ZOOM IN: AMED INSIGHTS

April 2026

Dr. Kiarash Karimi
AMED Members at Large

From Detail to Precision

My initial reason for using a microscope was not precision — it was ergonomics.

After a skiing accident, I dealt with persistent back pain for a few years. It reached a point where I seriously considered stepping away from clinical dentistry and focusing only on teaching. The physical demands of daily practice were becoming difficult to sustain.

That perspective began to change after attending an Academy of Microscopically Enhanced Dentistry meeting and participating in a hands-on course with Juan Carlos Ortiz. What started as a search for a more ergonomic way to work quickly became something more meaningful.

The microscope improved my posture, reduced strain, and allowed me to work in a more stable and controlled position. Over time, my back symptoms improved, and with that, my ability to continue practicing in a sustainable way. But beyond ergonomics, it changed how I approach dentistry altogether.

It does more than enhance vision. It creates consistency.

Details become clearer, movements more precise, and decisions more intentional. What once relied on estimation becomes directly visualized. At the same time, its impact extends beyond the procedure itself. Documentation becomes seamless, allowing for high-quality images and video. Patient communication improves, as conditions can be shown rather than explained.

What I came to appreciate is that the microscope is not just about seeing better. It is about working better.

Within AMED, this philosophy is shared and continuously refined — not as a technique, but as an approach to dentistry centered on precision, control, and sustainability.

In that sense, the microscope did not just change how I see. It changed how I practice — and allowed me to continue doing what I enjoy.

The Academy of Microscope Enhanced Dentistry

ANNUAL SESSION

25th Annual Dental Microscopy Meeting & Scientific Session

November 5-8, 2026

Waikiki Beach Marriott Resort & Spa

For More Information
microscopedentistry.com
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Dr. Randy Shoup
AMED Annual Meeting Chair

AMED 2026 Biomimetic & Magnifucation Summit

The most perfect collaboration between high magnification and ultra conservative dentistry is coming. The AMED Biomimetic and Magnification Summit will take place in Honolulu, Hawaii November 6-8, 2026. This groundbreaking meeting will provide the most complete program for ALL dentists who want to perform state of the art dentistry and be at the top of their game.

The program will have an expert and star-studded line up of clinicians who will present a continuum from the most basic principles of biomimetic restorative dentistry to the most advanced and technically challenging reconstructions. All the dentistry will showcase the importance of using a variety of magnification techniques including the “gold standard” for magnification: the dental surgical microscope.

Whether you are a beginner to conservative dentistry and the techniques of adhesive dentistry or you are a skilled veteran of advanced procedures restoring the dentition with biomimetic principles there is something for you.

The program has a lecture format as well as hands-on workshops for the doctors to hone their skill set to a fine point. This experience is specifically designed so each dentist will be able to return to practice and immediately incorporate the principles and techniques learned at this summit.

We urge every dentist to attend this program of revolutionary presentations and information never before seen or presented.

There will be a special hygiene day presented parallel to the Biomimetic and Magnification Summit in the very same hotel.

Be sure to bring your hygienist to this educational opportunity while you attend the Summit. Be absolutely sure to register early because there is a limit to the number of attendees accepted.

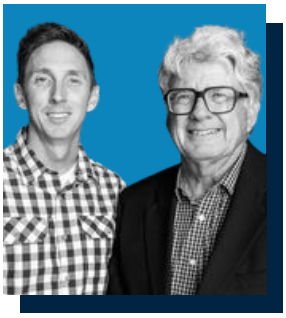
See you in November in Hawaii.

Best Regards,

Dr. Randy Shoup
Annual Meeting Chair

AMED 2026 Speakers & Courses

Register Now at MicroscopeDentistry.com!



Dr. David Alleman & Dr. Davey Alleman

The Six Lessons Approach to Biomimetic Restorative Dentistry

Dr. Marco Carvalho

Biomimetic Strategies for the Restoration of Endodontically Treated Teeth: Deep Margin Elevation and Immediate Pre-Endodontic Dentin Sealing

Dr. Meiken Hayashi

Striving for Excellence in Posterior Restorations: Innovations in Flowable Resin Composite Techniques

Dr. Keiichi Hosaka

Direct Composite Injection Molding with an Advanced Clear Index: A Predictable Digital Workflow for Precise Minimally Invasive Restorations

