



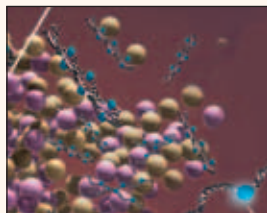
OCTOBER 2016 — VOL. 11, No. 10

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## ALZHEIMER'S AND PERIODONTITIS

Researchers continue to look at link between periodontal inflammation, cognitive decline and Alzheimer's disease.

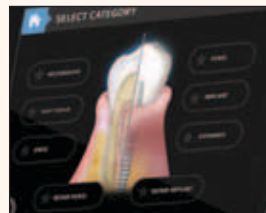
► page A8



## LASER SYSTEM FOR GENERAL DENTISTRY

Innovation combines minimally invasive laser with fine water spray to gently, efficiently remove hard and soft tissue.

► page A9



## IMPLANT TRIBUNE

## AAOMS TAKES VEGAS!

American Association of Oral and Maxillofacial Surgeons gather for C.E., networking and exhibits.

► page B1



# ADA 2016 will get started with personal stories

By David Burger  
American Dental Association

Dental professionals will be welcomed to ADA 2016 — America's Dental Meeting with two programs that bookend the opening day: The opening general session, presented by ACT Oral Care, is scheduled for Oct. 20 from 8-9 a.m. at the Bellco Theatre at the Colorado Convention Center, and later that day the Mountain Mixer will convene at the exhibit hall from 4:30-6 p.m.

ADA 2016 — America's Dental Meeting is convening in Denver from Oct. 20-24.

## Making a difference

The opening general session will feature a number of dentists from across the country sharing their personal stories — how being a dentist has made a difference in their lives and enabled them to make an impact on their practices, families and communities.

The four featured member speakers are Drs. Christina Rosenthal of Memphis,

Tenn., Dawn Wehking of Lafayette, Colo., Daryn Lu of Shawnee, Okla., and David Hochberg of Atlanta.

Along with a preprogram performance by the University of Colorado-Denver's a cappella group MIX, the session also will feature an awards presentation to Dr. Frank Andolino, the ADA Humanitarian of the Year, and Dr. Peter Dawson, the ADA Distinguished Service Award winner.

Later that day, the annual meeting's exhibit hall will host the Mountain Mixer, open to all registered attendees.

The mixer will provide an opportunity to socialize and network with fellow dental professionals against a backdrop of live entertainment, food and complimentary craft-beer tasting. It will also enable attendees to experience Denver's diverse and active outdoor lifestyle, including a climbing wall, BMX bikers and slackline jumpers. The Denver Broncos Stampede Drumline, a bluegrass band and Spinphony — a pop baroque string quartet — will all perform during the mixer.

For the most up-to-date information on ADA 2016, visit [ADA.org/meeting](http://ADA.org/meeting).



The Colorado Convention Center's 40-foot Blue Bear, "I See What You Mean" by Lawrence Argent, has become an iconic symbol of not only the convention center, but of Denver itself. Photo/Scott Dressel-Martin for the Colorado Convention Center

## EVENTS

A3-A4

- IAPA event explores neuromuscular dentistry — with county-fair theme
- IADFE to celebrate 20th year with fellows inducted during GNYDM
- Something for everybody at YDC
- Registration open for PDC

## CLINICAL

A6

- Alzheimer's, cognitive decline linked to periodontal disease

## INDUSTRY NEWS

A8-A19

- Waterlase iPlus uses simple laser protocols to complete general perio and implant procedures
- Smallest dimensional attachment system compatible with all implants
- Sulzer Mixpac: Double your benefits with better mixing
- From Glidewell: Newport Biologics line of regenerative materials
- Zions Bank's Practice Pathways division offers financing solutions for medical professionals
- Kettenbach's Panasil gets top scores
- Barrier protection critical with dental gloves
- Keystone Gelato prophylaxis paste is top prophylaxis paste for fourth year in row
- Telling the whole tooth: Not all the pundits got the flossing story right
- Mydent launches new DEFEND Level 1, 2 and 3 face masks

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# IAPA event explores neuromuscular dentistry

Exhibit booths will become a county-fair midway with games, food, fun, contests, Oct. 13–15

Adopting a county-fair atmosphere this year, the 2016 International Association of Physiologic Aesthetics meeting will be held from Oct. 13–15 at the LVI Global Campus in Las Vegas.

