

Name: Roberto Pacifici, M.D.

1. Office Address: Division of Endocrinology, Metabolism and Lipids
Emory University School of Medicine
101 Woodruff Circle, WMRB 1307
Atlanta, GA 30322
Telephone: 404-712-8420
Fax: 404-727-1300

2. E-mail Address: roberto.pacifici@emory.edu

3. Birth Date and Place: 6/28/56, Perugia, Italy

4. Citizenship: U.S.

5. Current Titles and Affiliations:

a. Academic appointments:

Garland Herndon Professor of Medicine
Emory University School of Medicine
Division of Endocrinology, Metabolism and Lipids
12/23/2002 - Present

b. Other administrative appointments:

Director, Division of Endocrinology, Metabolism and Lipids
Emory University School of Medicine
12/23/2002 - Present

6. Previous Academic and Professional Appointments:

Sydney M. and Stella H. Schoenberg Professor of
Medicine,
7/1/00 – 12/22/02
Washington University School of Medicine

Professor of Radiology, 7/1/00 – 12/22/02
Mallinckrodt Institute of Radiology

Professor of Medicine, 7/1/00 - 6/30/01
Washington University School of Medicine

Associate Professor of Medicine, 7/1/93 - 6/30/00
Washington University School of Medicine

Assistant Professor of Radiology, 1/1/95 - 6/30/00
Mallinckrodt Institute of Radiology

Assistant Professor of Medicine, 7/1/88 - 6/30/93
Washington University School of Medicine

8. Previous Administrative and/or Clinical Appointments:
- Interim Director,
Division of Bone and Mineral Diseases, 12/7/99 – 1/31/01
9. Licensures/Boards:
- Georgia, Permanent Medical Licensure, 2003
Missouri, Permanent Medical Licensure, 1986
Illinois, Permanent Medical Licensure, 1986
- Board of Internal Medicine, Eligible 1990
Italian Board of Internal Medicine, 1986
- ECFMG (VQE): 1981
FLEX: 1986
10. Education:
- M.D. Undergraduate/graduate combined program
Perugia University School of Medicine, Perugia, Italy
7/75 -7/81 Summa Cum Laude
11. Postgraduate Training:
- School of Specialization in Internal Medicine, Perugia
University School of Medicine, Perugia, Italy
11/81 - 4/84 Summa Cum Laude
- Fellowship in Endocrinology and Metabolism, Div. of Bone
and Mineral Metabolism, The Jewish Hospital of St. Louis
at the Washington University Medical School; 4/84 - 6/88
12. Committee Memberships:
- Woodruff Health Science Research Advisory Council
Strategic Advisory Board for Research Administration
Emory Clinic Physician Advisory Board
Animal Research Advisory Committee
Search Committee, Chair of Ophthalmology
Search Committee, Chair of Orthopedics
Chair, Search Committee, Director of the Diabetes Center
13. Consultantships:
- CD investments
14. Editorships and Editorial Boards:
- Journal of Clinical Investigation
Member of the Board of Consulting Editors (2017-Present)
- Journal of Bone and Mineral Diseases
Member of the Editorial Board (1995- Present)
- Italian Journal of Mineral & Electrolyte Metabolism
Member of the Editorial Board (1998 - Present)

Endocrine
Member of the Editorial Board (2010 - Present)

BoneKey
Member of the Editorial Board (2010 - Present)

Bone,
Member of the Editorial Board (2007- 2017)

Journal of Clinical Endocrinology and Metabolism
Member of the Editorial Board (1996 – 1999)

15. Manuscript Reviewer:

Regular Reviewer for: Science; J. Clin. Invest.; Cell Met.;
Nat. Med.; PNAS; J. Bone and Min. Dis.; Endocrinology;
J.Clin. Endoc. Metab.; Bone; Osteoporosis International,
Calcified Tissue International

16. Honors and Awards:

National Osteoporosis Foundation
Research Award, 1988

American Society of Bone and Mineral Research
Fuller Albright Young Investigator Award, 1995

American Society of Bone and Mineral Research
Most outstanding research on the Pathophysiology
of Osteoporosis Award, 2003

American Society of Bone and Mineral Research
Most outstanding research on the Pathophysiology
of Osteoporosis Award, 2004

Chairman, Abstract Review Committee (Osteoclasts),
Meeting of the American Society for Bone and Mineral
Research, 2004

American Society of Bone and Mineral Research
Best Abstract Award, 2005

Alumni Achievement Award,
University of Perugia School of Medicine, Italy 2008

Outstanding Research Citation Award,
Department of Medicine, Emory University 2009

American Society of Bone and Mineral Research
Louis V. Avioli Founders Award, 2011

Chairman, Abstract Review Committee (cytokines and
Immune factors), Meeting of the American Society for Bone
and Mineral Research, 2012

17. Society Memberships:

Association of American Physicians (2001)
American Society of Clinical Investigation (1997)
American Society for Bone and Mineral Research
Endocrine Society
International Society of Bone Densitometry

18. Positions held in national and international organizations:

NIH Ad hoc reviewer for RFAs, NIAMS Risk program, NIAMS Ancillary Studies, T32, RO3, R24, R61/R33 and S10 applications
1998-Present

NIH-AMS review committee.
Permanent member.2009- 2013

American Society of Bone and Mineral Research.
Member, Abstract Review Committee 1998-Present

American Society of Bone and Mineral Research
Councilor 2011-2014

Ad Hoc reviewer United States-Israel Binational Science Foundation
2008- Present

Ad Hoc reviewer Swiss Science Foundation
2009- Present

Ad Hoc reviewer Israel Science Foundation
20015- Present

Member of the Scientific Advisory Board of the international Microbiota society. 2016- Present

20. Research focus:

Microbiota and bone
Mechanism of action of probiotics in bone
Mechanism of action of estrogen and PTH in bone.
Osteoimmunology. Estrogen and PTH regulation of T cell function. Osteoclast and Osteoblast differentiation. Bone densitometry, Management of osteoporosis

21. Grant Support:

a) Governmental

1. NIH RO1 AR54625, Principal Investigator

T cells and PTH induced bone loss

9/1/12 - 8/31/18
\$ 1,450,250

2. NIH R01 DK108842

Th17 cells and Tregs determine the catabolic and anabolic effects of PTH in bone

4/19/16-3/31/18
\$ 1,170,000

3. NIH RO1 DK112946

Mechanisms of bone anabolic and anticatabolic activities of probiotics

4/1/18-3/31/23

Score 7%, Funding expected 2/18

4. NIH R21 AR072919

Use of a Commercially Available Combination Probiotic, VSL#3, for Bone Health in Postmenopausal Women,
Score 25, Funding expected 10/17

a) Non-governmental

Effect of VSL#3 on Bone Mineral Density in Postmenopausal Women: a Pilot Randomized, Placebo-Controlled Trial.
Investigator initiated study sponsored by CD Investments.

10/1/17-9/30/19
\$ 467,000

b) Grant History

1. NIH R29 AR39706

P.I.: Roberto Pacifici, M.D.

"The role of Interleukin 1 in human osteoporosis"

4/1/90 – 3/31/95

2. NIH R01 AR41412

P.I.: Roberto Pacifici, M.D.

"IL-1 receptor antagonist in ovariectomy induced bone loss"

9/91 – 8/94

3. NIH R01 AR 43505

P.I.: Roberto Pacifici, M.D.

