ZINC IN HUMAN HEALTH
Zinc in Human Health

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This book is dedicated to my mentor Prof. Dr. Holger Kirchner, who encouraged me to start zinc research 20 years ago.
Foreword

A little more than ten years ago, I travelled from Pittsburgh to the Cayman Islands to attend a “Zinc Signals” conference organized by Chris Frederickson. Chris had invited me, then a relative newcomer to the field, to present the work Ian Reynolds and I had recently published on the role of intracellular zinc release in neuronal cell death, to a gathering of approximately thirty or forty scientists that worked primarily on the biology of zinc. That meeting was a true eye-opener for me. For nearly a week, I was surrounded by chemists, immunologists, yeast biologists, and countless other specialists, all brought together by their devotion to the biology of zinc – all wonderfully willing to share their insights, reagents, and a good time snorkeling in the reef known as Stingray City. I made many new friends there, and, importantly, established several new collaborations that, to this day, continue to evolve as well as enrich my scientific life in countless ways. It was in Cayman I became an official zinc scientist.

In 2008, with Glen Andrews leading the way, we established the International Society for Zinc Biology, over which I have the honor of currently presiding. After a highly successful gathering that year of approximately 140 zinc scientists in Banff, Canada, and again in Jerusalem, Israel nearly two years later, we are now in the midst of preparing for our third official conference as a society, to be held in Melbourne, Australia in January 2012.

And now this very timely book! My colleague Lothar Rink has assembled a rich collection of chapters that represent the very essence of the field, a snapshot of the brilliant convergence of medicine and basic science in the study of zinc in human health and, importantly, disease. Leaders of their respective fields have made insightful and thorough contributions to this book, covering topics that range from human nutrition to Alzheimer’s disease, from pregnancy to aging, from the digestive system to the brain. To the “zincophile”, the book will offer an intellectually rewarding, scholarly collection of the most important components that constitute the field of zinc biology as it currently stands. To the newcomer, this book represents an opportunity to learn what the field has been up to since Ananda Prasad firmly established zinc as an essential nutrient in humans more than fifty years ago. However, be forewarned, this is a fast-moving field that has finally reached a critical mass of able and productive scientists. The future of zinc research is now here. Enjoy the ride, and as always, think zinc!

Elias Aizenman, Ph.D.
President, International Society for Zinc Biology
Pittsburgh, PA, U.S.A. March 2011
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