

Orthopaedic Musculoskeletal Biologics Research Impacts Patient Care: The First Annual *Arthroscopy* Orthobiologics Virtual Special Issue



Abstract: Orthobiologics can modify symptoms and improve healing in a variety of musculoskeletal conditions as a part of office-based care or as an adjunct to surgery. Orthobiologics harness the benefits of naturally derived blood components, autologous tissue, and growth factors to reduce inflammation and optimize the host-healing environment. The *Arthroscopy* family of journals seeks to positively influence evidence-based clinical decision-making by publishing peer-reviewed biologics research. This special issue contains recent influential articles strategically chosen to positively impact patient care.

Introduction

Orthobiologics can provide symptom-modifying benefits and improve a host's healing potential during the course of treatment for a variety of musculoskeletal conditions. Typically, we offer these treatments as a part of office-based care or as an adjunct to surgery. In general, orthobiologics harness the benefits of naturally derived blood components, autologous tissue, and growth factors to reduce inflammation and promote a positive impact on the host healing environment. Extensive laboratory and clinical evidence has investigated their mechanism of action and effectiveness in such conditions as localized articular cartilage loss, osteoarthritis, rotator cuff pathology, cartilage repair, ligament healing, acute or chronic muscle or tendon injury, and as an adjunct to promote bone healing. Most basic science and clinical studies to date have focused on platelet-rich plasma (PRP), bone marrow concentrate, adipose-derived stromal fraction, and amniotic suspension allografts.

The articles selected for the first annual *Arthroscopy* family of journals Orthobiologics Virtual Special Issue are introduced in May 2023, concomitant with the Arthroscopy Association of North America Annual Meeting and the 2023 Annual Biologic Association Summit. The Virtual Special Issue Table of Contents is hosted on the *Arthroscopy* journal website at https://www.arthroscopyjournal.org/biologics_vsi_2023. The articles were carefully chosen as representing the most outstanding and influential research in determining evidence-based decision-making when using

orthobiologics as an adjunct to the care and treatment of musculoskeletal conditions. Article influence was determined on the basis of the number of times the article was cited by other articles, saved on bibliographic applications intended for future use, and discussed on various social media platforms. Final determination was based on the Guest Editor's (BJC) knowledge and experience in this space. These articles encompass an infographic,¹ laboratory science,²⁻⁴ clinical research,^{5,6,7,8} systematic reviews and meta-analyses,⁹⁻¹⁶ and technical notes^{17,18} for the treatment of a wide range of disorders, including hip and knee arthritis, anterior cruciate ligament reconstruction, chondral defects, meniscal injury, and rotator cuff pathology. The *Arthroscopy* family of journals remains a strong repository of the most up-to-date evidence upon which we as scientists and clinicians can rely as we advance the research and clinical options for the benefit of patient care.

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