

CURRICULUM VITAE

Date Prepared: April 15, 2010

Name: Marc L. Nevins

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Place of Birth: Lynn, Massachusetts, U.S.A.

Education:

1987-1990 University of Vermont, Burlington, VT
1994 D.M.D. Tufts University School of Dental Medicine, Boston, MA
1997 M.M.Sc. Harvard School of Dental Medicine, Boston, MA (Oral Biology)
1997 Certificate Harvard School of Dental Medicine, Boston, MA (Periodontology)

Postdoctoral Training:

1997 Fellow in Periodontology, Harvard School of Dental Medicine

Licensure and Certification:

1994- Northeast Regional Board
1994 - Massachusetts License Registration #18510
1998 - Diplomate, American Board of Periodontology, Board Certified
2006- Pennsylvania License Registration #DS037070

Academic Appointments:

1994 - 1997 Research Fellow in Periodontology
Harvard School of Dental Medicine, Boston, MA
1997 - 2006 Clinical Instructor in Periodontology
Harvard School of Dental Medicine, Boston, MA
2006 - Assistant Clinical Professor of Oral Medicine, Infection and Immunity
Harvard School of Dental Medicine, Boston, MA
2007 - Adjunct Assistant Professor in the Department of Periodontology
School of Dentistry at University of North Carolina at Chapel Hill

Clinical Practice:

1997 - 1999 Practice Limited to Periodontics and Dental Implants
90 Humphrey Street
Swampscott, MA 01907
1999 - 2005 Practice Limited to Periodontics and Dental Implants
180 Cambridge Street
Boston, MA 02114
2005 - Practice Limited to Periodontics and Dental Implants
175 Cambridge Street, Suite 310
Boston, MA 02114

Hospital Appointments:

1996 - 1997 Deaconess Hospital, Boston, MA
1998 - AtlantiCare Medical Center, Lynn, MA
1998 - Beth Israel Deaconess Medical Center, Boston, MA

Major Committee Assignments:

1998 - 2000	Scientific Committee Yankee Dental Congress 25, January, 2000
1998 - 2001	American Academy of Periodontology Committee on the New Practitioner
1999 - 2000	American Academy of Periodontology Continuing Education Oversight Committee
1999 - 2002	American Academy of Periodontology Task Force on Distance Learning
1999 - 2002	Scientific Committee Yankee Dental Congress 26, January, 2001
2000 - 2001	Chair, American Academy of Periodontology Committee on the New Practitioner
2000 - 2001	American Academy of Periodontology Committee on Clinical Practice
2001 - 2003	Scientific Committee Yankee Dental Congress 28, January, 2003
2001 - 2003	Massachusetts Dental Society Council on Membership
2001 - 2006	Metropolitan District Dental Society Executive Committee
2002 - 2004	American Academy of Periodontology Continuing Education Oversight Committee
2003 - 2004	Chair-Elect, Metropolitan District Dental Society
2003 - 2004	Metropolitan District Dental Society Peer Review Committee
2004 - 2005	American Academy of Periodontology Subcommittee on Research Submissions
2004 - 2005	Chair, Metropolitan District Dental Society
2005 - 2006	Immediate Past Chair, Metropolitan District Dental Society
2005 - 2006	American Academy of Periodontology Foundation Tarrson Regeneration Scholarship Selection Committee
2007 -	American Academy of Periodontology Foundation District Ambassador
2009 -	AAP Task Force for General Dentist Outreach

Memberships In Professional Societies:

1990 - 2007	Alpha Omega Dental Fraternity
1990 -	American Dental Association
1990 - 1994	American Student Dental Association
1990 - 1995	Academy of General Dentistry
1990 -	Massachusetts Dental Society
1994-	Omicron Kappa Upsilon
1994 -	American Academy of Periodontology
1995 -	Academy of Osseointegration
1995 -	International Association for Dental Research
1997-	Massachusetts Periodontal Society
1997- 1999	North Shore District Dental Society
1999-	Metropolitan District Dental Society
1999-	Greater Boston Dental Society
2003-	American Academy of Dental Science
2004-	Society for Contemporary and Progressive Periodontology

Editorial Positions:

1998 - 2006	Editorial Board of the <i>Journal of Periodontology</i>
2005-	Consultant <i>International Journal of Periodontics and Restorative Dentistry</i>
2007-	Reviewer, <i>Journal of Periodontology</i>
2007-	Associate Editor, <i>International Journal of Oral and Maxillofacial Implants</i>

Awards and Honors:

1988	University of Vermont Freshman Chemistry Award
1991 - 1994	Tufts University School of Dental Medicine Merit Scholarship
1994	summa cum laude, Tufts University School of Dental Medicine
1994	Omicron Kappa Upsilon
1994	Dr. Richard Delson Award in Periodontology/Prosthetics
1996	Academy of Osseointegration Research Award
1997	Finalist Kramer Scholarship for Excellence
1998	Honorable Mention Award Balint Orban Memorial Program
2006	R. Earl Robinson Award

Report of Teaching

- 1996 - 2006 Lecturer
 Institute for Advanced Dental Studies, Swampscott, MA
- 1997 - 2006 Clinical Instructor, Department of Periodontology,
 Harvard School of Dental Medicine, Boston, MA
- 1997 - 2000 Course Director, Current Topics and Concepts in Periodontology II-III
 Harvard School of Dental Medicine, Boston, MA
- 2000 - 2001 Co-Director, Current Topics and Concepts in Periodontology I-III
 Harvard School of Dental Medicine, Boston, MA
- 2006 - Assistant Clinical Professor, Department Oral Infection and Immunity,
 Harvard School of Dental Medicine, Boston, MA

MAJOR RESEARCH INTERESTS:

- The effects of diabetes on osseointegration
- Novel techniques for bone and periodontal regeneration
- Repair and regeneration of oral tissues
- Clinical Applications in Tissue Engineering of Oral tissues for Periodontics and Implant Dentistry

RESEARCH FUNDING INFORMATION:

1996 Academy of Osseointegration Foundation Grant: \$10,000, JP Fiorellini, ML Nevins

Bibliography

Original Reports:

1. Nevins M, Kirker-Head C, Nevins ML, Wozney JA, Palmer R, Graham D. Bone formation in the goat maxillary sinus induced by absorbable collagen sponge implants impregnated with recombinant human bone morphogenetic protein-2. *Int J Periodont Rest Dent* 1996; 16:9-19.
2. Nevins ML, Gartner-Sekler JL. Periodontal, implant, and prosthetic treatment for advanced periodontal disease: a case report. *Compendium Cont Ed Dent* 1997; 5:469-479.
3. Kirker-Head C, Nevins M, Palmer R, Nevins ML, Graham D, Roscioli A. A new animal model for maxillary sinus floor augmentation. *Int J Oral Maxillofac Implants* 1997; 12:403-411.
4. Oringer RJ, Fiorellini JP, Koch GG, Sharp T, Nevins ML, Davis G, Howell TH. Comparison of manual and automated probing in an untreated periodontitis population. *J Periodontol* 1997; 68:1156-1162.
5. Camelo M, Nevins ML, Schenk RK, Simion M, Rasperini G, Lynch SE, Nevins M. Clinical, radiographic, and histologic evaluation of human periodontal defects treated with Bio-Oss and Bio-Gide. *Int J Periodont Rest Dent* 1998; 18:321-331.
6. Nevins ML, Karimbux NY, Weber HP, Giannobile WV, Fiorellini JP. Wound healing around endosseous implants in experimental diabetes. *Int J Oral Maxillofac Implants* 1998; 13:620-629.
7. Fiorellini JP, Nevins ML, Norkin A, Weber HP, Karimbux NY. The effect of insulin therapy on osseointegration in a diabetic rat model. *Clin Oral Impl Res* 1999; 10:362-368.
8. Fiorellini JP, Chen PK, Nevins M, Nevins ML. A retrospective study of dental implants in diabetic patients. *Int J Periodont Rest Dent* 2000; 20:366-373.
9. Nevins ML, Camelo M, Nevins M, King CJ, Oringer RJ, Schenk RK, Fiorellini JP. Human histologic evaluation of bioactive ceramic in the treatment of periodontal osseous defects. *Int J Periodont Rest Dent* 2000; 20:459-467.
10. Camelo M, Nevins ML, Nevins M. Treatment of Class II furcations with autogenous bone grafts and e-PTFE membranes. *Int J Periodont Rest Dent* 2000; 20:233-243.
11. Fiorellini JP, Nevins ML, Sekler J, Chung A, Oringer RJ. Correlation of peri-implant health to aspartate aminotransferase levels; a cross-sectional clinical study. *Int J Oral Maxillofac Implants* 2000; 15:500-504.
12. Rasperini G, Sivestri M, Schenk RK, Nevins ML. Clinical and histologic evaluation of human gingival recession treated with a subepithelial connective tissue graft and enamel matrix derivative (emdogain): a case report. *Int J Periodont Rest Dent* 2000; 20:269-275.
13. Oringer RJ, Howell TH, Nevins ML, Reasner DS, Davis GH, Sekler J, Fiorellini JP. Relationship between crevicular aspartate aminotransferase levels and periodontal disease progression. *J Periodontol* 2001; 72:17-24.
14. Camelo M, Nevins ML, Lynch SE, Schenk RK, Simion M, Nevins M. Periodontal Regeneration with an Autogenous Bone-Bio-Oss composite graft and a Bio-Gide Membrane. *Int J Periodont Rest Dent* 2001; 21:109-119.
15. Nevins ML, Camelo M, Lynch SE, Schenk RK, Nevins M. Evaluation of periodontal regeneration following grafting intrabony defects with Bio-Oss Collagen: a human histologic report. *Int J Periodont Rest Dent* 2003; 23:9-17.
16. Camelo M, Nevins ML, Schenk RK, Lynch SE, Nevins M. Periodontal regeneration in human class II furcations using purified recombinant human platelet-derived growth factor-BB (rhPDGF-BB) with bone allograft. *Int J Periodont Rest Dent* 2003; 23:213-225.

17. Nevins M, Camelo M, Nevins ML, Schenk RK Lynch SE. Periodontal regeneration in humans using recombinant human platelet derived growth factor-BB (rh-pdGF-BB) and allogenic bone. *J Periodontology* 2003; 74:1282-1292.
18. Fiorellini JP, Nevins ML. Localized ridge augmentation/preservation. A systematic review. *Ann Periodontol* 2003; 8:321-327.
19. Bianchi J, Fiorellini JP, Howell TH, Sekler J, Curtin H, Nevins ML, Friedland B. Measuring the efficacy of rhBMP-2 to regenerate bone: a radiographic study using a commercially available software program. *Int J Periodontics Restorative Dent.* 2004 Dec; 24(6):579-587.
20. Nevins ML, Camelo M, Rebaudi A, Lynch SE, Nevins M. Three-dimensional micro-computed tomographic evaluation of periodontal regeneration: a human report of intrabony defects treated with Bio-Oss collagen. *Int J Periodontics Restorative Dent.* 2005 Aug; 25(4):365-373..
21. Nevins M, Giannobile WV, McGuire MK, Kao RT, Mellonig JT, Hinrichs JE, McAllister BS, Murphy KS, McClain PK, Nevins ML, Paquette DW, Han TJ, Reddy MS, Lavin PT, Lynch SE. Platelet-derived growth factor stimulates bone fill and rate of attachment level gain: results of a large multicenter randomized controlled trial. *J Periodontology* 2005; 76:2205-2215.
22. Vercellotti T, Nevins ML, Kim DM, Nevins M, Wada K, Schenk RK, Fiorellini JP. Osseous response following resective therapy with piezosurgery. *Int J Periodontics Restorative Dent.* 2005 Dec; 25(6):543-549.
23. Lynch SE, Wisner-Lynch L, Nevins M, Nevins ML. A new era in periodontal and periimplant regeneration: use of growth-factor enhanced matrices incorporating rhPDGF. *Compend Contin Educ Dent* 2006; 27:672-678.
24. Nevins M, Nevins ML, Camelo M, Boyesen JL, Kim DM. Human histologic evidence of a connective tissue attachment to a dental implant. *Int J Periodontics Restorative Dent.* 2008 Dec; 28(2):111-121.
25. Nevins ML, Camelo M, Schupbach P, Kim DM, Camelo JMB, Nevins M. Human histologic evaluation of mineralized collagen bone substitute and recombinant platelet-derived growth factor-BB to create bone for implant placement in extraction socket defects at 4 and 6 months: A case series. Accepted for publication *Int J Periodontics Restorative Dent.* 2009.
26. Nevins ML, Camelo M, Schupbach P, Kim DM, Camelo JMB, Nevins M. A minimally invasive alveolar ridge augmentation procedure (tunneling technique) utilizing rhPDGF-BB in combination with three matrices: a case series. Accepted for publication *Int J Periodontics Restorative Dent.* 2009.
27. Kim DM, Nevins ML, Camelo M, Camelo JMB, Schupbach P, Hanratty JJ, Nevins M. The efficacy of demineralized bone matrix and cancellous bone chips for maxillary sinus floor augmentation. Accepted for publication *Int J Periodontics Restorative Dent.* 2009.
28. Nevins M, Nevins ML, N.Guzin Uzel, Kim DM. Treatment of advanced periodontal defects by active tissue engineering therapies. *JOPI* (Accepted for 2009 publication in French).

