ANAHEIM

THE WAVE OF THE FUTURE
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**American Association of Endodontists**  
**45th Annual Session**  
**April 20-24, 1988**  
**Anaheim, California**
A hearty welcome to Anaheim and the 45th Annual Session of the American Association of Endodontists. Anaheim's world famous image of happy times for the young at heart excites us all. As suggested by the Annual Session logo, a myriad of attractions are available in the area. Our hotel offers premier accommodations for your comfort and convenience. The Anaheim meeting is your conference. The committees were extremely sensitive to your desires for a meaningful, worthwhile experience. The friendly, relaxed atmosphere of Southern California will balance the weighty professional obligations of the week, an equal mix of education and recreation—a winning game plan for Anaheim.

I would particularly like to welcome our spouses and guests who have graciously joined us. You are very special to us and our meeting atmosphere is enhanced by your presence. Your participation and contribution to the overall success of our Annual Session are significant and treasured.

Our voting members are encouraged to participate in the district caucuses. Our fledgling governance system needs your support and will be sustained by your interests. Your opinions and vote will influence our Association policies. The General Assembly will vote for the first time for district directors to serve on the Board of Directors, initiating a new era of representation. New changes, bold moves that impact on each of us.

My sincerest appreciation to Joseph Tenca, Paul Eleazer, and Steven Morrow—three distinguished gentlemen of the highest order. These folks channeled their collective ideas, energies, and experiences into a smooth developmental process that resulted in this meeting. Carl Newton, Craig Bell, Mahmoud Torabinejad and Bob Rosenberg deserve a "Wave of the Future" for a job well done with their respective programs.

Irma Kudo continues her "par excellence" management style that continues to amaze. Irma's experience and know-how along with her dedication to our endodontic community foster a meeting without parallel. The Central Office staff of Laura Cancilla, Letty Catrambone, Colleen Ryan, Cindy Kriechbaum, Christine DeFazio and Karen Schultz must be recognized for their individual contributions.

Thanks a million to all who made this fantastic experience possible. We owe you a deep debt of gratitude. Our members, spouses, guests, and students can enjoy your commitment to the "Wave of the Future."

Charles J. Cunningham, DDS
President
AMERICAN ASSOCIATION OF ENDODONTISTS

BOARD OF DIRECTORS

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1989
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Alan G. Selbst
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1990
Gary D. Gross
Terrence W. Hayes
Seymour Melnick
WELCOME

Welcome to Southern California and the “Wave of the Future.” Your committee has planned a wide variety of topics and tours for your benefit. Clinical knowledge, basic theory and fun can all be had in this beautiful setting.

Please take special note of the Farewell Brunch Sunday morning. Even if you forgot case records, your recollection of interesting cases can add to that session.

Do not forget to see the exhibits. Time spent in the exhibit hall can be very valuable for seeing the latest innovations.

Many thanks go to Steve Morrow and the legion of dedicated members of the local arrangements committee. They have contributed countless hours and ideas to make your 45th Annual Session memorable. Please look for an opportunity to thank them personally. They are all so glad to help with any problems you may have. Just look for their yellow ribbons designating “Local Committee.”

Special thanks belong to Joe Tenga, our general chairman. His leadership and expertise have made planning this meeting a pleasure for all involved.

Irma Kudo and the Central Office Staff have done an outstanding job as always. Their performance is an indication that they consider their work a profession and not just a job.

Enjoy the “Wave of the Future.”

Paul D. Eleazer, DDS
Program Chairman

ANNUAL SESSION COMMITTEE

Jospeh I. Tenca
General Chairman

Paul D. Eleazer
Program Chairman

Steven Morrow
Local Committee Chairman

Program
Continuing Education . Carl W. Newton
Limited Attendance Seminars . W. Craig Bell
Research Seminars . Mahmood Torabinejad
Poster/Poster Clinics . Robert J. Rosenberg
Technical Exhibits . Letty Catrambone

General Arrangements
Audio-Visual . William Masheter
Banquets & Meals . Dudley H. Glick
                  Sergio Kutler
Hospitality . James L. Kloss
Hosts . James H. Simon
Monitors . Marwan Abou-Rass
Registration . Robert Bravin
             Maurice Cutler
Signs . Wayne G. Bemis
Sports . Joseph Greiner
        Samuel W. Oglesby
        Terrell F. Pankuk
AAE Auxiliary Chairperson . Sherry Heller

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 Anaheim Marriott Hotel will be the Headquarters hotel for the 45th Annual Session.

AAE Headquarters — Los Angeles Room
The headquarters will be staffed by members of the Central Office—Laura Cancilla, Letty Catrambone, Chris DeFazio, Cindy Kriechbaum and Karen Schultz—and by members of the Annual Session Committee. Office hours are 8 am-5 pm Tuesday through Sunday.

General Registration — Ballroom Foyer
Wednesday, April 20: 11 am-8 pm
Thursday, April 21: 8 am-5 pm
Friday, April 22: 8 am-11 am

Registration fees include the following:

AAE members (excluding student members)—all sessions, Welcome/Fellowship Reception, one full breakfast (Thursday), two continental breakfasts, one breakfast brunch (Sunday), two lunches (Friday & Saturday), and one ticket to the Dinner Dance (Saturday).

AAE student members—all sessions, Welcome/Fellowship Reception. A special breakfast is scheduled on Friday morning.

Non-member professionals, student & dental auxiliaries—all sessions.

Spouses—Welcome/Fellowship Reception and use of the Auxiliary hospitality suite.

Exhibits — Marriott Hall
Because exhibitors help to defray some of the cost of the Annual Session, we encourage you to stop by the exhibits and place your order in Anaheim.

Complimentary coffee service will be provided on Thursday and Friday in the exhibit area, 10:30 am-12 Noon and 2:30 pm-4:00 pm.

Exhibit hours are:
Thursday, April 21: 10 am-6 pm
Friday, April 22: 8 am-5 pm
Saturday, April 23: 8 am-12 Noon

Limited Attendance Seminars
Tickets reserved in advance are included in each individual's registration packet. To register for an open seminar or to exchange tickets, inquire at the special desk located in the AAE registration area.

Cassette Tape Recordings
American Audio Association will record many of the sessions presented. The cassette tapes are available for purchase at the American Audio booth located in the registration area.

Speaker AV Ready Room — Desert Springs Room
Program participants are urged to review their audio visual material in the Speaker Ready Room prior to their presentation to avoid possible problems that may occur.

Saturday Dinner Dance
Your table selection for the Saturday Dinner Dance must be made as soon as possible 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. No exceptions will be made.

Continuing Education Credit
Academy of General Dentistry—All course forms may be validated at the AAE headquarters office.
California Board of Dental Examiners—Forms to be picked up at the AAE headquarters office.

IMPORTANT NOTICE
To reserve seats for the Dinner Dance on Saturday, vouchers must be exchanged for tickets no later than 5 pm Thursday. Parties wishing to sit together should return all vouchers at the same time. Your cooperation is greatly appreciated as we cannot extend this deadline.
WEDNESDAY, APRIL 20

TEENIS AT TENNISLAND
10 am - 1 pm
Pre-registration required. Hotel shuttles can be taken to Tennisland, which is within walking distance.

GOLF AT INDUSTRY HILLS
11 am - 5 pm
Participants will depart from the Marriott Hall entrance of the Marriott Hotel.