“Menopause and human osteoclastogenesis”
8/1/95 – 5/31/99

4. NIH R01 AR41412
P.I.: Roberto Pacifici, M.D.
“Estrogen regulated M-CSF production and osteoclastogenesis”
9/95 – 3/99

5. NIH RO1 AR 41412,
“EGR-1 phosphorylation and estrogen regulated M-CSF production
4/1/00 - 3/31/06

6. NIH RO1 DK/AR 55746, Principal Investigator:
“Estrogen regulation of monocyte TNF production”
7/1/00 - 6/30/05

7. NIH RO1 AR 49659, Principal investigator
Regulation of “T cell TNF production”
9/1/02 – 8/31/06

8. Arthritis foundation, Principal Investigator
Mechanism of estrogen regulation of TNF production in Monocytes
7/1/99 –12/31/2002

9. Pharmacia WU Program, Principal Investigator
Estrogen deficiency induces bone loss by activating T cells

10. NIH RO1 AG,44105, Principal Investigator
“Ovariectomy Induced T cell Inflammatory cytokines and bone loss
in young and old mice”
9/1/06 - 8/31/11

11. NIH RO1 AR 54625, Principal investigator
T cells and PTH induced bone loss
9/1/07 - 8/31/12

12. NIH RO1 AR49659 Principal Investigator
Ovariectomy upregulates bone turnover through
T cell-stromal cell crosstalk”
6/1/08 -5/31/14

13. DOD CDMRP grant
Role of T Cells in the bone anabolic and catabolic effects of PTH
10/1/12 – 9/30/15

14. NIH T32 DK007298-24, Program Director
Endocrinology, Metabolism And Diabetes
8/1/10 – 5/30/15

15. NIH RO1 DK091780 Principal Investigator
Regulation of hemopoietic stem cell expansion by calciotropic
hormones
8/1/11-7/31/16

16. NIH S10, Principal Investigator
In vivo μ CT scanner
7/1/2010 \$ 493,500

22. Formal Teaching:

Medical Student Teaching

1st year Medical Student 1 lecture a year on relevance of basic science to bone diseases.
2nd year Endocrine Pathophysiology course. Lectures and case reviews on Metabolic Bone Diseases
1 lecture a year on diagnosis and management of osteoporosis
Elective on Metabolic Bone Diseases, Clinic teaching 1/2 day per week

Graduate Program

Ad Hoc lecturer for the Molecular Pathogenesis Graduate program.

Training programs

P.D. and Preceptor, Training Program in Bone and Mineral Diseases
1-2 Fellows a year 1988-2002
Washington University, St. Louis

P.D. and Preceptor, Training Program in Endocrinology
1-3 Fellows a year 2003-2015
Emory University

Residency program

One lecture a year on Bone densitometry and Osteoporosis to Medicine Residents
Medicine and ObGyn residents, Endocrine Fellow, Clinic teaching 1/2 day per week

Endocrinology Fellowship. Bone cases review and discussion. Quarterly meetings.
Endocrinology Fellowship: member selection committee.
Grady Conference. 1 lecture a year

23. Supervisory Teaching:

a. Ph.D. students directly supervised: None

b. Post-doctoral fellows directly supervised:

Reta Rupich, Ph.D. Senior Scientist, Synarc Inc.
Michael Griffin, Ph.D. Assistant Professor University of Missouri, St. Louis
Robert Kimble, Ph.D. (Deceased)
Dario Maggio, M.D. Assistant professor, University of Perugia, Italy (Deceased)
Arkady Chines, M.D. Senior Scientist, Amgen Pharmaceutical
Joseph Blanc, M.D. Associate Professor, Hospital del mar, Barcelona Spain
Iris Vered, M.D. Associate professor University of Haifa, Israel.
Cynthia McMurthy, M.D. Associate Professor, Va Medical center, Richmond, Virginia
Riko Kitazawa, M.D. Associate Professor, Kobe University, Japan
Sunil Srivastava, Ph.D. Assistant Professor, University of Cincinnati (Deceased)

Alicia Matayoshi, D.D.S. Clinical Asst. Professor Washington University
 Henry Rohrs, Ph.D. Scientist, MicroMass Inc. St. Louis MO
 Simone Cenci, M.D. Associate Professor, Istituto Scientifico San Raffaele, Milan, Italy
 Neale Weitzmann, Ph.D. Professor of Medicine, Emory University, Atlanta GA
 Cristiana Roggia, M.D. Post Doctoral Fellow, university of Turin, Italy
 Gianluca Toraldo, M.D. Post Doctoral Fellow, University of Perugia, Italy
 Oscar Sierra, M.D. Post Doctoral Fellow, Washington University, St. Louis
 Wei-Ping Qian, M.D. Post Doctoral Fellow, Urology Emory University
 Yuhao Gao, Ph.D. Dentist, Private Practice San Francisco Ca
 Francesco Grassi, Ph.D. Assistant Professor, University of Bologna, Italy
 Jennifer Levy, Ph.D. Instructor, GA Tech
 Michaela Robbie Rayan, Ph.D. Medical Writer
 Karen, Luster, MD, Private Practice
 Iene A Stone-Grossmam, MD, Staff Physician Atlanta VA hospital
 Namir Kirma, Ph.D. Instructor of Medicine, UAB
 Wu, XiaoJun PhD. Assistant Professor, Department of Pathology UAB
 Terauchi, Masakazu, M.D. Associate Professor, Tokyo University
 Shah, Era, M.D. Private Practice
 Galley, Sarah, Ph.D. Status unknown
 Jau-Yi Li, PhD, Assistant Professor of Medicine, Emory University, Atlanta GA
 Brahmchetna Bedi, Research Associate, Atlanta VA Hospital
 Kihyun Baek, MD, Assistant Professor, Catholic University of Soul, South Korea
 Emma Jones, BS, Medical Student, University of Southern Illinois
 Michael Reott, Ph.D, Status unknown
 Lindsay Walker, PhD Staff Scientist in industry
 Jerid Robinson, Ph.D. Postdoctoral fellow University of Minnesota
 Mingcan, Yu, Ph.D. Postdoctoral fellow Emory University
 Abdul Malik Tyagi, Ph.D. Postdoctoral fellow Emory University
 Tao Gao, Ph.D. Postdoctoral fellow Emory University
 Emory Hsu, MD, PhD. Research Endocrinology fellow Emory University
 Chiara Vaccaro, Student

24. Lectureships, Seminar Invitations, and Visiting Professorships:

Visiting Professorships (Partial list)