The annual event offers lectures, panel discussions and workshops for dental professionals and their team members. The event is open to those who have achieved the highest levels of dental training as well as those just beginning to explore esthetic, occlusion and neuromuscular dentistry.

Organizers say the meeting will enable attendees to return to their practices ready to provide patients with notably

increased quality of care. Conference attendees will learn comprehensive esthetic treatment skills, network with a wide variety of health-care professionals and be introduced to proven practice management techniques — all of which support a goal of building a successful, comprehensive aesthetic approach.

The event includes an exhibit hall with daily hours and a County Fair Night on Oct. 14, when the exhibitor booths turn into a midway with games, food, fun and contests.

Among the many offerings: “Evolutionary Changes in Physiologic Based Dentistry & Advanced Scan Interpreta-

tion” with Dr. Bill Dickerson; “Changing Lives Through Neuromuscular Dentistry and Marketing Your Talents” with Dr. Joe Barton; “Ditch Your Camera, Photography for the Fast-Paced Dental Office” with Dr. Cody Friddle; “The Importance of Sleep Appliance Selection in Patient Outcome and Practice Efficiency” with Dr. David “Trey” Carlton III; and “The Power of Epigenetically Stimulated Mandibular Remodeling in Advanced Orthopedics” with Dr. S. David Buck.

For further details, visit [www.theiapa.com](http://www.theiapa.com) or call (888) 584-3237.

(Source: IAPA/LVI)



At the Harmonie Club in New York City, the latest International Academy for Dental Facial Esthetics fellows toss mortar boards into the air in traditional celebration of their induction. Photos/Provided by International Academy for Dental Facial Esthetics



From left, Dr. George Freedman; Henry Schein Chairman and CEO Stanley Bergman; Dr. David L. Hoexter; and Ed Lynch, dean of Warwick University, United Kingdom.

# IADFE to celebrate 20th year

2016 induction will be Nov. 28 during GNYDM

The International Academy for Dental Facial Esthetics (IADFE) held its annual induction meeting during the 2015 Greater New York Dental Meeting, at the private Manhattan town house, the Harmonie Club.

Representatives from more than 24 countries were recognized with fellowships. Henry Schein Chairman and CEO Stanley Bergman presented the main address to an overflowing audience.

The 2016 induction, marking the academy’s 20th anniversary, will again take place during the GNYDM, on Nov. 28. Dr. Gorden Christiansen, CEO of Practical Clinical Courses, will be the main presenter, with International Academy for Dental Facial Esthetics founders Drs. David L. Hoexter and George Freedman as moderators.

The IADFE mission is to foster interdisciplinary relationships and cooperative education in the area of facial esthetics. Membership includes physicians, dentists and other professionals in facial esthetics.

(Source: IADFE)



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# Something for everybody at Yankee Dental Congress

Yankee Dental Congress 2017 will be held from Jan. 25–29, at the Boston Convention and Exhibition Center. Meeting organizers describe the Yankee Dental Congress as being New England's largest dental meeting. The congress is sponsored by the Massachusetts Dental Society in cooperation with the dental societies of Connecticut, Maine, New Hampshire, Rhode Island and Vermont. Nearly 28,000 dental health professionals and guests from around the United States are expected to attend the 2017 event.

The theme of the 2017 Yankee is "Focus. Fast. Forward." Meeting organizers say that the theme "emulates how dental professionals can focus on innovative continuing education opportunities for intellectual development in the dental field, to fast-forward the industry for the future."

## New approach to pain management

Among the education highlights for the 2017 meeting, Yankee is providing several programs that are "focused" on working in conjunction with Massachusetts Gov. Charlie Baker's efforts to combat addiction in the commonwealth.