REGISTRATION
11 am - 8 pm, Ballroom Foyer

WELCOME/FELLOWSHIP RECEPTION
(By ticket only)
7 pm - 9 pm, Grand Ballroom

CONTINUING EDUCATION COURSE
(Pre-registration required)
8:30 am-5:00 pm, Marriott Hall North

Endodontic Success, Failure and Retreatment
Moderators: CARL W. NEWTON, DDS, MSD, Indianapolis, IN
MARWAN ABOU-RASS, DDS, MDS, PhD, San Marino, CA

Welcome
Relationship between root canal filling and success or failure of endodontic therapy
CALVIN D. TORNECK, DDS, MS, Toronto, Canada

Break
Host response in the balance of healing
MAHMOUD TORABINEJAD, DMD, MSD, Loma Linda, CA

The role of endodontic retreatment in modern restorative dentistry
MARWAN ABOU-RASS, DDS, MDS, PhD, San Marino, CA

Lunch
Techniques of conservative retreatment
PAUL E. LOVDAHL, DDS, MSD, Bellingham, WA

Non-surgical repair of perforation defects
JAMES B. ROANE, DDS, MS, Oklahoma City, OK

Break
Avoiding and correcting surgical failures
RALEIGH R. CUMMINGS, DDS, MS, Newport Beach, CA

Endo-legal implications
JACK A. WEICHERMAN, DDS, JD, Los Angeles, CA

Discussion

Make sure you exchange your vouchers for banquet tickets for Saturday night’s dinner dance, the premier social event of the Annual Session. The elegant evening begins with a feast of fine food and the company of good friends. Then, get ready to swing to the sounds of the Ron Rubin Orchestras and Entertainment. Whether you dip, disco, tango or waltz, this 15-piece group will get you out of your chairs and on the dance floor as they play everything from the traditional ballroom favorites to contemporary music. A cash bar reception will precede the dinner. Black tie is optional.
THURSDAY MORNING, APRIL 21

REGISTRATION
8 am - 5 pm, Ballroom Foyer

OPENING SESSION BREAKFAST
(By ticket only)
8 am - 10 am, Grand Ballroom
Keynote: CHARLES J. CUNNINGHAM, DDS, AAE President

EXHIBITS
10 am - 6 pm, Marriott Hall - Center & South

SCIENTIFIC SESSION I
10:30 am - 12:30 pm, Marriott Hall - Northeast
Moderator: EDWARD M. OSETEK, DDS, MA, Chicago, IL

Troubleshooting the mandibular block: How to improve your anesthetic success rate
STANLEY MALAMED, DDS, Los Angeles, CA

Effective pain control can be very elusive in the endodontically involved tooth. In this program, Dr. Malamed will discuss a number of techniques which either singly, or in combination, can greatly increase the probability of successful anesthesia. Techniques to be discussed include inferior alveolar nerve block, Gow-Gates nerve block, Akinosi nerve block, incisive/mental nerve block, the PDL injection, sedation, and electronic dental anesthesia.

GENERAL INTEREST SESSION I
10:30 am - 12:30 pm, Marriott Hall - Northwest
Moderator: IRVING H. SINAI, DDS, New Brunswick, NJ

Impact of the Tax Reform Act of 1986 on income taxes and relevant tax planning
DWIGHT CALL, CPA, MBA, PhD, Van Nuys, CA

The Tax Reform Act of 1986 has introduced several major changes in the taxation of individuals and businesses. An understanding of these changes by the taxpayer in such areas as passive activities, installment sales, and alternative minimum tax is more important than ever before, requiring the taxpayer’s involvement with the individual’s tax professional.

LIMITED ATTENDANCE SEMINARS
(Pre-registration required. Will be repeated Friday pm as LAS 15-21)
10:30 am - 12:30 pm

LAS 1 or LAS 15 (Fri) - Salon G
Posts and cores
MELVIN GOLDMAN, DDS, Boston, MA

LAS 2 or LAS 16 (Fri) - Salon H
Solving dilemmas in providing good endodontic anesthesia
JERRY F. TAINTOR, DDS, MS, Memphis, TN
ROBERT C. BIESTERFELD, DDS, MS, Brooklyn Center, MN

LAS 3 or LAS 17 (Fri) - Salon J
Electronic apex locators - why and how
SAMUEL O. DORN, DDS, Pembroke Pines, FL

LAS 4 or LAS 18 (Fri) - Salon K
I.V. sedation - a great practice builder
ELIE WOLFSON, DDS, Willowdale, Canada

LAS 5 or LAS 19 (Fri) - Orange County 3
Endodontic office design
THOMAS HARVEY, DDS, Greenville, SC

LAS 6 or LAS 20 (Fri) - Orange County 4
Predesigned preparations - steps to efficiency
CLYDE SABALA, DDS, Edmond, OK

LAS 7 or LAS 21 (Fri) - Orange County 5
How to prepare, photograph, and present quality slide programs
ALBERT C. GOERIC, DDS, MS, Monterey, CA

NEED A BREAK?
Visit the Technical Exhibits. Complimentary coffee service will be provided in the Exhibit Area on Thursday and Friday, 10:30-12 noon and 2:30-4 pm.
RESEARCH SEMINARS I
10:30 am - 12:30 pm, Orange County 1 & 2
Moderator: MAHMOUD TORABINEJAD, DMD, MSD, Loma Linda, CA

GRADUATE STUDENT SECTION
10:30 — Human pulpal responses following treatment with the Cardex system
DAVID S. BRUNELL*, DDS, HERBERT SCHILDER, DDS, and A. BLOOM, Boston Univ.

10:45 — Flow cytometric analysis of antigen presenting cells in the dental pulp
MICHAEL G. HUNT, DDS, Univ. of North Carolina

11:00 — Immunohistochemical analysis of immuno-competent cells in pulps of carious teeth
ASLIM ABDULLAH*, DDS, M. JONTELL and GUNNAR BERGENHOLTZ, DDS, Univ. of North Carolina

11:15 — Anesthetic efficacy of lidocaine and epinephrine in human IAN block
MAI WALI*, BDS, MS, ALFRED W. READER, DDS, F. MICHAEL BECK, DDS, MA and WILLIAM J. MEYERS, DMD, MEd, Ohio State Univ.

11:30 — Anesthetic efficacy of lidocaine and bupivacaine in human maxillary infiltrations
RENE M. GROSS*, DDS, ALFRED W. READER, DDS, F. MICHAEL BECK, DDS, MA and WILLIAM J. MEYERS, DMD, MEd, Ohio State Univ.

11:45 — Histologic study of healing ability of horizontal root fractures in monkeys
JANTIEN A. HERWEIJER*, DDS, LEIF K. BAKLAND, DDS and MAHMOUD TORABINEJAD, DMD, MSD, Loma Linda Univ.

12:00 — Endodontic versus restorative procedures: which is the major factor weakening the tooth?
ERNEST S. REEH*, DDS, HAROLD H. MESSER, MDSc, PhD and W.H. DOUGLAS, DDS, MS, PhD, Univ. of Minnesota

12:15 — Effects of endo access preparation upon existing incisor crown retention
ALBERT F. McMULLEN, III*, DDS, VAN T. HIMEL, DDS and N.K. SARKAR, PhD, Louisiana State Univ.

*Presenter

THURSDAY AFTERNOON, APRIL 21

ABE LUNCHEON
(By ticket only)
12:30 pm - 1:45 pm, Salons E & F
Speaker: Dr. WILLIAM F. MAY
Southern Methodist Univ., Dallas, TX
Dr. May has lectured extensively throughout the country on the issues of biomedical ethics in the health professions. He has authored many papers and books, including The Physician's Covenant: Images of the Healer in Medical Ethics.