Review and Educationally Relevant Publications:

1. Fiorellini JP, Nevins ML. Repair and regeneration of oral tissues: the molecular approach. *Postgraduate Dentistry* 1996; 3:2.
2. Nevins M, Nevins ML. Genetic susceptibility to periodontal disease. *Dentistry Today* 1998; 17;2:94-99.
3. Nevins ML. Periodontal, prosthetic, and implant treatment planning. *J JIADS* 1998; 5;2:39-43.
4. Nevins M, Nevins ML, Camelo M. Bone augmentation of localized deformed edentulous ridges. *Implantologie* 1999; 4:381-396.

5. Fiorellini JP, Nevins ML. Dental implant considerations in the diabetic patient. *Periodontology* 2000; 23:73-77.
6. Nevins M, Nevins ML, Camelo M, Mellonig JT. Periodontal Regeneration: Human histologic results. *Dental Clinics North America* 2001.
7. Nevins ML. Aesthetic and regenerative oral plastic surgery: clinical applications in tissue engineering. *Dent Today* 2006; 25:142-144.

Books and Monographs:

1. Nevins M, Nevins ML, Oringer RJ. A long-term maintenance program to protect the results. In *Periodontal and Implant Treatment: Long-term evidence of success*. Edited by Nevins M, Mellonig J. Quintessence Publishing Co., Chicago, 1998.
2. Nevins ML, Mellonig JT. Site Development for Implant Placement: Regenerative and Esthetic Techniques in Oral Plastic Surgery In *Tissue Engineering, 2nd Edition. Applications in Oral and Maxillofacial Surgery and Periodontics*. Edited by Lynch SE, Marx RE, Nevins M, Wisner-Lynch LA. Quintessence Publishing Co., Chicago, 2008.

Abstracts:

1. Fiorellini JP, Nevins ML, Howell TH, Nishimura I, Karimbux NY. Short-term healing of extraction sockets in diabetic rats: a pilot study. *J Dental Res* 1996; 75:91.
2. Oringer RJ, Fiorellini JP, Nevins ML, Reasner DS, Davis G, Howell TH. Monitoring disease progression in an untreated periodontitis population. *J Dent Res* 1997; 76:3016.

PRESENTATIONS:

- | | |
|------|--|
| 1995 | Second Northeast Postdoctoral Symposium in Implant Dentistry Clinical Case Presentation, "A multi-disciplinary implant case." Harvard School of Dental Medicine, Boston, Massachusetts. |
| 1995 | Grand Rounds - Maxillofacial Implant Seminar Clinical Case Presentation, "Implant diagnosis and treatment." Harvard School of Dental Medicine, Boston, Massachusetts. |
| 1996 | Yankee Dental Congress 21. "Periodontal Diagnostic Factors." Boston, Massachusetts. |
| 1996 | Clinical Case Presentation Newburyport Study Club, Georgetown, Massachusetts. |
| 1996 | Clinical Case Presentation Manchester Implant Study Group, Manchester, New Hampshire. |
| 1996 | 74th Annual I.A.D.R. Meeting. "Short-term healing of extraction sockets in diabetic rats: a pilot study." San Francisco, California. |
| 1996 | 11th Annual Meeting Academy of Osseointegration. "The effect of diabetes on osseointegration of endosseous implants: a pilot study." (Poster Presentation) New York, New York. |
| 1996 | Grand Rounds - Maxillofacial Implant Seminar Clinical Case Presentation, "Guided bone regeneration." Harvard School of Dental Medicine, Boston, Massachusetts. |
| 1996 | Third Northeast Postdoctoral Symposium in Implant Dentistry Clinical Case Presentation, "Periodontal, implant, and prosthetic treatment for advanced periodontal disease." University of Pennsylvania, Philadelphia, Pennsylvania. |
| 1997 | Academy of Osseointegration Foundation Research Presentation. "Wound healing around endosseous implants in diabetic and normal rats." 12th Annual Meeting, Academy of Osseointegration. San Francisco, California. |