Amgen, Visiting Professor 5/95

Zymogenetics, Visiting Professor 7/95

Biogen, Visiting Professor 9/95

St. Louis College of Pharmacy, Visiting Prof. 9/96

University of Nebraska, Visiting Professor 9/9

Tulane University, Visiting Professor 1/98

Pittsburgh University Visiting Professor 9/98

Wake Forest University, Visiting Professor 10/98

Baylor College of Medicine, Visiting Professor 9/00

MGH (Harvard School of Medicine, Visiting Professor 2/2000

University of Miami, Visiting Professor 8/2000

South Carolina College of Medicine, Visiting Professor 9/2000

UCSF, Visiting Professor 9/2000

University of Connecticut, Visiting Professor 1/2001

University of Virginia, Visiting Professor 2/2001

University of British Columbia, Visiting Professor 6/2001

Duke University, Visiting Professor 8/2001

Mayo Clinic, Rochester MN, Visiting professor, 9/2001

University of Barcelona, Spain, Visiting professor, 6/02

University of Bologna, Italy, Visiting professor 7/02

University of Kobe, Japan, Visiting Professor, 2/04

University of Michigan, MI, Visiting Professor 4 04

University of Trieste, Italy, Visiting professor, 5/05

UAB, Birmingham AL, Visiting professor, 6/05

University of Tennessee, TN, Visiting professor, 2/06

John Hopkins School of Medicine, Visiting professor, 11/06

University of Toledo, Visiting professor, 8/07

Louis V. Avioli Endowed lecture. Washington University St. Louis 03/2009

MGH, Harvard University, Visiting Professor 10/09

MD Anderson, Visiting Professor 12/09

University of Arkansas, Little Rock, Visiting Professor 01/2010

Vanderbilt University, Visiting Professor 03/2010

Oral Biology course (604B) at Harvard School of Dental Medicine entitled
"Mineralized Tissue Biology and Diseases", Guest Speaker 05/2010

2010 Boy Frame lecture, Henry Ford Hospital, Detroit Michigan,
Invited Speaker 09/2010

Columbia University, Visiting professor, 12/2010

Oral Biology course (604B) at Harvard School of Dental Medicine entitled
"Mineralized Tissue Biology and Diseases", Guest Speaker 05/2011

John Hopkins School of Medicine, Visiting professor, 01/2012

Istituto di Ricerca Rizzoli, Bologna Italy. Visiting Professor 06/2016

Louis V. Avioli Endowed lecture. Washington University St. Louis 03/2017

Amgen, Visiting Professor 8/2017

25. Invitations to National and International Conferences (Since 2002):

ACR, New Orleans 10/02, Invited Speaker

ASBMR, 2003 Meeting, State of the Art Lecture

SIMMS, 2003 Meeting. Verona, Italy. Invited Speaker

1st Skeletal Biology and Medicine conference, New York, NY 04/11, Invited Speaker

ACR, 2005 meeting, Invited Speaker

International meeting Secondary causes of Osteoporosis,

Florence Italy 2006, Invited Speaker

NOF national meeting 2007. Invited Speaker

2nd Skeletal Biology and Medicine conference, New York, NY 04/11, Invited Speaker

EULAR, Barcelona 2007, Invited Speaker 6/07

Gordon Conference Bone and Teeth 7/07, Invited Speaker

ACR, State of the art clinical conferences 4/08. Invited speaker

ECTS, 2008 Barcelona Invited Speaker

International workshop on Arthritis and Bone, 2008 Santa Margherita Ligure, Italy

SIOMMS meeting, Perugia Italy, 11/08, Invited Speaker

International Endocrinology Congress, Rio de Janeiro, 11/08 Invited Speaker

NIH Symposium on Central regulation of bone mass, Bethesda, MD 6/2009, Invited Speaker.

3th Skeletal Biology and Medicine conference, New York, NY 04/11, Invited Speaker

2009 Meeting of the Ecuador Society of Internal Medicine, Ecuador 10/09, Invited Speaker

2009 SIOMMS meeting, Torino Italy, 11/09, Invited Speaker

IBMS Davos Workshop: Bone Biology & Therapeutics, 03/10 Davos Switzerland.
Invited Speaker

2010 Meeting of the Ecuador Society of Endocrinology, Quito Ecuador
10/10, Invited Speaker

ASBMR/NIH Topical Conference on Aging. Bethesda MD, 03/11 Invited Speaker

4th Skeletal Endocrinology Meeting, Brescia Italy 04/11, Invited Speaker

4th Skeletal Biology and Medicine conference, New York, NY 04/11, Invited
Speaker

First International symposium on Osteotropic Cancers: new pathogenetic and
clinical aspects. Bari, Italy 09/11, Invited Speaker.

SEMSDA Meeting, Invited Speaker, Cape Town, South Africa 04 2012

5th Skeletal Endocrinology Meeting, Brescia Italy 10/12, Invited Speaker

Gordon Conference Bone and Teeth 2/14, Invited Speaker

4th Osteoimmunology Conference, Kos Greece, 6/2014, Invited Speaker

2014 SIOMMS meeting, Rome Italy, 11/14, Invited Speaker

1st International symposium on bone regeneration, Berlin, Germany, 6/2015
Invited Speaker

1st UAB Osteoimmunology Symposium. Birmingham, AL 08/15. Invited Speaker

2015 SIOMMS meeting, Bologna Italy, 11/15, Invited Speaker

2016 ASBMR annual meeting. 09/2016 Invited Speaker

4th World Congress on Targeting Microbiota 10/2016 at Institute Pasteur, Paris,
France. Invited Speaker

2016 meeting of the Israel Society of Skeletal Biology and Medicine, 11/2016,
Tel Aviv, Israel. Invited Speaker

2017 Endocrine society meeting. Invited Speaker 03/2017

9th Congress on Probiotics, Prebiotics and New Foods, 09/2017 Rome, Italy.
Invited Speaker.

2017 American College of Rheumatology, annual Meeting. Invited Speaker
11/2017

5th World Congress on Targeting Microbiota 11/2017 Berlin, Germany. Invited
Speaker

26. Bibliography:

a) Peer reviewed manuscripts

1. P. Filipponi, M. Marcelli, I. Nicoletti, **R. Pacifici**, F. Santeusanio and P. Brunetti. Characterization of adrenergic control of glucagon secretion from isolated perfused rat pancreas. *Diabete & Metabolisme (Paris)* 8:313-318, 1982.
2. P. Filipponi, M. Marcelli, I. Nicoletti, **R. Pacifici**, G. Gregorini, P. Santoro, and F. Santeusanio. Effect of long term tolbutamide administration on insulin and glucagon secretion from isolated-perfused rat pancreas. *IRCS Medical Science* 10:79, 1982.
3. P. Filipponi, I. Nicoletti, M.G. Cartechini, **R. Pacifici**, M. Sfrappini. Iatrogenic lactic acidosis: description of two cases. *Medicina*, 2:324, 1982
4. P. Filipponi, I. Nicoletti, **R. Pacifici**, F. Santeusanio and P. Brunetti. Hormonal-metabolic effects of Acarbose (Bay g 5421). Investigations by an original model of cross perfusion of rat pancreas and small gut. Acts of the international symposium on "Alimentazione e Salute" Torre Orsaia-S.Marina(Sa) 1-3 Luglio, 1982.
5. P. Filipponi, **R. Pacifici**. Osteoporosis: Therapy or profilaxis? *Informazionisui Farmaci*. 4:258-275, 1982.
6. P. Filipponi, M. Marcelli, I. Nicoletti, **R. Pacifici**, F. Santeusanio and P. Brunetti. Suppressive effect of long term sulfonylurea treatment in A, B, and D cells of normal rat pancreas. *Endocrinology* 113:1972, 1983.
7. P. Filipponi, M. Marcelli, I. Nicoletti, **R. Pacifici**, F. Santeusanio and P. Brunetti. Hormonal and metabolic effects of acarbose (Bay g 5421) evaluated by using an in vitro original model of isolated rat intestine and pancreas cross-circulation. *Eur. Rev. Med. & Pharm. Sci.* V:267-272, 1983.
8. **R. Pacifici**, D. Droke, and L.V. Avioli. Intestinal lactase activity and calcium absorption in the aging female with osteoporosis. *Calcif. Tiss. Int.* 37:101-102, 1985.
9. **R. Pacifici**, P. Filipponi, C. Mannarelli, G. Vespasiani, M. Porena, L. Fedeli, V. Morucci, and L.V. Avioli. Classification of idiopathic hypercalciuric patients by istopic calcium absorption: a comparison with oral calcium tolerance test. *Calcif. Tiss. Int.* 37:467-473, 1985.
10. **R. Pacifici**, W.A. Murphy, S.L. Teitelbaum, and M.P. Whyte. Mixed- sclerosing-bone-dystrophy: 42-year follow-up of a case reported as osteopetrosis. *Calcif. Tiss. Int.* 38:175-185, 1986.
11. F. Ismail, S. Epstein, **R. Pacifici**, D. Droke, S.B. Thomas, and L.V. Avioli. Serum bone gla protein (BGP) and other markers of bone mineral metabolism in postmenopausal osteoporosis. *Calcif. Tiss. Int.* 39:230-233, 1986.
12. **R. Pacifici**, N. Susman, P.L. Carr, S.J. Birge, and L.V. Avioli. Single and dual energy tomographic analysis of spinal trabecular bone: a comparative study in normal and osteoporotic women. *J. Clin. Endo. Metab.* 64:209-141, 1987.
13. **R. Pacifici**, L. Rifas, E. Slatopolsky, R. McCracken, W. Lee, W.A. Peck, and L.V. Avioli. Interleukin-I activity from human blood monocytes correlates with serum bone gla protein level in