Dr. Junji Tagami

Management of Caries and Bonding Strategies

Dr. Masaka Tsujimoto

Predictable Endodontic Treatment with the Dental Operating Microscope

Dr. Alireza Sadr

An Update on Dental OCT: Seeing is Believing

Dr. Simone Deliperi

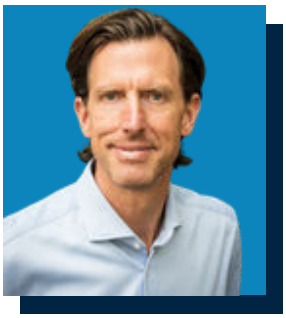
Pushing the Envelope with Occlusion Driven Stress Reduced Direct Composite (SRDC) Restorations

Dr. Juan Carlos Ortiz Hugues

Advanced Dental High Magnification Ergonomics: Workflow, Posture, Positioning, and Wellness in Dentistry

Dr. Judy McIntyre

Modern Endodontic Therapy & Apical Surgery: Decision-Making for Clinical Excellence



Dr. Shepard DeLong

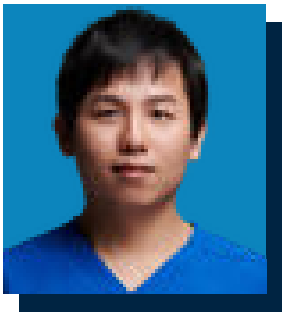
Advanced Surgical Technology: The Microscope and Modern Technology to Enhance Clinical Practice for Doctors While Improving Patient Outcomes

J. Daniel Clementino

The Latest Adhesive Technologies & The "Super Tooth Concept"

Dr. Bryan Po-Jan Kuo

Microsurgical Enhancement of Root Coverage and Papilla Reconstruction in Mucogingival Surgery



Dr. Kuo Yi-Chia

The FIRST Principle: Preparation Design in Bonded Ceramic Restorations

Dr. Hiroyuki Sekiguchi

Cracked Tooth Treatment: From Conventional Methods to a Biomimetic Approach

Hands-On Courses

Dr. Simone Deliperi

Additive Composite Resin Restorations: A Biomimetic Approach

Dr. Meiken Hayashi

Mastering Flowable Resin Composites for Posterior Restorations: Predictable Techniques and Clinical Applications

Round Table Mastermind Session

Dr. Juan Carlos Ortiz Hugues

Advanced Dental High Magnification Ergonomics: Workflow, Posture, Positioning, and Wellness in Dentistry

Dr. David Alleman & Dr. Davey Alleman

The Six Lessons Approach to Biomimetic Restorative Dentistry

Dr. Simone Deliperi

The Stress-Reduced Biomimetic Approach

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April Webinars

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Cracked Teeth:
What Can We Predictably Save?

Understand how to detect, diagnose, and manage cracked teeth using advanced imaging and clinical techniques for more predictable outcomes.

April 13, 2026 6:30PM EST

Presented By: Dr. Judy McIntyre

Rubber Dam Isolation for Restorative Procedures

Learn practical rubber dam isolation techniques, armamentarium selection, and problem-solving strategies to improve moisture control, visibility, and restorative outcomes.

April 23, 2026 7PM EST

Presented By: Dr. Jorge L. Garaicoa

Other Upcoming Webinars

Restoring the Endodonically Treated Tooth Using Biomimetic Principles

May 4, 2026 7PM EST

Presented By: Dr. Mark Limosani

Preheated Composite as a Luting Agent:
Improving Marginal Seal in Indirect Restorations

June 15, 2026 7PM EST

Presented By: Dr. Marco Carvalho

From Microscope to System

Cosimo Pilolli, DDS

Dr. Cosimo Pilolli graduated in Dentistry from the University of Bari in 2004. Since then, he has focused his clinical practice on aesthetic dentistry and periodontology, with a strong emphasis on microscope-assisted dentistry. He is passionate about integrating advanced technologies into daily practice to ensure precision, minimally invasive treatments, and superior patient care. His expertise lies in achieving meticulous results through the use of dental microscopy, enhancing both diagnostic accuracy and clinical outcomes.

Most clinicians buy a microscope for a specific reason. Very often, that reason is endodontics. And for a while, that is enough — it helps, it works, and they are glad they made the investment.

At some point, though, I began to see it differently.

The microscope is not just a tool. It is a system [2]. And that distinction changes everything.

Its real value goes far beyond magnification [1]. It changes how you see, how you move, how you communicate, how you work with your assistant, and how the operatory itself needs to be organized around you. Used occasionally, it can improve a procedure. Integrated into a system, it can change the way an entire practice works.

One of the most common mistakes I have seen — and made myself — is using the microscope only “when necessary.”[3] You start a procedure without it, bring it in for a critical step, and then move away from it again. It feels efficient. In reality, it interrupts focus, posture, and visual continuity. Old habits return — not because the clinician doubts the microscope, but because the environment around it has not truly changed.