- 1997 Institute for Advanced Dental Studies Japanese Course.
"Periodontal, implant, and prosthetic treatment planning."
Boston, Massachusetts.
- 1997 Institute for Advanced Dental Studies German Course. "Periodontal
regeneration and biomaterials: a rationale for treatment."
Swampscott, Massachusetts.
- 1997 Braunschweig Periodontal Association. "An introduction to clinical
periodontology: 2-day course."
Braunschweig, Germany.
- 1998 Yankee Dental Congress 23. "Clinical decision making in Periodontics
and implant dentistry."
Boston, Massachusetts.
- 1998 Melrose Periodontal Study Club. "Genetic Susceptibility to periodontal
disease."
Saugus, Massachusetts.
- 1998 2nd Year Dental Hygiene Course, Forsyth Dental Center, "Periodontal
and Prosthetic Treatment: An Interdisciplinary Approach."
Boston, Massachusetts.
- 1998 Institute for Advanced Dental Studies Italian Course.
"Periodontal regeneration and biomaterials: a rationale for treatment."
Boston, Massachusetts.
- 1998 3rd Year Dental Implant Dentistry Segment, Harvard School of Dental
Medicine. "Guided Bone Regeneration."
Boston, Massachusetts.
- 1998 Institute for Advanced Dental Studies German Course.
"Periodontal regeneration: a new paradigm for treatment planning."
Swampscott, Massachusetts.
- 1998 North Shore Periodontal/Prosthetic Study Club
"Interceptive Periodontics: The PST Test for Genetic Susceptibility."
Swampscott, Massachusetts.
- 1998 Institute for Advanced Dental Studies German Course.
"Interceptive Periodontics: The PST Test for Genetic Susceptibility."
"Periodontal regeneration and biomaterials: a rationale for
treatment."
Swampscott, Massachusetts.
- 1998 Institute for Advanced Dental Studies German Course.
"Periodontal regeneration and biomaterials: a rationale for treatment."
Boston, Massachusetts.
- 1998 Cape Cod District Dental Society. "Interceptive Periodontics: The PST
Test for Genetic Susceptibility."
Hyannis, Massachusetts.
- 1998 Middlesex District Dental Society.
"Interceptive Periodontics: The PST Test for Genetic Susceptibility."
Burlington, Massachusetts.
- 1998 Berkshire District Dental Society. "Interceptive Periodontics: The PST
Test for Genetic Susceptibility."
Pittsfield, Massachusetts.
- 1998 Nashua NH District Dental Society.
"Interceptive Periodontics: The PST Test for Genetic Susceptibility."
Nashua, New Hampshire.
- 1998 New Bedford Dental Society. "Interceptive Periodontics: The PST Test
for Genetic Susceptibility."
New Bedford, Massachusetts.
- 1998 Southeast NH Dental Society. "Interceptive Periodontics: The PST Test
for Genetic Susceptibility."
Dover, New Hampshire.
- 1998 East Middlesex District Dental Society. "Interceptive Periodontics: The
PST Test for Genetic Susceptibility."
Burlington, Massachusetts

- 1998 3rd Year Dental, Restorative Dentistry Segment, Harvard School of Dental Medicine. "Periodontal Surgery I - Periodontal/Prosthetic Treatment."
Boston, Massachusetts.
- 1998 The Japan Institute for Advanced Dental Studies 10th Anniversary Symposium, November 21-23, 1998.
Kyoto, Japan.
"Furcation Therapy - Resective or Regenerative."
"Factors for longevity of successful Periodontal and Restorative Therapy."
"Periodontal Regeneration and Frontiers of New Research for Bone Regeneration."
- 1999 Institute for Advanced Dental Studies Italian Course.
"Periodontal regeneration: an evidence-based treatment rationale."
Boston, Massachusetts.
- 1999 Greater Portland Dental Society. "Interceptive Periodontics: The PST Test for Genetic Susceptibility."
Portland, Maine.
- 1999 Metropolitan District Dental Society. "Interceptive Periodontics: The PST Test for Genetic Susceptibility."
Waltham, Massachusetts.
- 1999 The Thomas P. Hinman Dental Meeting, March 18-21, 1999.
Atlanta, Georgia.
"Treatment Planning for the Periodontally-Compromised Dentitions."
"Periodontics: Road to Simplified and Predictable Restorative and Implant Dentistry."
- 1999 The Wilmot Memorial Lecture Series. "Interceptive Periodontics: Finding the Genetic Marker for Severe Periodontal Disease."
"Guided Bone Regeneration."
West Lebanon, New Hampshire.
- 1999 Harvard School Dental Medicine Italian Course. "Periodontal regeneration and guided bone regeneration: Materials selection and clinical decision making."
Boston, Massachusetts.
- 1999 Japanese Institute for Advanced Dental Studies.
Hands-on surgical anatomy cadaver course:
Sinus lifts and bone grafting.
Cambridge, Massachusetts.
- 1999 Harvard School of Dental Medicine Japanese Course.
"Periodontal regeneration and guided bone regeneration: Materials selection and clinical decision-making."
Boston, Massachusetts.
- 1999 Periodontal Therapy - Department of Periodontology, Harvard School of Dental Medicine, Boston, Massachusetts.
"Guided tissue regeneration: biomaterials and evidence-based decision making."
"Guided bone regeneration."
- 1999 Harvard School of Dental Medicine Swiss Course.
"Periodontal regeneration and guided bone regeneration: Materials selection and clinical decision-making."
Boston, Massachusetts.
- 1999 Harvard School of Dental Medicine Japanese Course.
"Periodontal regeneration and guided bone regeneration: Materials selection and clinical decision-making."
Boston, Massachusetts.
- 1999 Harvard School of Dental Medicine Korean Course.
"Periodontal regeneration and guided bone regeneration: Materials selection and clinical decision-making."
Boston, Massachusetts.

1999 Harvard School of Dental Medicine Chilean Course.
"Periodontal regeneration and guided bone regeneration:
Materials selection and clinical decision-making.
Boston, Massachusetts.

1999 Harvard School of Dental Medicine Italian Course.
"Periodontal regeneration and guided bone regeneration:
Materials selection and clinical decision-making.
Boston, Massachusetts.

2000 Two day course Sicor Institute with live surgical demonstration.
A. Day one: Guided tissue regeneration.
B. Day two: Guided bone regeneration.
Torino, Italy.

2000 Harvard School of Dental Medicine Italian Course.
"Periodontal regeneration and guided bone regeneration:
Materials selection and clinical decision-making.
Boston, Massachusetts.

2000 Harvard School of Dental Medicine Taiwanese Course.
"Periodontal regeneration and guided bone regeneration:
Materials selection and clinical decision-making.
Boston, Massachusetts.

