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American Association of Endodontists
51st Annual Session, April 27 - May 1, 1994
Honolulu, Hawaii
Welcome to Hawaii and the 51st Annual Session of the American Association of Endodontists. I am honored to be your host for this visit to the islands.

"Expanding Our Educational Horizons," our 1994 Annual Session program, has been carefully coordinated by Jim Gutmann, General Chair. Exercising his enthusiasm and dedication to quality, he has charted an exciting, contemporary array of events and educational opportunities. Marshall Peikoff, Program Chair, has designed educational sessions offering renowned speakers who will inform us on the latest scientific, clinical and practice management advances and opportunities. They will guide us down the newest of endodontic paths while preparing us to meet our future. And Bob Steiman, as Limited Attendance Sessions Chair, has gathered a diverse group of clinicians from around the world to provide unique opportunities for information exchange.

Listen to the latest in scientific and clinical information presented in Research Seminars and Poster Clinics selected by Bob White and the Research and Scientific Affairs Committee. See and hear what graduate students and practicing endodontists have concluded in the Table Clinics, chaired by Jerry Glickman. In the General Interest Sessions, learn how to measure your patients' satisfaction with your services and how to increase the perceived value of those services, how to recognize chemical dependency and, for the younger members, how to move from one aspect of your career to another. Also, don't forget to join in the discussions at the Practitioners' Platform and to stop by the exhibits of dental manufacturers and distributors to see the latest in dental technology and products.

On Wednesday, Bill Johnson and the Educational Affairs Committee will augment the program by presenting a day-long continuing education course. Participants will better their abilities to diagnose and manage orofacial pain by learning about the latest in research and clinical techniques.

To complement your educational experience, join in the special island social and recreational events that have been planned for you. The Welcome Reception starts off the week, followed by a traditional Hawaiian ceremony at the Opening Session Breakfast. And the event to end all events—the Hawaiian Royal Ball—closes the session. Those who enjoy outdoor activities will want to join in the Fun Run through Ala Moana Park, or you may choose to chart your own course along the largest palm-shaded beach on the island—that of the Hilton Hawaiian Village, the AAE official hotel. And, finally, an exciting package of island tours on land and sea has been arranged for you through Inside Hawaii, Inc.

Michael Tajima and the Local Arrangements Committee have worked for months coordinating many unseen details that will make this annual session a very special event. Dorothy Nitta, Carole Haga and Mary Kondo also deserve our thanks for arranging both an informative and a fun program for Auxiliary members.

As always, our Executive Director, Irma Kudo, and the AAE staff deserve special thanks. Our annual sessions are always unparalleled due to the thousands of hours of effort they devote to the thousands of details involved in producing an unforgettable gathering for AAE members and friends. And this year will be a special one as the Association bestows honorary membership upon Irma, the person who has held our organization together for the past 14 years.

Thanks for coming. I hope you enjoy these four magnificent days of education and fun in incomparable Hawaii.

Eric J. Hovland, DDS, MEd, MBA
President
Annual Session Committee

James L. Gutmann
General Chair

Marshall D. Peikoff
Program Chair

Michael S. Tajima
Local Committee Chair

PROGRAM
Continuing Education ...................................... William T. Johnson
Limited Attendance Sessions .............................. H. Robert Steiman
Research Seminars & Poster Clinics ...................... Robert R. White
Table Clinics .............................................. Gerald N. Glickman
Exhibits ....................................................... Letty Catrambone

GENERAL ARRANGEMENTS
Audiovisual .................................................. Bill Masheter
Hospitality ................................................... Glenn M. Biven
Hosts ......................................................... John M. Kurahara
Monitors ...................................................... Terry S. Matsumoto
Signs .......................................................... Jerome K. Yamada
Sports ......................................................... Robert K. Flath
AAE Auxiliary Liaisons ........... Dorothy Nitta, Carole Haga, Mary Kondo

The statements and opinions expressed at the Annual Session are solely those of the individual speakers. Those statements and opinions do not reflect any endorsement by the American Association of Endodontists.
General Information

The Hilton Hawaiian Village in Honolulu will be the headquarters hotel for the 51st Annual Session.

AAE HEADQUARTERS OFFICE
Nautilus I & II, Mid Pacific Conference Center
AAE staff will manage the office. Hours are 7 am - 4 pm Tuesday through Saturday.

ASSISTANCE FOR THE DISABLED
Special assistance or arrangements may be requested at the AAE Headquarters Office.

TAPE RECORDING
Teach’em Inc. will record many of the sessions presented. The audio cassettes are available for purchase in the Coral Lounge in the Mid Pacific Conference Center.

Other audio or video taping is allowed ONLY with permission of the speaker.

CHILDREN’S ACTIVITIES
Sign up in the Rainbow Express book located at the Social Director’s desk in the main lobby of the Hilton Hawaiian Village.

CONTINUING EDUCATION FORMS
New Procedure Implemented! A new CE form and instructions are included in your registration packet. If you live in a state requiring continuing education hours for license renewal, please read the new information carefully because members are responsible for maintaining their own records for CE units earned. Extra forms can be obtained and AGD forms can be validated at the AAE Information Booth.

EXHIBITS
Tapa Ballroom, Tapa Conference Center
Because exhibitors help to defray some of the cost of the Annual Session, we encourage you to stop by the exhibits and place your orders. Badges must be worn in the Exhibit Hall.

Complimentary coffee service will be provided on Thursday, Friday and Saturday in the exhibit area. Exhibit hours are scheduled as follows:
- Thursday, April 28 10 am - 5 pm
- Friday, April 29 7:30 am - 2 pm
- Saturday, April 30 7:30 am - 12:30 pm

REGISTRATION
Coral Lounge, Mid Pacific Conference Center
- Tuesday, April 26 3 - 8 pm
- Wednesday, April 27 8 - 5 pm
- Thursday, April 28 8 - 5 pm

Registration fees include the following:

**AAE members** (except student members)
- Wed/April 27 Welcome Reception
- Thur/April 28 Breakfast, all sessions and exhibits
- Fri/April 29 Continental breakfast, lunch, all sessions and exhibits
- Sat/April 30 Continental breakfast, lunch, one ticket to the President's Dinner Dance, all sessions and exhibits
- Sun/May 1 Buffet breakfast

**AAE student members**—Welcome Reception, all sessions and exhibits

**Non-member professionals, students & dental office staff**—all sessions and exhibits

**Spouses**—Welcome Reception, all sessions and exhibits, AAE Auxiliary dues

**Guests of Registrants** (excludes dental professionals and exhibitors)—Welcome Reception, all sessions and exhibits

**Children**—Badge, Welcome Reception

PRESIDENT’S DINNER DANCE
Coral Ballroom, Mid Pacific Conference Center
Saturday, 7:30 - Midnight
Your table selection for the President’s Dinner Dance must be made before 5 pm on Thursday by exchanging your voucher for a banquet ticket at the AAE Registration Desk. If you wish to have a group seating, you must present a voucher for each person in your group in order to reserve the space—all vouchers must be presented at the same time. We suggest contacting your group and exchanging your vouchers as early as possible. Each table seats ten people, and seats are reserved on a first come, first served basis. No exceptions will be made. There will be tables reserved for singles (without significant others).

SPEAKER AV READY ROOM
Nautilus III, Mid Pacific Conference Center
Program participants are encouraged to review their audiovisual materials in the speaker ready room prior to their presentations to avoid possible equipment problems.
Program

WEDNESDAY, APRIL 27

CONTINUING EDUCATION COURSE
Coral Ballroom III, Mid Pacific Conference Center (by ticket only)
8 am - 4 pm

Diagnosis and management of orofacial pain
Moderator: WILLIAM T. JOHNSON, DDS, MS, Iowa City, IA

8 - 8:30 am
Introduction: An overview of orofacial pain
GEORGE A. ZURKOW, DDS, Wilmington, DE

This presentation will provide an introduction to the concept of a multi-disciplinary approach for solving the diagnostic dilemmas encountered in the management of pain. The endodontist should be the coordinator of a team that includes a periodontist, neurologist, psychologist and other specialists as needed. The expeditious diagnosis of orofacial pain can prevent the progression into chronic pain with all its serious systemic effects.

8:30 - 10 am
Diagnosis and therapeutic management of head and neck pain of nonodontogenic origin
GILBERT E. LILLY, DDS, Iowa City, IA

Diagnosis and therapeutic management of head and neck pain that is not odontogenic in origin but that can mimic odontogenic pain will be presented. Subjects will include trigeminal neuralgia, cluster headaches, sinusitis, malignant neoplastic disease, cranial arteritis, Eagle’s Syndrome and migraine headaches.

10 - 10:30 am  Break

10:30 - 11:30 am
Neurosurgical management of chronic orofacial pain
YOSHIO HOSOBUCHI, MD, Honolulu

Caution must be exercised when considering the problem of a patient with orofacial pain. The physician or dentist must avoid focusing unduly on his/her specialty interest and asking questions related to it. For instance, for a patient with the same set of complaints, the dentist might ask about the symptoms of pulpitis, the otologist might ask about the symptoms of chronic otitis media, the orthopedist might ask about the symptoms of cervical arthritis and the internist might ask about the symptoms of arthritis.

Patterns of diffuse discomfort may take a primary position in the patient’s mind. Sometimes these patterns must be readjusted to secondary priority by the dentist. The “source” pain may be minor, triggering severe secondary pain patterns.

This presentation will address the neurosurgical treatments of head and face pain, including a brief review of its anatomy and physiology.

11:30 am - 12:30 pm  Lunch

12:30 - 2 pm
Biologic basis of analgesics in endodontics
KENNETH M. HARGREAVES, DDS, PhD, Minneapolis

How can advances in research lead to advances in therapeutics? Recent discoveries of mechanisms of pain and inflammation have led to new insights in pain diagnosis and management. This lecture will review the biological basis of pain perception from the perspective of providing clinicians with treatment strategies for improved pain control in endodontics.

2 - 2:30 pm  Break
2:30 - 4 pm

The pharmacologic management of acute and chronic orofacial pain
RAYMOND A. DIONNE, DDS, PhD, Bethesda, MD

The pharmacologic management of acute and chronic pain requires the selection of drugs with proven efficacy based on the results of controlled clinical trials, the use of these drugs in the correct doses and in appropriate drug combinations, and the adjustment of the dose and frequency of administration to balance therapeutic efficacy with undesirable side effects. This presentation will review the scientific evidence for making these decisions in clinical practice and provide therapeutic recommendations for the management of acute and chronic pain based on scientific evidence.

WELCOME RECEPTION
"ALOHA POTPOURRI"
Coral Ballroom, Mid Pacific Conference Center (by ticket only)
7 - 9 pm
This fun beginning to the Annual Session will feature sumptuous foods from the international melting pot of the Hawaiian Islands. And remember—you're in the islands where casual attire is perfectly appropriate.

