specific organism. I found this text highly informative and uniquely comprehensive.

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Oxford Dictionary of Biochemistry and Molecular Biology. By A.D. Smith, Editor. New York: Oxford University Press, 1997. 740 pp. $65.00.

In a fortuitous twist of fate, a copy of Stedman's Concise Medical Dictionary for the Health Professions arrived at my doorstep the very same day I began this review. This got me thinking about different approaches that I have used to find specific information during my education. In high school, all of the vocabulary I needed could be learned using the standard kind of dictionary a great aunt gets you as a middle school graduation gift. During college, I relied on my science textbooks' glossaries for definitions. Following graduation, I worked in a basic virology research laboratory, where I utilized the internet and laboratory protocol books to clarify unfamiliar terminology. Though these approaches sufficed, they often produced incomplete definitions that were limited by the context of the source. Currently, as a first-year M.D./Ph.D. student deciphering one more wave of unfamiliar terminology, I have returned to dictionaries, albeit of a different ilk. The Oxford Dictionary of Biochemistry and Molecular Biology is not well suited to my current needs, and nor should it be. Stedman's and other medical dictionaries occupy that particular niche quite well. This text is, instead, a source for definitions of more than 17,000 terms relevant to biochemistry and molecular biology, a resource that I foresee using frequently during my Ph.D. training and beyond.

The stated purpose of this dictionary is to be a "reference for biochemists and molecular biologists." Potential buyers should be clearly aware that this is a dictionary and not an encyclopedia. One will not, for example, gain a thorough understanding of the specifics of operation of a flow cytometer from the ten-line entry in this text. Instead, what one finds is a concise description of the basic principles of the apparatus and its use: "Flow cytometer: an apparatus for flow cytometry in which cells or subcellular components (e.g., isolated chromosomes), in aqueous solution . . ." In addition to over 2000 entries on proteins and enzymes, and more than 800 biochemical structures, there is information on techniques, nobel laureates, cell lines, and, notably, websites. I have found the entries succinct and clear, and the appendices outstanding. Eight appendices place at the ready information as seemingly disparate as the periodic table, an essay on bioinformatics, and a thorough list of restriction enzymes and recognition sequences; this is just the sort of information I have wanted previously when working at the bench. The genetic code, amino acid symbols, SI units and prefixes, and nomenclature rules and recommendations are also included.

This is a highly appropriate reference book for college and university libraries as well as research laboratories. It is not, however, the best resource for undergraduate students, unless they have a strong interest in biochemistry or molecular biology. There are basic biology dictionaries that cover a broader array of topics and, therefore, fulfill the needs of most undergraduates better. Given the scope of the entries and appendices, anyone actively involved in basic biological research, including any field that makes use of the techniques of biochemistry and molecular biology, will likely find this work quite useful. The greatest achievement of this
reference book is that it contains enough detail to be helpful to advanced scientists, and, yet, is concise enough to be reasonably priced and easy to use.

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**Neuroanatomy: An Atlas of Structures, Sections, and Systems, 5th Edition.** By Duane E. Haines, Philadelphia: Lippincott, Williams and Wilkins, 2000. 256 pp. $37.95.

To our ancient ancestors, the mass of gelatinous tissue between our two ears was a mystery for the most part; its importance, nevertheless, was underscored by the serious consequences of damage to it. Several thousand years later, the brain still represents one of the frontiers of biomedicine, a mystery which is tenaciously guarded behind layers of neurobiological riddle. Our first understanding of the importance of our brains to everything from the subtleties of memory and cognition to motor function came together as we gradually pieced together the various deficits suffered by individuals who had damaged parts of their brains. Therefore, the intricate anatomy of the brain became the initial road map to understand the function of the brain. This endeavor continues today, and neuroanatomy remains a common dictionary for piecing together the more detailed understanding of the brain afforded us by the advances in cellular neurobiology and neurophysiology. So it is conceivable that neuroanatomy is a fundamental course taken by junior medical students and graduate students of the neurosciences.

Crucial to learning any anatomy is a good atlas from which structures may be appreciated in their proper orientation. Enter Neuroanatomy by Duane E. Haines, a popular choice for neophytes to the field for the better part of the last two decades. This fifth edition represents the latest revisions to the text since 1995. Several changes, all for the better, have been made to this edition, making it Haines’ strongest product to date. Certain old radiograms have been removed, and sixty new labeled images (CT and MRI) have been included. This is one of the best features of the new edition. Labeled MRI images are placed adjacent to the labeled gross specimens, thereby rendering an effective and highly educational juxtaposition. The understanding of in situ neuroradiological anatomy will be of direct clinical utility for many students of neuroanatomy, and helps to place an important clinical context from which case studies are effectively interpreted. Moreover, consistent with emerging clinical technology, the neurovasculature is also represented by new MRA (magnetic resonance angiography) and MRV (magnetic resonance venography) images, which will again be a more common clinical visualization of the brain vasculature. Important clinical ascending and descending systems have also been coherently put together as color coded pathways to help integrate the systems with the anatomy in a very useful educational tool.

All together, the revisions of this latest edition of the Haines atlas make the book more clear, concise, and informative. This is a valuable resource for students of neuroanatomy. The clinical emphasis in the atlas actually serves to strengthen its educational utility as a neuroanatomy atlas, whether or not one plans to follow clinical neuroscience training. I would definitely add this book to my shelf.

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