2000 Harvard School of Dental Medicine Argentine Course.
"Periodontal regeneration and guided bone regeneration:
Materials selection and clinical decision-making.
Boston, Massachusetts.

2000 Restorative Dental Group Implant Study Club. "Implant Therapy:
Predictable treatment with esthetic results."
Cambridge, Massachusetts.

2000 Gruppe A.in.Z. Congress 13-14 May. "Decision-making for regenerative
Periodontics: Human histologic Reports.
Berlin, Germany.

2000 3rd Year Dental, Implant Dentistry Segment, Harvard School of Dental
Medicine. "Guided Bone Regeneration."
Boston, Massachusetts.

2000 Periodontal Therapy - Department of Periodontology, Harvard School of
Dental Medicine, Boston, Massachusetts.
"Guided tissue regeneration: biomaterials and evidence-based decision-
making."
"Guided bone regeneration."

2000 The Seventh International Symposium on Periodontics and Restorative
dentistry. "Diabetes and Oral Implants."
Boston, Massachusetts.

2000 "Implant site preparation: predictable treatment with esthetic results."
Department of Graduate Prosthetic Dentistry, Tufts University School of
Dental Medicine, Boston, Massachusetts.

2000 Harvard School of Dental Medicine Korean Course.
"Guided bone regeneration: implant site preparation for predictable
treatment with esthetic results."
Boston, Massachusetts.

2000 3rd Year Dental, Restorative Dentistry Segment, Harvard School of
Dental Medicine. "Pre-prosthetic periodontal surgery - crown
lengthening."
Boston, Massachusetts.

2000 Metropolitan West District Dental Society. "Periodontal and Implant
Therapy: Predictable treatment with Esthetic results."
Natick, Massachusetts.

2000 86th Annual Meeting American Academy of Periodontology. " "
Decision-Making for Regenerative Periodontics: Human Histologic
Reports."
Honolulu, Hawaii.

- 2000 Dental Hygiene School Zurich Supporter Club Annual Meeting.
A. "Current techniques of periodontal regeneration: clinical and histologic human results."
B. "Implant site preparation: an extension of periodontal treatment." Zurich, Switzerland.
- 2000 Harvard School of Dental Medicine Straumann Japanese Course. "Guided bone regeneration: implant site preparation for predictable treatment with esthetic results."
Boston, Massachusetts.
- 2000 German Society of Periodontology. "State of the art concept for guided bone regeneration in periodontology" - workshop with lecture video and hands-on training for guided bone and periodontal regeneration.
Frankfurt, Germany.
- 2000 FM Dental Biomaterials Conference. "State of the art concept for guided bone regeneration in periodontology" - workshop with lecture, video and hands-on training for guided bone and periodontal regeneration.
Krakow, Poland.
- 2000 Geistlich Continuing Education Course. "State of the art concept for guided bone regeneration in periodontology" - workshop with lecture, video and hands-on training for guided bone and periodontal regeneration.
Brussels, Belgium.
- 2001 Harvard School of Dental Medicine Implant Continuing Education Course. "Guided bone regeneration: implant site preparation for predictable treatment with esthetic results."
Boston, Massachusetts.
- 2001 Metropolitan North District Dental Society. "Periodontal and Implant Therapy: Predictable treatment with Esthetic results."
Saugus, Massachusetts.
- 2001 Bone Symposium at Harvard: Clinical Management of Localized Bone Defects. "Periodontal regeneration: clinical and histological observations with xenografts."
Boston, Massachusetts.
- 2001 Harvard School of Dental Medicine Implant Continuing Education Course. "Growth factor enhancement for bone grafting" - hands-on workshop.
Boston, Massachusetts.
- 2001 Periodontal Therapy - Department of Periodontology, Harvard School of Dental Medicine, Boston, Massachusetts. "Bone grafts and alloplasts."
"Principles of guided bone regeneration."
- 2001 87th Annual Meeting American Academy of Periodontology. "Alternative Grafting Materials for Regenerative Periodontics."
Philadelphia, Pennsylvania.
- 2001 Harvard School of Dental Medicine Taiwanese Continuing Education Course. "Guided bone regeneration: implant site preparation for predictable treatment with esthetic results."
Boston, Massachusetts.
- 2001 Japan Institute for Advanced Dental Studies. "Live Periodontal Surgery Course."
Osaka, Japan.
- 2001 Japanese Institute for Advanced Dental Studies Symposium. Tokyo, Japan
"-Guided Bone Regeneration"
"-Implant Site Development: Predictable Treatment with Esthetic Results"
"-Esthetic Periodontal Surgery"

“-Periodontal Regeneration: Human Clinical and histological observations.”

2001 Japanese Institute for Advanced Dental Studies. “Live Periodontal Surgery Course.”
Tokyo, Japan.

2002 Yankee Dental Congress 27. “Guided Bone Regeneration in Preparation for Osseointegrated Implants.”
Boston, Massachusetts.

2002 Yankee Dental Congress 27. “Save the Tooth or Place a Dental Implant.”
Boston, Massachusetts.

2002 Yankee Dental Congress 27. “Implant Treatment Planning: Predictable Treatment with Esthetic Results.”
Boston, Massachusetts.

2002 88th Annual Meeting American Academy of Periodontology. “Alternative Grafting Materials for Regenerative Periodontics.”
New Orleans, Louisiana.

2002 Harvard School of Dental Medicine Korean Continuing Education Course. “Guided bone regeneration: implant site preparation for predictable treatment with esthetic results.”
Boston, Massachusetts.

2002 Harvard School of Dental Medicine Japanese Continuing Education Course. “Alternative Grafting Materials for Regenerative Periodontics.”
Boston, Massachusetts.

2002 Harvard School of Dental Medicine Italian Continuing Education Course. “Guided bone regeneration: implant site preparation for predictable treatment with esthetic results.”
Boston, Massachusetts.

2003 Yankee Dental Congress 28. “Facts and Fiction in Periodontal Regeneration.”
Boston, Massachusetts.

2003 Granite State Study Club One-Day Course. Enhancing esthetics with regenerative treatments for implant dentistry and Periodontics.
Manchester, New Hampshire.