subjects with intact gonadal function. Proceedings of the IX International Conference on Calcium Regulating Hormones and Bone Metabolism Nice, 1987.

14. **R. Pacifici**, L. Rifas, S. Teitelbaum, E. Slatopolsky, R. Miller, M. Bergfeld, W. Lee, L.V. Avioli, and W.A. Peck. Spontaneous release of interleukin-1 from human blood monocytes reflects skeleton turnover in idiopathic osteoporosis. *Proc. Natl. Acad. Sci. (USA)*.84:4616, 1987.

15. **R. Pacifici**, L.V. Avioli. Calcium supplementation and postmenopausal bone loss. *N Engl J Med* 317:1025, 1987.

16. **R. Pacifici**, H.M. Perry III, W. Shieber, E. Biglieri, D.M. Droke, and L.V. Avioli. Adrenal responses to subtotal parathyroidectomy for primary hyperparathyroidism. *Calcif. Tiss. Int.* 41:119-123, 1987.

17. **R. Pacifici**, R. Civitelli, L. Rifas, L. Halstead, and L.V. Avioli. Does interleukin-1 affect intracellular calcium in osteoblast-like cells (UMR-106)? *J. Bon. Min. Res.* 3:107-112, 1987.

18. **R. Pacifici**, C. McMurtry, I. Vered, R. Rupich, and L.V. Avioli. Coherence therapy doesn't prevent spinal bone loss in osteoporotic women. A preliminary comparative study. *J. Clin. Endo. Metab.* 66:747-751, 1988 .

19. P. Filippini, C. Mannarelli, **R. Pacifici**, E. Grossit, I. Moretti, S. Tini, C. Carloni, A. Blass, P. Morucci, L.V. Avioli and K.A. Hruska. Evidence for a prostaglandin-mediated bone resorptive mechanism in subjects with fasting hypercalciuria. *Calcif. Tiss. Int.* 43:61-11, 1988.

20. **R. Pacifici**, R. Rupich, I. Vered, K.C. Fischer, M. Griffin, N. Susman, and L.V. Avioli. Dual energy radiography (DER): A preliminary comparative study. *Calcif. Tiss. Int.* 43:189-191, 1988.

21. **R. Pacifici**, L. Rifas, R. McCracken, I. Vered, C. McMurtry, L.V. Avioli and W.A. Peck. Ovarian steroid treatment blocks a postmenopausal increase in blood monocyte IL-1 release. *Proc. Natl. Acad. Sci. (USA)* 86:2398-2402, 1989.

22. **R. Pacifici**, R. Rupich, M. Griffin, A. Chines, N. Susman, and L.V. Avioli. Dual energy radiography (DER) versus quantitative computer tomography (QCT) for the diagnosis of osteoporosis. *J. Clin. Endocr. Metab.* 70:705-709, 1990.

23. R. Rupich, **R. Pacifici**, M. Griffin, I. Vered, N. Susman, and L.V. Avioli. Lateral dual energy radiography: A new method for measuring vertebral bone density: A preliminary study. *J. Clin. Endocr. Metab.* 70:1768-1770, 1990

24. **R. Pacifici**, M. Rothstein, L. Rifas, K-H.W. Lau, D.J. Baylink, L.V. Avioli, and K. Hruska. Increased monocyte interleukin-1 activity and decreased vertebral bone density in fasting idiopathic hypercalciuria. *J. Clin. Endocr. Metab.* 71:138-145, 1990.

25. **R. Pacifici**, L. Rifas, R. McCracken, and L.V. Avioli. The role of interleukin-1 in postmenopausal bone loss. *Exp. Geront.* 25:309-316, 1990.

26. **R. Pacifici**, N. Susman, S. Birge, R. Rupich, and L.V. Avioli. Vertebral cortical bone mass measurement by a new quantitative computer tomography method: correlations with vertebral trabecular bone measurements. *Calcif. Tissue Intl.* 47:215-220, 1990

27. A. Chines and **R. Pacifici**. Antacid and sucralfate induced hypophosphatemic osteomalacia: A case report and review of the literature. *Calcif. Tissue Intl.* 47:291-295, 1990.

