

# Preface

At a meeting three years ago, I bumped into Distinguished Professor Xiang-dong Wang, from the Zhongshan Affiliated Hospital of Fudan University. According to his seniority, I respectfully call him ShiShu. Because his research also involves bioinformatics methods, we talked more about this topic. I told him about our work in allergy bioinformatics and, in particular, about the allergen discriminating software SORTALLER and the allergen database ALLERGENIA that we have constructed. These are currently some of the best software and database systems available that have been established for allergenicity assessment and modification and substantive progress has been made in our laboratory. ShiShu's face lit up upon hearing this. He invited me to become editor-in-chief of the book "Allergy Bioinformatics" and to introduce our achievements to the booming community of Allergology. Many thanks to him for his wisdom, his tenderness, and his recommendations that have brought us this opportunity to reframe international research in allergy bioinformatics.

I and my 15-year friend Dr. Eyal Raz, professor from the University of California at San Diego, also a Distinguished Professor at Guangzhou Medical University, began to discuss and decide together the contents, chapters, and candidate contributors to this book. In addition, we discussed immunological theory, particularly a novel understanding of Antigenicity and a redefinition Allergenicity, which will facilitate the evaluation of all antigens in the future. We believe this to be a highlight of this book, and thus, it is hard to imagine that this book could be published without his encouragement, support, and urging. It was our honor to have also invited Professor Rudolf Valenta, from Medical University of Vienna, Wien, Vienna, Austria, to be a contributor to this book. Unfortunately, his busy schedule and our failure to follow-up prevented his contribution to the text, but we adopted some of his suggestions regarding the chapter setup. Our sincere wishes of peace and happiness always to Professor Rudolf Valenta.

With the help of Professor Hong-Der Shen, from Taipei Veterans General Hospital, Taiwan, China, we invited Professor Wayne Thomas, an allergological expert from Telethon Kids Institute, University of Western Australia, to

contribute to this book. He presented us with a wonderful and timely book chapter. Pingchang Yang, formerly an associate professor at Canada McMaster University and currently Distinguished Professor at Shenzhen University Medical College, has also happily contributed to this book. In addition, Taiwan expert Professor Jiu-yao Wang (Department of Pediatrics, Allergy and Clinical Immunology Research Center, College of Medicine, National Cheng Kung University, Tainan, Taiwan, China) and Professors Chih-hsing Hung and Chang-Hung Kuo (Kaohsiung Medical University Hospital, Kaohsiung, Taiwan, China), who hold important positions worldwide in the field of allergy for their academic achievements and are worthy of teaching China's mainland scholars, gladly joined our writing team and made excellent contributions. Some authors (including professors Zehong Zou, Jianguo Zhang, and He Lai; Drs Wen Li, Xueting Liu, Junyan Zhang, Shan Wang, Zhaoyu Liu, Junshu Liu, Ying He, Yuyi Huang, Huifang Chen, and Juan Wang) are my colleagues working in the allergy clinic or engaged in allergenicity evaluation and modification, bioinformatics software and/or database construction, and I have much gratitude to them for their diligence and professionalism in their contributions to this book.

Sincere appreciation goes to the students who have worked in Guangdong Provincial Key Laboratory of Allergy and Clinical Immunology, the State Key Clinical Specialty in Allergy, the State Key Laboratory of Respiratory Disease, and the Second Affiliated Hospital of Guangzhou Medical University. They have been dedicated to allergen data testing, online software research and development, and experimental allergology. However, their names have not often been listed as authors for publication. I would like to acknowledge them here. They are Yanfang Li, Honglin Xia, Jierong Gao, Jiangli Cheng, Junling Peng, Huifeng Dong, Gui Xu, Jiang Li, Yuhe Guo, Huiyan Wu, Linmei Li, Chenxia Xu, Shufen Cao, Zhi'ao Guan, Zhiheng Ji, Bizhou Li, Renren Shi, Juan Wu, Lanyan Xiao, Miaolian Zhang, Jiandong Zhu, Baotong Wu, etc. I wish them all much success and enjoyment in their present positions.

After opening this book, in addition to the professional knowledge in allergy bioinformatics, you will also enjoy the American English! Beyond the main contributions by the authors, my old friend Lucinda G. Beck from UCSD has repeatedly edited the language and provided professional revisions for all parts of this book in preparation for publication. She was busy with her family during this time and was always eager to help me. I love her language talent, earnest, hard-working attitude, and meticulousness. The existence of this book will forever record my gratitude and benediction to her.

Because of the many interesting contributions from named and unnamed authors, we believe this book will be beneficial to the readers.

Fourteen years ago, I was lucky enough to become a postdoctoral student of the Yangtze River Scholar Professor Shao-Heng He. Since then, I have had a never-ending enthusiasm for allergology. Professor He's 60th birthday celebration will be held next April 2016 and I dedicate this book to him as a birthday gift.

Many many thanks to my wife Shulan Wang and my daughter Tianyu Tao for keeping the lights on the living room waiting for me to return home from my office at midnight. Their patience and support have allowed me to be devoted to my allergy research and to writing and revising this book.

Thank you all!

August 2015

Ailin Tao



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