

Guest Editorial

Dental Biomaterials: Transition to the Future

This is an exciting time for oral, dental and craniofacial research in general. There are dynamic developments in areas ranging from nanotechnology, developmental biology, genetics and regenerative medicine to personalized medicine. A stalwart in the dental research arena, dental biomaterials science, is itself in the midst of transition in terms of refocusing and embracing exciting new changes. The past decade has seen a transition from an emphasis on materials engineering research toward biological engineering research. However, the development of synthetic dental materials will continue for a decade or two until a biological method of tooth replacement is perfected. Even after that, it is most likely that there will be a mixture of materials-based and biological strategies in clinical practice.

Dental Biomaterials continues to be at the forefront of dental research because biocompatible, long-lasting materials that can withstand the adverse conditions of the oral environment are still needed. Exciting research in adhesives, resin composites, ceramics, implant materials, nanoparticles and antibacterials continues. Clinicians will have much to look forward to in the future as new materials are developed for clinical applications by combining advances in the fields of bioengineering, molecular biology and tissue engineering, thereby making it a very dynamic time for biomaterials research.

Changes in the dental profession will be driven in part by continued dissemination of novel and important research in oral, dental and craniofacial sciences via scholarly journals within and outside dentistry. The launch of a journal dedicated to experimental dental science will provide an additional venue for such dissemination and is to be lauded.

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