THURSDAY, APRIL 28

OPENING SESSION BREAKFAST
Coral Ballroom III & IV,
Mid Pacific Conference Center (by ticket only)
8 - 10 am
Keynote: ERIC J. HOVLAND, DDS, MEd, MBA,
President, American Association of Endodontists
A traditional Hawaiian ceremony featuring dances of the islands officially opens the 51st Annual Session.

EXHIBITS
Tapa Ballroom, Tapa Conference Center
10 am - 5 pm

DISTRICT CAUCUSES
10 - 11 am
District I .................... Rainbow Suite I
District II .................... Rainbow Suite II
District III ................ Iolani Suite I
District IV .................. Iolani Suite II
District V .................. Iolani Suite III
District VI ................ Honolulu Suite III

Rainbow Suites are in the Rainbow Tower. Iolani and Honolulu Suites are in the Tapa Conference Center.

AFFILIATE LEADERSHIP CONFERENCE
Iolani Suite IV, Tapa Conference Center
11 am - 12 noon
Officers of AAE affiliates and AAE committee chairs are requested to attend this briefing on current AAE issues and activities.

Dinner Dance Ticket Exchange
Gather your friends and exchange your seating vouchers for the President's Dinner Dance no later than 5 pm Thursday, April 28. Each table seats ten, so make arrangements early to enjoy this elegant evening of gourmet dining, dancing and merriment!

Badges must be worn at all official AAE functions.

No Smoking
For the comfort of others, no smoking is permitted in any of the meeting rooms.

Audio and video taping are allowed only with permission of the speaker.
**Program, continued**

**SCIENTIFIC SESSION I**
Coral Ballroom I & II, Mid Pacific Conference Center
Moderator: THOM C. DUMSHA, DDS, MS, Baltimore

11 am - 12:30 pm

*Periodontal regeneration: State of the science*
GERALD M. BOWERS, DDS, MS, Baltimore

The formation of new bone, cementum and periodontal ligament over a pathologically exposed root surface has long been a goal of periodontal therapy. There is convincing histological and clinical evidence that periodontal regeneration is a clinical predictable reality in vital and endodontically treated teeth. The combination technique of guided tissue regeneration and bone grafting has shown great promise for treatment of advanced lesions. Possible applications for endodontic therapy will be presented.

**SCIENTIFIC SESSION II**
South Pacific Ballroom III & IV, Mid Pacific Conference Center
Moderator: KENNETH L. ZAKARIASEN, DDS, MS, PhD, Milwaukee

11 am - 12:30 pm

*Update on lasers in endodontics*
ADAM STABHOLZ, DMD, Jerusalem

Laser technology has been developed rapidly in the last decade. New lasers with a wide range of characteristics are now available and are being used in the various fields of dentistry. The recent data related to the application of laser energy on the tooth and its periapex as well as personal experience in using various laser systems in dentistry will be described and discussed.

**RESEARCH SEMINARS I**
Honolulu Suite I, Tapa Conference Center
Moderator: ROBERT A. AUGSBURGER, DDS, MSD, Fairfax, VA

11:00
*Mineral trioxide aggregate as a root-end filling material*
MAHMOUD TORABINEJAD*,§, T.R. PITT FORD & C.U. HONG, Loma Linda Univ, Univ of London & Dankook Univ

11:15
*Histologic study of healing periradicular lesions with and without curettage*
ABDULLAH SOLUTI* & M. TORABINEJAD, Mashad Univ & Loma Linda Univ

11:30
*A comparison of tissue reactions to Ketac-Fil and amalgam*
CHARLES J. CUNNINGHAM*, M. DeGROOT, B. OGUNTEBI & R. PINK, Univ of Florida

11:45
*Antimicrobial activity of two retrofilling materials*
SEBASTIANO ANDREANA*, L. GIARDINO, G. PECORA & F. GALLO, Univ of Pennsylvania & SUNY at Buffalo

12:00
*Apical leakage of a new glass ionomer root canal sealer*
DILEK M. DALAT*, B. ONAL & T. ERTL, Ankara Univ, Ege Univ, Freie Univ

12:15
*Loads required to dislodge various retrograde filling materials*
KENNETH D. TYLER*, V. DHURU & H.D. WALIA, Marquette Univ

* Presenter
§ Speaker serves as a consultant and/or has commercial interest in subject matter.
RESEARCH SEMINARS II
Graduate Student Section
Honolulu Suite II, Tapa Conference Center
Moderator: LISA R. WILCOX, DDS, MS, Iowa City, IA

11:00
Reliability of apical dye sealability studies with and without vacuum removal of air inclusions
ROBERT S. RODA* & J.L. GUTMANN, Baylor College of Dentistry

11:15
Apical dye leakage of four root canal filling techniques
EVELYN ABREU*, S.L. FROST, S. JONES, S. RECORD, R. WHITE & M. GOLDMAN, Tufts Univ

11:30
The influence of a ZOE base on coronal leakage of post prepared teeth
JOSE A. GUERRA*, J.E. SKRIBNER & L.M. LIN, Univ of Medicine & Dentistry of New Jersey

11:45
The effect of immediate and delayed post space preparation on apical dye leakage
VIRGINIA KARAPANOU*, P. CARRERA, J. VERA, R. WHITE & M. GOLDMAN, Tufts Univ

12:00
Benadryl and combination benadryl/lidocaine for mandibular anesthesia
JENNIFER W. WILLET*, A. READER, M. BECK, W. MEYERS & R. NIST, Ohio State Univ

12:15
The combination IAN/PDL for mandibular first molar anesthesia
MICHAEL A. CHILDER*, A. READER, W. MEYERS, R. NIST & M. BECK, Ohio State Univ

PRACTITIONERS’ PLATFORM I
Honolulu Suite III, Tapa Conference Center
Moderator: GERALD N. GLICKMAN, DDS, MS, Ann Arbor, MI

11:00
Tempit: The “gentle” endodontic temporary material
MANUEL I. WEISMAN, DDS, Augusta, GA

11:15
Molar transplantation
BRUCE H. THOMPSON, DMD, Fort Wainwright, AK

11:30
Avulsions with conflicting results
RAJENDRA P. SINGH, BDS, Washington

11:45
Non-healing periapical radiolucency
MORDEHAL SCHECHTER, DDS, Givvatim, Israel

12:00
Invasive cervical resorption: A frustrating continuum
JAMES L. GUTMANN, DDS, Dallas

LIMITED ATTENDANCE SESSIONS
Limited Seating. NO standing permitted. All LAS rooms are located in the Mid Pacific Conference Center.

LAS 1 - South Pacific Ballroom I
11 am - 12:30 pm
Digital imaging in endodontics
JOHN A. KHADEMI*, DDS, Iowa City, IA
The availability of several filmless, low dose digital radiography systems promises to add a new and exciting dimension to the practice of endodontics. This session will present an overview of the vocabulary and technology used in digital imaging as well as demonstrate the diagnosis, communication and patient education potential of these devices.

LAS 2 - South Pacific Ballroom II
11 am - 12:30 pm
Understanding the balanced force technique
EUGENE A. PANTERA, JR., DDS, MS, Buffalo, NY
This non-mechanical technique uses the clockwise and counterclockwise rotation of endodontic files. Topics include rationale for rotation, instrument selection, technique, apical patency, creating the apical capture zone and difficulties.

No Smoking
For the comfort of others, no smoking is permitted in any of the meeting rooms.
Program, continued

LIMITED ATTENDANCE SESSIONS
Limited Seating. NO standing permitted. All LAS rooms are located in the Mid Pacific Conference Center.

LAS 3 - Sea Pearl Suite I & II
11 am - 12:30 pm
Developing a case histories portfolio
LEIF K. BAKLAND, DDS, Loma Linda, CA
RALPH BELLIZZI, DDS, Lacey, WA
SAMUEL O. DORN, DDS, Ft. Lauderdale, FL
ROBERT L. ELLISON, DDS, Detroit
HAROLD E. GOODIS, DDS, San Francisco
M. LAMAR HICKS, DDS, MS, Silver Spring, MD
SANDRA MADISON, DDS, MS, Asheville, NC
LOUIS E. ROSSMAN, DMD, Philadelphia
ARTHUR E. SKIDMORE, DDS,
Morgantown, WV
The American Board of Endodontics will present an informative seminar on developing an acceptable case histories portfolio. Discussion will include case documentation, selection and categorization; demonstration of a specialist's proficiency and scope of practice; and many other topics. This LAS will be beneficial to those who are in or contemplating entering the board certification process.

LAS 4 - Sea Pearl Suite III & IV
11 am - 12:30 pm
Calcium hydroxide: Magic vs. reality
ZVI FUSS, DMD, Tel Aviv, Israel
Calcium hydroxide is widely used in dental practice in the following procedures: pulp capping, pulpotomy, apexification, root fractures, perforations, inflammatory root resorption and as intracanal medicament. The mechanism of action in its various applications is yet unknown. It has been suggested that calcium hydroxide can stimulate mineralization and also act as a bactericidal agent. Currently the material is considered a panacea for dental problems and is used in combination with other "magic" commercial formulations. This presentation will discuss the rationale of using calcium hydroxide in its various applications. Better understanding of the mechanism will offer the opportunity to use it when indicated and to look for alternatives when necessary.

LAS 5 - Sea Pearl Suite V & VI
11 am - 12:30 pm
Fundamentals of investing for endodontists
RICHARD LEFFEL, DMD, MBA, Monroeville, PA
This presentation's objective is to help endodontists evaluate their financial advisers. Emphasis will be placed on financial theory, investment objectives and risk analysis. Different investments will be discussed, but no specific recommendations will be made.

AMERICAN BOARD OF ENDODONTICS
LOUIS I. GROSSMAN MEMORIAL LUNCHEON
Coral Ballroom III,
Mid Pacific Conference Center (by ticket only)
12:30 - 1:45 pm
Moderator: M. LAMAR HICKS, DDS, MS,
Silver Spring, MD

Obligation of the privileged
EDWARD M. OSETEK, DDS,
Chicago

SCIENTIFIC SESSION III
Coral Ballroom I & II,
Mid Pacific Conference Center
Moderator: NEVILLE J. McDONALD, BDS,
MS, Baltimore

2 - 4 pm
Periodontal regeneration:
Horizon techniques
GERALD M. BOWERS, DDS,
MS, Baltimore

Current regenerative techniques afford the opportunity to treat patients with advanced periodontal disease successfully. Techniques now being tested offer even greater promise for the future. Three major areas of interest—growth proteins, resorbable membranes and combination therapy—will be discussed and compared to existing techniques.
SCIENTIFIC SESSION IV
South Pacific Ballroom III & IV,
Mid Pacific Conference Center
Moderator: LEIF K. BAKLAND, DDS,
Loma Linda, CA

2 - 4 pm

On the cutting edge with nickel-titanium
THOMAS P. SERENE, DDS,
MSD, Charleston, SC

Nickel-titanium is a superelastic (shape memory) alloy ideally suited for endodontic instruments. Files made from this alloy are biologically acceptable, highly flexible and stronger than conventional stainless steel files. This lecture will summarize over two years of research and clinical application using hand and mechanical instrumentation.