This includes the Third Annual Inter-

professional Symposium: "CTL-ALT-DELETE: Rebooting the Approach to Pain Management," as well as the Yankee Fast Track program featuring topics in pain management and prescription monitoring. This track will include a series of six one-hour lectures covering these topics and providing a comprehensive review for the dental practitioner to diagnose and manage patients safely in the dental office while complying with current best practice guidelines and regulations.

## Sleep Apnea Pavilion

The Sleep Apnea Pavilion will showcase the latest technologies "fast" involving the various laboratory providers. Yankee organizers say the congress is among the first dental meetings to provide education on this technology.

The pavilion will educate attendees on oral appliance therapy and laser procedures for treating sleep apnea as well as pediatric dental sleep medicine.

## 3-D Printing Pavilion

Along with more than 300 continuing education and hands-on courses and events presented by leading experts in the dental profession, Yankee is moving "forward" with its 3-D Printing Pavilion.



The Boston Convention and Exhibition Center hosts the Yankee Dental Congress, which will feature more than 300 continuing education courses and more than 450 exhibitors, Jan. 25–29. Photo/Provided by the Greater Boston Convention & Visitors Bureau

This pavilion will discuss and demonstrate high-resolution desktop 3-D printing and how it provides affordable access to advanced digital workflows for all dental labs and, for the first time ever, dental practices.

## 450 exhibitors

The Yankee Dental Congress also features a wide range of the latest dental technologies and products from more than 450 exhibitors, along with several education pavilions located on the exhibit floor.

Special presentations this year include "A Conversation with Dr. Lisa Genova," author of the best-selling novel "Still Alice," basis for the identically titled Academy Award-winning film.

Another special presentation features Nancy Frates, mother of Pete Frates, who was the inspiration for the "ALS ice bucket challenge."

For more about Yankee Dental Congress 2017, visit [www.yankeedental.com](http://www.yankeedental.com) or call (877) 515-9071.

(Source: Yankee Dental Congress)

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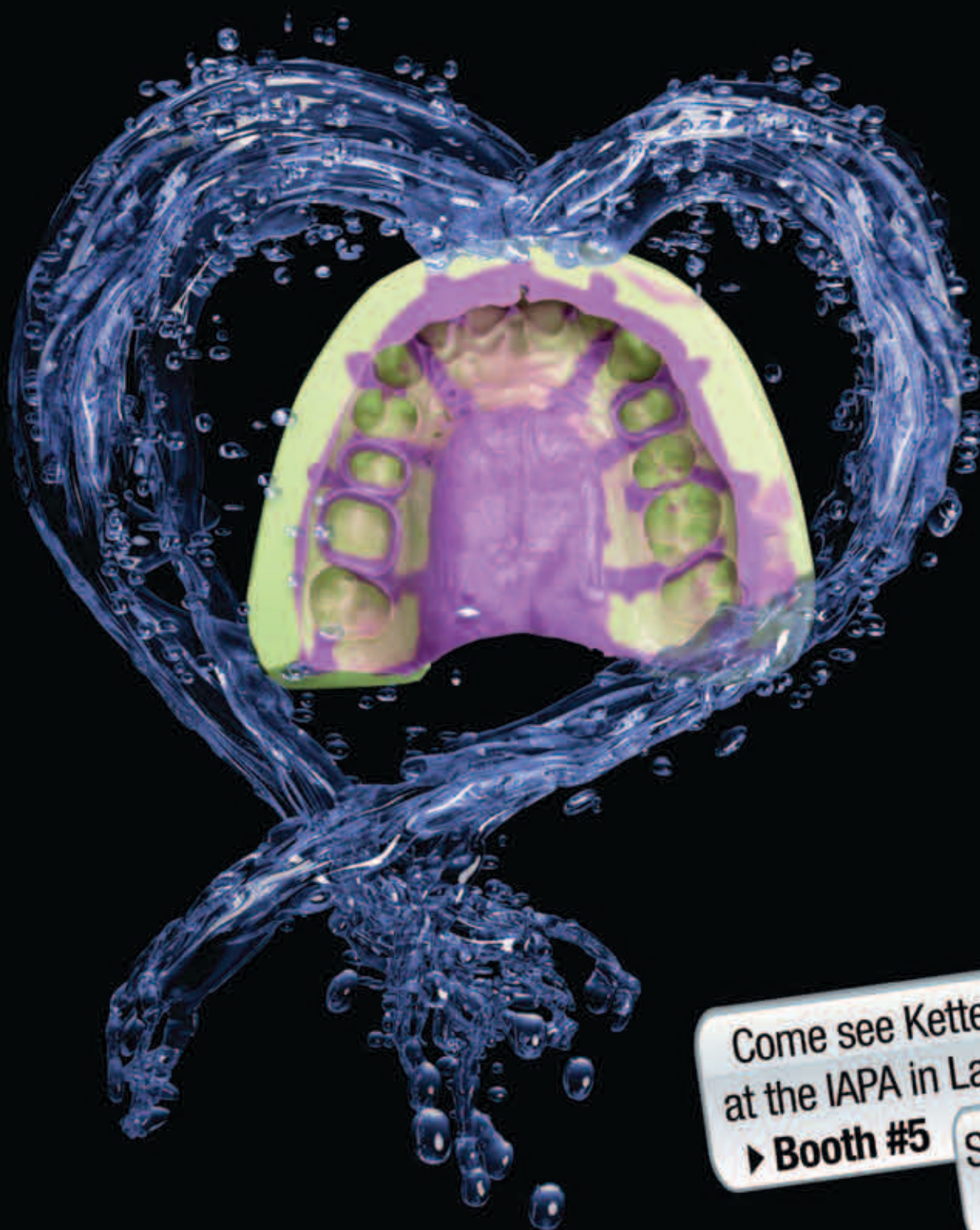
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# Registration opening for Pacific Dental Conference