SCIENTIFIC SESSION II
2 pm - 3 pm, Marriott Hall - Northeast
Moderator: JOHN R. LUDINGTON, Jr, DDS, Houston, TX
Biological effects of surgical endodontics
RALEIGH R. CUMMINGS, DDS, MS, Newport Beach, CA
Inflammation is produced through the trauma of flap elevation, flap retraction, bone penetration and suturing. Factors, such as techniques, instruments and drugs, may influence the degree of inflammation, resultant swelling, bruising and discomfort will be discussed.

SCIENTIFIC SESSION III
3 pm - 4 pm, Marriott Hall - Northeast
Moderator: JOHN R. LUDINGTON, Jr., DDS, Houston, TX
A periodontist looks at flap design for endodontic surgery
ROGER STAMBAUGH, DMD, MEd, MS, Los Angeles, CA
A discussion of the clinical considerations and design of mucoperiosteal flaps, precautions, sutures and suturing, instrumentation, and post operative care.
SCIENTIFIC SESSION IV
4 pm - 5 pm, Marriott Hall - Northeast
Moderator: JOHN R. LUDINGTON, Jr., DDS, Houston, TX

Antimicrobial and surgical treatment of extraradicular endodontic infections
LEIF TRONSTAD, DMD, PhD, Philadelphia, PA

Recently it has been shown that anaerobic bacteria are able to survive and maintain an infectious disease process in periradicular tissues. This may explain many endodontic failures, but at the same time offers intriguing therapeutic possibilities for precise antimicrobial therapy after accurate identification of the infecting bacteria.

GENERAL INTEREST SESSION II
2 pm - 5 pm, Marriott Hall - Northwest
Moderator: W. PAUL RADMAN, DDS, Dallas, TX

A California wine odyssey
HERBERT F. SPASSER, DDS, New York, NY

Within the past ten years, the wines of California have risen to world class status. Many of the beautiful new wine facilities are directed by dedicated young winemakers and utilize state of the art technology. Our odyssey will take us up and down the coast to visit some familiar names and introduce new ones. A tasting of selected California wines will conclude this exciting afternoon.

ENDODONTIC ASSISTANT UTILIZATION
(For dentists and dental auxiliaries)
2 pm - 5 pm, Orange County 1 & 2
Moderator: R. DENBY LEWIS, DDS, Danville, VA

GEORGE A. ZURKOW, DDS, Wilmington, DE
Increased productivity in endodontics must be based on the concepts of work simplification and motion economy. The team effort necessary to achieve optimum results with less stress must include an endodontic assistant involved in "four-handed endodontics." Principles and application will be discussed and illustrated with slides and video tapes. Some attention will be given to personnel motivation.

DISTRICT CAUCUSES
2 pm - 3:15 pm
District I - Salon G
CT, DE, DC, ME, MD, MA, NH, PA, PR, RI, VT and VA
District II - Salon H
NJ and NY
District III - Salon J
District IV - Salon K
IL, IN, KY, MI, OH, TN, WV and WI
District V - Orange County 3
AL, AZ, AR, CO, ID, IA, KS, LA, MN, MS, MO, MT, NE, NV, NM, ND, OK, SD, TX, UT and WY
District VI - Orange County 4
AK, CA, HI, OR and WA

REFERENCE COMMITTEE HEARINGS
(Open forums to present your views on AAE activities)
3:30 pm - 4:30 pm
Association Affairs - Salon G
Membership - Salon H
Member Services - Salon J
Communication/Publication - Salon K
Education/Development - Orange County 3

AADS SECTION MEETING
4:30 pm - 5:30 pm, Orange County 4

SMOKING
For the comfort of others, no smoking is permitted in the meeting rooms.

IMPORTANT NOTICE
To reserve seats for the Dinner Dance on Saturday, vouchers must be exchanged for tickets no later than 5 pm Thursday. Parties wishing to sit together should return all vouchers at the same time. Your cooperation is greatly appreciated as we cannot extend this deadline.
FRIDAY MORNING, APRIL 22

FUN RUN - Huntington Beach Pier
6 am - 8 am
(Pre-registration required)
Participants will depart from the Marriott Hall entrance of the Marriott Hotel.

CONTINENTAL BREAKFAST
(By ticket only)
8 am - 8:45 am, Salons E & F

REGISTRATION
8 am - 11 am, Ballroom Foyer

EXHIBITS
8 am - 5 pm, Marriott Hall - Center & South

LIMITED ATTENDANCE SEMINARS
(Pre-registration required. Will be repeated Saturday am as LAS 22-28)
9 am - 11 am
LAS 8 or LAS 22 (Sat) - Salon G
Infection control for the clinical endodontist
STEPHEN COHEN, DDS, San Francisco, CA

LAS 9 or LAS 23 (Sat) - Salon H
Cervical root resorption: etiology, pathogenesis and treatment
FREDERIC BARNETT, DMD, Philadelphia, PA

LAS 10 or LAS 24 (Sat) - Salon J
To computerize or not to computerize
LES MULDORF, DMD, Poughkeepsie, NY

LAS 11 or LAS 25 (Sat) - Salon K
Enhancing the endo referral
RICHARD EHLERS, DDS, Sarasota, FL and
R. JAN LOCKMAN, DMD, Eugene, OR

LAS 12 or LAS 26 (Sat) - Orange County 3
Canal preparation with sonic and ultrasonic instruments
ROBERT MICHELICH, DDS, Atlanta, GA

LAS 13 or LAS 27 (Sat) - Orange County 4
The diagnostic dilemma of pulpalgia and referred pain
E. STEVE SENIA, DDS, San Antonio, TX

LAS 14 or LAS 28 (Sat) - Orange County 5
Warm lateral condensation technique
HOWARD MARTIN, DMD, Silver Spring, MD and
GARY L. LaBOUNTY, DDS, Washington, DC

SCIENTIFIC SESSION V
9 am - 10:30 am, Marriott Hall - Northeast
Moderator: JOSEPH J. WILLIAMS, DDS, Brookline, MA

Infectious diseases and the dental office: update on AIDS, hepatitis, and herpes
SOL SILVERMAN, MA, DDS, San Francisco, CA

Update of infectious diseases, including AIDS, herpes, hepatitis and candidiasis. Epidemiology, biology, infectivity and transmissibility, diagnosis, management and office precautions will be covered. Dental roles and treatment approaches will be illustrated.

SCIENTIFIC SESSION VI
10:30 am - 12 noon, Marriott Hall - Northeast
Moderator: JOSEPH J. WILLIAMS, DDS, Brookline, MA

"Bacteria busters" — a clinical update on infection control
ROBERT E. AVERBACH, DDS, Denver, CO

Dentistry has recently become very concerned about the prevention and control of contagious diseases, especially AIDS and hepatitis. A practical office asepsis program lies somewhere between ignoring the problem and practicing in a hospital operating room. This program will include recommendations for infection control in the "real world" dental office.

GENERAL INTEREST SESSION III
(For members and spouses)
9 am - 12 noon, Marriott Hall - Northwest
Moderator: EVA C. DAHL, DDS, La Crosse, WI

Burnout — a family affair
RICHARD C. BURNS, DDS, San Mateo, CA and
ROBERT M. KRASNY, DDS, MSD, Los Angeles, CA

The last person to recognize the symptoms of burnout may be the person undergoing the process. Family, friends, staff, patients, referring doctors, pets and strangers pick up the clues first. Early recognition and healthy coping skills can lead to survival. Dentists and their families are a high-risk group.

