PREFACE

Goals of the 2025 Release

Dr. Sylvia Mader's text, *Inquiry into Life*, was originally developed to reach out to science-shy students. The text now represents one of the cornerstones of introductory biology education. *Inquiry into Life* was founded on the belief that teaching science from a human perspective, coupled with human applications, would make the material more relevant to the student. Interestingly, even though it has been over 40 years since the first edition was published, this style of relevancy-based education remains the focus of national efforts to increase scientific literacy in the general public.

As we have all learned over the past few years, the challenges facing us, from climate change to the COVID-19 pandemic, are demanding that we as a society not only become more scientifically literate, but also understand and appreciate the importance of the process of scientific thought and the roles of scientists in our culture.

Students in today's world are being exposed, almost on a daily basis, to exciting new discoveries and insights that, in many cases, were beyond our predictions even a few short years ago—from revolutionary new techniques to develop vaccines to stop pandemics, to the impacts of climate change on their local environments and advances in medical techniques to fight diseases such as cancer. Therefore, it is important we not only know why we are different, but how we are the same as the other species we share the planet with. It is our task, as instructors, not only to make these findings available to our students, but to enlighten them as to why these discoveries are important to their lives and society. At the same time, we must provide students with a firm foundation in those core principles on which biology is founded, and in doing so, provide them with the background to better understand the many discoveries still to come.

As an educator, the author of this text understands the needs of our colleagues in developing curricula that increasingly focus on relevancy and delivery in the online environment. McGraw Hill has long been an innovator in the development of digital resources, and the *Inquiry into Life* text is at the forefront of the integration of these technologies into the science classroom. In this release, that involved:

- Making the content more relevant to the current generation of students by updating chapter openers and themed readings to focus on issues and topics important to the discussions that students are hearing in the world around them.
- Integrating relevancy modules to supplement the format of a traditional textbook and provide another avenue for students to engage with the content.
- Redesigning the artwork to ensure it transitions to the digital world of mobile devices.
- Transitioning to the Evergreen model of content delivery that involves the ability to provide continuous updates over the life of the project.

Diversity, Equity, and Inclusion in the 2025 Release

In preparation for this release, the author worked with a diversity, equity, and inclusion reviewer to identify areas in the narrative and visual presentation where content could be made more sensitive to, and representative of, the broad spectrum of learners taking biology courses today. The feature, Diversity in Science, highlights scientists from diverse backgrounds who have contributed to our understanding of our world. In addition, continual improvements have been made in the accessibility of the artwork and media that support the text.

Throughout this release of *Inquiry into Life*, the author worked to make the text as gender-neutral as possible to reflect the changing attitudes in society on gender identification. The terms *male* and *female* are used where needed to reflect the biological sex of the organism.

Virtual Labs and Lab Simulations

While the biological sciences are hands-on disciplines, instructors are now often being asked to deliver some of their lab content online, as full online replacements, supplements to prepare for in-person labs, or makeup labs. These simulations help each student learn the practical and conceptual skills needed, and then check that they understand these skills and provide them with feedback. With adaptive pre-lab and post-lab assessments available, instructors can customize each assignment.

From the instructor's perspective, these simulations may be used in the lecture environment to help students visualize complex scientific processes, such as DNA technology or Gram staining, while at the same time providing a valuable connection between the lecture and lab environments.