GENERAL INTEREST SESSION I
Coral Ballroom IV,
Mid Pacific Conference Center
Moderator: WILFRED C. WEINSTEIN, DMD,
Vancouver, Canada

2 - 4 pm

What you always wanted to know about drugs of abuse and chemical dependency but were afraid to ask
HAROLD L. CROSSLEY, DDS,
PhD, Baltimore

Questions about street drugs and chemical dependency will be answered in this dynamic yet hard-hitting presentation that will take you from the streets into the office to identify substance abuse and what to do about it. The lecture includes discussion of the evolution of addictive disease and a biochemical explanation for addiction. The origins, types, mechanisms of action, and signs and symptoms of commonly abused substances will also be explored. This information will provide a backdrop for the management of the chemically dependent patient whether active or in recovery. This lecture should be attended by all dentists, family members and office personnel because of the vital importance of this topic in our society today.

RESEARCH SEMINARS III
Honolulu Suite I, Tapa Conference Center
Moderator: ERIC M. RIVERA, DDS, MS,
Iowa City, IA

2:00
Prevalence of black-pigmented bacteria associated with root canal infections
J. CRAIG BAUMGARTNER* & B.J. WATKINS,
Oregon Health Sciences Univ

2:15
Effects of bacterial peptidoglycan on monocyte inflammatory function
KAMRAN E. SAFAVI* & F.C. NICHOLS,
Univ of Connecticut

2:30
Optical detection of hemoglobin and oxygen in pulpal blood
LISA R. WILCOX*, A.M. DIAZ-ARNOLD &
M.A. ARNOLD, Univ of Iowa

2:45
Chronology of hypoxia in rat pulpitis demonstrated by 3-n-Misonidazole
KIRK R. BAUMGARDNER*, R.E. WALTON,
J.W. OSBORNE & J.L. BORN, Univ of Iowa &
Univ of New Mexico

3:00
IL-1β: a marker for pulpal inflammation
CINDY R. RAUSCHENBERGER* &
C. COOTAUCO, Univ of Maryland

3:15
Expression of EGF receptor in the inflammatory periapical lesions
LOUIS M. LIN*, C. LEUNG, S.L. WANG,
C.Y. WU-WANG & J.E. SKRIBNER, Univ of
Medicine & Dentistry of New Jersey

3:30
Stimulation of collagen synthesis in RFC C2A
by IGF-1
RAHMAT A. BARKHODAR*,
S.R. SRINIVASAN, S. MAKADA, P. GHANI,
A.C. KARIM & Z.H. HUSSAIN, Univ of
California at San Francisco & Univ of
Manitoba

* Presenter
Program, continued

RESEARCH SEMINARS III, continued
Honolulu Suite I, Tapa Conference Center

Iowa City, IA
3:45
Effect of TGF-β on collagen synthesis by dental pulp fibroblasts
RAHMAT A. BARKHORDAR*, P. GHANI, B. ENRIQUEZ & Z.H. HUSSAIN, Univ of California at San Francisco

RESEARCH SEMINARS IV
Graduate Student Section
Honolulu Suite II, Tapa Conference Center
Moderator: PATRICE D. PRIMACK, DMD, MS, Martinez, GA

2:00
Wear and cutting efficiency of the rispison file

2:15
Healing potential of osteotomies of the nasal sinus in the dog
RODERICK W. TATARYN*, P.J. BOYNE & M. TORABINEJAD, Loma Linda Univ

2:30
An evaluation of microleakage in preparations of two different lengths
TIMOTHY P. MAHER*, H.D. WALLA & B.P. AUSTIN, Marquette Univ

2:45
Evaluation of the seal of various amalgam root-end fillings
JEFFREY R. JOHNSON*, R.W. ANDERSON & D.H. PASHLEY, Medical College of Georgia

3:00
Evaluation of dentin bonding agents used to seal resected root ends
PAUL A. VIGNAROLI*, R.W. ANDERSON & D.H. PASHLEY, Medical College of Georgia

3:15
Chronic effects of set and unset sealers on the repair of osseous defects in rat tibias
B. PETER AUSTIN*, H.D. WALLA, K.L. ZAKARIASEN & L.A. BROCK, Marquette Univ
* Presenter

3:30
The evaluation of two matrix materials used in perforation repair
ROGER J. BROWN*, B.G. JEANSONNE & R.R. LEMON, Louisiana State Univ

3:45
In vitro study of vertical fractures repaired with bonding agents
JUAN C. ANGUTA*, P.A. ROSENBERG, C. BURUIANA & F.H. KAHN, New York Univ

PRACTITIONERS' PLATFORM II
Honolulu Suite III, Tapa Conference Center
Moderator: GERALD N. GLICKMAN, DDS, MS, Ann Arbor, MI

2:00
Surgical treatment of an avulsed tooth
HOWARD L. PRANIKOFF, DDS, MScD, Ormond Beach, FL

2:15
Treatment of refractory endodontic lesions
GLEN S. GERDES, DMD, Bremerton, WA

2:30
Treatment alternatives for a geminated/fused tooth
JAY MARLIN, DMD, Worcester, MA

2:45
Treatment “obstacles”
GERALD N. GLICKMAN, DDS, MS, Ann Arbor, MI

3:00
Previewing of ectopic canal exit
SEUNG-JONG LEE, DDS, MS, Seoul, Korea

3:15
Retreatment or surgery?
HESHAM M. EL-TAGOURI, DMD, MDS, Buffalo, NY

3:30
Clinical cases with unexpected outcomes
PATRICK BOGAERTS, LSD, Brussels, Belgium
LIMITED ATTENDANCE SESSIONS
Limited Seating. NO standing permitted. All LAS rooms are located in the Mid Pacific Conference Center.

LAS 6 - South Pacific Ballroom I
2 - 3 pm
*Posts: When? Why? and Which ones?
FREDERICK H. KAHN, DDS, New York
Proper restoration is essential for endodontic success. Advances in bonding technology, post and core systems, and the utilization of root morphology as a guide to post selection will be presented.

LAS 7 - South Pacific Ballroom II
2 - 3 pm
*Isolated periodontal defects: Etiology, diagnosis and treatment
WILLIAM T. JOHNSON, DDS, MS, Iowa City, IA
The narrow isolated periodontal pocket can have a variety of etiologies. Establishing a definitive diagnosis permits the development of a treatment plan. This presentation will discuss the factors associated with the diagnosis and treatment of isolated periodontal defects using a case presentation format.

LAS 8 - Sea Pearl Suite I & II
2 - 3 pm
*Clinical methodology on the endodontic management of the HIV-AIDS patient
FRANK R. PORTELL, DMD, MS,
Woodbridge, VA
With today's increasing HIV population, the endodontist must be prepared to face the formidable challenges associated with this disease. A discussion of treatment alternatives will be followed by clinical examples.

LAS 9 - Sea Pearl Suite III & IV
2 - 3 pm
*Gaining access to calcified canals
GEORGE G. STEWART, DDS, Philadelphia
As a result of an aging population, the endodontist is confronted with an increasing number of calcified chambers and canals. Over a period of many years of practice, research and teaching, Dr. Stewart has developed procedures that will aid in gaining access to a greater number of these calcified canals.

LAS 10 - Sea Pearl Suite V & VI
2 - 3 pm
*Successful TCP plugs for perforations
HENRY L. HARBERT, DMD, Everett, WA
Bleeding furcation perforations and open, draining apices necessitate mending prior to endodontics. Tricalcium phosphate plugs dependably abbreviate treatment time and are comfortable, strong, safe and inexpensive.

LAS 11 - South Pacific Ballroom I
3:15 - 4:15 pm
*The quality of root fillings as cause for failure: Combined in vitro and in vivo aspects
AVIAD TAMSE, DMD, Tel Aviv, Israel
This session will present a review of the causes for root canal treatment failures and other reasons for tooth extractions. For the first time, a positive correlation between poor root filling, endodontic failure and apical leakage of dye will be shown and illustrated by clinical cases.

LAS 12 - South Pacific Ballroom II
3:15 - 4:15 pm
*Vertical root fractures: Etiology, diagnosis and treatment modalities
TIZIANO TESTORI, DDS, MD, PhD, Milan, Italy
MARIO G. BADINO, DDS, MD, Milan, Italy
This seminar will present a clinical study on 36 original cases of vertical root fractures. Clinical and radiographic findings, distribution according to the type of tooth and patient's age in relation to the occurrence of vertical root fractures will be covered in detail. A discussion of treatment modalities will be followed by clinical cases.

LAS 13 - Sea Pearl Suite I & II
3:15 - 4:15 pm
*Putting the "P" into practice!
JULIAN R.D. MOISEIWITSCH, BDS,
Chapel Hill, NC
FRANCOISE SELLIER-MOISEIWITSCH, MSc,
PhD, Chapel Hill, NC
What does statistical significance mean, and when is it clinically relevant? Interpretations of p-values will be discussed as they relate to both the practitioner and the clinical researcher. The connection between p-values, power and sample sizes will be highlighted using numerous examples taken from the endodontic literature to illustrate the discussion.
Program, continued

LIMITED ATTENDANCE SESSIONS
Limited Seating. NO standing permitted. All LAS rooms are located in the Mid Pacific Conference Center.

LAS 14 - Sea Pearl Suite III & IV
3:15 - 4:15 pm
Nickel-titanium endodontic instruments: An update
KHALID M. AHMED, DDS, MSD, Detroit
Root canal files fabricated from stainless steel alloys are stiff and can cause procedural errors in curved canals. In recent years nickel-titanium alloys have been used to fabricate root canal instruments with claims of increased flexibility and resistance to fracture. This seminar will focus on the design and uses of various nickel-titanium endodontic instruments.

LAS 15 - Sea Pearl Suite V & VI
3:15 - 4:15 pm
The use of film holders in endodontic radiography
STEVEN A. COHN, DDS, Sydney, Australia
Successful endodontic treatment depends on accurate and reproducible radiographs. The use of a film holder facilitates this goal. This presentation will demonstrate the application of such devices in all clinical situations.

FRIDAY, APRIL 29

FUN RUN
6 - 7:30 am
Run, walk or amble along Ala Moana Park.

