

ANDREW CHARIG

PO Box 104 Middlefield MA 091243-0104

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

| INSTITUTION AND LOCATION | DEGREE <i>(if applicable)</i> | YEAR(s) | FIELD OF STUDY |
|--|----------------------------------|---------|----------------|
| University of Massachusetts, North Dartmouth | BS | 1965 | Chemistry |

PROFESSIONAL EXPERIENCE

- 1999-2008 Church & Dwight Co Inc, Corporate Research, Princeton, NJ**
Supervised research into remin-demin of enamel and dentin by toothpastes using optical interference profilometry, SEM, EDX, and microindentation; designed experimental formulas and oversaw lab batch production; developed new abrasivity method to replace RDA;
- 1983-1999 Colgate-Palmolive Research Center, Piscataway, NJ**
Potential new raw materials assessment; enamel and dentin permeation studies; synthesis of surfactants, antibiotics, and additives, and determination of structure of their breakdown products; radioisotope expert and Radiation Safety Officer.
- 1979-1983 Schwarz/Mann, Spring Valley, NY**
Radioisotope Research and Production Labs supervisor; Radiation Safety Officer
- 1976-1979 Union Carbide Medical Products Div, Rye, NY**
Immunoassay component synthesis: radiolabels, antigens, enzyme-labelled conjugates, etc Radiation Safety Officer
- 1972-1976 New England Nuclear**
Radioisotope synthesis; HPLC methods development
- 1968-1972 Becton-Dickinson Diagnostics, Orangeburg, NY**
Radioisotope synthesis, new products development; radioimmunoassay components preparation: immunogenic and labelled conjugates
- 1965-1968 U Mass Agricultural Research Center, Wareham, MA**
Pesticide residue analysis technician

AWARDS AND HONORS

Session Moderator, IADR 2008 meeting, Dallas
You Can Make a Difference Award, Colgate Palmolive 1998

PROFESSIONAL MEMBERSHIPS

American Chemical Society, 1975-present

International Association of Dental Researchers, 1999 to present

SELECTED PUBLICATIONS

Andrew Charig, Anthony Winston, Mark Flickinger. Enamel mineralization by calcium-containing-bicarbonate toothpastes: assessment by various techniques. *Compend Contin Educ Dent*. 2004;25:14-24

A Charig, A Winston, S Magee, D McNeil. Removal of sputtered gold from specimens after scanning electronmicroscope examination. *Anal Biochem*. 2004;329 (1):154-6

R J Sullivan, A Charig, J Blake-Haskins, Y P Zhang, S M Miller, M Strannick, A Gaffar, H C Margolis. In vivo detection of calcium from dicalcium phosphate dehydrate dentifrices in demineralized human enamel and plaque. *Adv Dent Res*. 1997;11 (4):380-7

A Charig, J Blake-Haskins, E Eigen. Anomalous liquid scintillation counting of chromium-51. *Anal Biochem*. 1985;151 (2):428-30

Effects of two fluoride gels on fluoride uptake and phosphorus loss during artificial caries formation. *J Dent Res*. 1986;65 (8):1084-6

J R Mellberg, A Charig, M Deutchman, W O'Brien, A LassCharig A., Winston A. and Flickinger M: Enamel Mineralization by Calcium-containing Bicarbonate Toothpastes: Assessment by Various Techniques, *Compendium of Continuing Education in Dentistry* 25(9):14-24, 2004

Litkowski, L.J., Quinlan, K.B., Ross, D.R, Ghassemi, A., Winston, Charig, A., and Flickinger M: Intra-oral Evaluation of Mineralization of Cosmetic Defects by a Toothpaste Containing Calcium, Fluoride and Sodium Bicarbonate, *Compendium of Continuing Education in Dentistry* 25(9):25-31, 2004

Winston AE, Nunez A, Charig A and Novack S: Effect of Fluoride on Calcium uptake from a Remineralizing Toothpaste, *J Dent Res* 79:292, 2000

Charig A, Winston A and Gupta S, Dentin Permeability Reduction Due to Two-phase Calcium-containing Toothpaste; International Association of Dental Research 84th Annual Meeting, Abst.# 0954 (2005)

Winston A, Charig A, Patel V, McHale W and Malerman R. Effect of Prophy Pastes on Surface of Tooth Enamel; International Association of Dental Research 84th Annual Meeting, Abst.# 0966 (2005)

Lalalam J, Patel V, Charig A and Winston A, A New Screening Tool for Comparing Toothpaste Abrasivities 2735 International Association of Dental Research 84th Annual Meeting, Abst.# 2735 (2005)

Ghassemi A., Winston A., Charig A., Litkowski L., Quinlan K. Flickinger M., Saunders F. and Vorwerk L: Intra-Oral Evaluation of a Two-Phase, Calcium-Containing Bicarbonate Toothpaste, International Association of Dental Research 83rd Annual Meeting, Abst.# 3597 (2004)

Nelson B., Winston A., and Charig A: Surface Enamel Integrity Associated with Treatment by Three Whitening Toothpastes, International Association of Dental Research 83rd Annual Meeting, Abst.# 3596 (2004)

Charig A., Winston A. and Flickinger M: Surface Mineralization of Etched Enamel by Calcium-Containing Bicarbonate Toothpaste, International Association of Dental Research 83rd Annual Meeting, Abst. #3595 (2004)

Charig A., and Winston A: AFM Evaluation of Etched Enamel treated with Calcium-Containing Toothpaste, International Association of Dental Research 83rd Annual Meeting, Abst. #3594 (2004)

Charig A. Winston A., Litkowski L., Quinlan K. and Weeks T: Removal of Pellicle from Enamel Specimens, International Association of Dental Research 83rd Annual Meeting, Abst.# 0895 (2004)

Ross D., Litkowski L., Quinlan K., Charig A., Winston A., and Minah G: Effects of Saliva on Enamel Surface Defects: *in situ* Study, International Association of Dental Research 83rd Annual Meeting, Abst.# 3582 (2004)

Munoz C., Dahlke K., Carig A. and Winston A: Surface Mineralization by a Two-Phase, Baking Soda Toothpaste Containing Calcium, International Association of Dental 83rd Annual Meeting, Abst.# 2117 (2004)

Winston A., Charig A., Macgee S. and McNeil D: Removal of Gold from SEM Specimens for Retreatment, American Association of Dental Research 32nd Annual Meeting, Abst.# 1698 (2003)