NEED A BREAK?
Visit the Technical Exhibits. Complimentary coffee service will be provided in the Exhibit Area on Thursday and Friday, 10:30-12 noon and 2:30-4 pm.
RESEARCH SEMINARS II
9 am - 12 noon, Orange County 1 & 2
Moderators: LEIF TRONSTAD, DMD, PhD, Philadelphia, PA and RICHARD E. WALTON, DMD, MS, Iowa City, IA

GRADUATE STUDENT SECTION
9:00 — In vivo efficacy of a step-back versus a step-back/ultrasonic technique
JOHN J. HAIDET*, DDS, ALFRED W. READER, DDS, F. MICHAEL BECK, DDS, MA and WILLIAM J. MEYERS, DMD, MEd, Ohio State Univ.

9:15 — Comparison of flex-R files and K-files in curved canals
ALBERTO O. SEPIK*, DDS, EUGENE A. PANTERA, Jr., DDS, MS, ELMER J. NEAVERTH, DDS, and RONALD W. ANDERSON, DDS, Medical College of Georgia

9:30 — The effectiveness of the canal finder system: a scanning electron microscopic investigation
HESHAM M. EL-TAGOURI*, BDS, MARIO CZONSTKOWSKY, DDS, MDS, FLOYD A. HOLSTEIN, DDS, NICHOLAS PIESCO, PhD and ANDREW E. MICHANOWICZ, DDS, Univ. of Pittsburgh

9:45 — Clinical incidence of canal ledging with a new endodontic file
LAURIE L. MCKENDRY*, MS, KEITH V. KRELL, DDS, MA, MS and DOUGLAS J. MCKENDRY, DDS, Univ. of Iowa

10:00 — Dentin collagen cross-links of root-filled and normal teeth
ERIC M. RIVERA*, DDS, MITSUO YAMAUCHI, DDS, PhD, GLORIA CHANDLER, BS and GUNNAR BERGENHOLTZ, DDS, Univ. of North Carolina

10:15 — Response of periapical tissues to topical corticosteroid after deliberate over-instrumentation
EDWARD J. STEC*, DDS, HAROLD H. MESSER, MDSc, PhD, MAHMOUD E. EL DEEB, DDS, MS and ROBERT S. EDMUNDS, DDS, MS, Univ. of Minnesota

10:30 — Biocompatibility of glass ionomer-silver cement in rat connective tissue
RICHARD B. BLACKMAN*, DDS, MARVIN A. GROSS, DDS and SAMUEL SELTZER, DDS, Temple Univ.

10:45 — The antimicrobial effect of calcium hydroxide in root canals of extracted teeth
KATHRYN G. STUART*, DDS, MSD, CARL W. NEWTON, DDS, MSD, CHRIS H. MILLER, MS, PhD and CECIL E. BROWN, Jr., DDS, Indiana Univ.

11:00 — Permeability of apical barriers
WILLIAM J. BEELE**, DMD and F. JAMES MARSHALL, DMD, MS, Oregon Health Sciences Univ.

11:15 — Sealing ability of four reverse filling techniques
COLIN S. SHAW*, DMD, PAUL F. BERY, DDS, EGILL L. JACOBSEN, DDS and ELLEN A. BEGOLE, PhD, Univ. of Illinois

11:30 — Influence of entrapped air on leakage study using dye penetration method
THOMAS ACIERNO*, DDS, YONG P. CHA, DMD and LARZ SPANGBERG, DDS, Univ. of Connecticut

11:45 — Microleakage of retrograde amalgams: in vitro study using electrochemical technique
WALTER W. COX*, DDS, JOHN F. CORCORAN, DDS, JOHN M. POWERS, PhD and RICHARD M. ZILLICH, DDS, MS, Univ. of Michigan

*Presenter

BADGES MUST BE WORN AT ALL OFFICIAL AAE FUNCTIONS.
FRIDAY AFTERNOON, APRIL 22

LUNCHEON
(By ticket only)
12 - 1:45 pm, Grand Ballroom
Palm Springs Yacht Club Entertainment

LIMITED ATTENDANCE SEMINARS
(Pre-registration required. Repeat of LAS 1-7.
See page 7)
2 pm - 4 pm

RESEARCH SEMINARS III
2 pm - 5 pm, Orange County 1 & 2
Moderators: AIDA A. CHOHAYEB, DDS, MSD,
Rockville, MD and
ROBERT J. ROSENBERG, DDS, DScD,
Greenbrae, CA

2:00 — A cooling device to lower temperature within the pulp chamber
HAROLD E. GOODIS*, DDS, LARRY G. WATANABE, BA and ROBERT J. ROSENBERG, DDS, DScD, Univ. of California at San Francisco

2:15 — Radiation doses absorbed by various tissues during simulated root canal therapy
ROBERT DANFORTH*, DDS, MAHMOUD TORABINEJAD, DMD, MSD, KEVIN ANDREWS and CHARLENE CHAN, Loma Linda Univ.

2:30 — Exposure times at which dental xeroradiographs and radiographs have comparable optical density
JOHN D. ANDREWS*, DDS and JOEL B. ALEXANDER, DDS, MA, Univ. of Texas at San Antonio

2:45 — Marginal leakage of bonded composite restorations
AIDA A. CHOHAYEB*, DDS, MSD, Howard Univ. and NELSON W. RUPP, DDS, MS, National Bureau of Standards

3:00 — Microleakage of temporary restorations in complex endodontic access preparations
RONALD W. ANDERSON*, DDS, BILLY J. POWELL, DMD and DAVID H. PASHLEY, DMD, PhD, Medical College of Georgia

3:15 — Chromatic comparison of three non-vital bleaching techniques
ALICIA I. MARUJO*, DDS, MSD and HERBERT SCHILDER, DDS, Boston Univ.

3:30 — Molar endodontic access openings: size, shape and location
LISA R. WILCOX*, DDS, MS and RICHARD E. WALTON, DMD, MS, Univ. of Iowa

3:45 — An in vivo assessment of new endodontic electronic apex locator
MARIO CZONSTKOWSKY*, DDS, MDS, MICHAEL GRASSI, DDS, HESHAM M. EL-TAGOURI, BDS and FLOYD A. HOLSTEIN, DDS, Univ. of Pittsburgh

4:00 — Histological evaluation of bacterial presence in induced periapical lesions in monkey molars
RICHARD E. WALTON*, DMD, MS and KAMBIZ ARDIJMAND, Univ. of Iowa

4:15 — Identification of bacteria involved in pathogenesis of human periapical lesions by the ELISA technique
JAMES D. KETTERING*, PhD, S. JONES and MAHMOUD TORABINEJAD, DMD, MSD, Loma Linda Univ.

4:30 — Sterilization of bacterially contami-root apices by CO2 laser irradiation
LEO J. MISERENDINO*, DDS, MS, WILLIAM L. KOS, PhD, CATHERINE A. MISERENDINO, MS, PhD and NEILL H. LUEBKE, DDS, MS, Marquette Univ.

