

# Integration in Bioscience: Dynamic, Inclusive, and Full of Possibility

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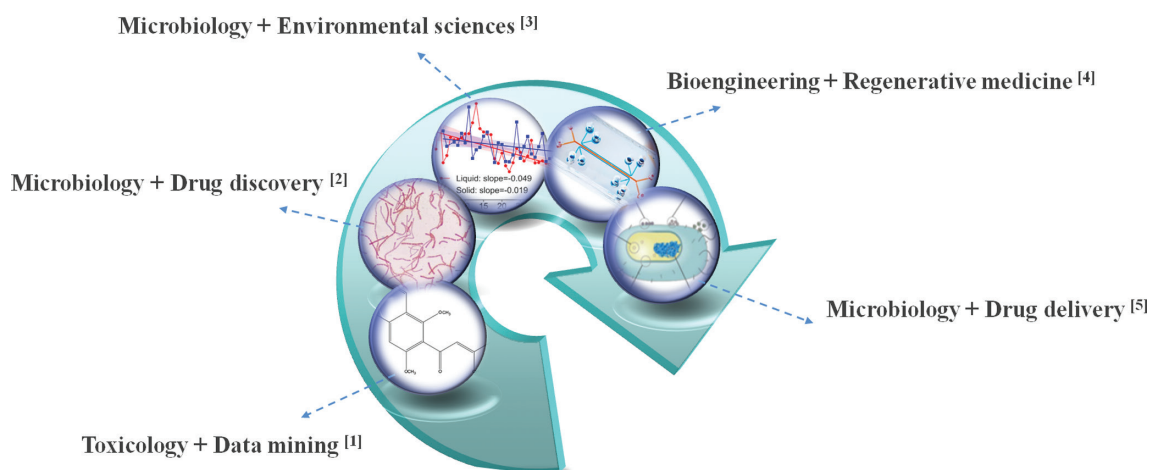
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Dear colleagues,

In 2023, *BIO Integration* is entering our third year of publishing multidisciplinary viewpoints in bioscience. Our process remains the same: *BIO Integration* is an open-access journal focusing on original, cutting-edge, interdisciplinary content in the field of biosciences. In 2022, the journal focused on many aspects of integration in biomedicine (**Figure 1**). In a study conducted by Bezerra et al. at the Federal University of Ceará, web-based tools were integrated with pharmacokinetics to predict the pharmacokinetic and toxicological properties of lead flavonoids [1]. Focusing on the misuse of antibiotics and the discovery of novel antibacterial drugs, Geraldi et al. successfully isolated five bacillus species from the Parangkusumo coastal sand dunes and demonstrated their antimicrobial activity toward opportunistic pathogenic bacteria [2]. In the “Voice series” this year, Doris Yoong Wen Di shared advanced research results in COVID-19 detection during wastewater treatment, achieving highly successful integration of microbiology and environmental sciences [3]. In addition, a highlight of this volume was the special issue “Models and techniques in medical research,” which examined cutting-edge advances in experimental models or techniques associated with multiple disciplines, such as “organ-on-a-chip” [4] and bacteria-derived components for cancer immunotherapy [5]. We greatly appreciate these authors for choosing *BIO Integration* to share their valuable research results and experience in multidisciplinary integration. All

the content can be found on the journal’s official website (<https://bio-integration.org/>). I hope you enjoy reading this interdisciplinary bioscience content.

Although the development and trends in integration in bioscience are unpredictable and sometimes disruptive, we believe that their dynamic and inclusive nature will enable great possibilities. In December 2022, *Nature* published a list of “science events to watch for in 2023,” more than half of which are in the domain of integrative bioscience [6]. For example, in Alzheimer disease (AD) research, one event is monoclonal antibody treatments, such as lecanemab (developed by Eisai and Biogen) and blarcamesine (developed by Anavex Life Sciences) [7]. Drugs for AD were a controversial topic in 2022, and the foundational hypothesis suggesting that A $\beta$  plaques are the primary cause of AD, published in 2006, was questioned because of possible scientific misconduct [8]. Many problems have been noted, including the therapeutic effect of aducanumab, a monoclonal-antibody-based treatment reported to decrease the amyloid-plaque load in the brains of patients with AD. In Volume 3 of *BIO Integration*, Wei-Jye Lin and Stephen R. Salton objectively discussed the approval of aducanumab by the US Food and Drug Administration, as well as its controversial clinical outcomes. In their opinion, although controversial, the approval of aducanumab is a positive sign for AD research, because it has encouraged further investment in developing new therapeutic strategies for AD [9].



**Figure 1** Remarkable interdisciplinary integration of BIOI publications in 2022.

Finally, it is my pleasure to report the journal's efforts in driving progress in modern medicine and integrative bioscience in the past year. In 2022, the journal published more than 25 high-quality peer-reviewed manuscripts online. We are pleased to see that researchers are increasingly willing to share their original studies through the interdisciplinary forum of our journal. Citations to articles published in *BIO Integration* have steadily increased in the past 3 years. A major step was the journal's indexing by SCOPUS, one of the largest databases of peer-reviewed scientific information. We are proud of the achievements of *BIO Integration*, and we would like to thank our authors, readers, editors, and reviewers, whose hard work

and dedication have been instrumental in our journal's development. We welcome every submission and suggestion to help improve our principles and practices, and we are grateful for the opportunity to contribute to advancing science. The journal's future depends on continuing support from the interdisciplinary integration community. We hope that *BIO Integration* will receive consistent support from our readers, authors, editors, and reviewers in the coming years. Together, we can bring *BIO Integration* to new heights.

Yours sincerely,  
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