Opening day for online registration for the 2017 Pacific Dental Conference is Saturday, Oct. 15. The annual meeting will be held from March 9–11 in Vancouver, British Columbia, at the Vancouver Convention Centre. Register at [www.pdconf.com](http://www.pdconf.com).

The Pacific Dental Conference is one of the largest dental conferences in North America, offering a varied and contemporary selection of continuing education programs. With more than 200 open sessions and hands-on courses and close to 300 exhibiting companies occupying 625 booths — the meeting is designed to serve dentists and their entire dental team.

### Two-day exhibit hall

The exhibit floor will be open to all attendees on Thursday and Friday, March 9 and 10. Special hotel rates are available through Jan. 13, at which time rates will increase.

For the majority of attendees, C.E. credit is given for general attendance (maximum of five hours) and hour-for-hour credit for individually attended courses. The PDC programming offers the opportunity to acquire up to 20 C.E. credits

### Dental technicians conference

Entering its fourth year at PDC, the dental technicians' conference day will have a new

look and direction at the 2017 event. The PDC Lab Expo will take place on Saturday, March 11, bringing together dental technicians, denturists, dentists and their teams. Expo attendees will be able to visit the exhibits area between 8:30 a.m. and 3 p.m. and during session breaks.

Attendees will be able to enjoy lunch and meet a selection of company representatives to learn more about some of the industry's latest tech advancements. A new "Showcase Stage" in the PDC Lab Expo will feature 30-minute demonstrations throughout the day looking at the latest products and technologies from a number of exhibitors.

### About the PDC

In British Columbia, the tradition of gathering to share information on dentistry began in 1936 when the first BC Study Club was established. As time passed, the need for an annual meeting that all BC dentists could attend became evident.

An annual dental convention was created and in the subsequent years experienced continued growth and with that the need to expand from smaller hotel settings into the world-class Vancouver Convention and Exhibition Centre (now the Vancouver Convention Centre). In 1998 that meeting



Vancouver, seen here from Jerricho Island, serves as the scenic host site of the annual Pacific Dental Conference in British Columbia. Photo/Provided by the Pacific Dental Conference

became known as the Pacific Dental Conference and welcomed dentists and their teams not only from BC, but also from other provinces and from across the U.S. The Pacific Dental Conference is organized by dental professionals for dental profession-

als. The PDC Organizing Group (made up of nine dentists and one hygienist) volunteers its time to present one of the most reputable dental conferences in North America.

