Preface

The Golgi complex has fascinated cell biologists for decades because of its unique architecture and role as a “Grand Central Station” for trafficking soluble and membranous cargo through the secretory and endocytic pathways. Indeed, the Golgi’s unusual architecture itself has thwarted efforts to fully understand how secretory cargo is imported, passed through, and exported from the Golgi complex. Nevertheless, tremendous progress has been made to reveal the molecular mechanism underlying the functional organization of the Golgi complex. Accordingly, new methods and techniques have been developed to address long-standing questions about the Golgi complex, which are the focus of this book. The chapters herein encompass a diverse set of methods for studying the Golgi complex, ranging from live and fixed cell imaging techniques to in vitro biochemical reconstitution systems. The book is targeted to both recent, i.e., new students, and established investigators in the field to provide strong practical instructions that can be directly applied to their research programs. Each chapter provides a detailed set of specific instructions, which should enable anyone to successfully complete the assays. Moreover, this methods series is particularly helpful by encouraging contributors to include a series of “Notes,” which often contain subtle nuances or unappreciated facts that often get omitted from straight methods protocols.

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