Publisher's Comment

Gary W. Schnitz

Welcome to the *Journal of Biocommunication* issue 43-2. The issue represents our second issue of 2019 and our seventh issue designed for our new mixed publishing format that offers our authors traditional publishing as well as open access options.

Our Journal is dedicated to the dissemination of high-quality research, and we accept manuscripts, which are of interest to the broader bioscience community. We welcome authors reporting on their high-impact discoveries, cutting-edge research, and new imaging methodologies. Our professional organizations and the Journal are critical for generating open access content of scholarly, intellectual, and creative merit.

OPEN ACCESS

Introduction

The Journal Management Board is proud to publish *Journal of Biocommunication* issue 43-2. In this issue we present three academic articles, our 25 Years Ago Column, 11 Research Abstracts with accompanying posters, and two Galleries.

25 Years Ago in the JBPA/JBP

Thomas St. John Merrill offers his column, "25 Years Ago in the JBPA/JBP," as a look back at the legacy technology, photographic techniques, and equipment from years past. Thomas combines a reflective discussion of these articles with some of his own personal insight. In his column, Thomas reviews *JBP* Volume 62, Numbers 1 through 4 that include content published by authors: James E. Hayde, A. Robins Williams, Gigi F. Williams, Michael A. Morris, Kenneth V. Michaels, Arthur Strange, Randy Austin-Cardona, and Leon J. Le Beau.

Thank you, Thomas, for continuing to help our professions move forward by better understanding some of our past.

Integrative Modeling and Visualization of Exosomes

In this article, authors Julia Jiménez, Ludovic Autin, Inmaculada Ibáñez de Cáceres, and David S. Goodsell discuss how the visual information from the areas of proteomics, microscopy, and structural biology can be integrated to create structural models of exosomes, the small extracellular vesicles released from cells. Three visualization methods are discussed

and compared. These methods include: the 2D painting of an exosome cross section using traditional media, a manual creation of a cross section using the mesoscale 2.5D digital painting software called cellPAINT, and the generation of a 3D atomic model using the mesoscale modeling program cellPACK. Within the article, the authors provide information for obtaining the entire cellPACK suite of programs.

Visualization of a Juvenile *Australopithecus afarensis* Specimen: Implications for Functional Foot Anatomy

In this article, authors Eleanor Milman, John Daugherty, Zeresenay Alemseged, Kevin Brennan, and Leah Lebowicz discuss anatomy and taphonomy of the 3.3 million-year-old DIK-1-1 foot fossil discovered in Dikika, Ethiopia. Because bipedal locomotion is one of the earliest characteristics of human functional anatomy to appear in the fossil record, its associated anatomy in early hominins has significant implications for human evolution. The skeleton and overall morphological characteristics of the foot in *Australopithecus afarensis* provide important clues about the origins of upright bipedal locomotion.

The purpose of this project was to create a 3D animation that accurately reconstructs the anatomy and taphonomy of the Dikika foot. By segmenting CT data, 3D modeling, and animation, this investigation aims to contribute to the breadth of fossil reconstruction techniques in the field of biomedical visualization.

Professional Clinical Photography to Assist Patients with Pectus Carinatum

Author John Yeats presents an article about the photographer's role in the documentation, education, and care of patients with Pectus Carinatum - a structural deformity of the sternum. This paper describes how a series of clinical photographs, along with 3D imaging, were created and presented by photographers to each patient in a medical clinic to demonstrate changes in the size and shape of the patient's chest deformity. This interaction has increased patient understanding and compliance for treatment, and it subsequently reinforces the relevance and importance of clinical photographers in patient care.

JBC Published Abstracts

This section includes 11 research abstracts and their accompanying posters presented at the Association of Medical Illustrators' annual meeting held in Milwaukee, Wisconsin. We think that you'll enjoy reviewing the diverse abstracts from these recent graduate students.

JBC Galleries

We feature two JBC Galleries for this issue. We first include the award winners from AMI's 2019 Salon exhibition in Milwaukee, Wisconsin. We also include BCA's 2019 BioImages Exhibition from their recent annual meeting at the Asilomar Conference Center near Monterey, California. We hope that you will take another look at these remarkable, award-winning illustrations, animations, medical photographs, bioscience imaging, and interactive media entries.

Author of this Publisher's Comment

Gary Schnitz currently serves as JBC Board Chair and JBC Co-editor. He is a Past President and a Past Chair of the Board of the Association of Medical Illustrators. He is a recipient of the AMI's Lifetime Achievement Award, AMI's Outstanding Service Award, and he is a Past President of the Vesalius Trust. He is a board certified medical illustrator living in Carmel, Indiana.

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