

# Statements: Diagnostics and Therapy in Dental Medicine Today and in the Future

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# Preface

Today's science is the basis for tomorrow's products. To be successful, research and development departments must deal with the science and also be active in the field of basic research. The R&D division of Ivoclar Vivadent, headed by Dr. Volker Rheinberger, has lived by and cultivated these rules for many years. It became a tradition that every year a scientific congress took place, where scientists and researchers from all over the world were invited to Liechtenstein to present and discuss their research with our scientific staff. In 2008, we chose to expand this idea by reviewing the current state of the art of dentistry. We've looked back in order to be able to look forward. We asked many researchers and clinicians to answer important questions in today's dentistry, which is in a phase of major change. Minimally invasive dentistry, the ability to imitate the true aspect of teeth (esthetics), implantology, and digital dentistry are changing the face of today's and tomorrow's dentistry. Realizing the importance of the topic, the decision was taken to ask the participants to formulate their views and results in advance of the congress as review papers in order to summarize the content of the Ivoclar Vivadent Scientific Congress 2008 in the present book, which is dedicated to Dr. Volker Rheinberger for his 60<sup>th</sup> birthday.

This book is divided into three parts. The first is a trip through dentistry. We start with diagnosis and causal therapy (prevention). We critically assess the options for restoring decayed teeth, and the question of which way to go is debated. Furthermore, we need to understand the role of esthetics as a driving force for restoration. When it comes to replacing teeth, implants have led to completely new routes. However, it should be assessed how successfully they may replace standard therapies, and whether they may become the new standard. Dentures and orthodontics have also been influenced by the changes not only in technology, but also in perception. In the second part, the focus is on technologies. Very often they are the driving force for future application techniques. The third and final part is a look into the future, seen from a technological stance and from a broader, more generalized perspective.

Last but not least we wish to thank to all the contributors who have spontaneously agreed to put time and effort into this project. It was a pleasure to work together. We are grateful to Quintessence Publishing Company, who took on the risk and burden to produce such a high-quality book within an extremely short period.

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