
Preface

CCN is an acronym that stands for Cyr61 (Cysteine-rich 61)/CCN1, CTGF (connective tissue growth factor)/CCN2, and Nov (nephroblastoma overexpressed)/CCN3, which are the three founder members of this family. This family now comprises six distinctive members with the addition of three more members, namely, WISP (Wnt-induced secreted protein) 1-3/CCN4-6. They are all cysteine-rich secreted proteins and composed of four distinct modules connected in tandem, i.e., IGF binding protein-like, von Willebrand type C, thrombospondin type 1 repeat, and C-terminal modules, except for CCN5, which lacks the CT module. They are known to play roles in fundamental biological processes by serving as multifunctional growth and differentiation regulators that interact physically with various cytokines, extracellular matrices, and cell membrane proteins in various micro-environments. Abnormal regulation of these proteins is also involved in various diseases such as fibrosis and malignancy.

This volume will be valuable for all those interested in CCN proteins and serve as a valuable manual for cutting-edge methodologies and practical tips to overcome any obstacles with experimentation pertaining to the chemistry, biology, physiology, pathology, and pharmacology of CCN proteins in the context of basic, medical, and dental science's. We also believe that this comprehensive guide to methods and protocols for CCN research utilizing both basic and state-of-the-art techniques will be a valuable resource for a wide audience, ranging from the experienced CCN researchers looking for new approaches to junior graduate students taking their first steps into the field of CCN research.

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CCN Proteins

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