28. A. Chines, **R. Pacifici**, L.V. Avioli, S.L. Teitelbaum and P.E. Korenblat. Systemic mastocytosis presenting as osteoporosis: A clinical and histomorphometric study. *J. Clin. Endocr. Metab.* 72: 140-145, 1991.
29. **R. Pacifici**, A. Carano, L. Rifas, J.D. Malone, J.J. Jeffrey, R. McCracken, P. Osmack, L.V. Avioli. Bone matrix constituents stimulate IL-1 release from human blood mononuclear cells. *J. Clin. Invest.* 87:221-228, 1991.
30. **R. Pacifici**, C. Brown, E. Puscheck, E. Friederick, R. McCracken, D. Maggio, E. Slatopolsky, and L.V. Avioli. The effect of surgical menopause and estrogen replacement on cytokine release from human blood monocytes. *Proc. Natl. Acad. Sci. USA* 88:5134-5138, 1991.
31. M.G. Griffin, R.C. Rupich, L.V. Avioli, and **R. Pacifici**. A comparison of dual energy radiography measurements at the lumbar spine and proximal femur for the diagnosis of osteoporosis. *J Clin Endo Metab* 73:1164-1167, 1991
32. R.C. Rupich, M.G. Griffin, **R. Pacifici**, L.V. Avioli, and N. Susman. Lateral dual energy radiography: artifact error from rib and pelvic bone. *J Bone Min Res* 7: 97-101, 1992
33. **R. Pacifici**, C. Basilico, J. Roman, M.M. Zutter, S.A. Santoro, R. McCracken. Collagen Induced release of Interleukin 1 from human blood mononuclear cells: potentiation by fibronectin binding to the $\alpha 5 \beta 1$ integrin. *J. Clin. Invest.* 89: 61-67, 1992
34. A. Chines, D. Villareal, and **R. Pacifici**. Paget's disease of bone affecting a single vertebra: clinical, radiologic, and histopathologic correlation. *Calcif. Tissue Intl.* 50:115-117, 1992.
35. D.T. Villareal, R.C. Rupich, **R. Pacifici**, M.G. Griffin, D. Maggio, L.V. Avioli and R. Civitelli. Effect of estrogen and calcitonin on vertebral bone density and vertebral height in osteoporotic women. *Osteoporosis International.* 2:70-73, 1992
36. M.G. Griffin, R. Kimble; W. Hopfer and **R. Pacifici**. Dual energy x-ray absorptiometry of the rat: Accuracy, precision and measurement of bone loss. *J. Bone and Min. Res.* 8:795-800. 1993.
37. **R. Pacifici**, L.V. Avioli. The effect of natural and surgical menopause on the secretion of cytokines from human blood monocytes. *Osteoporos Int.* 1993, 3: 106-107.
38. D.L. Lacey, L.E. Grosso, S.A. Moser, J. Erdmann, H-L.Tan, **R. Pacifici** and D.T. Villareal. IL-1-induced murine osteoblast IL-6 production is mediated by the type 1 IL-1 receptor and is increased by 1,25 dihydroxyvitamin D3. *J. Clin. Invest.* 1993, 91:1731-1742.
39. **R. Pacifici**, J. L. Vannice, L. Rifas, and R. B. Kimble. 1993. Monocytic secretion of Interleukin 1 receptor antagonist in normal and osteoporotic women: effect of menopause and estrogen/progesterone therapy. *J. Clin. Endocrinol. Metab.* 1993, 77: 1135-1141
40. R.B. Kimble, J. L. Vannice, D.C. Bloedow, R.C. Thompson, W. Hopfer, V. Kung, C. Brownfield, and **R. Pacifici**. 1994. Interleukin-1 receptor antagonist decreases bone loss and bone resorption in ovariectomized rats. *J. Clin. Invest.* 1994, 93: 1959-1967
41. J. Blanch, **R. Pacifici**, A. Chines. Pregnancy-associated osteoporosis: report of two cases with long-term bone density follow-up. *Br J Rheumatol.* 1994, 33: 269-72.
42. G. Guglielmi, S.K. Grimston, K.C. Fischer, **R. Pacifici**. 1994. Lateral and postero-anterior dual x-ray absorptiometry: comparison with quantitative computed tomography in the diagnosis of osteoporosis. *Radiology* 192:845-850.

43. H.K. Guglielmi Genant, **R. Pacifici**, G.M. Giannatempo, M. Cammisa. 1994. The imaging diagnosis of osteoporosis. The state of the art and outlook. *Radiol Med.* 88: 535-46
44. R.B. Kimble, J.L. Vannice, C.M. Brownfield, and **R. Pacifici**. 1994 Persistent bone-sparing effect of interleukin-1 receptor antagonist: a hypothesis on the role of IL-1 in ovariectomy induced bone loss. *Calcif. Tissue Int.* 55:260-265.
45. **R. Pacifici**, J. Roman, R.B. Kimble, R. Civitelli, C.M. Brownfield and C. Bizzarri. 1994 Ligand binding to monocyte $\alpha_5\beta_1$ integrin activates the $\alpha_2\beta_1$ receptor via the α_5 subunit cytoplasmic domain and protein kinase C. *J. Immunol.* 153:2222-2233.
46. R. Kitazawa, R. B. Kimble, J. L. Vannice, V. T. Kung, and **R. Pacifici**. 1994. Interleukin-1 receptor antagonist and tumor necrosis factor binding protein decrease osteoclast formation and bone resorption in ovariectomized mice. *J. Clin. Invest.* 94:2397-2406
47. D. Maggio, **R. Pacifici**, A. Cherubini, M.C. Aisa, C. Santucci, D. Cucinotta, U. Senin. 1995. Appendicular cortical bone loss after age 65: sex-dependent event? *Calcif Tissue Int.* 56:410-4.
48. R. B. Kimble, A. B. Matayoshi, J.L. Vannice V. T. Kung, C. Williams and **R. Pacifici**. 1995 Simultaneous block of interleukin-1 and tumor necrosis factor is required to completely prevent bone loss in the early post-ovariectomy period. *Endocrinology* 136: 3054-3061
49. L. Rifas, J. S. Kenney, M. Marcelli, **R. Pacifici**, S.L. Cheng, L.L. Dawson and L.V. Avioli. 1995. Production of interleukin-6 in human osteoblasts and human bone marrow stromal cells: evidence that induction by interleukin-1 and tumor necrosis factor is not regulated by ovarian steroids. *Endocrinology* 136: 4056-4067
50. D. Maggio. **R. Pacifici**, A. Cherubini, M.C Aisa, C. Santucci, D.Cucinotta, and U. Senin. 1995. Appendicular cortical bone loss after age 65 - sex-dependent event. *Calcif.Tissue Int.* 56: 410-414
51. S. H. Abbasi-Jahromi, A. Matayoshi, R.B. Kimble, A. Dimarogonas, and **R. Pacifici**. 1996. Bone quality factor analysis: A new non invasive technique for the measurement of bone density and bone strength. A comparison with dual energy x-ray absorptiometry in the ovariectomized rat. *J. Bone and Min. Res.*11:594-599
52. A. Matayoshi, C. Brown, J.F. DiPersio, J. Haugh, Y. Abu-Amer, H. Liapis, R. Kuestner, and **R. Pacifici**. 1996. Blood mobilized Hematopoietic precursors differentiate into osteoclasts in the absence of stromal cells. *Proc. Natl. Acad.Scie. USA* 93: 10785- 10790
53. R. B. Kimble, S. Srivastava, F. P. Ross, A. Matayoshi, and **R. Pacifici**. 1996. Estrogen deficiency increases the ability of stromal cells to support osteoclastogenesis via an IL-1 and TNF mediated stimulation of M-CSF production. *J. Biol. Chem.* 271:28890-28911
54. R.B. Kimble, S. Bain, V.T. Kung, and **R. Pacifici**. 1997. The functional block of TNF but not of IL-6 prevents bone loss in ovariectomized mice. *J.Bone Miner. Res.* 12: 935-941
55. D. Maggio, **R. Pacifici**, A. Cherubini, G. Simonelli, M. Luchetti, M.C. Aisa, D. Cucinotta, S. Adami, U. Senin. 1997. Age-related cortical bone loss at the metacarpal. *Calcif Tissue Int.* 60:94-97.
56. D.T. Baran, K.G. Faulkner, H.K. Genant, P.D. Miller, and **R. Pacifici**. 1997. Diagnosis and management of osteoporosis: guidelines for the utilization of bone densitometry. *Calcif. Tissue Int. Calcif. Tissue Int.* 61: 433-40.