4:45 — A histologic evaluation of apical root canal debridement comparing two endodontic instrumentation techniques
DOUGLAS J. MckENDRY*, DDS, Univ. of Iowa and ROBERT J. OSWALD, DDS, Univ. of Washington

*Presenter

BADGES MUST BE WORN AT ALL OFFICIAL AAE FUNCTIONS.
SCIENTIFIC SESSION VII
2 pm - 3:30 pm, Marriott Hall - Northeast
Moderator: RONALD E. BUELL, DDS, Santa Ana, CA

The odontoblast — a cell for all seasons
G. REX HOLLAND, BDS, PhD, Edmonton, Canada

The odontoblast gives the dental pulp its special character and properties. It forms primary, secondary and reparative dentin and may act as a receptor. The life history of this unique cell will be reviewed with special emphasis on its role in preventive and interceptive endodontics.

SCIENTIFIC SESSION VIII
3:30 pm - 5 pm, Marriott Hall - Northeast
Moderator: RONALD E. BUELL, DDS, Santa Ana, CA

Matching file preference with operator technique
HARMEET D. WALIA, BDS, MDS, MS, Milwaukee, WI

Selecting a brand of files has been a perplexing problem for the endodontist. Guidelines for the selection of a file will be presented whereby the metallurgy, physical and mechanical attributes of the file are related to the operator's preference of filing technique.

GENERAL INTEREST SESSION IV
2 pm - 5 pm, Marriott Hall - Northwest
(Limited Attendance. Pre-registration required)
Moderator: MICHAEL J. SCIANAMBLO, DDS,
San Rafael, CA

Professional marketing for the specialty practice
PAULA PERICH, BA, Chicago, IL

Developed exclusively for endodontists, this comprehensive seminar will guide you step-by-step through the marketing process. You will learn how to conduct reliable market research, devise a marketing plan, generate a strong referral network with general practitioners and other endodontists and enhance the visibility of your endodontic practice in your community.

(There will be NO ON-SITE registration for this workshop due to material preparation.)

SATURDAY MORNING, APRIL 23

CONTINENTAL BREAKFAST
(By ticket only)
8 am - 8:45 am, Salon E

EXHIBITS
8 am - 12 noon, Marriott Hall, Center & South

RESEARCH SEMINARS IV
9 am - 11 am, Salon D
Moderator: JOEL L. DUNSKY, DDS, Boston, MA

9:00 — The use of a chelating agent and 2.5% NaOCl with sonic and ultrasonic endodontic instrumentation
KEITH V. KRELL*, DDS, MS, MA and DOUGLAS J. MCKENDRY, DDS, Univ. of Iowa

9:15 — Pulpal tissue in accessory canals and its reaction to endodontic procedures
KAARE LANGELEND*, DDS, PhD and ELIZEU A. PASCON, DDS, MSD, Univ. of Connecticut

9:30 — Attachment of PDL derived cells to experimentally treated root surfaces
PAUL F. BERY*, DDS and JON C. DANIEL, PhD, Univ. of Illinois at Chicago

9:45 — Nitinol root canal files: a preliminary study
HARMEET D. WALIA*, BDS, MDS, MS, WILLIAM A. BRANTLEY, PhD, NEILL H. LUEBKE, DDS, MS and LEO J. MISERENDINO, DDS, MS, Marquette Univ.

10:00 — A preliminary investigation of the torsional properties of the Gates-Glidden bur
NEILL H. LUEBKE*, DDS, MS, HARMEET D. WALIA, BDS, MDS, MS and WILLIAM A. BRANTLEY, PhD, Marquette Univ.

10:15 — Analysis of the internal compactness of seven obturation methods using gutta-percha
EGILL L. JACOBSEN*, DDS and ELLEN A. BEGOLE, PhD, Univ. of Illinois at Chicago

10:30 — An evaluation of apatite root sealer
RAHIMAT A. BARKHODAR*, DMD, MARVIN M. STARK, DDS and KENNETH SOELBERG, DDS, Univ. of California at San Francisco

10:45 — Evaluation of periradicular tissue healing following endodontic surgery
CHUTIMA MANGKORNKARN*, DDS, Univ. of California at Los Angeles, and JOHN W. HARRISON, DMD, MS, Baylor College of Dentistry

*Presenter

SMOKING
For the comfort of others, no smoking is permitted in the meeting rooms.
SCIENTIFIC SESSION IX
9 am - 10:30 am, Marriott Hall - Northeast
Moderator: SHEPARD S. GOLDSTEIN, DMD, Framingham, MA

High-technology radiology: Are conventional X-rays obsolete?
SAMUEL SELTZER, DDS, Philadelphia, PA and STEVEN SELTZER, MD, Boston, MA

The past decade has witnessed a revolution in diagnostic imaging. Computed tomography (CT), new techniques in nuclear medicine (SPECT), magnetic resonance imaging (MRI), and advanced computer systems have all emerged. The application of these technologies to dental conditions has dramatically changed the way we image the head and neck. These new methods can be extremely important diagnostic tools. Endodontists should be aware of their uses, which will certainly increase in importance in the future.

SCIENTIFIC SESSION X
10:30 am - 12 noon, Marriott Hall - Northeast
Moderator: SHEPARD S. GOLDSTEIN, DMD, Framingham, MA

The interrelationship between the maxillary sinus and endodontics
HOWARD S. SELDEN, DDS, Bethlehem, PA

Endodontically treated teeth, whose apices are close to the maxillary sinus, occasionally fail to heal. These cases manifest various degrees of antral involvement, usually including a pathologic perforation of the sinus wall along with mucosal alterations. Surgical measures are usually required to stimulate repair and to preserve these teeth.

GENERAL INTEREST SESSION V
9 am - 12 noon, Marriott Hall - Northwest
Moderator: ANTHONY B. GREENING, DDS, Pasadena, CA

The role of dental insurance in endodontic practice—1988 and beyond
MARWAN ABOU-RASS, DDS, MDS, PhD, San Marino, CA, RICHARD E. SCHMIDT, DDS, San Diego, CA and RONALD M. SHEOFSKY, DDS, San Francisco, CA

Current changes in the insurance industry are beginning to influence the practice of endodontics. The introduction of prepayment plans and other alternative delivery systems raises questions about the role of the endodontist in these changes: Should the endodontist participate in prepaid panels? What is the role of the endodontist in setting the endodontic quality standards? What is the feasibility of changing the endodontic insurance codes to correspond with changes taking place in the endodontic specialty? What are the specific insurance problems that we face as endodontists?

This session is presented by the Southern California Academy of Endodontists.

LIMITED ATTENDANCE SEMINARS
(Pre-registration required. Repeat of LAS 8-14. See page 10)
9 am - 11 am

BADGES MUST BE WORN AT ALL OFFICIAL AAE FUNCTIONS.
TABLE CLINICS
8:30 am - 11:30 am, Marriott Hall, Center & South

TC 1 Esthetic reconstruction of immature and traumatized teeth
JEAN-YVES COCHET, DDS, and ISABELLE BARRIL, DDS, Paris, France

TC 2 Ultrasonic root canal preparation techniques
ATSUMU MIYAHARA, DDS, Osaka, Japan

TC 3 Retro-Endosonics
YOSEF NAHMIAS, DDS, MS, Mississauga, Canada

TC 4 Innovative method for removal of insoluble cements, silver points and posts from root canals
NGUYEN T. NGUYEN, DDS, and RAHMAT A. BARKHORDAR, DMD, San Francisco, CA

TC 5 Laboratory technique for bacterial identification by indirect immunofluorescence
EUGENE A. PANTERA, Jr., DDS, MS, Augusta, GA

TC 6 Presentation graphics on the microcomputer
PETER M. SPRADLING, DMD, Glendale, AZ

TC 7 Pulp capping: a question of consequences
JERRY F. TAINTOR, DDS, MS Memphis, TN and ROBERT C. BIESTERFELD, DDS, MS, Brooklyn Center, MN

TC 12 Management of the endodontic patient with AIDS or hepatitis
KEVIN A. KEATING, DDS, Naval Dental School

TC 13 Dentin hypersensitivity
ROBERT W. LADLEY, DMD, Naval Dental School

TC 14 Cutting efficiency test for endodontic instruments
CINDY R. LAMBERT, DDS, Northwestern Univ.

