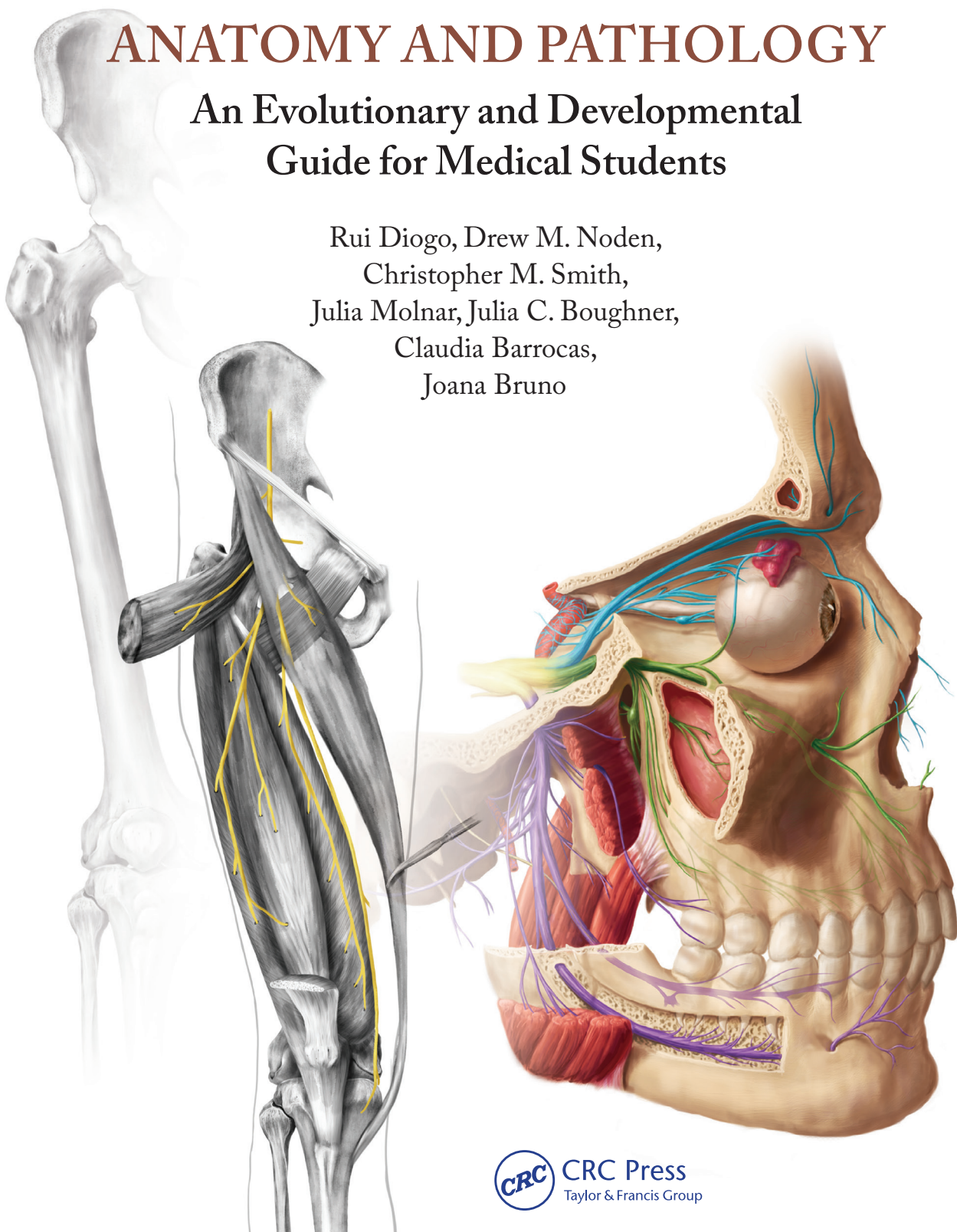


UNDERSTANDING HUMAN ANATOMY AND PATHOLOGY

An Evolutionary and Developmental
Guide for Medical Students

Rui Diogo, Drew M. Noden,
Christopher M. Smith,
Julia Molnar, Julia C. Boughner,
Claudia Barrocas,
Joana Bruno



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Preface

This book is unique because it supplements existing atlases and textbooks of human anatomy with a more logical framework to learn and understand the organization of the human body. It also includes *all* the anatomical terms that students must learn in a human gross anatomy medical course. These terms, shown in bold in *Grant's Dissector*, are *all* given in bold in the main text and included in the index. The organization of this book is more versatile than most human anatomy texts in that students can skip across and refer to different sections to design their own learning plan according to their individual learning style. To wit, a student can learn the skeletal, neurovascular, and muscular head and neck as a whole using Sections 3.2 through 3.4 and then use that information to understand how all these different types of structures are associated within each anatomical region of the head and neck in Section 3.5. Alternatively, a student might prefer to first study the head and neck by region using Section 3.5, and then understand the head and neck as a whole by studying Sections 3.2 through 3.4. This in-built flexibility accounts for the deliberate overlap between the sections focused on the head and neck, to ensure the students do not miss any important structure if they choose to study only Sections 3.2 through 3.4, or alternatively only Section 3.5. As a default approach, we recommend that students study the sections in the order provided in this book.

The only major aspects that are omitted in this book are the brain, internal organs, and external sexual organs. The justification for leaving out this admittedly significant content is that the evolution and development of the musculoskeletal system and related neurovascular structures are much more studied and thus better known than the evolutionary history and ontogeny of most other structures, particularly internal organs such as the stomach or the liver, for instance. Thus, unfortunately, it is not possible at the moment to