57. S. Srivastava, M.N. Weitzmann, R.B. Kimble, M. Rizzo, M. Zahner, J. Milbrandt, F.P. Ross, **R. Pacifici**. 1998. Estrogen blocks M-CSF gene expression and osteoclast formation by regulating CKII-induced phosphorylation of Egr-1 and its interaction with Sp-1. *J. Clin. Invest.* 102:1850-1859.
58. S. Srivastava., N.M. Weitzmann, S. Cenci. S. Adler and **R. Pacifici**, 1999. Estrogen decreases TNF gene expression by blocking JNK activity and the resulting production of c-Jun and JunD. *J. Clin. Invest.* 104: 503-510
59. S. Cenci, N.M. Weitzmann, and **R. Pacifici**, 2000. M-CSF neutralization and Egr-1 deficiency prevent ovariectomy induced bone loss. Evidence for a key role of M-CSF in the bone-sparing effect of estrogen. *J. Clin. Invest.* 105: 1279-1287.
60. N.M. Weitzmann, S. Cenci. J. Haug, C. Brown, J. DiPersio and **R. Pacifici**, 2000. B-Lymphocytes Inhibit Human Osteoclastogenesis by Secretion of TGF β *J. Cell. Biochem.* 78: 318-324
61. M. N. Weitzmann, S. Cenci, L. Rifas, C. Brown, and **R. Pacifici**. 2000. IL-7 Stimulates Osteoclast Formation by Upregulating the T-cell Production of Soluble Osteoclastogenic Cytokines. *Blood.* 96:1873-1878.
62. S. Cenci, M.N. Weitzmann, C. Roggia, N. Namba, D. Novack, and **R. Pacifici**. 2000. Estrogen deficiency induces bone loss by enhancing T cell production of TNF α . *J. Clin. Invest.* 106: 1229-1237.
63. M.N. Weitzmann, S. Cenci, L. Rifas, J. Haug, J. DiPersio and **R. Pacifici**. 2001. T-cell Activation Induces Human Osteoclast Formation via RANKL Dependent and Independent Mechanisms. *J. Bone Miner. Res.* 16: 328-337.
64. S. Srivastava., N.M. Weitzmann, S. Cenci, F.P. Ross and **R. Pacifici**. 2001. Estrogen decreases osteoclast formation by down regulating RANK expression and RANKL induced JNK activation. *J. Biol. Chem.* 276:8836-8840.
65. C. Roggia, Y. Gao, M.N. Weitzmann, G. Toraldo, S. Cenci, J. Kindle G. Isaia, and **R. Pacifici**. 2001. Upregulation of TNF producing T cells in the bone marrow: a key mechanism by which estrogen deficiency induces bone loss in vivo. *Proc. Natl. Acad. Sci. USA* 98:13960-13965.
66. M.N. Weitzmann, C. Roggia, L. Weitzmann, G. Toraldo and **R. Pacifici**. 2002. Increased Production of IL-7 Uncouples Bone Formation from Bone Resorption During Estrogen Deficiency. *J. Clin. Invest.* 110:1643-1650.
67. D. Maggio, M. Barabani, M. Pierandrei, M.C. Polidori, M. Catani, P. Mecocci, U. Senin, **R. Pacifici**, A. Cherubini. 2003. Marked decrease in plasma antioxidants in aged osteoporotic women: results of a cross-sectional study. *J Clin Endocrinol Metab* 88:1523-1527.
68. G. Toraldo, C. Roggia, W.P. Qian, **R. Pacifici**, M.N. Weitzmann. 2003. IL-7 induces bone loss *in vivo* by induction of receptor activator of nuclear factor κ B ligand and tumor necrosis factor α from T cells. *Proc. Natl. Acad. Sci. USA* 100: 125-130
69. S. Cenci, C. Roggia, G. Toraldo, M.N. Weitzmann, Y. Gao, O. Sierra, W.P. Qian and **R. Pacifici**. 2003. Estrogen deficiency induces bone loss by upregulating T cell proliferation and lifespan through class II transactivator *Proc. Natl. Acad. Sci. USA* 100: 10405-10
70. C. Roggia, C. Tamone, S. Cenci, **R. Pacifici**, and G.C. Isaia. 2004. Role of TNF-alpha producing T-cells in bone loss induced by estrogen deficiency. *Minerva Med* 95:125-132.

71. Y. Gao, W.P. Qian, K. Dark, G. Toraldo, A. Lin, R.E. Guldberg, R.A. Flavell, M.N. Weitzmann, and **R. Pacifici**. 2004. Estrogen Prevents Bone Loss Through TGF β Signaling In T Cells. *Proc.Natl.Acad.Scie. USA* 101: 16618-16623
72. M. Ryan, R. Shepherd, J. Leavey, Y. Gao, F. Grassi, F. J. Schnell, W.P. Qian, G. J. Kersh, M.N. Weitzmann, and **R. Pacifici**. 2005. An IL-7 dependent rebound in thymic T cell output contributes to the bone loss induced by estrogen deficiency. *Proc.Natl.Acad.Scie. USA* 102: 16735-16740. PMID: PMC1283799
73. F. Grassi, X. Fan, J. Rahnert, M.N. Weitzmann, **R. Pacifici**, M.S. Nanes, and J. Rubin. 2006. Bone re/modeling is more dynamic in the endothelial nitric oxide synthase(-/-) mouse. *Endocrinology* 147:4392-4399.
74. M. Robbie Ryan, **R. Pacifici**, M.N. Weitzmann. 2007. IL-7 drives T cell-mediated bone loss following ovariectomy. *Ann.N.Y. Acad. Scie* 1068:348-351
75. Y. Gao, F. Grassi, M. Robbie Ryan, M. Terauchi, K. Page, X. Yang, M.N. Weitzmann, and **R. Pacifici**. 2007. IFN γ stimulates osteoclast formation and bone loss in vivo via antigen driven T cell activation" *J. Clin. Invest.* 117: 122-132
76. F. Grassi, G. Tell, M. Robbie Ryan, Y. Gao, M. Terauchi, X. Yang, M. Romanello, D.P. Jones, M.N. Weitzmann, and **R. Pacifici**. 2007. Oxidative stress causes bone loss in estrogen deficient mice through enhanced bone marrow dendritic cell activation. *Proc.Natl.Acad.Scie. USA* 104:15087-15092
77. Y. Gao, X. Wu, M. Terauchi, F. Grassi, S. Galley, X. Yang, M.N. Weitzmann, and **R. Pacifici**. 2008. T cells potentiate PTH-induced cortical bone loss through CD40L signaling. *Cell Metabolism* 8:132-145.
78. M. Zaidi, C.H. Turner, E. Canalis, **R. Pacifici**, L. Sun, J. Iqbal, X.E. Guo, S. Silverman, S. Epstein, C.J. Rosen. 2009. Bone loss or lost bone: rationale and recommendations for the diagnosis and treatment of early postmenopausal bone loss. *Curr. Osteoporos Rep.* 7: 118-26.
79. M. Terauchi, J.Y. Li, B. Bedi, K.H. Baek, H.A. Tawfeek, S. Galley, L. Gilbert, M.S. Nanes, M. Zayzafoon, R. Guldberg, D.L. Lamar, M.A. Singer, T.F. Lane, H.M. Kronenberg, M.N. Weitzmann, and **R. Pacifici**. 2009. T lymphocytes amplify the anabolic activity of parathyroid hormone through Wnt10b signaling. *Cell Metabolism* 10:229-240.
80. B. Bedi, J.Y. Li, F. Grassi, H.A. Tawfeek, M.N. Weitzmann, and **R. Pacifici**. 2010. Inhibition of antigen presentation and T cell co-stimulation blocks PTH induced bone loss. *Ann.N.Y. Acad. Scie.* 1192: 215-221. PMID:20392239. PMID: PMC3269765
81. H.A. Tawfeek, B. Bedi, J.Y. Li, J. Adams, T. Kobayashi, M.N. Weitzmann, H.M. Kronenberg, and **R. Pacifici**. 2010. Disruption of PTH Receptor 1 in T Cells Protects Against PTH-induced Bone Loss. *PLoS One* 5: e12290. PMID: PMC2924900
82. J.Y. Li, H.A. Tawfeek, B. Bedi, X. Yang, J. Adams, K.Y. Gao, M. Zayzafoon, M.N. Weitzmann, and **R. Pacifici**. 2011. Ovariectomy disregulates osteoblast, and osteoclast formation through the T cell receptor CD40 ligand. *Proc.Natl.Acad.Scie. USA* 108:768-773 PMID: PMC3021053
83. K. Izuora, J.G. Twombly, G.M. Whitford, J. Demertzis, **R. Pacifici**, and M.P. Whyte. 2011. Skeletal Fluorosis from Brewed Tea. *J Clin Endocrin Metab.* 96:2318-2324

