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全国高等医药院校规划教材

英文版

PHARMACOLOGY

药理学

留学生与双语教学用

主编 娄建石
Chief Editor LOU Jianshi

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留学生与双语教学用

为来华留学医学生量身定制，兼顾本科双语教学需要。“以留学生需求为本，以临床医学本体为源”，突出以下特点：

- 根据留学生培养的教学大纲要求编写或改编，绝大部分内容与教学内容一致，少部分提高内容留待自学或拓展用
- 保留地道的专业医学英语，以简明、实用、够用为度
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内 容 简 介

本书系统地介绍了药理学的基本知识,包括常用药物的作用和原理、临床应用、不良反应以及药物相互作用等。内容简明易懂,适合临床医学专业学生初步学习药理学入门教材,也可作为其他医学相关专业学生学习药理学的教材,如护理学、口腔医学、麻醉学、中西医结合医学、医学检验、医学影像、公共卫生和药学专业等。本书也可供医药卫生专业工作人员学习和应用药理学的参考教材。

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由于医学科技的发展,该领域的理论知识和临床实践在不断变化。随着新的研究与经验不断扩充我们的知识结构,在实践、治疗和用药方面做出适当的调整是必要或适宜的。建议读者检查相关操作的最新信息,或检查每一用药生产厂家所提供的最新产品信息,在临床执业医师的指导下确定药物的推荐剂量、服用方法、服用时间以及相关禁忌证。经治医师根据对患者的了解和相关经验,确立诊断,确定每一位患者的服药剂量和最佳治疗方法,并采取适当的安全预防措施,是其职责所在。不论是出版商还是著作者,对于在本出版物使用过程中出现的任何个人损伤和(或)财产损失,均不承担任何责任。

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General Foreword

总序言

随着中国政治、经济、文化的快速发展,中国软实力和国际影响力的不断提升,“留学中国计划”的逐步实施,越来越多的外国人认识到留学中国的未来价值,来华留学生规模不断扩大。2013 年有来自 200 个国家和地区的 346 499 名外国留学生在我国 746 所高等院校和科研机构学习或进修,我国已经成为亚洲最大的留学目的地国家。

近年,来华学习医学的留学生人数增长尤为迅速,目前医学来华留学生人数已位居我国来华留学学生人数的首位,2013 年高达 21.76%,为 29 048 名。

为了维护我国高等教育的国际声誉,教育部高度重视医学来华留学生教育教学质量,不断加强对医学留学生教育教学的规范和管理,多种措施付诸实现。2007 年教育部即制定了《来华留学生医学本科教育(英语授课)质量控制标准暂行规定》,要求招生院校严格落实执行。2013 年 7 月教育部国际合作与交流司下达了《关于对招收本科临床医学专业(英语授课)来华留学生的高等学校进行专项检查的通知》,委托中国高等教育学会外国留学生教育管理分会组成专家组对招生院校进行专项检查。2013 年 8 月,全国性的“来华留学生(医学)教学专业委员会”成立大会暨第一次学术研讨会在天津医科大学成功召开。2014 年上半年,教育部国际合作与交流司又组织专家组对部分医学院校实施了飞行检查。2014 年 6 月,“来华留学医学教育 2014 学术研讨会暨首届医学院校国际教育学院院长论坛”在安徽医科大学举办。

来华留学生的教学质量是来华留学教育事业可持续发展的核心保障,来华留学生教育的教材建设是保障和提升教学质量非常重要的手段。适合医学来华留学生使用的教材的需求越来越迫切,临床医学专业的教材长期匮乏和不足,教材编写、教材内容、教材形式、教材版权等都需要进行整合和改进完善。

在教育部国际合作与交流司的指导下,中国高等教育学会外国留学生教育管理分会的支持下,众多医学院校的领导和专家经过多次讨论、磋商,决定成立“医学来华留学生教育教材建设专家指导委员会”,委托天津医科大学和清华大学出版社共同承担全国性临床医学专业英文版立体化教材编写和出版的具体组织工作。

