases -- Deimination in Alzheimer's disease -- Ongoing studies of deimination in neurodegenerative diseases using the F95 antibody -- The role of protein deimination in epigenetics -- Identifying citrullination sites by mass spectroscopy -- Homocitrulline—an analogue and confounder related to citrulline -- Picking the PAD lock: Chemical and biological approaches to identify PAD substrates and inhibitors.

Sommario/riassunto

Deimination is a relatively new post-translational modification of proteins, whose recognition is ever-increasing. First linked to the pathology of rheumatoid arthritis (RA), deimination is a process by which selected positively charged arginine amino acids are converted to neutral citrulline amino acids by the peptidyl arginine deiminase (PAD) family of enzymes. Although the medical literature is rich with articles about the possible significance of deiminated proteins in RA, Protein Deimination in Human Health and Disease is the first publication to compile this knowledge and the growing amount of new information now known about the presence of deiminated proteins in the eye, skin, hair, gums, lung and nervous system, as well. As a result, this process has now been linked to numerous additional conditions besides RA, including cancer, glaucoma, Alzheimer's disease, Parkinson's disease, multiple sclerosis, spinal cord and peripheral nerve injury, Creutzfeldt-Jakob disease, among many others. Chronicling the earliest studies of deimination up to the present, this volume distills what is currently known about citrullination of proteins in the human body and is the first book of its kind on the topic. .