TC 15 Helpful aids in endodontic retreatment
PAUL A. LINDAUER, DDS, Naval Dental School

TC 16 The effect of aggressive therapy on the healing response to vertical root fractures in dogs' teeth
RONALD C. MARKARIAN, DMD, Northwestern Univ.

TC 17 Space invaders: head and neck space infections
DAVID S. MORESI, DDS, Naval Dental School

TC 18 Internal/external resorption
SHAHAB NOORVASH, DDS and SCOTT B. McCLANAHAN, DDS, Northwestern Univ.

TC 19 Demonstration of acute phase proteins in human dental pulps and in serum
MARTHA E. PROCTOR, DDS, Northwestern Univ.

TC 20 Eliminating cross-contamination in endodontic radiology
LANGSTON D. SMITH, DMD, MS, Naval Dental School

TC 21 Special considerations in mandibular premolar endodontics
DENNIS J. WOURMS, DDS, Naval Dental School

TC 22 Controlling placement and setting time of a new retrograde material
JEROME K. YAMADA, DDS, Northwestern Univ.

GRADUATE STUDENT SECTION

TC 8 Peridex as an adjunct to endodontic surgery
STEVEN E. DAZEY, DMD and SCOTT A. SCHWARTZ, DDS, Wilford Hall USAF Medical Center

TC 9 Rubber dam isolation of the crownless tooth
MARK S. DeNUNZIO, DDS, Naval Dental School

TC 10 The use of low-temperature therma-plasticized gutta-percha as retrograde filling
HESHAM M. EI-TAGOURI, BDS and MICHAEL GRASSI, DDS, Univ. of Pittsburgh

TC 11 Factors influencing radiographic interpretation of healing in endodontics
STEPHEN B. HAAS, DDS, Naval Dental School
POSTER CLINICS
8:30 am - 11:30 am, Orange County 1 & 2

PC 1 A comparison of three electronic apex locators using two in vitro models
ASHRAF F. FOAUD, BDS and KEITH V. KRELL, DDS, MS, MA, Iowa City, IA

PC 2 Portable laboratory radiographic unit for pre-clinic endodontic teaching
MICHTEL LEVINE, DDS, Toronto, Canada

PC 3 S.E.M. examination of root canal walls after hand and sonic instrumentation
CATHERINE R. RICCI, DDS and JEAN-MARIE LAURICHESE, DDS, Paris, France

PC 4 Release of calcium and hydroxyl ions from set endodontic sealers
MICHAEL TAGGER, DMD, MS, Tel Aviv, Israel

GRADUATE STUDENT SECTION

PC 5 An anatomical study of the position of mesiobuccal roots and the mandibular nerve
KATHLEEN T. FRANKLE, DDS, Univ. of Maryland

PC 6 The practitioner’s approach to treatment of acute odontogenic episodes
WILLIAM D. JARVIS, DDS and CLARA M. SPATAFORE, DDS, West Virginia Univ.

PC 7 Extracoral ice-pack application effects on intracoral temperatures
BRUCE C. JUSTMAN, DDS, Univ. of Iowa

PC 8 A comparison of self developing D speed film to standard D & E speed film
LAMONT G. McMURTRY, DDS, Univ. of Iowa

PC 9 Anatomic and histologic features of “C” shaped mandibular second molars
DARLENE C. MELTON, DDS, Univ. of Iowa

PC 10 In-vitro coronal microleakage of new endodontic restorative materials
ANGELA P. NOGUERA, DDS, Univ. of Maryland

PC 11 Pulpal nerve response to severe dentin injury in rats
PATRICK E. TAYLOR, DDS, Univ. of Washington

PC 12 A comparative study in the wear patterns of subsonic and ultrasonic instruments
THOMAS J. ZICARELLI, DDS, New York Univ.

PC 13 An invito study to determine the efficacy of sonic vs ultrasonic instrumentation
TANU REDDI, DDS, New York Univ.

SATURDAY AFTERNOON, APRIL 23

EDGAR D. COOLIDGE LUNCHEON
(By ticket only—for members and spouses)
12 - 2 pm, Grand Ballroom
Presentation of Coolidge Award
Mr. DAVID A. RUSS, a member of the Voyager Flight Science Team, will present highlights of the three encounters of the Voyager Spacecraft as well as plans for the upcoming Neptune encounter.

GENERAL ASSEMBLY
2:30 pm - 5 pm, Marriott Hall - Northeast

PAST PRESIDENTS’ RECEPTION
6:30 pm - 7:30 pm, Grand Ballroom Foyer

DINNER DANCE
(By ticket only)
7:30 pm - Midnight, Grand Ballroom
Music provided by Ron Rubin Orchestras and Entertainment
SUNDAY, APRIL 24

Case Presentation Farewell Breakfast
(By ticket only)
8:30 am - 10:30 am, Salon F
Bring your favorite case for discussion at this morning's buffet breakfast. This is a departure from the past years' program and is intended to give you an opportunity to discuss a unique or different case with your peers and to say farewell “until next year” to old and new friends.

TOURS

Buses for the following tours will depart from the Marriott Hall entrance of the Marriott Hotel. Admission is by ticket only.

Day in Newport — Thursday, April 21, 10-3 pm.
Universal Studios/Hollywood/Beverly Hills — Friday, April 22, 9-5 pm.
El Camino Real — Saturday, April 23, 11-4 pm.

Disneyland Shuttle Bus
No matter which day you choose to visit the Magic Kingdom, getting there will never be a problem. The Anaheim Marriott will have a shuttle bus running to and from Disneyland everyday. More information will be available at the hotel’s concierge desk.

SMOKING
For the comfort of others, no smoking is permitted in the meeting rooms.

AAE AUXILIARY

The AAE auxiliary will maintain a hospitality suite in the Veranda Restaurant on Friday & Saturday from 1:00 to 4:00 pm.

OFFICERS
Mrs. Carl Tinkelman (Sydney) ........ President
Mrs. A. Stephen Heller (Sherry) .... President-elect
Mrs. Victor L. Ratkus (Anne) ........ Vice-president
Mrs. William D. Powell (Linda) .... Secretary
Mrs. Howard Pranikoff (Cheryl) .... Treasurer
Mrs. Fred Widerman (Judie) ........ Parliamentarian

THURSDAY, APRIL 21

Auxiliary Breakfast
8 am - 9:45 am, Veranda Restaurant
A wine odyssey
HERBERT F. SPASSER, DDS
2 pm - 5 pm, Marriott Hall - Northwest

FRIDAY, APRIL 22

Board Meeting
8 am - 9 am, Mrs. Tinkelman’s Suite

Burnout — a family affair
RICHARD C. BURNS, DDS and
ROBERT M. KRASNY, DDS
9 am - 12 noon, Marriott Hall - Northwest

SATURDAY, APRIL 23

Auxiliary Brunch
(By ticket only)
8:30 am - 11 am, Salon F

Wise guys need wiser women
TIM TIMMONS

An analysis of the confusion within our culture of the DYNAMICS between men and women and a practical application of MALENESS and FEMALENESS where each completes the other rather than compete with one another.

