Production of Plasma Proteins for Therapeutic Use
Joseph Bertolini, Neil Goss, John Curling

DESCRIPTION

Sets forth the state of the science and technology in plasma protein production

With contributions from an international team of eighty leading experts and pioneers in the field, *Production of Plasma Proteins for Therapeutic Use* presents a comprehensive overview of the current state of knowledge about the function, use, and production of blood plasma proteins. In addition to details of the operational requirements for the production of plasma derivatives, the book describes the biology, development, research, manufacture, and clinical indications of essentially all plasma proteins with established clinical use or therapeutic potential.

*Production of Plasma Proteins for Therapeutic Use* covers the key aspects of the plasma fractionation industry in five sections:

- **Section 1: Introduction to Plasma Fractionation** initially describes the history of transfusion and then covers the emergence of plasma collection and fractionation from its earliest days to the present time, with the commercial and not-for-profit sectors developing into a multi-billion dollar industry.

- **Section 2: Plasma Proteins for Therapeutic Use** contains 24 chapters dedicated to specific plasma proteins, including coagulation factors, albumin, immunoglobulin, and a comprehensive range of other plasma-derived proteins with therapeutic indications. Each chapter discusses the physiology, biochemistry, mechanism of action, and manufacture of each plasma protein including viral safety issues and clinical uses.
• **Section 3: Pathogen Safety of Plasma Products** examines issues and procedures for enhancing viral safety and reducing the risk of transmissible spongiform encephalopathy transmission.

• **Section 4: The Pharmaceutical Environment Applied to Plasma Fractionation** details the requirements and activities associated with plasma collection, quality assurance, compliance with regulatory requirements, provision of medical affairs support, and the manufacture of plasma products.

• **Section 5: The Market for Plasma Products and the Economics of Fractionation** reviews the commercial environment and economics of the plasma fractionation industry including future trends, highlighting regions such as Asia, which have the potential to exert a major influence on the plasma fractionation industry in the twenty-first century.

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**ABOUT THE AUTHOR**

JOSEPH BERTOLINI, BSc (HONS.), MSC, PHD, is R&D Manager at CSL Bioplasma where he has been closely involved in the technical development and improvement of immunoglobulin and albumin products. He is active in national and international conferences and industry organizations and is a strong advocate for the advancement of bioprocessing.

NEIL GOSS, BSc (HONS.), PHD, is Executive Director at Further Options Pty Ltd., a consulting company specializing in biotechnology and the plasma fractionation industry. He was previously Director of R&D, CSL Bioplasma and is the founding organizer for both the Plasma Product Biotechnology Meeting series and the BioProcessing Network.

JOHN CURLING, BSc, is a consultant in bioseparations and protein purification whose clients have included numerous biopharmaceutical, biotechnology, and vendor companies. He pioneered the development of chromatographic methods of plasma fractionation and was the President of the Process Separation Division of Pharmacia. He has acted as an advisor to the World Health Organization.

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