84. B. Bedi, J.Y. Li, H. Tawfeek, K.H.Baek, J. Adams, M.K. Chang, M. Kneissel, N. Weitzmann, and **R. Pacifici**. 2012. Silencing of PTH receptor 1 in T cells blunts the bone anabolic activity of PTH. *Proc.Natl.Acad.Scie.* 109:E725-33
85. JY. Li, J. Adams, L.M. Calvi, T. F. Lane, R. DiPaolo, M. Neale Weitzmann, and **R. Pacifici**. 2012. PTH expands short-term hemopoietic stem cells through T cells. *Blood.* 120: 4352-4362. PMID: PMC3507144
86. JY. Li, J. Adams, L.M. Calvi, T. F. Lane, M. Neale Weitzmann, and **R. Pacifici**. 2013. Ovariectomy expands short-term hemopoietic stem cell function through T cell expressed CD40L and Wnt10b. *Blood* 122:2346-2357. PMID: PMC3790505
87. J.Y. Li, J. Adams, M.N. Weitzmann, and **R. Pacifici**. 2014. The sclerostin-independent bone anabolic activity of intermittent PTH treatment is mediated by T cell produced Wnt10b. *JBMR* 29: 43-54. PMID: PMC4326235
88. J.W Robinson, J.Y. Li, L.D. Walker, A.M Tyagi, M. Reott, M. Yu, J. Adams, M. Neale Weitzmann, and **R. Pacifici**. 2015. T cell expressed CD40L potentiates the bone anabolic activity of intermittent PTH treatment *JBMR.* 30:695-705. PMID: PMC4376617
89. Straub RH, Cutolo M, **Pacifici** R. 2015. Evolutionary medicine and bone loss in chronic inflammatory diseases. A theory of inflammation-related osteopenia. *Semin Arthritis Rheum.* 2015.45:220-28. PMID: PMC4570856
90. J.Y. Li, P. D'Amelio, L.D. Walker, A.M. Tyagi, M. Reott, M. Yu, J. Robinson, F. Sassi, I. Buondonno, J. Adams, M. M.N. Weitzmann, G.C. Isaia and **R. Pacifici**. 2015. IL-17A is increased by primary hyperparathyroidism and continuous PTH treatment and plays a critical role in PTH induced bone loss. *Cell Metabolism* 22:799-810. PMID: PMC4635034
91. F. Grassi, A.M. Tyagi, J.W. Calvert, L. Gambari, L.D. Walker, J. Robinson, J.Y. Li, G. Lisignoli, C. Vaccaro, J. Adams, M. M.N. and **R. Pacifici**. 2015. Hydrogen sulfide is a novel regulator of bone formation implicated in the bone loss induced by estrogen deficiency. *JBMR* 2016. 31: 946-963. PMID: PMC4862919
92. J.Y. Li, B. Chassaing, A. Malik Tyagi, C. Vaccaro, T. Luo, J. Adams, T.M. Darby, M. N. Weitzmann, J.G. Mulle, A.T. Gewirtz, R.M. Jones, and **R. Pacifici**. 2016. Sex steroid deficiency-associated bone loss is microbiota dependent and prevented by probiotics. *J. Clin. Invest.* 126: 2049-2063. PMID: PMC4887186
93. M. Tyagi, J. Robinson, L.D. Walker, J.Y. Li, T. Luo, M. Reott, C. Vaccaro, J. Adams, M. M.N. and **R. Pacifici**. 2017. CTLA4-IG protects against PTH induced bone loss by inhibiting T cell production of TNF. *Osteoporosis International* (Submitted).
- 94 S. Roser-Page, T. Vikulina, D. Weiss, M.M. Habib, G.R. Beck Jr, **R. Pacifici**, T.F. Lane, and M.N. Weitzmann. 2017. Competing Effects of Abatacept (CTLA-4Ig) on T cells and Osteoblasts drives an immuno-skeletal switch between stimulation and suppression of bone formation. (Submitted).
95. M. Yu, P. D'Amelio, C. Vaccaro, A.M. Tyagi, J.Y. Li, E. Hsu, I. Buondonno, MM Rigoni, J. Adams, M. M.N. Weitzmann, R. DiPaolo, and **R. Pacifici**. 2017. Regulatory T cells are expanded by Teriparatide treatment in humans and mediate intermittent PTH-induced bone anabolism in mice. *EMBO rep.*