2003 Harvard School of Dental Medicine Italian Continuing Education Course. “Guided bone regeneration: implant site preparation for predictable treatment with esthetic results.”
Boston, Massachusetts.

2003 Periodontal Therapy - Department of Periodontology, Harvard School of Dental Medicine, Boston, Massachusetts. “Principles of guided bone regeneration.”

2003 Fundamentals of Osseointegration and Bone Regeneration Oral Biology 606, Harvard School of Dental Medicine. “Periodontal approaches to the bone deficient site,” Boston, Massachusetts.

2003 Advanced surgical treatment course, Harvard School of Dental Medicine. “Implant site development.”
Boston, Massachusetts.

2003 89th Annual Meeting American Academy of Periodontology. “Alternative Grafting Materials for Regenerative Periodontics.”
San Francisco, California

2003 Harvard School of Dental Medicine Japanese Continuing Education Course. “Guided bone regeneration: implant site preparation for predictable treatment with esthetic results.”
Boston, Massachusetts.

2003 Harvard School of Dental Medicine Korean Continuing Education Course. “Guided bone regeneration: implant site preparation for predictable treatment with esthetic results.”
Boston, Massachusetts.

2003 Harvard School of Dental Medicine German

- Continuing Education Course. "Guided bone regeneration: implant site preparation for predictable treatment with esthetic results."
Boston, Massachusetts.
- 2004 Harvard School of Dental Medicine German Continuing Education Course. "Guided bone regeneration: implant site preparation for predictable treatment with esthetic results."
Boston, Massachusetts.
- 2004 Harvard School of Dental Medicine Japanese Continuing Education Course. "Guided bone regeneration: implant site preparation for predictable treatment with esthetic results."
Boston, Massachusetts.
- 2004 Harvard School of Dental Medicine Taiwanese Continuing Education Course. "Guided bone regeneration: implant site preparation for predictable treatment with esthetic results."
Boston, Massachusetts.
- 2004 Harvard School of Dental Medicine Fundamentals of Implant Dentistry. "Ridge Augmentation Techniques."
Boston, Massachusetts.
- 2004 Harvard School of Dental Medicine Advanced Regenerative Techniques Continuing Education Course. "Regenerative and Esthetic Techniques for Oral Plastic and Implant Surgery."
Boston, Massachusetts.
- 2004 Harvard School of Dental Medicine Italian Continuing Education Course. "Tissue Engineering for periodontal regeneration."
Boston, Massachusetts.
- 2004 American College of Prosthodontics Annual Meeting. "Implant site development: single tooth replacement in the esthetic Zone."
Ottawa, Canada.
- 2004 90th Annual Meeting American Academy of Periodontology. "Clinical regeneration: the state of the art tissue engineering for periodontal regeneration: recombinant human platelet-derived growth factor for the treatment of intrabony defects and furcations."
Orlando, Florida.
- 2004 Harvard School of Dental Medicine Korean Continuing Education Course. "Guided bone regeneration: implant site preparation for predictable treatment with esthetic results."
Boston, Massachusetts.
- 2005 TCOI Implant Conference – 1 day course: "Esthetic Implant Site Development: 1. Single tooth replacement. 2. Biomaterials and surgical techniques."
"New advances: periodontal tissue engineering: 1. Growth factors/rh-PDGF for Periodontics and dental implants."
Taipei, Taiwan.
- 2005 TCOI/Kaohsiung Medical Lecture – 1 day course:
"Clinical techniques for periodontal regeneration."
"New techniques for root coverage and esthetic regeneration."
"Esthetic Regeneration for Implants."
- 2005 Yankee Dental Congress 30.
"Clinical applications in tissue engineering."
"Decision-making for the failing endodontic case: from tooth to implant."
Boston, Massachusetts.
- 2005 Harvard School of Dental Medicine Fundamentals of Implant Dentistry. "Hard and soft tissue site development for dental implants."
Boston, Massachusetts.
- 2005 Harvard School of Dental Medicine Taiwanese Continuing Education Course. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Boston, Massachusetts.

- 2005 Harvard School of Dental Medicine Italian Continuing Education Course. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Boston, Massachusetts.
- 2005 Periodontal Therapy - Department of Periodontology, Harvard School of Dental Medicine, Boston, Massachusetts. "Esthetic implant site development: Advanced hard/soft tissue grafting."
- 2005 University of Michigan: 6th Biennial Ramfjord Symposium. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Ann Arbor, Michigan.
- 2005 Harvard School of Dental Medicine Japanese Continuing Education Course. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Boston, Massachusetts.
- 2005 St. Barnabas Hospital Annual Implant Symposium. "Esthetic and regenerative implant site development."
Brooklyn, New York.
- 2005 Long Island Periodontal Society. "Esthetic and regenerative techniques for periodontal tissue engineering."
New York, New York.
- 2005 91st Annual Meeting American Academy of Periodontology.
Denver, Colorado.
"Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
"Interactive general session: Treatment planning."
- 2005 American College of Prosthodontics Massachusetts Section. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Natick, Massachusetts.
- 2005 Ohio Periodontal Society Annual Meeting. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Columbus, Ohio.
- 2005 Harvard School of Dental Medicine Taiwanese Continuing Education Course. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Boston, Massachusetts.
- 2005 Suisse Society of Periodontology 35th Annual Meeting. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Zurich, Switzerland.
- 2005 Harvard School of Dental Medicine Korean Continuing Education Course. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Boston, Massachusetts.
- 2005 Houston Periodontal Society. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering"
Houston, Texas.
- 2005 Harvard School of Dental Medicine Taiwanese Continuing Education Course. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Boston, Massachusetts.
- 2005 Granite State Dental Society "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Manchester, New Hampshire.

