Preface

n a summer evening in 2003, at a meeting of the Invitational Conference of Investigating Immunohematologists in Carrollton, KY, the two of us (MER and SRP) were suddenly feeling our mortality and talking about the rapidly declining number of famous blood groupers at our meeting. We had been blessed to have worked in immunohematology during the latter half of the 20th century. Landsteiner was dead by the time our careers began, but blood group serology was at its height, and even many of the giants from earlier in the century were still alive, still working. And most of the best-known blood groupers were friends of ours! But by 2003 they had begun to retire, die, or (as consolidations began) be laid off despite distinguished careers. Their discoveries and scientific accomplishments in the field of immunohematology were recorded, but we lamented that newcomers to our field would not personally know these giants, and the many anecdotes and behind-the-scenes stories that we had been raised on were about to be lost. Thus, we decided that the time was ripe to write a history book of blood groups and the people who worked on them: the blood groupers. We thought their accomplishments—especially those based on only relatively crude manual agglutination methods—were amazingly clever. Or, as the Brits would say, Bloody Brilliant!

We began innocently enough, thinking that 5 years might be a reasonable time to prepare a book. We contacted colleagues and started interviewing as many as we could— "interviewing" being generally synonymous with sitting around chatting with old friends. We also began looking into published accounts, surprised at the material that was already available, especially for the first half of the 20th century. Soon, like Topsy, our project had grown. We were drawn deep into the history of our field, learning details that we had never taken the time to uncover as we went about our daily work. Each person we talked with, each paper we read, sent us chasing another person, another detail. We met immunohematologists we had not previously known and family members of many others who had passed on. All filled our coffers with stories, memorabilia, and historical gems. Thus, our little project has taken us far longer than we conceived and given us far more details than we could ever hope to publish.

Perhaps the first thing we learned was that everyone's view of history is different. There were as many different versions

of some events as there were tellers—more, actually, for some colleagues gave different accounts on different occasions. Shockingly, many of these accounts differed from our own memories of the same events! So we learned what many true historians know: that one must simply pick and choose and make the best account of events that one can. We hope we have done so, but realize that our version may not please everyone. Like any historical account, our assessments are subject to our own biases. We hope errors of fact are few, but we welcome corrections, comments, and additional views. Sadly, we have been unable to include all the stories we gathered, no matter how precious. Nor have we been able to name or include everyone who deserves mention. Most often this has been due to insufficient information rather than lack of recognition of their accomplishments. The lexicographer Samuel Johnson reportedly once compared dictionaries with watches: "The worst is better than none, and the best cannot be expected to go quite true." We did our best and can only hope we got more right than wrong.

Our tale covers roughly 100 years. Blood groups were discovered in 1900. By 2000, most clinically significant blood group antigens had been detected and traditional test tube methods were being replaced. Although we have included procedures such as solid phase, gel, and even the molecular methods that have entrenched themselves into blood group testing, our focus is really on tube testing and the many immunohematologists who spent their days gently shaking small test tubes to resuspend pelleted buttons of red cells. Even though such tests are still regarded as a "gold standard," their day has passed. New blood groupers likely find it difficult to believe that such subjective tests—open to so many potential sources of error—could have been the basis for such farreaching discoveries. Yet they were.

Our story inevitably includes the scientific discoveries and applications of blood group serology. But while we provide some details, from a scientific standpoint these advances are better told elsewhere. Classic texts by Race and Sanger, Daniels, Mollison, Issitt, and Anstee are just some that come quickly to mind; many newer resources are available and more current. Our intent is to tell the tale as one centered less on blood groups and more on blood groupers. Many were interesting folks whose personalities helped shape the direction of immunohematology. We also hope to have captured

some sense of the times in which their work occurred—days mostly before computers, the Internet, and other technologies we now take for granted. Even we, whose careers began well into the latter half of the century, recall using tools such as typewriters, mimeographs, calculators, slide rules, and other devices that today seem as incomprehensible as an abacus. We washed and reused glassware, including test tubes; made our own pipets; relied on our wits; and acted usually with little regulatory oversight. We saw many changes in our own day and have done our best to capture some of them here. We have also included aspects that had an impact on blood groupers, such as professional organizations, education, certification, and general blood transfusion practices. Many blood groupers were intricately involved in these activities, which were woven into our professional lives.

Although we uncovered a few historical "gems" during our preparation of this book, the tome is primarily a compilation of stories gathered from many sources, rather than original research. Especially for the earliest years of blood group serology, much of what we include has been published or told in one form or another. We hope it will be useful to have them gathered and re-told here, along with tales we have gleaned from countless interviews and from our own memories.

We want to mention a few provisos. Because this is a historical account, we have chosen (in most instances) to use terminology in vogue during the heyday of blood group serology—the latter 20th century in which we were involved. Our reference list is large, and while it includes the sources used in preparing our history, it does not include every applicable scientific paper; many are secondary sources. For those

wanting to dig deeper, we hope our list of the sources we found informative will provide a good starting point.* Again, seek a good blood group textbook for scientific data. Photographs are used with permissions, yet in many cases determining the legal copyright holder has proved impossible, despite our best efforts. Our apologies to anyone holding photographic rights of which we are unaware.

We could not have prepared this book without the help of a huge number of people. Colleagues shared their stories and often scoured through their attics and basements. Family and friends of many scientists generously gave us materials and tales. Librarians and archivists from around the world—who are surely among the most polite, helpful, and accommodating people ever—gave immeasurable assistance. We had help with preparing figures and maps, with locating photographs, and we had the assistance of patient friends and colleagues who read and reviewed draft after draft of our manuscript. Space does not allow us to list all who deserve to be thanked, but you know who you are and we are deeply in your debt. Very special thanks to just a few: AABB and ISBT historian Paul Schmidt; Jane Swanson; Sylvia Boyd; Patrick Lincoln; Pat Arndt; Marilyn Moulds; Edward Eichhorn; Dawn McInnes of the Clendening History of Medicine Library; and the late Peter Sneath, George Garratty, and John Moulds. SRP would especially like to thank his barber, Phil DiMaggio, whose "How ya' comin' with that book?" at every haircut for a decade helped force the project to stay on track.

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^{*}Additional sources not specifically cited in the book but still useful to us and perhaps to you are available online at http://marketplace.aabb.org/EbusPPROD/Marketplace.aspx

[†]This is especially true of the many photographs collected over the years by ICII (see Chapter 20), for which the original sources are mostly unknown.