R&E PRESIDENTS’ CIRCLE BREAKFAST
Coral Ballroom III, Mid Pacific Conference Center (by invitation only)
7 - 8 am
The Distinguished Donor award will be presented at this meeting of the Presidents’ Circle, the donor recognition society of the Research and Education Foundation of the AAE.

CONTINENTAL BREAKFAST
Palace Lounge, Tapa Conference Center
(by ticket only)
7:15 - 8 am

EXHIBITS
Tapa Ballroom, Tapa Conference Center
7:30 am - 2 pm

SCIENTIFIC SESSION V
Coral Ballroom I & II, Mid Pacific Conference Center
Moderator: MAHMOUD TORABINEJAD, DMD, MSD, Loma Linda, CA
8 - 10 am

No Smoking
For the comfort of others, no smoking is permitted in any of the meeting rooms.

Audio and video taping are allowed only with permission of the speaker.

The statements and opinions expressed at the Annual Session are solely those of the individual speakers. Those statements and opinions do not reflect any endorsement by the American Association of Endodontists.

Badges must be worn at all official AAE functions.

Management of furcation and strip perforations: Update of internal matrix concept
RONALD R. LEMON, DMD, New Orleans

Perforation defects in the furcation area often devastate the long-term periodontal prognosis. Traditional management techniques, including surgical and nonsurgical methods, often further compromise the long-term prognosis. The internal matrix concept offers many advantages to the traditional methods. A second generation of biocompatible matrix materials may further improve the prognosis for internal repair. Current research will be presented.
SCIENTIFIC SESSION VI
Coral Ballroom IV,
Mid Pacific Conference Center
Moderator: ROBERT A. UCHIN, DDS,
Fort Lauderdale, FL
8 - 11 am
Endodontic microsurgery: Present and future

S. Kim  G. Pecora  R. Rubinstein

SYNGCUK KIM, DDS, PhD, Philadelphia
GABRIELE PECORA, DDS, MD, Rome
RICHARD A. RUBINSTEIN, DDS, MS,
Farmington Hills, MI

Microsurgical techniques and instruments have
moved endodontic surgery into a new era.
Questions about the value of the microscope in
endodontic surgery—superior visual access to
posterior surgical sites and detection of isthmuses,
microfractures and other defects—as well as the role of guided tissue regeneration in
areas with substantial bone loss will be dis-
cussed. Other common concerns, including the
long-term healing results with Super EBA
retrofilling, will be addressed by presenting
experimental results. A videotape presentation
will show surgical procedures using micro-
surgical instruments and an ultrasonic
depilation to illustrate what is now pos-
sible with enhanced vision under the micro-
scope.

GENERAL INTEREST SESSION II
South Pacific Ballroom III & IV,
Mid Pacific Conference Center
Moderator: TERRYL A. PROPPER, DDS, MS,
Nashville, TN
8 - 10 am
Measuring customer satisfaction with patients
and referral sources: Why and how

E. Monroe-Cook  J. Silversin

ELIZABETH MONROE-COOK, PhD,
Oak Park, IL
JACK SILVERSIN, DMD, DrPH, Cambridge, MA
How satisfied are your referring dentists and
patients with the care and service you provide?
How do you know your perceptions are accu-
rate? The AAE has developed two tools to help
you gauge the true satisfaction of customers in
your own practice. This program will feature the
latest research effort by the AAE’s Public and
Professional Affairs Committee: a brand new
patient satisfaction survey that is scientifically
valid and reliable with rational norms for pa-
tient satisfaction. Learn how you can take advan-
tage of this new Patient Satisfaction Profile.
This session will also demonstrate how you can
use the Practitioner Profile the AAE has devel-
op to determine the best ways to meet the
needs of your referring dentists.

RESEARCH SEMINARS V
Honolulu Suite I, Tapa Conference Center
Moderator: VAN T. HIMEL, DDS,
Memphis, TN
8:00
Incisor crown retention: Effects of access
cavities and subsequent restorations
PAUL V. ABBOTT* & Y.C. YU, Univ of
Western Australia

8:15
Effect of endodontic treatment on guided tissue
regeneration
MING M. WANG*, C.B. ANDERSON, L. LIMA,
J.R. LUDINGTON, JR. & R.G. CAFFESE,
Univ of Texas at Houston

* Presenter

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Exhibit Area on Thursday at 10:30 am and 2:30
pm and on Friday and Saturday at 7:30 and
11 am.

Insurance Questions?
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ministrator of insurance programs for the AAE
for over 15 years. Stop by their booth in the
Registration Area.
Program, continued

RESEARCH SEMINARS V, continued
Honolulu Suite I, Tapa Conference Center

8:30
Short vs. long term Ca(OH)₂ treatment of inflammatory root resorption
MARTIN TROPE*, J. MOSHONOY, R. NISSAN, P. BUXT & C. YESILSOY, Univ of North Carolina & Temple Univ

8:45
IgG and dentin permeability
CHIN-LO HAHN*, B. OVERTON & Y. HAO, Virginia Commonwealth Univ

9:00
The smear layer and bacterial penetration of radicular dentinal tubules
ROBERT W. HAWKINSON*, C.T. NII, E.L. JACOBSEN & R.A. MURPHY, Univ of Illinois at Chicago

9:15
Morphometric analysis of working length determined by impedance type apex locators
SENIA KEILA*, H. LINN, A. KATZ & A.Y. KAUFMAN, Tel Aviv Univ

9:30
Determination of root perforation by electronic apex locators
ZVI FUSS*, L. ASULIN & A.Y. KAUFMAN, Tel Aviv Univ

9:45
Analysis of teeth with iatrogenic root perforations
ERIC M. RIVERA*, H. REID & J. RYTHE, Univ of Iowa

10:00
Healing of furcal lesions repaired by amalgam or mineral trioxide aggregate
CHAN-UI HONG*, D.J. MCKENDRY, T.R. PITTFORD & M. TORABINEJAD, Dankook Univ, Univ of London & Loma Linda Univ

10:15
Patient perceptions of endodontic treatment outcomes
KENNETH L. ZAKARIASEN*, W.K. LOBB & P.J. McGRATH, Marquette Univ & Dalhousie Univ

10:30
Evaluation of an improved technique for testing antimicrobial activity of endodontic sealers
MALKA SHALHAV*, Z. FUSS & E. WEISS, Tel Aviv Univ

10:45
Antimicrobial activity of a new endodontic sealer on streptococcus fecalis in vitro
ZVI FUSS*, M. SHALHAV & E. WEISS, Tel Aviv Univ

11:00
Dose-response evaluation of peripheral morphine in endodontic patients
KENNETH M. HARGREAVES*, A. LEPINSKI & R.A. DIONNE, Univ of Minnesota & NIDR

11:15
Modification of pulpal microcirculation and interdental nerve activity
HAROLD E. GOODIS*, J.M. WHITE & V. WINTHROPE, Univ of California at San Francisco

11:30
Assay of metronidazole in human dental pulp and dentin after a single oral dose
ALESSANDRO GIOVANARDI*, J.F. CORCORAN, R.L. ELLISON & W. LOESCHE, Univ of Michigan

11:45
Antibacterial effect of Nd:YAG laser irradiation in infected root canals
JOSHUA MOSHONOY*, S. YAMAUCHI, M. PETTETTE, M. TROPE & D. ORSTAVIK, Univ of North Carolina

12:00
The effect of KTP/532 laser on induced periradicular lesions in ferrets
SALSABYL M. IBRAHIM*, H. TEWFIK, R. ANDERSON & M. SHARAWY, Cairo Univ

12:15
Effect of CO₂ laser on surface topography and permeability of root canal dentin
SALSABYL M. IBRAHIM*, E. HUSSENEN & G. ELSHAFY, Cairo Univ

* Presenter
RESEARCH SEMINARS VI
Graduate Student Section
Honolulu Suite II, Tapa Conference Center
Moderator: ROBERT R. WHITE, DMD, Boston

8:00
Artificial pulp chamber for in vitro evaluation of dental materials
MARIA I. BARRIA* & L.S.W. SPANGBERG, Univ of Connecticut

8:15
A model for development of pulpal inflammation
JOHN W. MASTERS*, M. TORABINEJAD & D. ARENDT, Loma Linda Univ

8:30
The effects of growth factors in a controlled bony lesion
LAWRENCE J. POSNER*, Y. DASTMALCHI, H. SCHILDER, D. GRAVES, J. GILLES & D. CARNES, Boston Univ

8:45
Production of Interleukin-1 by polymorphonuclear leukocytes present in inflammatory periodontal tissues
THOMAS J. DeMAYO*, G. MILLER & J. HUTTER, Naval Dental School

9:00
Inflammation increases the 125I-EGF binding to the periapical lesions

9:15
Evaluation of the concentrations of ICAM-1 in healthy and inflamed human dental pulp
CYNTHIA J. COOTAUCO* & C.R. RAUSCHENBERGER, Univ of Maryland

9:30
Nitric oxide synthase markers in rat tooth following pulp exposure
ALAN S. LAW*, K.R. BAUMGARDNER, J.M. RANDALL, S.T. MELLER & G.F. GEBHART, Univ of Iowa

9:45
NOS and CGRP immunoreactivity following sympathectomy and pulp exposure
JAMES M. RANDALL*, A.S. LAW, K.R. BAUMGARDNER, G.F. GEBHART & S.T. MELLER, Univ of Iowa

10:00
Potential psychological variables affecting the reliability of electrical pulp testing
MICHAEL D. CARTER*, S. JONES, S. RECORD, R. WHITE, M. GOLDMAN & J. TENCA, Tufts Univ

10:15
Reliability of electrical pulp testing after traumatic injuries
ROBERTA PILEGGI*, T. DUMSHA & N. MYSLSINSKI, Univ of Maryland

10:30
Pulse oximetry detection of pulpal circulation in vitro
W. CRAIG NOBLETT*, L.R. WILCOX, F. SCAMMAN, W. JOHNSON & A. ARNOLD, Univ of Iowa

10:45
Effects of storage media and drying time on PDL viability
KAREN R. LIPPS*, T. DUMSHA & R. SYDISKIS, Univ of Maryland

11:00
Anaerobic tissue dissolving ability of calcium hydroxide and sodium hypochlorite
SHUE-FEN YANG*, E.M. RIVERA, K.R. BAUMGARDNER & R.E. WALTON, Univ of Iowa

11:15
Root canal file length determination using the radiovisography monitor image
THOMAS G. OLDAG*, D.A. MILES & C.E. BROWN, Indiana Univ

11:30
Frequency dependent blockade in mandibular anesthesia
GREGORY J. HUTCHISON*, T. HALCOMB, A. READER, M. BECK, W. MEYERS & R. NIST, Ohio State Univ
RESEARCH SEMINARS VI, continued
Honolulu Suite II, Tapa Conference Center

11:45
Comparison of infiltration to intramuscular injection of ketorolac for treatment of endodontic pain
SUSAN G. PENNISTON* & K.M. HARGREAVES, Univ of Minnesota

12:00
Medical ultrasound as an adjunct to inferior alveolar nerve block
LAWRENCE J. HANNAN*, A. READER, M. BECK, W. MEYERS & R. NIST, Ohio State Univ

12:15
Nd:YAG laser: ability to prevent cervical leakage of 35% H₂O₂
DEWEY TONG*, P.A. ROSENBERG, D.M. GALLIN & J.P. LeGEROS, New York Univ

LIMITED ATTENDANCE SESSIONS
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LAS 16 - South Pacific Ballroom I
8 - 9:15 am
Apexogenesis and apexitification: Recalling 440 cases over a period of 20 years
JEAN-MARIE LAURICHESSE, DDS, MS, Paris
Since violence and accidents generate more and more dental fractures, apexogenesis and apexitification are still used in current practice. History and present status of these techniques will be discussed through clinical cases as well as the prognosis of the treatment. Clinical procedures will be shown with results appreciated over a period of 20 years.