- 2005 University of Maryland Periodontal Department. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Baltimore, Maryland.
- 2006 Harvard School of Dental Medicine Taiwanese Continuing Education Course. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Boston, Massachusetts.
- 2006 Yankee Dental Congress 31.
"Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Boston, Massachusetts.
- 2006 Academy of Osseointegration Annual Meeting.
"Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Seattle, Washington.
- 2006 Periodontal Therapy - Department of Periodontology, Harvard School of Dental Medicine, Boston, Massachusetts. "Esthetic implant site development: Advanced hard/soft tissue grafting."
- 2006 Harvard School of Dental Medicine Fundamentals of Implant Dentistry.
"Hard and soft tissue site development for dental implants."
Boston, Massachusetts.
- 2006 Dental Implant Institute Las Vegas Annual Symposium.
"Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Las Vegas, Nevada.
- 2006 Dental Implant Institute Las Vegas/Harvard Course - One-Day Lecture Japanese Course. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Las Vegas, Nevada.
- 2006 Straumann Harvard Lecture Series. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Andover, Massachusetts.
- 2006 Harvard/3I Continuing Education Course. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Boston, Massachusetts.
- 2006 Harvard School of Dental Medicine Taiwanese Continuing Education Course. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Boston, Massachusetts.
- 2006 Harvard School of Dental Medicine Advanced Surgical Treatment Course. "Deficient implant sites: Surgical techniques for hard-and soft tissue augmentation."
Boston, Massachusetts.
- 2006 Ivy League Bone Symposium. "Localized ridge implant related augmentation: Clinical applications with rh PDGF-BB."
Philadelphia, Pennsylvania.
- 2006 Harvard School of Dental Medicine Argentinean Continuing Education Course. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Boston, Massachusetts.
- 2006 Harvard School of Dental Medicine Korean Continuing Education Course. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Boston, Massachusetts.

2006 New Jersey Periodontal Society Meeting. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
New Jersey.

2006 92nd Annual Meeting American Academy of Periodontology.
2007 San Diego, CA.
Interactive Session "Xenografts for periodontal regeneration."

2006 Perio Institute. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Boca Raton, Florida.

2006 Granite State Periodontology. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Nashua, New Hampshire.

2006 Dr. Megas Perio Study Club. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Springfield, Massachusetts.

2006 Piezurgery Hands-On Course.
Boston, Massachusetts.

2007 Southern Academy of Periodontology. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Charlotte, North Carolina.

2007 Osseointegration Study Club of Southern California. "Esthetic implant site development."
"Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Los Angeles, California.

2007 University of North Carolina Harrelson Master Clinician Lecture.
"Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering".
Chapel Hill, North Carolina.

2007 Perio Study Club. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
Philadelphia, Pennsylvania.

2007 Perio Study Club. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering."
New Jersey.

2007 The Ninth International Symposium on Periodontics and Restorative dentistry. "Regenerative and Esthetic Techniques for oral plastic and implant surgery: clinical applications in with rhPDGF-BB."
Boston, Massachusetts.

2007 Simplant Academy World Conference. "Guided surgery – advancing implant dentistry with 3-dimensional planning, SurgiGuides and SAFE System Technology."
Washington, DC.

2007 3I Corporate Forum. "Guided Implant Surgery."
Washington, DC.

2007 93rd Annual Meeting American Academy of Periodontology.
"Regenerative and Esthetic Techniques for oral plastic and implant surgery: clinical applications in with rhPDGF-BB."
Washington, D.C

2007 Boston Chinese Dental Society. "Esthetic Dental Treatment Planning for Complex Cases."
Boston, Massachusetts.

2007 University of Pennsylvania School of Dental Medicine Periodontal Department. "Dental Implant Site Development."
Philadelphia, PA.

- 2007 3I Italy Symposia. "Regenerative and Esthetic Techniques for oral plastic and implant surgery: clinical applications in with rhPDGF-BB." Torino, Italy.
Pisa, Italy.
- 2007 Harvard Odontological Society. "Regenerative and Esthetic Techniques for oral plastic and implant surgery: clinical applications in with rhPDGF-BB." Boston, Massachusetts.
- 2008 Quintessence International Bone Symposium. "Regenerative and Esthetic Techniques for oral plastic and implant surgery: clinical applications in with rhPDGF-BB." Las Vegas, Nevada.
- 2008 Harvard School of Dental Medicine Korean Continuing Education Course. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering." Boston, Massachusetts.
- 2008 Harvard School of Dental Medicine Japanese Continuing Education Course. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering." Boston, Massachusetts.
- 2008 Harvard School of Dental Medicine Taiwanese Continuing Education Course. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering." Boston, Massachusetts.
- 2008 Society for Preservation of Oral Health. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering." Napa, California.
- 2008 Harvard School of Dental Medicine Fundamentals of Implant Dentistry. "Hard and soft tissue site development for dental implants." Boston, Massachusetts.
- 2008 Torino Implant study Group. "CT Guided implant surgery." Torino, Italy.
- 2008 National Congress SICOI. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering with rhPDGF-BB." Milan, Italy.
- 2008 Biomax 3I Symposia. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering with rhPDGF-BB." Florence, Italy.
- 2008 University Catholic Del Sarco Cuore Roma Congresso International. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering with rhPDGF-BB." Naples, Italy.
- 2008 Vatican University School of Dentistry Symposium. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in with rhPDGF-BB." Rome, Italy.
- 2008 Columbine Periodontal Study Group. "Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering." Aurora, Colorado.
- 2008 94th Annual Meeting American Academy of Periodontology. "Regenerative and esthetic Techniques for oral plastic and implant surgery: clinical applications in with rhPDGF-BB." Seattle, Washington.
- 2008 Periodontal Therapy-Department of Periodontology, Harvard School of Dental Medicine. "Principles of periodontal regeneration."