(Source: Pacific Dental Conference)

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# Alzheimer's, cognitive decline linked to periodontal disease

## Treating periodontitis could reduce, delay risk

By David L. Hoexter, DMD, FACD, FICD,  
Editor in Chief

Recent studies provide increasing evidence that untreated periodontal inflammation is linked to cognitive decline and Alzheimer's disease, and that treating periodontitis may reduce or delay risk of this disease.

About one out of every nine Americans have some form of Alzheimer's disease, according to the Alzheimer's Society. It is the worst type of dementia, involving the most cognitive decline and memory loss. There is no known cure, and the magnitude and severity of this fatal disease mandates that research continues to explore every avenue that might lead to one.

Research has already found *Porphyromonas gingivalis* (*P. gingivalis*) in brains of Alzheimer's patients. *P. gingivalis* is a bacterium associated with chronic periodontitis. Researchers propose that when these bacteria reach the brain, an immune response is stimulated in the brain to release proteins that kill the bacteria, but also cause broader destruction.

### Periodontal disease bacteria enter bloodstream, brain

A study by professor Stjohn Crean and Dr. Sim Singhrao at the University of Central Lancashire (UCLan) School of Medicine and Dentistry in England involved the examination of brain tissue samples of 10 deceased people with Alzheimer's and 10 people without it.

It was found that bacteria found in chronic periodontal disease were present in the brains of four of the 10 people with Alzheimer's but in none of the 10 without it. Researchers theorized that chronic periodontal disease bacteria, *P. gingivalis*, enter the bloodstream and brain, prompting an immune system response, which over time is thought to contribute to cognitive decline and Alzheimer's disease.

### Amyloid proteins trap microbes

Recently, there was a study done at Massachusetts General Hospital, funded by the National Institutes of Health. Dr. R. Tanzi's research with live mice showed that beta amyloid proteins in live mice trapped microbes — but the microbes remained free in live mice without the amyloid proteins.

Results indicated that with no amyloid to trap the infections, infection spread rapidly; but with the amyloid, infection was stopped. However, the study revealed that too much beta amyloid pro-

tein can over clump-down on itself, without trapping microbes — indicating that efficacy requires a delicate balance.

Tanzi further theorized that genes play a large roll, specifically ApoE2 and ApoE4. The gene ApoE2 enabled the brain to clean out the beta amyloid after it killed the microbes, leading to minimal cognitive decline in old age. The gene ApoE4, however, was inefficient at enabling such a "cleanup," and the risk of developing Alzheimer's disease was much greater.

All blood vessels are anastomosed in the human body. Therefore, all have connecting relationships and can transmit an inflammatory by-product easily. As mentioned, numerous articles allude to this connection with regard to periodontal tissue circulating to the heart and brain.

At last year's induction of fellowships for the International Academy for Dental Facial Esthetics in New York, Dr. Ray Williams, former dean of Stony Brook Dental School and a highly regarded researcher, presented a detailed overview of the latest findings on periodontal vascularity. Williams listed numerous publications showing a direct vascularity relationship between the periodontia and the heart. However, Williams also listed an equal amount of publications that infer no direct connection between periodontia and the heart.

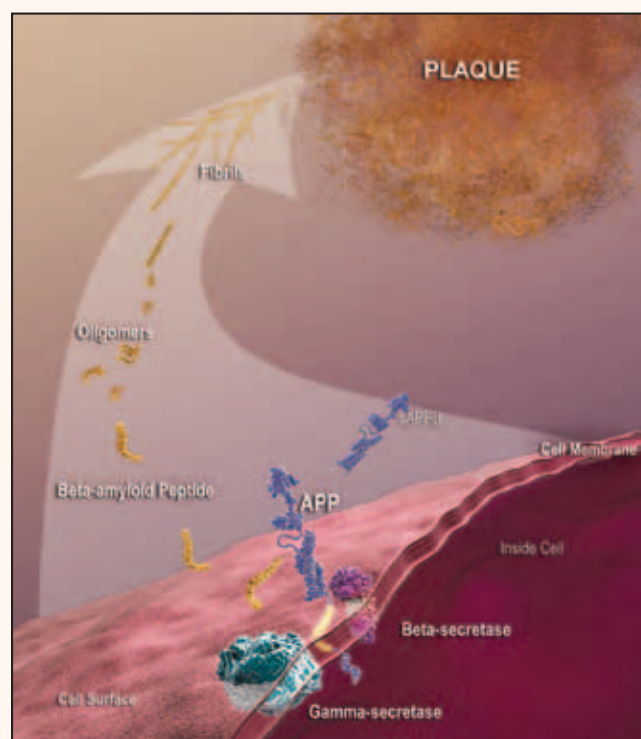
### Ability to self-maintain oral health can diminish with age