LAS 17 - South Pacific Ballroom II
8 - 9:15 am
The restoration of endodontically treated teeth
L. BRUCE BROWN, DDS, San Diego
The subsequent restoration of an endodontically treated tooth contributes greatly to the function, esthetics and long term success of the patient’s treatment. The function of the dowel-core system as it relates to diagnosis and treatment planning will be presented, and the various restorative techniques will be reviewed as to materials, preparation steps and respective applications. Included will be a clinical review of special situations and restorative failures.

LAS 18 - Sea Pearl Suite I & II
8 - 9:15 am
Endodontic instrument guidance and file-stiffening through projected canals
C. JOHN MUNCE, DDS, Santa Barbara, CA
Actual physical projection of canal orifices from chamber floor to cavo-surface is now possible. Using a simple device and instruments and materials familiar to endodontists, this seminar demonstrates how canal projection quickly provides pre-treatment build-ups, bypass of canal obstructions and reliable endodontic instrument guidance, simplifying therapy without compromise.

LAS 19 - South Pacific Ballroom I
9:30 - 10:45 am
Tidbits, tips and tricks for thermoplasticized gutta-percha
GERALD N. GLICKMAN$, DDS, MS, Ann Arbor, MI
WILFRED C. WEINSTEIN$, DMD, Vancouver, Canada
Contemporary thermoplasticized gutta-percha systems have their own unique technical nuances, requiring the clinician to have a thorough understanding of them in order to achieve mastery. This seminar will highlight these systems and present clinical tips and tricks for their effective usage.

* Presenter
§ Speaker serves as a consultant and/or has commercial interest in subject matter.
LAS 20 - South Pacific Ballroom II
9:30 - 10:45 am
Management of fascial space infections of odontogenic origin
JEFFREY W. HUTTER, DMD, Bethesda, MD
This presentation will discuss the principles involved in examining and treating patients with dentoalveolar infection. Emphasis will be on patient assessment, culture and sensitivity; incision and drainage; antibiotic therapy; and supportive care.

LAS 21 - Sea Pearl Suite I & II
9:30 - 10:45 am
Special endodontic considerations for Chinese patients
LING H. CHUEH, DDS, MS, Taipei, Taiwan
The dental anatomy between Mongolian and Caucasian can have variations, such as dens evaginatus, C-shape root canal systems and three-rooted lower molars. These will be discussed regarding their implications, treatments and complications.

POSTER CLINICS
Tapa Ballroom, Tapa Conference Center
8:00 - 11:00 am

PC 1 Antimicrobial effect within dentinal tubules of three cavity lining materials
NICHOLAS P. CHANDLER, BDS, MSc, Dunedin, New Zealand

PC 2 The seating ability of a gallium alloy as retrofilling material
NORIYASU HOOSYA, DMD, PhD, Chicago

PC 3 Organic substance dissolving ability of NaOCl paste
ICHIROH KATSUUMI, DDS, PhD, Tokyo

PC 4 Clinical study of electronic determination of working length using relative values of frequencies
SHUJI MEZAWA, DDS, PhD, Tokyo

PC 5 Sequential microvascular changes during osseous healing after experimental apicoectomy in dogs
RONG-TAI ROAN§, DDS, Kaohsiung, Taiwan

PC 6 Root canal system of mandibular permanent molars in a Chinese population
WEN-JYH ROU§, DDS & MIRNG-HAUR DIAU, DDS, Kaohsiung, Taiwan

PC 7 SEM study of root canal surface with calcium hydroxide dressing
HONG-MING TANG, BDS, Taipei, Taiwan

PC 8 Root canal obturation methods on blunderbuss-shaped canal after apexification
TAMIYUKI TSUZUKI, DDS, PhD, Tokyo

PC 9 Monoinfected periapical tissue responses in gnotobiotic rats
KEN-ICHI UENO, DDS & HIDEAKI SUDA, PhD, Tokyo

TABLE CLINICS
Tapa Ballroom, Tapa Conference Center
8:00 - 11:00 am

TC 1 Treatment of root perforations with Ca(OH)₂ and super EBA
PATRICK BOGAERTS, LSD, Brussels, Belgium

TC 2 Synthesized hydroxyapatite alone or combined with calcium hydroxide or calcium carbonate as an apical plug
SALSABYL M. IBRAHIM, BchD, MsD, Cairo, Egypt

TC 3 Testing rubber dam leakage
YI-TAI JOU, DDS, Taipei, Taiwan

TC 4 A new ultrasonic root canal preparation system
CHIHIRO KOYAYASHI, DDS, PhD & TAKATOMO TOSHIOKA, DDS, Tokyo

TC 5 Simplifying vertical condensation backfills
JAMES B. ROANE$, DDS, MS, Oklahoma City, OK

TC 6 New filing technique using pulse cutting method
HIROKAZU HATSUYA, DDS, DMS, Tokyo
Program, continued

SCIENTIFIC SESSION VII
Coral Ballroom I & II,
Mid Pacific Conference Center
Moderator: JAMES L. GUTMANN, Dallas

10:15 am - 12:15 pm

Invasive cervical resorption
GEORGEY S. HEITHERSAY,
BDS, MDS,
Adelaide, Australia

Of significance to endodontists, periodontists
and restorative dentists is this insidious and
often aggressive form of external root resorption.
Although the etiology is unknown, some
predisposing factors have been identified, e.g.
trauma, orthodontic treatment, bleaching, etc.
The clinical radiological and histopathological
features of this interesting and challenging
process will be outlined along with the results of
a specific treatment regimen.

SCIENTIFIC SESSION VIII
Coral Ballroom IV,
Mid Pacific Conference Center
Moderator: MICHAEL L. MARK, DDS,
Eagle River, AK

11:15 am - 12:15 pm

Three dimensional imaging in
endodontics: Research,
education and virtual reality
L. STEPHEN BUCHANAN§,
DDS, Santa Barbara, CA

3D workstations can now reconstruct digital
radiography of teeth into anatomically-correct
computer models. This video presentation shows
how these "virtual teeth" can be used for
anatomic research, finite element stress analysis of
restorative systems, instrumentation research
and animated interactive educational experiences, including flying through root canals!

GENERAL INTEREST SESSION III
South Pacific Ballroom III & IV,
Mid Pacific Conference Center
Moderator: DONALD E. ARENS, DDS, MSD,
Indianapolis

10:15 am - 12:15 pm

Establishing the value of endodontic treatment
for your patients

E. Monroe-Cook  J. Silversin

ELIZABETH MONROE-COOK, PhD,
Oak Park, IL

JACK SILVERSIN, DMD, DrPH, Cambridge, MA

When patients feel the fee you charge for endon-
dontic treatment is unjustifiably high you risk
dissatisfying your customers—the patients—
and their referring dentists. This workshop
will include a video presentation of excerpts from
interviews with endodontic patients discussing
their perceptions of cost and value. You will
learn: 1) practical methods for demonstrating
and conveying to patients the value of what you
do and 2) how to enlist the help of your referring
dentists in communicating to patients the value
of treatment by an endodontic specialist.

Need a break?
Complimentary coffee will be provided in the
Exhibit Area on Thursday at 10:30 am and 2:30
pm and on Friday and Saturday at 7:30 and
11 am.

Insurance Questions?
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dministrator of insurance programs for the AAE
for over 15 years. Stop by their booth in the
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LAS 22 - South Pacific Ballroom I
11 am - 12:15 pm
Managing the obstructed root canal space: Rationale and techniques
WILLIAM WAI-YICK GOON, DDS,
San Francisco
Managing metallic obstructions in a root canal requires a thorough knowledge of and expertise in the scope of retrieval techniques. The goals of salvaging the root canal and ensuring the tooth’s integrity require the selective execution of those techniques that will minimize operative hazards. This seminar reviews techniques and treatment approaches.

LAS 23 - South Pacific Ballroom II
11 am - 12:15 pm
Enucleation of large periapical lesions
CARL W. NEWTON, DDS, MSD, Indianapolis
The role of the endodontist in treatment planning and the surgical treatment of large anterior periapical lesions of pulpal origin will be well illustrated with clinical cases.

LAS 24 - Sea Pearl Suite I & II
11 am - 12:15 pm
Endodontic extrusive management of coronal radicular injuries: A clinical approach
RICARDO CAICEDO, DDS, Bogota, Colombia
Teeth with traumatic injuries at the cervical third may not offer sound tooth structure on which to place a restoration. Forced eruption is an alternative that offers benefits not available with surgery alone. Clinical cases will be presented to highlight treatment modalities.

AWARD LUNCHEON
Coral Ballroom III,
Mid Pacific Conference Center (by ticket only)
12:30 - 2 pm
Moderator: MARSHALL D. PEIKOFF, DMD,
MSD, Winnipeg, Canada

Honorary Membership

MRS. IRMA S. KUDO, Chicago
MR. FRANK N. LENTINE, Romulus, MI
DR. MICHEL MAILLEFER, Ballaigues,
Switzerland
Honorary Membership is presented for recognition of significant contributions that have furthered the advancement of endodontics.

Ralph F. Sommer Award

GORAN SUNDqvist,
Uméa, Sweden
The Ralph F. Sommer Award is presented for recognition to the principal author of a publication of specific significance to the science and art of endodontics.

