

Preface

A quick scan of the Internet using the search term “stem cells” immediately delivers more than 17 million “hits”. Why then a textbook on stem cells? Exactly for that reason. Stem cells have become such a “hot topic” in every kind of literature and media source imaginable that a day hardly goes by without the public in every developed country reading or seeing something about these cells. Popular magazines, information sites for patients, novels and even party political programs may all mention stem cells sooner or later. How then, is one to understand what all the attention is about? How is one to understand whether stem cells have any relevance at all to general health or disease treatment now or in the future? How can facts from fiction be distinguished?

This is what this book is about and why it was written. The authors first wrote a popular book on stem cells in 2006, in Dutch. It ended up in school and public libraries, in medical and engineering students’ reading lists and in politicians’ briefcases. It went into a second print in 2007 just before it became clear that a new cell, called an induced pluripotent stem cell, was going to impact the research field and our thoughts on which way research should go. Here was a reason to rewrite and update the book and this time to make it more widely accessible by writing it in English. Our goal has been to provide a state of the art overview of the scientific facts and to highlight the science fiction, to provide the reader with the basic information to understand what the field is about, where it might be going and why so many of the promised therapies are still far from clinical application. We interviewed some of the top scientists in the field, we describe examples of clinical successes and we show examples of institutes and organizations in which exciting research is taking place. We also describe the pitfalls for the unwary looking desperately for a solution to a loved one’s disease.

We hope that the book will provide you, the reader, with what you are looking for in searching through your 17 million hits.

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