Board Meeting
11 am - 12 noon, Mrs. Tinkelman’s Suite
<table>
<thead>
<tr>
<th>Company Name</th>
<th>Booth #</th>
<th>Address Details</th>
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<tbody>
<tr>
<td>Amadent</td>
<td>#109</td>
<td>P.O. Box 733, Cherry Hill, NJ 08003</td>
</tr>
<tr>
<td>Analytic Technology Corp.</td>
<td>#145</td>
<td>3301 - 181st Place N.E., Redmond, WA 98052</td>
</tr>
<tr>
<td>Astra Pharmaceutical Products, Inc.</td>
<td>#124</td>
<td>50 Otis St., Westborough, MA 01581</td>
</tr>
<tr>
<td>Black Drug Co., Inc.</td>
<td>#119-120</td>
<td>105 Academy St., Jersey City, NJ 07302</td>
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<tr>
<td>Brasseler USA Inc.</td>
<td>#148</td>
<td>800 King George Blvd., Savannah, GA 31419</td>
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<tr>
<td>L.D. Caulk Co.</td>
<td>#103-104</td>
<td>P.O. Box 359, Milford, DE 19963</td>
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<tr>
<td>Centrix Incorporated</td>
<td>#139</td>
<td>30 Stran Rd., Milford, CT 06460</td>
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<tr>
<td>Core-Vent Corp.</td>
<td>#160</td>
<td>15821 Ventura Blvd., Suite 420, Encino, CA 9136</td>
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<tr>
<td>Dent-X</td>
<td>#159</td>
<td>250 Clearbrook Rd., Eflmsford, NY 10523</td>
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<tr>
<td>Dermac</td>
<td>#154</td>
<td>P.O. Box 5268, Salem, OR 97304</td>
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<tr>
<td>Designs for Vision</td>
<td>#143</td>
<td>760 Koehler Ave., Ronkonkoma, NY 11779</td>
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<td>Durval Corp.</td>
<td>#149</td>
<td>141 Union St., Gilberts, IL 60136</td>
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<td>Eagle Dental Inc.</td>
<td>#121</td>
<td>100 Cheywynd Dr., Bryn Mawr, PA 19010</td>
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<td>Ellman International Mfg., Inc.</td>
<td>#101</td>
<td>1135 Railroad Ave., Hewlett, NY 11557</td>
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<td>Encyclopaedia Britannica, USA</td>
<td>#129</td>
<td>310 South Michigan Ave., Chicago, IL 60604</td>
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<td>Endo Technic Corp.</td>
<td>#134</td>
<td>1760 S. Anaheim Blvd., Anaheim, CA 92805</td>
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<tr>
<td>Essential Dental Systems, Inc.</td>
<td>#137</td>
<td>7 W. 36th St., New York, NY 10018</td>
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<tr>
<td>Healthco International</td>
<td>#115</td>
<td>25 Stuart St., Boston, MA 02116</td>
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<tr>
<td>Healthfirst Corp.</td>
<td>#140</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>#142</td>
<td>3232 N. Rockwell St., Chicago, IL 60618</td>
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<tr>
<td>Hygenic Corp.</td>
<td>#113-114</td>
<td>1245 Home Ave., Akron, OH 44310</td>
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<td>Inter-Dent</td>
<td>#112</td>
<td>391 Steelcase Rd. W., Unit 16, Markham, ON, Canada L3R 3V9</td>
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<tr>
<td>JS Dental Mfg. Inc.</td>
<td>#123</td>
<td>P.O. Box 904, Ridgefield, CT 06877</td>
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<td>K-Comp Systems</td>
<td>#141</td>
<td>535 N. Brand Blvd., Suite 601, Glendale, CA 91201</td>
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<tr>
<td>Kerr Mfg. Co.</td>
<td>#131</td>
<td>28200 Wick Rd., Romulus, MI 48174</td>
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<td>Knoll Pharmaceuticals</td>
<td>#111</td>
<td>30 N. Jefferson Rd., Whippany, NJ 07981</td>
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<td>Kyocera America/Buehler Dental Div.</td>
<td>#146</td>
<td>8611 Balboa Avenue, San Diego, CA 92123</td>
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<tr>
<td>Lee &amp; Febiger</td>
<td>#132</td>
<td>600 S. Washington Sq., Philadelphia, PA 19106</td>
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<tr>
<td>Lee Pharmaceuticals</td>
<td>#107</td>
<td>1444 Santa Anita Ave., South El Monte, CA 91733</td>
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<td>Life-Tech Inc.</td>
<td>#147</td>
<td>1628-8 Dale Mabry Highway, Ste. 108, Lutz, FL 33545</td>
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<td>M&amp;D Int'l Enterprises, Inc.</td>
<td>#138</td>
<td>P.O. Box 1254, Carpintera, CA 93013</td>
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<td>Mada Equipment Co.</td>
<td>#151</td>
<td>60 Commerce Rd., Carlstadt, NJ 07072</td>
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<td>Medidenta International, Inc.</td>
<td>#128</td>
<td>39-23 62nd St., Woodside, NY 11377</td>
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<td>Microcopy</td>
<td>#136</td>
<td>3120 Moon Station Rd., P.O. Box 3047, Kennesa, GA 30144</td>
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<tr>
<td>National Dent. Mutual Insurance Co.</td>
<td>#158</td>
<td>282 Second St., San Francisco, CA 94105</td>
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<td>Navy Recruiting Command</td>
<td>#156</td>
<td>4015 Wilson Blvd., BCT #3, Arlington, VA 22203</td>
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<td>Nephron Corp.</td>
<td>#153</td>
<td>3319 Pacific Ave., Tacoma, WA 98408</td>
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<td>Ortho Management Systems</td>
<td>#116</td>
<td>3120 Crossing Park, Norcross, GA 30071</td>
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<td>Ocala Electric Co., Inc.</td>
<td>#152</td>
<td>8242 W. Third St., #150, Los Angeles, CA 90048</td>
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<td>Patterson Dental Co.</td>
<td>#133</td>
<td>1100 E. 80th St., Minneapolis, MN 55420</td>
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<td>Premier Dental Products Co.</td>
<td>#125</td>
<td>1710 Romano Dr., Box 111, Nenntown, PA 19404</td>
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<td>Professional Results, Inc./Tooth Slooth</td>
<td>#157</td>
<td>9201 Whitmery Way, Cypress, CA 90630</td>
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<td>#130</td>
<td>75 Boylston St., Brookline, MA 02147</td>
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<td>Quality Aspirators</td>
<td>#110</td>
<td>1002 Dove Creek, Duncarville, TX 75116</td>
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<td>#106</td>
<td>670 Oak Creek Dr., Lombard, IL 60148</td>
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<td>Ruydent Dental Products, Inc.</td>
<td>#118</td>
<td>6966 Crooks Rd., Troy, MI 48096</td>
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<td>W.B. Saunders Co.</td>
<td>#155</td>
<td>West Washington Sq., Philadelphia, PA 19105</td>
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<td>Henry Schein, Inc.</td>
<td>#161</td>
<td>5 Harbor Park Dr., Port Washington, NY 11050</td>
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<td>138 Audley St., Kew Gardens, NY 11418</td>
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<td>Tamiko Corp.</td>
<td>#144</td>
<td>15320 Delano St., Van Nuys, CA 91411</td>
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<tr>
<td>Telcore &amp; Heisell, Inc.</td>
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<td>(Registration Area) 3132 Wilmington Rd., New Castle, PA 16105</td>
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<tr>
<td>Tusa Dental Products</td>
<td>#162</td>
<td>5010 E. 68th St., Tulsa, OK 74136</td>
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<td>Ureaflex Endodontic Co.</td>
<td>#122</td>
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<td>Union Brouch/A&amp; Health-Chem Co.</td>
<td>#126-127</td>
<td>1107 Broadway, New York, NY 10010</td>
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<td>Whitehall Laboratories</td>
<td>#117</td>
<td>683 Third Ave., New York, NY 10017</td>
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<tr>
<td>Non-Technical Exhibits</td>
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<td>American Audio Association (Registration Area) 307 Willis Avenue, Mineola, NY 11501</td>
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<tr>
<td>AAF Career Counseling</td>
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<td>[:1989 Annual Session]</td>
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</table>
BOARD & COMMITTEE MEETINGS