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SATURDAY, APRIL 30

CONTINENTAL BREAKFAST
Palace Lounge, Tapa Conference Center (by ticket only)
7:15 - 8 am

EXHIBITS
Tapa Ballroom, Tapa Conference Center
7:30 am - 12:30 pm

POSTER CLINICS
Graduate Student Section
Tapa Ballroom, Tapa Conference Center
7:30 - 10:30 am

PC 10 Interactive teleradiology in dentistry: Efficacy and impact on patient care
KATHLEEN S. BOYD, DDS, Univ of North Carolina

PC 11 An in vitro model system for dentin resorption
VINCENT T. CAMMARATO, DDS, Albert Einstein Medical Center

PC 12 Thermafill and laterally condensed teeth: Apical bacterial microleakage
EDA ELBIRLIK, DDS & TARA E. ROFFE, DDS, New York Univ

PC 13 Effects of beta-glycerol phosphate on the mineralization and proliferation of human bone cells in culture
LEE D. FILLAK, DMD, Northwestern Univ

PC 14 Nickel-titanium hand- and engine-driven root canal preparations: A comparison study
ROBERT H. HALLER, DDS, Wilford Hall USAF Medical Center

PC 15 Lymphocytes population in relation to clinical symptoms in irreversible pulpitis
WOO CHEOL LEE, DDS, Seoul National Univ

PC 16 A qualitative SEM evaluation of root-end resections
MICHAEL D. PARSONS, DDS & ANDREW H. STANEK, DDS, Univ of Maryland

PC 17 Efficacy of dental gloves as viral barriers
JOHN E. PRATTE, DDS, Loma Linda Univ

PC 18 The effect of corrosion on two stainless steel files
PAUL A. SCOTT, DDS, Northwestern Univ

PC 19 Endodontic treatment needs in an elderly United States population
ROBERT F. STARLING, DDS, MPH, Univ of Connecticut

PC 20 Effect of Ca(OH)_2 dressing on the root canal walls: An SEM examination
RODERICK W. TATARYN, DDS, Loma Linda Univ

PC 21 Effects of 1, 25 dihydroxyvitamin D_3 on the metabolism of human osteoblast growth factors in culture
JEFFREY T. WALKER, DDS, Northwestern Univ

PC 22 IL-1 inhibits PDGF binding through PKA and PKC independent pathways
YU-LING YEH, DMD, Boston Univ

PC 23 Microbial interactions of three potential endodontic pathogens in mixed culture
MARVIN A. ZERR, DDS, Univ of Iowa

TABLE CLINICS
Graduate Student Section
Tapa Ballroom, Tapa Conference Center
7:30 - 10:30 am

TC 7 Patterns of usage—intracanal medicaments and irrigants: A survey
DEBORAH E. BATTRUM, DDS & JAMES E. LEONARD, DDS, Baylor College of Dentistry

TC 8 Locating calcified canals
CURT W. BEACH, DDS & GARY G. GOODELL, DDS, Naval Dental School
TC 9 Using dentinal fluid for diagnostic testing in healthy and inflamed dental pulp
BARBARA O. BOWERSOX, DDS & JOHN C. DERMODY, BDS, Univ of Maryland

TC 10 Selection of the appropriate size accessory gutta percha cones to match spreaders used in lateral condensation
MATTHEW D. DIANDRETH, DMD & RICHARD A. ELLIS, BDS, Univ of Maryland

TC 11 Therapeutic applications of corticosteroids in endodontics
DAVID D. FABRE, DDS & DAVID J. HURT, DMD, Northwestern Univ

TC 12 Uses of digital subtraction radiography in endodontics
CHARLES R. GLOSSON, DMD, Wilford Hall USAF Medical Center

TC 13 Surgical site isolation and hemostasis
MICHAEL W. HUEY, DMD & DANIEL G. EHRLICH, DDS, Naval Dental School

TC 14 Aspiration and irrigation of large periradicular lesions
JOHN P. LUNDGREN, DDS & JAMES Y.M. CHAU, DDS, MS, Naval Dental School

TC 15 Evolving endodontic nomenclature
KURT M. MYERS, DDS & ERIC T. SHUGARS, DDS, Northwestern Univ

TC 16 Where is the apex?
VAROOJAN Y. MIRZAYAN, DDS, Univ of Pittsburgh

TC 17 Suturing in endodontic surgery
CAROL S. NIEHAUS, DDS, MS & CHARLES M. ARITA, DDS, Univ of Maryland

TC 18 Stabident local anesthetic system
TIMOTHY R. ROHDE, DDS & JAMES J. ANTUS, DDS, Naval Dental School

TC 19 Improved eucapercha obturation technique
JOHN E. STUPARITZ, DDS & MICHAEL J. CHUTICH, DDS, Northwestern Univ

TC 20 Clinical evaluation of the surgical operating microscope
RAYMOND M.T. VAN DER WERF, DDS, Boston Univ

SCIENTIFIC SESSION IX
Coral Ballroom I & II,
Mid Pacific Conference Center
Moderator: J. CRAIG BAUMGARTNER, DDS, MS, PhD, Portland, OR

8 - 9:30 am
Clinical application of dental pharmacology
HAROLD L. CROSSLEY, DDS, PhD, Baltimore

No area of oral therapeutics presents such diversity as the control of post-operative dental pain. Current medications available are discussed with a focus on indications, contra-indications and mechanisms of action. New approaches to medication-controlled discomfort such as the NSAIA's and long acting local anesthetics will be presented in a clinically useful format. Local anesthetics will be compared and contrasted with regard to duration of action, toxicity, antigenicity, and systemic and local side effects.

Explore the traditional as well as the newer antibiotics and antifungal agents available to treat patients with orofacial infections. Indications and contraindications, SBE prophylaxis guidelines, and recommendations for the orthopedic prosthesis patient will be included in this informative presentation.

Insurance Questions?
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Program, continued

SCIENTIFIC SESSION X
Coral Ballroom IV,
Mid Pacific Conference Center
Moderator: BILLIE G. JEANSONNE, DDS,
PhD, New Orleans

8 - 9:30 am
Innovations in endodontic retreatment—Part I
CLIFFORD J. RUDDLE, DDS,
Santa Barbara, CA

A review of root canal system anatomy and its role in endodontic prognosis is followed by an analysis of those factors commonly implicated in endodontic failure. Utilizing the documentation features of the operating microscope, a variety of techniques will be demonstrated enabling the clinician to manage a wide range of frequently encountered clinical obstacles successfully. This session will not be taped.

GENERAL INTEREST SESSION IV
South Pacific Ballroom III & IV,
Mid Pacific Conference Center
Moderator: STEVEN M. SIERASKI, DDS,
MS, Bloomington, IL

8 - 11:15 am
Proven strategies for practice transition:
Associateship, partnership, retirement

RANDALL K. BERNING§, JD, LLM,
Burlingame, CA
TERRYL A. PROPPER, DDS, MS, Nashville, TN
Panelists: MICHAEL E. DENT, DDS,
Fairfield, CA
GERALD C. DIETZ, SR, DDS,
Bloomfield Hills, MI
W. BRUCE HOWERTON, JR,
DDS, Asheville, NC
CAROLYN SHULMAN KERR,
DDS, MS, Metairie, LA

In this interactive session, a panel moderated by an attorney and an endodontist will discuss proven strategies for practice transition. Strategic planning methods and implementation to assure successful practice transition will be the focus of this session. Highlights will include: 1) financial considerations for owners and associates; 2) valuation of the endodontic practice; 3) immediate buy-in versus extended associateship; 4) phased transfer versus immediate sale; 5) compensation issues; 6) break-even analysis and cash flow; and 7) contract musts: restrictive covenant, liquidated damages, non-solicitation, confidential information and right of first refusal. Audience participation is encouraged and welcomed. This session is recommended for the new endodontist by the Membership Services Committee.

§ Speaker serves as a consultant and/or has commercial interest in subject matter.
* Presenter
RESEARCH SEMINARS VII
Honolulu Suite I, Tapa Conference Center
Moderator: CHARLES J. CUNNINGHAM, DDS, Gainesville, FL

8:00
The effects three endodontic files have on canal shape
VAN T. HIMEL*, R.E. MOORE & V.E. HICKS, Univ of Tennessee

8:15
Endodontic hand instruments: Cutting efficiency and instrumentation effects on curved canals
EDGAR SCHAEFER*, J. TEPEL & W. HOPPE, Univ of Muenster

8:30
Digital comparison of three instrumentation techniques in curved root canals
SCOTT K. BENTKOVER* & C.S. WENCKUS, Univ of Illinois at Chicago

8:45
Comparison of hand, hand/sonic and hand/mechanical instrumentation methods
KENNETH L. ZAKARIASEN* & K.A. ZAKARIASEN, Marquette Univ

9:00
A comparison of excalibur and hand instrumentation in curved canals
GARY S.P. CHEUNG* & A.W.K. CHAN, Univ of Hong Kong

9:15
A prototype of a root canal instrument for the preparation of curved root canals
BENJAMIN M. BRISENO*, Univ of Mainz

9:30
The comparison of four instrumentation technique effects on canal transportation
CHAN-CHENG MA*, Tri-Service General Hospital

9:45
Forces developed during endodontic filing procedures
HARMEET D. WALIA*, N. NGUYEN & V. DHURU, Marquette Univ

10:00
The endodontic file is a disposable instrument
REZA B. KAZEMI*, L.S.W. SPANGBERG & E. STENMAN, Univ of Connecticut

10:15
Fatigue behavior of three prefabricated screw type post systems
FREDERICK H. KAHN*, P.A. ROSENBERG, A. SCHULMAN & M. PINES, New York Univ

LIMITED ATTENDANCE SESSIONS
Limited seating. NO standing permitted. All LAS rooms are located in the Mid Pacific Conference Center.

LAS 25 - South Pacific Ballroom I
8 - 9:30 am
Transantral endodontic surgery
JAMES A. WALLACE, DDS, MDS, Pittsburgh
LOWELL R. GRAVES, DDS, MSD, Littleton, CO
This presentation will cover anatomy, physiology, pathology, microbiology, indications, advantages, contraindications, problems and techniques of endodontic surgery on palatal roots via a transantral approach.

LAS 26 - South Pacific Ballroom II
8 - 9:30 am
Retrograde approaches in endodontic therapy
SHIMON FRIEDMAN, DMD, Toronto, Canada
In this seminar various retrograde endodontic approaches will be discussed with the aim of improving the efficacy of endodontic surgery by making it more consistent with the rationale of endodontic therapy.

LAS 27 - Sea Pearl Suite I & II
8 - 9:30 am
The anatomy of local anesthesias
ROBERT S. RODA, DDS, MS, Scottsdale, AZ
The objective of this presentation is to review recent research that highlights anatomic variations in peri-oral structures and how this new knowledge may improve the achievement of local anesthesia.
**Program, continued**

**SCIENTIFIC SESSION XI**
Coral Ballroom IV, Mid Pacific Conference Center
Moderator: CINDY R. RAUSCHENBERGER, DDS, MS, Baltimore

9:45 - 11:15 am

*Innovations in endodontic retreatment—Part II*
GARY B. CARR§, DDS, San Diego

Increasingly complex cases confronting the practicing endodontist can be a source of many frustrations. Using a case history approach, this presentation will review many of the new techniques now available that allow the practitioner to manage his or her cases at a very high level of expertise, resulting in a high sense of professional accomplishment.