A key area that needs to be addressed is the challenge of self-maintenance of periodontal disease as people's physical abilities diminish with age.

When I had the privilege to be involved with several senior-care facilities, it was obvious that a large number of residents were unable to maintain their oral health at a desired level. Some residents with dentures would misplace or lose a prosthesis or even borrow one from another resident.

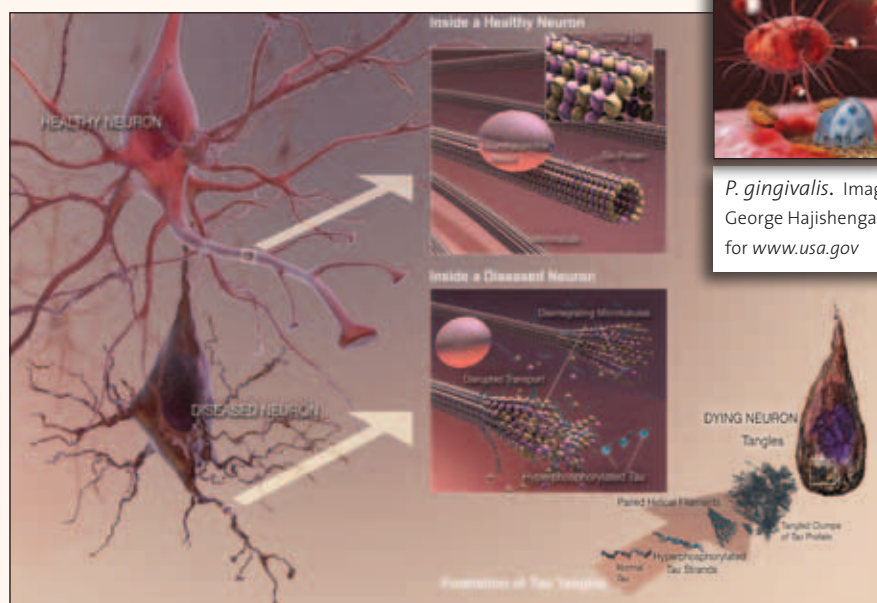
Earlier this year, researchers at Harvard University conducted a study hypothesizing that infections such as chronic periodontitis produce reactions that leave debris in the brain that later contribute to Alzheimer's disease.

The study found that in the subjects involved, bacteria passed through the blood-brain barrier, prompting the brain's defense mechanism to release the "sticky" beta amyloid protein. This protein entrapped and killed the bacteria, but what remained was plaque, termed "the hallmark of Al-



Researchers theorize that the chronic periodontal disease bacteria, *P. gingivalis*, enter the bloodstream and brain, which over time is thought to prompt an immune system response that contributes to cognitive decline and Alzheimer's disease.

Left: APP to beta-amyloid to plaque. Below, left: Healthy and diseased neurons and formation of tau tangles. Images/ Provided by National Institute on Aging/ National Institutes of Health



*P. gingivalis*. Image/Dr. George Hajishengallis, for [www.usa.gov](http://www.usa.gov)

zheimer's." This plaque signaled another brain defense mechanism — a release of a tangle of tau proteins that not only killed the plaque, but also the brain's nerve cells, leading to more and more brain inflammation — and resulting in continued cognitive decline.

### Vicious, repetitive cycle

The vicious, repetitive cycle leads to further and further destruction. However, not every brain was adversely affected because of the periodontal bacteria.

Researchers concluded that genetically, some brains (ApoE2) can clean out

the beta amyloid, get rid of the plaque and lower the risk for Alzheimer's — but other brains (ApoE4) can't, correlating to a higher risk of getting the disease.