天津医科大学有近 17 年的英语授课培养外国留学生的招生、教学历史,在全国医学来华留学生教育的实践方面开始较早,是教育部指定的第一批计划招生全英文临床医学专业的 30 余所院校之一,也是教育部首批批准的“来华留学教育示范基地”,设有教育部来华留学英语教学师资培训中心(医学),至今已举办 6 期培训班,为全国 52 所医科院校培训英语授课教师 364 人,所编教材在全国 30 余所西医院校教学中被借鉴或使用,在全国医学高等院校来华留学生教育教学领域里具有代表性和很大的影响力。



清华大学出版社在高等教育的综合出版领域里,仅次于高等教育出版社,排名我国第二位,是以出版全方位、多学科、立体化的高等教育教材为主的大社;上级主管单位为教育部,主办单位是清华大学,高质量、创新型、探究型的特色教材是其出版的重点任务,也是其肩负的社会职责所在,其所具有的强烈的社会责任感、主动性和积极性值得肯定。

据悉,该套教材近 50 种,主要供临床医学留学生和七年制或八年制医学生、医学本科生英语或双语教学使用。部分教材由我国长期从事医学来华留学生教育的教授学者编写,其余大部分教材是由清华大学出版社从多家国外出版社引进,改编出版,以适应我国的临床医学专业留学生课堂教学和临床实习所需。

该套教材的陆续出版,是我国对高校来华留学生教育教材系列化、专门化的首次探索。希冀其会对全面提升我国医学来华留学生教育质量水平,对规范我国医学来华留学生教育的教材建设,甚至对其他学科的留学生教材建设,起到积极的示范效应和引领性作用。

这是一个良好的开端,希望该套教材在今后教学中经过不断探索、不断总结,得到修订,日臻完善。

中国高等教育学会外国留学生教育管理分会

副会长兼秘书长

2014 年 10 月

蔡向代

Preface

前 言

Pharmacology is one of indispensable basic courses in medical colleges, and also is one of professional basic courses for students in various majors of clinical medicine, pharmaceutics and nursing. Pharmacological science provides an important theoretical basis and experimental methods for revealing the therapeutic principle to diseases, expounding the innate character of life activity, promoting the development of biological science. Pharmacology is the study of interaction between drugs and the body, the bridge between basic medicine and clinical medicine, the sharing resource between medicine and pharmacy. In recent decades, it appears new advances in change of disease spectrum, in requirement of public health, in research and development of new drug. With these advances, pharmacology shows the more and more importance and applicability.

The goal of this textbook is to provide a succinct, accurate, up-to-date, clinically relevant introduction to drug action, mechanism of action, clinical uses, adverse drug reaction, drug interaction, et al., on which rational therapeutics is based. The authors have aimed to make the textbook readable and useful in learning Pharmacology for the foreign medical student studying in China, and also suitable for five-year program medical students.

In our long-term teaching for international medical students and on the basis of the first four editions textbook of pharmacology, this textbook not only affords students basic knowledge and theories, but also lays a foundation for clinical courses. According to the development of pharmacology and drug research, many chapters have been updated. At the same time, it introduces some new drugs and new mechanisms of actions, especially the trends of pharmacology. The content of this textbook includes six sections, i.e., general introduction, autonomic nervous system drugs, central nervous system drugs, cardiovascular system drugs, internal organ and endocrine system drugs, and chemotherapeutic drugs.

The reference books used are as follows: Brunton L L, et al. 2011. Goodman and Gilman's The Pharmacological Basis of Therapeutics, 12th Edi; Katzung B G, et al. 2012. Basic and Clinical Pharmacology 12th Edi; Rang H P, et al. 2011. Rang and Dale's Pharmacology 7th Edi; Yang B F. 2009. Pharmacology 7th Edi; Lin Z B, et al. 2008. Basis of Medical Pharmacology. 6th Edi; Finkel R, et al. 2009. Lippincott's Illustrated Reviews: Pharmacology, 4th Edi.

This textbook is written by faculty members of the Department of Pharmacology, Tianjin Medical University. Since our ability and level are limited, there maybe some mistakes and

shortcomings in this textbook. I hope the readers give valuable opinions and comments. Any suggestion and comment are always welcome at anytime to send to author's E-mail. We have the capacity and ingenuity to correct these mistakes and shortcomings in next edition.

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