

On Prosthodontic Interfaces: A Continuing Narrative



This journal continues to underscore the distinctiveness of prosthodontic interfaces—the discipline's mandate for management of patients' oral rehabilitative needs. Our 2003 IJP supplement¹ sought a plausible approach to the topic by selecting four such points of interaction: between materials placed in both teeth and supporting host tissues, between the occlusal surfaces of teeth, and the subjective one between patients and dentists. The first two interfaces—restorative materials and tooth tissues and implant materials and bone host sites—are the strong focus of past and current research. This has understandably resulted from the impressive clinical yield of studies on adhesive and other restorative materials, as well as commercially pure titanium. New materials and design changes that interact at both macroscopic and microscopic levels as well as emerging clinical protocols continue to provide easy and gratifying clinical access to the benefits of associated biotechnologic developments. They also act as an animating force in these areas; they offer much scope for professional/commercial synergies that continue to catalyze "open-minded quests for discovery."

Regrettably, robust research in the two other interfaces has tended to lag behind. I would even suggest that the perennially promising occlusal interface once provided an aura of scientific chic while promising hope for a new nonmechanical era. However, it continues to struggle to find a scientifically robust clinical narrative, and it remains dominated by empiricism and anecdote instead of taking full advantage of research observations related to its neurophysiologic context. It seems opportune for clinical educators to reapproach this area in a manner that establishes clear determinants of what the profession has learned from normative studies. This approach would ensure a better understanding of the true significance of how teeth interface to maintain an asymptomatic and physiologic occlusion.

The clinical returns from the investment in studying the applications of these three interfaces contribute in varying ways to the cultural climate that current dentists, especially new graduates, find themselves in. Ours are challenging financial times that risk placing perceived treatment needs ahead of the most

neglected of the prosthodontic interfaces, namely the patient-dentist one. Such times of crisis often elicit responses that are found in almost everyone's hymnal—the placing of oneself as the center of life with a risked spill-over effect into professional attitudes—which is why I suggest that the fourth interface needs scholarly reinforcement. This has been largely neglected in spite of the efforts of a small number of clinical scholars who continue to study and promote it as one deserving a far stronger commitment. The fourth interface is all about sustaining the profession's integrity by promoting clinical research that also includes definition, disclosure, and management of conflict of interest. Our discipline in particular must continue to demand approaches to a stronger emphasis on the ongoing role of professional humanism.

This issue introduces our readers to two leading scholars whose clinical concerns have taken exciting and different directions. Lyndon Cooper is one of the best minds in our discipline; he employs his combined expertise in clinical and basic sciences to brilliantly synthesize clinical information in a lucid and prudent manner. I heard him speak in Beijing last December on the profession's required commitment to manage the edentulous population's ongoing needs, and his was a very provocative take on a challenge that continues to confront us. Dr Xinquan Jiang is a researcher in the fascinating field of bioengineering and regenerative medicine and presented at the September 2011 ICP Meeting in Hawaii. His was a scholarly synthesis of research that promises to eclipse traditional approaches to replacing and rebuilding bone sites for prosthodontic management. His invited commentary and Dr Cooper's interview provide fascinating insights into the two scholars' approach to enriching our understanding of prosthodontic interfaces.

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Reference

1. On biological and social interfaces in prosthodontics: Proceedings of an international symposium. *Int J Prosthodontics* 2003;16(suppl):3–90.