- “Principles of guided bone regeneration.”
 “Regeneration and esthetics with rhPDGF-BB.”
 “Simplant for dental implant treatment planning.”
 Boston, Massachusetts.
- 2008 JIADS 20th Anniversary Symposium.
 “Treatment planning save the tooth or place an implant?”
 “Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in with rhPDGF-BB.”
 “Esthetic and regenerative oral plastic surgery.”
 “CT guidance implant system: Navigator.”
 Osaka, Japan.
- 2009 Midwest Periodontal Society 52nd Annual Meeting. “Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in with rhPDGF-BB.”
 Chicago, Illinois.
- 2009 Harvard School of Dental Medicine Taiwanese Continuing Education Course. “Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering.”
 Boston, Massachusetts.
- 2009 Campo Basso one day course: “Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in tissue engineering.”
 Campo Basso, Italy.
- 2009 Osteology Roma 2009 National Meeting. “Regenerative and esthetic techniques for oral plastic and implant surgery: clinical applications in with rhPDGF-BB.”
 Rome, Italy.

Narrative Report of Research, Teaching, and Clinical Contributions:

The practice of Periodontology and Dental Implants continues to evolve as emerging techniques have improved the ability to regenerate oral tissues. Research to evaluate the ability of novel regenerative products to regenerate the periodontium is critical to determining the abilities and limitations for their use. Data from our human clinical studies on periodontal regeneration reveal that critical components of periodontal wound healing are the ability to provide an osteoconductive or osteoinductive bone replacement graft or device, which can act to provide a stable scaffolding for the regenerative process.

The amount of regeneration is directly dependent on the osteopromotive properties of the Graft material. Studies utilizing recombinantly engineered proteins for periodontal regeneration and bone reconstruction enhance our abilities to rebuild bone, which has been lost due to periodontal disease. A major effort of our research team is to elucidate the mechanisms of wound healing with the surgical application of recombinant growth factors with various biomaterial matrices.

In 2006, I was appointed Assistant Clinical Professor of Oral Medicine, Infection and Immunity. My teaching responsibilities include giving a lecture series to the graduate periodontal fellows on the integration of regenerative therapies for clinical periodontology and implant dentistry. Lecture topics include the clinical application of technologies such as recombinant growth factors and CT Scan guided dental implant surgery. The most current techniques for esthetic soft tissue periodontal surgery are presented and these techniques are taught hands-on in the teaching clinic with direct clinical supervision.

Additional teaching responsibilities include participating in the undergraduate and graduate dental implant didactic courses and giving seminars for dental implant continuing education.

Nevins M, Karimbux NY, Weber HP, Giannobile WV, Fiorellini JP. Wound healing around endosseous implants in experimental diabetes. *Int J Oral Maxillofac Implants* 1998;13:10-19.

Diabetic patients are at increased risk for tooth loss due to periodontal disease. As Diabetic patients become edentulous, dental implants have been considered as an alternative to traditional prostheses. Although studies indicate that dental implants inserted in healthy patients are successful, their placement in diabetics remains controversial. Presently there is insufficient information available to determine how diabetes affects this process of osseointegration. The purpose of this study utilizing histomorphometric parameters compares the course of osseous healing around endosseous implants in normal and uncontrolled diabetic rats. The study indicated that an uncontrolled diabetic state resulted in a reduction in the percentage of bone to implant contact as compared to nondiabetic control animals. Specifically, histomorphometric evaluation indicated that the quantity of new bone formation around the implants was similar for diabetic and control groups. However, there was significantly more bone to implant contact in the control compared to diabetic rats. The research performed in this investigation was the subject of my Thesis in partial fulfillment of my M.M.Sc. in Oral Biology. This research was awarded the Academy of Osseointegration Research Award.

Nevins M, Giannobile WV, McGuire MK, Kao RT, Mellonig JT, Hinrichs JE, McAllister BS, Murphy KS, McClain PK, Nevins ML, Paquette DW, Han TJ, Reddy MS, Lavin PT, Lynch SE. Platelet-derived growth factor stimulates bone fill and rate of attachment level gain: results of a large multicenter randomized controlled trial. *J Periodontology* 2005; 76:2205-2215.

This study is the largest randomized controlled clinical trial of regenerative periodontal therapy that has been performed. There were 180 patients at 14 clinical centers treated with a regenerative periodontal surgical procedure randomized to one of three treatment groups including a beta tricalcium scaffold alone or combined with one of two doses of recombinant human platelet-derived growth factor-BB (rhPDGF-BB). The study demonstrated the ability of rhPDGF-BB to enhance clinical attachment gain and radiographic bone fill of intrabony defects. The results of this pivotal trial led to the FDA approval of GEM-21S, which is a commercially available product containing rhPDGF-BB. The authors of the study were honored by the American Academy of Periodontology with the Earl B. Robinson Regeneration Award 2006.

Nevins M, Nevins ML, Camelo M, Boyesen JL, Kim DM. Human histologic evidence of a connective tissue attachment to a dental implant. *Int J Periodontics Restorative Dent*. 2008 Dec; 28(2):111-121.

This human proof of principle study was designed to investigate the possibility of achieving a physical connective tissue attachment to Laser-Lok microchannel collar of a dental implant. Previously oral dental implant soft tissue interface was demonstrated to be limited to parallel connective tissue fiber adaption and long junctional epithelium. The histologic samples in this study demonstrated supracrestal fiber insertion of connective tissue to the microchannels of the dental implant.

Nevins ML, Camelo M, Schupbach P, Kim DM, Camelo JMB, Nevins M. Human histologic evaluation of mineralized collagen bone substitute and recombinant platelet-derived growth factor-BB to create bone for implant placement in extraction socket defects at 4 and 6 months: A case series. Accepted for publication *Int J Periodontics Restorative Dent*. 2009.

This study evaluated the ability of a growth factor enhanced matrix of mineralized collagen bone substitute and recombinant human platelet-derived growth factor-BB (rhPDGF-BB) to induce new bone formation adequate for implant placement. The design of the study was to treat significant buccal wall defects of extraction sockets with re-entry at 4 months and 6 months for dental implant placement. The bone from the site preparation for the dental implant was harvested for micro-CT and histologic evaluation. The results of the study evidence the ability of rhPDGF-BB to induce extensive new bone formation and remodeling at the early 4-month timepoint. The histologic assessment allows observation of multinucleated giant cells on the surface of xenogenic bone graft particles, which is a direct result of the upregulation in bone metabolism due to the growth factor.