MONDAY, APRIL 18
ABE Board 8 am-6 pm
Room
La Jolla

TUESDAY, APRIL 19
ABE Oral Exams
E&M Foundation Trustees
8 am-5 pm
Room
Rancho Las Palmas
Orange County 1

WEDNESDAY, APRIL 20
AAE Board of Directors
8 am-5 pm
Room
Orange County 1
ABE Oral Exams
Room
Rancho Las Palmas

FRIDAY, APRIL 22, 7:30-9 am
Dental Care & Clinical Practice
Room
Salon C
Editorial Board
Rancho Las Palmas
Educational Affairs
San Diego
Federal Dental Health Services
Main Tower Ste 533
Student Members
Salons A & B

SATURDAY, APRIL 23, 7:30-9 am
Member Services
Newport Beach
Room
Salon C
Membership
Rancho Las Palmas
Professional Standards, Peer
San Diego
Review & Ethics
Research & Scientific Affairs
Main Tower Ste 506

SUNDAY, APRIL 24
AAE Board of Directors
Room
Orange County 1
8 am-1 pm

ALUMNI, AFFILIATES & OTHER GROUPS

THURSDAY, APRIL 21
US Army Assn of Endo 1-2 pm
Room
Salon J
Int'l Federation of Endo Assns
Orange County 5
2-5 pm
Christian Endo Society 5-6 pm
Newport Beach
Pennsylvania Academy of Endo
Salon G
5-5:30 pm
UNC Endo Alumni 6-8 pm
Salon C
US Army Assn of Endo
Salons A & B
6-10 pm
Northwestern Alumni
Veranda Restaurant
6:30-8 pm
Tufts Endo Alumni
Vice-Presidential Suite
6:30-8:30 pm
USC Alumni 6:30-10:30 pm
Salon E
Boston Univ Endo Alumni
Orange County 1
7-10:30 pm
F. James Marshall Recept 6-8 pm
Salon D

FRIDAY, APRIL 22
Albert Einstein Medical Center
Newport Beach
Alumni 6-8 pm
Salon D
H.J. Healey Endo Study Club
Veranda Restaurant
7:30-9 am
Main Tower Ste 606
MCV Endo Alumni 7:30-9 am
Newport Beach
Oklahoma Assn of Endo
Salon B
7:30-9 am
Temple Univ Endo Alumni
Salon D
6:30-8 pm
Univ of Michigan Endo Alumni
Salon C
7:30-9am
Florida Assn of Endo 5-6 pm
Orange County 3
Iowa Endo Group 6-8 pm
Salon A
Michigan Assn of Endo 6-8 pm
Salon B
Temple Univ Endo Alumni
Salon D
6:30-8 pm
Univ of Wash Grad Endo
Salon C
Alumni 6:30-8:30 pm
VA Long Beach Endo Alumni
Orange County 5
6:30-9 pm
Univ of Maryland Endo Alumni
Rancho Las Palmas
7-9 pm

SATURDAY, APRIL 23
Boston Univ Endo Alumni
Salons A & B
7:30-9 am
USAF Assn of Endo 7:30-9 am
Salon C
US Navy Assn of Endo
Veranda Restaurant
7:30-9 am
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. Zurkow ............................................ '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

AWARD RECIPIENTS
Edgar D. Coolidge Award
*Edgar D. Coolidge ........................................... '69
*Harry B. Johnston ........................................... '70
*Henry A. Bartels ............................................ '71
Bertram L. Wolffsohn ....................................... '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 J. Naidorf ............................................ '85
Harry Blechman .............................................. '86
I.B. Bender .................................................... '87
Dudley H. Glick .............................................. '88

Louis I. Grossman Award
Louis I. Grossman ........................................... '73
*Birger Nygard-Ostby ........................................ '76
I.B. Bender .................................................... '78
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Maury Massler ............................................... Harold R. Stanley ............................................
Henry O. Trowbridge .......................................  
*Deceased
PRINCIPAL SPEAKERS

MARWAN ABOU-RASS, DDS, MDS, PhD
Chairman of Endodontics & Director of Advanced Endodontic Program, University of Southern California School of Dentistry, also in private practice in endodontics.

ROBERT E. AVERBACH, DDS
Professor and Chairman, Division of Endodontics, University of Colorado School of Dentistry, also in private practice in endodontics.

RICHARD C. BURNS, DDS
Assistant Professor of Endodontics, University of the Pacific School of Dentistry, also in private practice in endodontics.

DWIGHT CALL, MBA, PhD
Professor of Accounting, California State University Northridge, also a practicing CPA.

RALEIGH R. CUMMINGS, DDS, MS
Associate Professor in Graduate Endodontics, Loma Linda University School of Dentistry, also in private practice in endodontics.

G. REX HOLLAND, BDS, PhD
Professor and Chairman, Division of Endodontics, University of Alberta, also in private practice in endodontics.

ROBERT M. KRASNY, DDS, MSD
Adjunct Professor of Endodontics and Human Behavior, University of California at Los Angeles.

STANLEY MALAMED, DDS
Associate Professor of Anesthesia & Medicine, University of Southern California.

PAULA PERICH, BA
Assistant Executive Director, Membership and Marketing Services, American Dental Association.

RICHARD E. SCHMIDT, DDS
Private practice in endodontics, San Diego, California.

HOWARD S. SELDEN, DDS
Dental Staff, Allentown Hospital and Muhlenberg Hospital, also in private practice in endodontics.

SAMUEL SELTZER, DDS
Emeritus Professor of Endodontontology, Temple University School of Dentistry.

STEVEN SELTZER, MD
Associate Professor, Department of Radiology, Harvard Medical School.

RONALD M. SHEOFSKY, DDS
Assistant Director, Dental Services, Delta Dental Plan of California.
SOL SILVERMAN, DDS, MA
Professor and Chairman, Division of Oral Medicine, University of California at San Francisco School of Dentistry.

HERBERT F. SPASSER, DDS
Clinical Professor of Endodontics, New York University College of Dentistry; Certificate Member, Society of Wine Educators, wine lecturer, writer and teacher of two wine courses annually.

ROGER STAMBAUGH, DMD, MS, MEd
Clinical Associate Professor in Periodontics, University of Southern California, also in private practice in periodontics.

LEIF TRONSTAD, DMD, PhD
Professor and Chairman, Department of Endodontics, University of Pennsylvania School of Dental Medicine.

HARMEET D. WALIA, BDS, MDS, MS
Assistant Professor, Department of Endodontics, Marquette University School of Dentistry.

GEORGE ZURKOW, DDS
Clinical Professor of Endodontics, University of Pennsylvania School of Dental Medicine.

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