**SCIENTIFIC SESSION XII**
Coral Ballroom I & II, Mid Pacific Conference Center
Moderator: W. PAUL RADMAN, DDS, Dallas

9:45 - 11:15 am

*Osseointegrated dental implants: A scientific perspective*
GEORGE ZARB, DDS, MS, Toronto, Canada

The advent of the osseointegrated implant is largely an outgrowth of basic research and longitudinally documented clinical evidence. The technique has profoundly influenced prosthodontic practice and education and a new era of therapy has evolved. This presentation will seek to reconcile current interpretations of the osseointegrated response with studies of clinical efficacy and effectiveness. This session will not be taped.

**LIMITED ATTENDANCE SESSIONS**
Limited seating. NO standing permitted. All LAS rooms are located in the Mid Pacific Conference Center.

LAS 28 - South Pacific Ballroom I
9:45 - 11:15 am
*Diagnosis and management of root resorption*
GEOFFREY S. HEITHERSAY, BDS, MDS, Adelaide, Australia

The management of root resorption provides an exciting challenge to the clinician. The types of resorption to be targeted are 1) inflammatory—external, internal and communicating; 2) replacement; and 3) invasive cervical.

LAS 29 - South Pacific Ballroom II
9:45 - 11:15 am
*Endodontic insurance codes: What they are and how to use them*
PHILIP W. COHEN, DDS, MS, Livonia, MI

An update on the proposed new ADA endodontic codes, followed by a question and answer session on problem solving for your claims. Bring your questions.

LAS 30 - Sea Pearl Suite I & II
9:45 - 11:15 am
*Dentine bonding: An integral part of endodontic practice*
JOHN G. FRASER, BDS, MDS, Vancouver, Canada

Dentine bonding is an integral part of modern restorative practice. This presentation will discuss the use of dentine bonding to improve the coronal and apical seal in endodontic therapy.
EDGAR D. COOLIDGE LUNCHEON
Coral Ballroom III, Mid Pacific Conference Center (by ticket only)
11:30 am - 1:15 pm
Moderator: JAMES L. GUTMANN, DDS, Dallas

Edgar D. Coolidge Award

DONALD E. ARENS, DDS, MSD, Indianapolis

HAROLD A. MAXMEN, DDS, Southfield, MI, will also receive the award this year. However, because he is in ill health, the award was presented to him prior to the meeting.

The Coolidge Award is presented annually to a member or members who have actively participated in the AAE during their professional lives and who have displayed leadership and exemplary dedication to dentistry and endodontics.

GENERAL ASSEMBLY
Coral Ballroom II, Mid Pacific Conference Center
1:30 - 3:30 pm

PAST PRESIDENTS’ RECEPTION
Coral Lounge, Mid Pacific Conference Center
6:30 - 7:30 pm
Preceding the President’s Dinner Dance, this annual reception will offer a cash bar.

PRESIDENT’S DINNER DANCE—“HAWAIIAN ROYAL BALL”
Coral Ballroom, Mid Pacific Conference Center (by ticket only)
7:30 pm - midnight
A sumptuous Chinese feast awaits you at this year’s President’s Dinner Dance—an elegant Hawaiian Royal Ball complete with music to entice all ages onto the dance floor. No need for a tux or formal, just wear your island best and join us to say “Aloha!” to the 51st Annual Session of the AAE.

SUNDAY, MAY 1

FAREWELL BREAKFAST
Lanai, Tapa Conference Center (by ticket only)
8 - 9 am
Board & Committee Meetings

MONDAY, APRIL 25
ABE Board of Directors, 8 am - 5 pm .................................................. South Pacific Board Room

TUESDAY, APRIL 26
AAE Board of Directors, 8 am - 5 pm .................................................. South Pacific Ballroom I

WEDNESDAY, APRIL 27
Clinical Practice Committee, 2 - 5 pm ............................................... Honolulu Suite III
Honors and Awards Committee, 2 - 5 pm .......................................... Honolulu Suite I
Membership Services Committee, 2 - 3 pm ..................................... Iolani Suite II
Public & Professional Affairs Committee, 2 - 5 pm ............................ Honolulu Suite II
R&E Foundation Board of Trustees, 8 am - 5 pm ................................. South Pacific Ballroom I

FRIDAY, APRIL 29
Dental Benefits Committee, 2 - 4 pm ............................................... Sea Pearl Suite V
Dental Therapeutics Committee, 2 - 3 pm ........................................ South Pacific Board Room
Editorial Board, 7 - 8 am ............................................................... Sea Pearl Suite III
Educational Affairs Committee, 7 - 8 am ........................................ Sea Pearl Suite IV
Governmental Affairs & Federal Dental Health Services Committee, 7 - 8 am ............................ Iolani Suite II
International Relations Committee, 7 - 8 am ................................ Sea Pearl Suite VI
Membership Insurance Committee, 7 - 8 am ................................ Iolani Suite I
Professional Standards, Peer Review & Ethics Committee, 7 - 8 am Iolani Suite IV
Research & Scientific Affairs Committee, 7 - 8 am ............................. Iolani Suite III

SATURDAY, APRIL 30
Past Presidents' Breakfast, 7 -8 am ................................................... Alii Suite

SUNDAY, MAY 1
AAE Board of Directors, 8 am - 1 pm ................................................. Honolulu Suite I

Research & Education Foundation of the AAE

1994
Donald D. Antrim, President
Wallace B. Brown
Eva C. Dahl

Ex Officio: Jerome V. Pisano

1995
J. Craig Baumgartner
Kent W. Cunningham
Fredric Goodman
John W. Harrison, President-elect
William D. Powell
Mahmoud Torabinejad, Secretary

1996
H. Groves Cooke III
Ronald I. Deblinger, Treasurer
Cindy R. Rauschenberger
William F. Schroeder Jr.

American Board of Endodontics

1994
M. Lamar Hicks, President
Sandra Madison, Secretary
Samuel O. Dorn, Treasurer

1995
Leif K. Bakland
Harold E. Goodis
Louis E. Rossman

1996
Ralph Bellizzi
Robert L. Ellison
Arthur E. Skidmore
Alumni, Affiliates & Other Groups

WEDNESDAY, APRIL 27
US Army Association of Endodontists, 4:30 - 6 pm .................................................. Iolani Suite III

THURSDAY, APRIL 28
Albert Einstein Medical Center Alumni, 6 - 7:30 pm ..................................................... Rainbow Suite I
California State Association of Endodontists, 8:30 - 10 pm ........................................ Honolulu Suite III
Christian Endodontic Society, 5 - 6 pm ........................................................................... Sea Pearl Suite IV
Harvard/Forsyth Endodontic Alumni Dinner, 7 - 10 pm ............................................... South Pacific Ballroom IV
International Federation of Endodontic Associations, 10 am - 12 noon ................ Rainbow Suite III
North Carolina Association of Endodontists, 7:30 - 8:30 pm ..................................... Rainbow Suite II
Northwestern University Dental Alumni, 6:30 - 8:30 pm .............................................. Rainbow Patio
Tufts University Endodontic Alumni, 6 - 8 pm ............................................................... Sea Pearl Suite III
University of Connecticut Endodontic Alumni, 6:30 - 8 pm ...................................... Sea Pearl Suite II
University of Illinois at Chicago Endodontic Alumni, 6 - 10 pm .............................. Sea Pearl Suite V & VI
University of Maryland/LSU Alumni, 7:30 - 9:30 pm ...................................................... Honolulu Suite II
University of North Carolina Endodontics Alumni, 8:30 - 10 pm .............................. Rainbow Suite II
University of Pennsylvania Endodontic Alumni, 6 - 8 pm ........................................ Halekulani Hotel

FRIDAY, APRIL 29
Boston University Endodontic Alumni, 7:30 - 9 pm ...................................................... Iolani Suite IV
California State Association of Endodontists, 7 - 8 am .............................................. Rainbow Suite III
Harry J. Healey Endodontic Study Club, 7 - 8 am ..................................................... Rainbow Suite I
Iowa Endodontic Group, 6 - 8 pm ................................................................................... Iolani Suite III
MCV/VCU Endodontic Alumni, 5 - 7 pm ........................................................................ Iolani Suite II
Michigan Endodontic Alumni, 7 - 8 am ...................................................................... Honolulu Suite III
Oklahoma Association of Endodontists, 7 - 8 am .................................................... Rainbow Suite II
Oregon/Ohio Alumni, 6 - 8 pm ....................................................................................... Iolani Suite I
Pennsylvania Association of Endodontists, 7:15 - 8 am .............................................. Palace Lounge
University of Washington Endodontic Alumni, 6:30 - 8:30 pm ................................ Sea Pearl Suite III & IV

SATURDAY, APRIL 30
Boston University Endodontic Alumni, 7 - 8 am .......................................................... Iolani Suite II
US Air Force Endodontists, 7 - 8 am ............................................................................. Sea Pearl Suite V
US Navy Association of Endodontists, 7 - 8 am ........................................................... Iolani Suite I
University of Detroit/Mercy Alumni, 7 - 8 am .............................................................. Sea Pearl Suite III

Tours
Hawaiian Country ....................... $67/person
Thursday, April 28, 8:30 am - 3 pm

Royal Family Historical Tour .......... $41/person
Wednesday, April 27, 1 - 4:30 pm
Saturday, April 30, 1 - 4:30 pm

Private Homes and Gardens .......... $47/person
(adults only please)
Thursday, April 28, 9 am - 12 noon
Friday, April 29, 9 am - 12 noon

Stardancer Sunset Dinner Cruise .. $49/person
Thursday, April 28, 5 - 8 pm

Whale Watch Cruise ................. $47/person
Friday, April 29, 2:30 - 4:00 pm

If you have pre-registered, your tickets will be in your registration packet. If you have not pre-registered, you may purchase any tickets that are still available at the Tour Registration desk in the AAE registration area, located in the Coral Lounge area of the Mid Pacific Conference Center. Other optional tours are also available at the Tour Registration desk.