That is why successful implementation depends less on motivation than on design [4].

In my experience, three elements matter most.

The first is layout. A microscope-ready operatory is not simply a room that happens to include a microscope. It is a room in which the patient, the operator, the assistant, the monitor, the tray, and the pedals are organized around one coherent workflow.

Once you begin working this way, even purchasing decisions change. Equipment is no longer selected only for convenience, but for how well it supports microscope-based dentistry. In other words, the microscope does not adapt to the room by itself; the room has to be intentionally built around the microscope.

The second is the assistant. Microscope dentistry is not a solo discipline. In fact, the more deeply the operator works inside the magnified field, the more important the assistant becomes. The assistant becomes something closer to a co-operator — managing the field, anticipating movements, preserving rhythm, and helping maintain visibility. But there is another reason this role becomes so important: the assistant becomes the bridge between the magnified field and the wider operative reality around it. While the operator is fully immersed in a highly focused visual environment, the assistant helps maintain connection with the larger operative context. Shared vision matters, but shared ergonomics, shared timing, and shared understanding of the workflow are what make the system truly function.

The third is standardization. If microscope workflow exists only in the clinician's head — built on personal habit and improvisation — it remains fragile. The moment it is standardized, it becomes teachable. And once it becomes teachable, it can spread through the team. At that point, the microscope stops being a personal skill and starts becoming part of the culture of the practice.

In the end, the real question is not whether we own a microscope. The real question is whether the practice around it is actually built to let that microscope do its job.

A microscope can improve a procedure.

A system can improve a practice.

References

1. Shanelec DA, Tibbetts LS. Periodontal microsurgery. J Periodontol. 1998;69(11):1364-1372. doi:10.1902/jop.1998.69.11.1364
2. Mamoun JS.The dental operating microscope: an essential tool for modern dentistry. Gen Dent. 2009;57(3):264-270.
3. Carr GB, Murgel CAF. The use of the operating microscope in endodontics. Dent Clin North Am. 2010;54(2):191-214. doi:10.1016/j.cden.2010.01.002
4. Ortiz Hugues JC. Ergonomics Applied to Dental Practice. London: Quintessence Publishing; 2023.

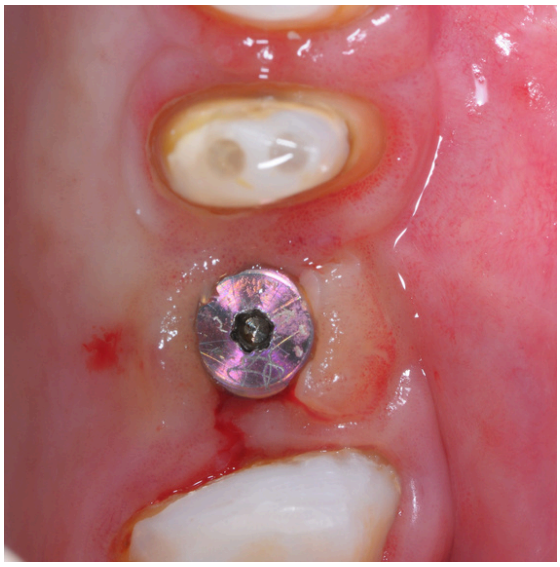

Figure 1. *Occlusal view of implant placement with minimal soft tissue trauma.*

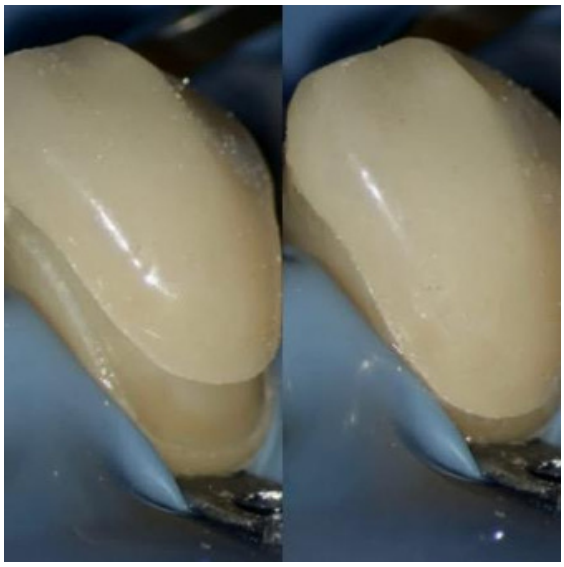

Figure 2. *Fit check of the restoration under rubber dam.*

Figure 3. *Microsurgical implant placement under the operating microscope.*

Figure 4. *Surgeon and assistant working under microscope-guided surgery.*

2026 AMED Courses

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