Alzheimer's disease, with its cognitive decline and memory loss, is destructive not only to the patient, but to all of the patient's loved ones. Understanding and addressing periodontal vascularity may well be a major pathway toward better and longer functioning of the brain.

Perhaps going to the periodontist is the most expeditious, economical and easiest pathway to slowing cognitive decline and onset of Alzheimer's disease.



DAVID L. HOEXTER, DMD, FICD, FACP, is director of the International Academy for Dental Facial Esthetics and a clinical professor in periodontics and implantology at Temple University, Philadelphia. He is a diplomate in the International Congress of Oral Implantologists, the American Society of Osseointegration and the American Board of Aesthetic Dentistry. He lectures throughout the world and has published nationally and internationally. He has been awarded 12 fellowships, including FACD, FICD and Pierre Fauchard. He has a practice in New York City limited to periodontics, implantology and esthetic surgery. Contact him at (212) 355-0004 or [drdavidlh@gmail.com](mailto:drdavidlh@gmail.com).

# Waterlase uses simple laser protocols to complete perio and implant procedures

By BIOLASE Staff

The flagship Waterlase system is the iPlus™, an innovative laser system that enables dentists to complete many common dental procedures using minimally invasive laser energy combined with a fine water spray to gently remove hard and soft tissue.

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For tooth cutting, the WaterLase iPlus helps to eliminate microfractures associated with the traditional dental drill, as well as thermal damage and risks of cross-contamination. The laser’s precision enables minimally invasive treatment with less removal of healthy tooth structure and soft tissues. For soft tissue, the Water-

Lase iPlus ablates the target tissue layer by layer, which, according to the literature, enables the dental professional to perform oral surgeries with less bleeding, dynamic tissue response and faster healing.

WaterLase iPlus can improve efficiency in a practice with a wide range of benefits, including performing many restorative procedures without anesthetic. By eliminating the time required for the onset of anesthetic, the dentist and staff can efficiently move from patient to patient, staying on time and adding to the bottom line. Revenue per-chair, per-day can markedly increase with the WaterLase iPlus.

Also, a WaterLase practice can generate more income per patient-visit. Because anesthetic is not required in most cases, the dentist can address more of a patient’s clinical needs by working in all four quadrants. Also, WaterLase iPlus can offer alternative treatment modalities when traditional protocols are not addressing conditions such as deep periodontal pockets, endodontics and more. Fewer recall appointments means fewer appointments falling through the cracks, resulting in greater efficiency for both practice and patient. Additionally, WaterLase iPlus is indicated for both periodontal and endodontic procedures, so enterprising

general dentists can keep more of those cases within their practice.

Dental professionals who have successfully integrated WaterLase iPlus into their practice can realize more than just enhanced clinical outcomes and greater productivity. Independent research shows that WaterLase iPlus owners report a renewed passion for their craft and greater enjoyment in addressing the clinical needs of their patients. By reducing chair time, improving clinical results and enhancing the overall management of patient-flow through a practice, WaterLase iPlus can become the cornerstone of the 21st-century dental office.

WaterLase iPlus is indicated for a wide range of soft- and hard-tissue treatments, including comprehensive periodontal procedures (such as deep pocket therapy with new attachment and subgingival calculus removal) and endodontic treatment (such as root canal shaping and cleaning). WaterLase iPlus delivers 10 watts of power and up to 100 pulses per second for fast, efficient cutting with little or no anesthetic required. An illuminated, compact, contra-angle handpiece allows precise control and movement of



ADA  
BOOTH  
NO. 1638

IAPA  
EXHIBITOR

Innovatively positioned for the general dental practice: the WaterLase iPlus laser system. Photo/Provided by BIOLASE

the laser tip around the treatment site as well as easy access to all areas of the oral cavity. WaterLase iPlus is operated via an intuitive graphical touchscreen. There are no settings to program or tip guides to consult. The system includes a docking station for an iLase 940 nm diode laser. A comprehensive selection of tips, accessories and upgrades are available. A full regimen of introductory and advanced training is included with each WaterLase iPlus.



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