All buses depart from and return to the Tapa Tower Bus Departure area.
<table>
<thead>
<tr>
<th>Booth</th>
<th>Exhibitor Name</th>
<th>Address/Location</th>
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<td>Amadent</td>
<td>1236 Brace Rd, Bldg B Cherry Hill, NJ 08034</td>
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<td>Analytic Technology Corp</td>
<td>15233 NE 90th St Redmond, WA 98052</td>
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<td>204</td>
<td>Aseptico Inc</td>
<td>PO Box 3209 Kirkland, WA 98083</td>
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<td>Astra USA Inc</td>
<td>50 Otis St Westborough, MA 01581</td>
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<td>206</td>
<td>Becker-Parkin Dental Supply Co</td>
<td>55 W 13th St New York, NY 10011</td>
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<td>Block Drug Co</td>
<td>257 Cornelson Ave Jersey City, NJ 07302</td>
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<td>Brasseler USA</td>
<td>800 King George Blvd Savannah, GA 31419</td>
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<td>Cari Zeiss Inc</td>
<td>One Zeiss Dr Thornwood, NY 10594</td>
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<td>Caulk/Dentsply</td>
<td>P O Box 359 Milford, DE 19963</td>
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<td>Charles B. Schwed Co Inc</td>
<td>138 Audley St Richmond Hill, NY 11418</td>
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<td>Designs for Vision Inc</td>
<td>760 Kochler Ave Ronkonkoma, NY 11779</td>
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<td>116</td>
<td>Dunvale Corp</td>
<td>141 Union St Gilberts, IL 60136</td>
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<td>210</td>
<td>Encyclopaedia Britannica North America</td>
<td>310 S Michigan Ave Chicago, IL 60604</td>
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<td>205</td>
<td>Endoco Inc</td>
<td>5180 Park Ave Memphis, TN 38119</td>
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<td>309</td>
<td>Essential Dental Systems Inc</td>
<td>89 Leuning St S. Hackensack, NJ 07606</td>
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<td>313</td>
<td>Excellence in Endodontics</td>
<td>11545 Sorrento Valley Rd San Diego, CA 92121</td>
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<td>315</td>
<td>General Scientific Corp</td>
<td>77 Enterprise Dr Ann Arbor, MI 48103</td>
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<td>106</td>
<td>Global Surgical Corp</td>
<td>3365 Tree Court Industrial Blvd St Louis, MO 63122</td>
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<td>105</td>
<td>H W Andersen Products Inc</td>
<td>P O Box 1050 Chapel Hill, NC 27514</td>
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<td>303</td>
<td>HealthFirst Corp</td>
<td>22316 70th Ave W, Unit A Mountlake Terrace, WA 98043</td>
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<td>Hu-Friedy Mfg Co Inc</td>
<td>3232 N Rockwell St Chicago, IL 60618</td>
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<td>Lightspeed Technology Inc</td>
<td>5832 Auden Houston, TX 77005</td>
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<td>Medidenta Int'l Inc</td>
<td>39-23 62nd St Woodside, NY 11377</td>
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<td>301</td>
<td>Miles Inc Dental Products</td>
<td>4315 S Lafayette Blvd South Bend, IN 46614</td>
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<td>Moeller Microsurgical Inc</td>
<td>7 Industrial Park Waldwick, NJ 07463</td>
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<td>Moyco Union Broach</td>
<td>2054 W Clearfield St Philadelphia, PA 19132</td>
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<td>321 E 25th St Tacoma, WA 98401</td>
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<td>21218 Vanowen St Canoga Park, CA 91303</td>
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<td>7003 Shallowford Rd Chattanooga, TN 37421</td>
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<td>OraScope Research Inc</td>
<td>7 N Pinckney St, Ste 305 Madison, WI 53703</td>
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<td>Osaka Electric Co Inc</td>
<td>8242 W Third St, Ste 150 Los Angeles, CA 90048</td>
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<td>Premier/ESPE-Premier</td>
<td>1710 Romano Dr Norristown, PA 19404</td>
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<td>111</td>
<td>ProBusiness Systems Inc</td>
<td>9300 Jollyville Rd, Ste 100 Austin, TX 78759</td>
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<td>214</td>
<td>Professional Results/Tooth Slook</td>
<td>29 Merano Laguna Niguel, CA 92677</td>
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<tr>
<td>305</td>
<td>Profit Finder</td>
<td>401 E Lake St Wayzata, MN 55391</td>
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<td>406</td>
<td>Quality Aspirators</td>
<td>P O Box 382120 Duncanville, TX 75138</td>
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<tr>
<td>414</td>
<td>Quintessence Publishing Co</td>
<td>551 N Kimberly Dr Carol Stream, IL 60188</td>
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A A E Aux  1 i a ry

OFFICERS
Chizuko Shibuya (Arnold)...............President
Carol Ann Belanger (Laurent)............President-elect
Aimee Simon (Denis)........................Vice President
Shirley Novack (Harvey)..................Secretary
Sue Zenk (Darrell)..........................Treasurer
Carol Fountain (Stuart)...................Parliamentarian
Dorothy Nitta (Lawrence),
Carole Haga (Carl), and
Mary Kondo (Gary).........................Local Arrangements

WEDNESDAY, APRIL 27
Lillian Pear Welcome Tea
Ti Leaf Suite, Mid Pacific Conference Center
3 - 5 pm

THURSDAY, APRIL 28
Board Meeting
Ti Leaf Suite, Mid Pacific Conference Center
7 - 9 am

Hospitality Suite
Ti Leaf Suite, Mid Pacific Conference Center
10 am - 12 noon

THURSDAY, APRIL 28, continued
General Interest Session
Coral Ballroom IV, Mid Pacific Conference Center
2 - 4 pm
Featuring Dr. Harold L. Crossley speaking on "What you always wanted to know about drugs of abuse
and chemical dependency but were afraid to ask."

FRIDAY, APRIL 29
Hospitality Suite
Ti Leaf Suite, Mid Pacific Conference Center
10 am - 12 noon

SATURDAY, APRIL 30
Auxiliary Breakfast and Fashion Show
Iolani Suite IV, Tapa Conference Center
(by ticket only)
8 - 10:30 am
Featuring the "kimonos" of Anne Namba

Board Meeting
Iolani Suite IV, Tapa Conference Center
10:30 - 12 noon
Award Recipients

EDGAR D. COOLIDGE AWARD
* Edgar D. Coolidge ............. '69
* Harry B. Johnston ............. '70
* Henry A. Bartels .............. '71
* Bertram L. Wolfsohn .......... '74
* Vincent B. Milas .............. '75
* Worth B. Gregory ............. '78
* Jacob B. Freedland ......... '80
* Alfred L. Frank .............. '81
* George G. Stewart .......... '82
* F. Darl Ostrander ........... '83
* Maynard K. Hine ............. '83
* George C. Hare .............. '84
* Irving N. Naidorf ............ '85
Harry Blechman ............... '86
I.B. Bender .................. '87
Dudley H. Glick .............. '88
* Samuel S. Patterson ........ '89
Robert A. Uchin .............. '90
Michael A. Heuer ............. '91
Edward M. Osetek .......... '92
Harold Gersten .............. '93
Henry J. Van Hassel ......... '93
Donald E. Arens .............. '94
Harold A. Maxmen ............ '94

LOUIS I. GROSSMAN AWARD
* Louis I. Grossman .......... '73
* Birger Nygaard-Ostby ........ '76
I.B. Bender .................. '78
Samuel S. Patterson ....... '80
Harold R. Stanley ........... '81
Kaare Langeland .......... '82
Henry J. Van Hassel ....... '84
Melvin Goldman ............ '89
Syngneuk Kim .............. '90
Calvin D. Torneck .......... '91
Henry O. Trowbridge ........ '92
Mahmoud Torabinejad ....... '93

RALPH F. SOMMER AWARD
Calvin D. Torneck ............. '84
Alfred L. Frank .............. '85
Mahmoud Torabinejad ....... '86
John I. Ingle ............... '87
Leif Tronstad .............. '90
Jens O. Andreassen ........ '91
I.B. Bender .................. '93
Samuel Seltzer .............. '93
Goran Sundqvist ............ '94

HONORARY MEMBERS
* Edgar D. Coolidge ............. '48
* W. Clyde Davis ............... '48
* Bernhard Gottlieb ............ '48
* Edward S. Hatton ............ '48
* Walter Hess .................. '49
* Hermann Prinz ............... '49
* Francisco Pucci .............. '49
* Sir E. Wilfred Fish ........... '56
* Birger Nygaard-Ostby ........ '58
* Mary Crowley ............... '66
* Ralph F. Sommer ............. '67
* Harold R. Stanley .......... '68
* Maynard K. Hine ............ '69
* Maury Massler ............... '71
* Louis I. Grossman ........... '73
* Oscar A. Malto .............. '79
* Henry O. Trowbridge ....... '86
* David H. Paschley .......... '92
* Irma S. Kudo ................ '94
* Frank N. Lentine ............ '94
* Michel Maillefer ............ '94

Past Presidents

* W. Clyde Davis ............. '43-44
* Ralph F. Sommer ............ '44-45
* Robert G. Kesel ............ '45-46
* E.G. Van Valey .............. '46-47
* Maynard K. Hine ............ '47-48
* Louis I. Grossman .......... '48-49
* Elmer A. Jasper ............ '49-50
* Raymond L. Girardot ...... '50-51
* George G. Sharp ............ '51-52
* F. Darl Ostrander .......... '52-53
* Laurence A. Lucas .......... '53-54
* N. Weir Burkman ............ '54-55
* Harry J. Healey ............ '55-56
* John R. Pear ............... '56-57
* George C. Hare ............. '57-58
* George G. Stewart .......... '58-59
* J. Henry Kaiser ............ '59-60
* Paul P. Sherwood ........... '60-61
* Glenn R. Brooks ............ '61-62
* Vincent B. Milas ........... '62-63
* James H. Sherard, Jr ...... '63-64
* Jacob B. Freedland ....... '64-65
* Henry S. Schmidt .......... '65-66
* John I. Ingle .............. '66-67
* Edwin C. Van Valey ....... '67-68
* Samuel S. Patterson ....... '68-69
* Warren J. Hedman .......... '69-70
* John F. Bucher ............ '70-71
* Dudley H. Glick ............ '71-72
* I.B. Bender ................ '72-73
* Charles A. Scott, Jr ....... '73-74
* Alfred L. Frank ............ '74-75
* Robert A. Uchin ............ '75-76
* Frank B. Trice ............. '76-77

George A. Zurkov ............ '77-78
Harry Blechman .............. '78-79
Paul E. Zeigler .............. '79-80
Edward M. Osetek ............ '80-81
Henry J. Van Hassel .......... '81-82
Noah Chivian ................. '82-83
Donald E. Arens .............. '83-84
Stephen F. Schwartz ........ '84-85
Herbert Schilder ............. '85-86
Michael A. Heuer ............ '86-87
Charles J. Cunningham ....... '87-88
Joseph D. Maggio ........... '88-89
Gerald C. Deitz, Sr .......... '89-90
James C. McGraw ............. '90-91
Joseph I. Tenca .............. '91-92
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Thank you for attending the AAE’s 51st Annual Session. We hope you enjoyed expanding your educational horizons with your friends and colleagues. We look forward to being together again in Orlando for the 52nd Annual Session, May 10 - 14, 1995.