b) Invited publications

1. W.A. Peck, L. Rifas, S.L. Cheng, V. Shen, **R. Pacifici**, L.V. Avioli. Cytokines in Metabolic Bone Disease in Molecular Basis of Lymphokine Action. Edited by: David R. Webb, Carl W. Pierce, and Stanley Cohen, The HUMANA Press, Inc. 1987.
2. **R. Pacifici**. Is there a causal role of IL-1 in postmenopausal osteoporosis? (Editorial) *Calc Tissue Int.* 50:295-299,1992.
3. **R. Pacifici**, Avioli LV. 1992. Effects of aging on bone structure and metabolism. In: The Osteoporotic Syndrome. 3rd Edition. LV Avioli, (editor), John Wiley & Sons, Inc. New York. N.Y., pp 1-16.
4. **R. Pacifici**. 1995. Cytokines and Osteoclast activity. *Calcif. Tissue. Int.* 56 (Suppl 1): S27-S28
5. **R. Pacifici**, 1995. Estrogen replacement therapy in osteoporosis: advances and controversies. *Endocrine Practice.* 1: 60-65
6. **R. Pacifici**. 1996. Postmenopausal osteoporosis: How the hormonal changes of menopause cause bone loss. In "Osteoporosis", R. Marcus, D. Feldman, J. Kelsey Edts. Academic Press
7. **R. Pacifici**. 1996. Estrogen, cytokines and postmenopausal osteoporosis. *J. Bone and Min. Res.* 11:1043-1049
8. **R. Pacifici**.1996. Interleukins and their receptors in osteoporosis. *Current Opinions in Orthopedics.* 7:16-22
9. **R. Pacifici**. 1997. Idiopathic hypercalciuria and osteoporosis. Distinct clinical manifestations of increased cytokine-induced bone resorption? *J.Clin.Endocrinol.Metab.* 82:29-31
10. **R. Pacifici**. 1998. The physiology of bone turnover. In Bone densitometry and osteoporosis. Springer. Eds H.K. Genant, G. Guglielmi, M. Jergas
11. **R. Pacifici**. 1998. Estrogen, cytokines and postmenopausal osteoporosis. The second decade. *Endocrinology.* 139:2659-2661
12. P. Miller, B. Lukert, S. Broy, R. Civitelli, R. Fleischmann, R. Gagel, S. Khosla, M. Lucas, M. Maricic, **R. Pacifici**, R. Recker, H.S. Sarran, B. Short, M.J. Short. 1998. Management of postmenopausal osteoporosis for primary care. *Menopause.* 5:123-31. Review.
13. **R. Pacifici**. Aging and cytokine production. 1999. *Calcif. Tissue. Int.* 1999 65(5):345-51
14. **R. Pacifici**. 2000. Role of cytokines in postmenopausal osteoporosis. In "Skeletal Growth factors", Ernesto Canalis Edt. Lippincott Williams & Wilkins. 411-422
15. **R. Pacifici**, L.V. Avioli. 2000. Effects of aging on bone structure and metabolism. In: The Osteoporotic Syndrome. 4th Edition. LV Avioli, (editor), John Wiley & Sons, Inc. New York. N.Y. 25-36.
16. R. Villareal and **R. Pacifici**. Diagnosis and Management of osteoporosis. The current strategies 2000. PDR Supplement.
17. **R. Pacifici**. 2001 Postmenopausal osteoporosis: How the hormonal changes of menopause cause bone loss. In "Osteoporosis", R. Marcus, D. Feldman, J. Kelsey Edts. Academic Press

2nd edition. Chapter 41, Vol. 2: 85-101

18. **R. Pacifici**. 2002. Mechanism of action of estrogen in bone. In "Principles of bone biology" Bilezikian Editor, Academic Press 2nd edition. Chapter 39. 693-705
19. M. N. Weitzmann and **R. Pacifici**. 2005. Bone And The Immune System. In Bone Disease of Organ Transplantation. Juliet Compston and Elizabeth Shane Editors. Chapter 6: 91-112
20. M.S. Nanes, **R. Pacifici** 2005 Inflammatory Cytokines. In Bone Resorption: Ed. Felix Bronner, Cindy Farach-Carson, Janet Rubin, Springer-Verlag. London. Chapter 5, Pages 67-90
21. M. N. Weitzmann and **R. Pacifici**. 2005. Role of the immune system in postmenopausal bone loss. *Current Osteoporosis Reports* 3:92-97
22. M. N. Weitzmann and **R. Pacifici**. 2005. The Role of T Lymphocytes In Bone Metabolism. *Immunol. Rev.* 208:154-168
23. M. N Weitzmann and **R. Pacifici**. 2006 Estrogen Regulation Of Immune Cells Bone Interactions. *Ann.N.Y. Acad. Scie.* 1068: 256-274
24. M. Robbie-Ryan, **R. Pacifici**, M.N. Weitzmann. 2006. IL-7 drives T cell-mediated bone loss following ovariectomy. *Ann.N.Y. Acad. Scie.* 1068: 348-51
25. M.N. Weitzmann and **R. Pacifici**. 2006. Estrogen deficiency and bone loss: an inflammatory tale". *J. Clin. Invest.*116: 1186-1194
- 26 **R. Pacifici**. 2007. T cells and post menopausal osteoporosis in murine models. *Arthritis Research & Therapy.* 9:102-108
27. **R. Pacifici**. 2007 Postmenopausal osteoporosis: How the hormonal changes of menopause cause bone loss. In "Osteoporosis", R. Marcus, D. Feldman, J. Kelsey Edts. Academic Press. 3rd edition. Chapter 41, Vol. 2:
28. **R. Pacifici**. 2007. Mechanism of action of estrogen in bone. In "Principles of bone biology". Bilezikian Editor, Academic Press 2nd edition. Chapter 39.
29. M.N. Weitzmann, **R. Pacifici**. 2007. T cells: unexpected players in the bone loss induced by estrogen deficiency and in basal bone homeostasis. *Ann. N.Y. Acad. Scie.* 1116: 360-75.
30. **R. Pacifici**. 2008. Estrogen deficiency, T cells and bone loss. *Cell. Immunol.* 252: 68-80
31. M. Zaidi, C.H. Turner, E. Canalis, **R. Pacifici**, L. Sun, J. Iqbal, X.E. Guo, S. Silverman, S. Epstein, C.J. Rosen. 2009. Bone loss or lost bone: rationale and recommendations for the diagnosis and treatment of early postmenopausal bone loss. *Curr.Osteoporosis. Rep.* 7: 118-126
32. **R. Pacifici**. 2009. Osteoimmunology: Meeting Report from the 31st Annual Meeting of the American Society for Bone and Mineral Research. *IBMS BoneKEy*.
33. **R. Pacifici**. 2010. Osteoimmunology: Meeting Report from the 32nd Annual Meeting of the American Society for Bone and Mineral Research. *IBMS BoneKEy*.
34. **R. Pacifici**. 2010. T cells: critical bone regulators in health and disease. *Bone* 47: 461-471

35. **R. Pacifici**. 2010. The immune system and bone. *Arch Biochem. Biophys.* 503: 41–53
PMCID: PMC2943054
36. **R. Pacifici**. 2011. Osteoimmunology: Meeting Report from the 33rd Annual Meeting of the American Society for Bone and Mineral Research. *IBMS BoneKEy*. 8:479-485
37. **R. Pacifici**. 2012. Role of T cells in ovariectomy induced bone loss-revisited. *J. Bone Min. Res.* 27: 231-239
38. M.M. Weitzmann and **R. Pacifici**. 2012. Osteoimmunology. Relation to disease and therapy. In “Bone - Metabolic Functions and Modulators”, Felix Bronner, Mary Farach-Carson, Helmut I. Roach, Edts. Springer
39. S. Khosla and **R. Pacifici**. 2012. Estrogen deficiency, postmenopausal osteoporosis and age-related bone loss. In “Osteoporosis”, R. Marcus, D. Feldman, David W. Dempster, Marjorie Luckey, and Jane A. Cauley Edts. Academic Press. 4th edition.
40. **R. Pacifici**. 2013. T cells mediate the effects of PTH in bone. In “Osteoimmunology. Interactions of the immune and skeletal systems.” Y. Choi Ed. Springer.
41. **R. Pacifici**. 2013. Role of T cells in the modulation of PTH action: physiological and clinical significance. *Endocrine* 13: 9960-68.
42. **R. Pacifici**. 2013. Osteoimmunology and its implications for transplantation. *A.J.T.* 13:2245-2254
43. **R. Pacifici**. 2014. PTH and T cell biology. In “The Parathyroids” John Bilezikian Editor. Elsevier, 3rd Edition.
44. **R. Pacifici**. 2016. T cells, osteoblasts, and osteocytes: interacting lineages key for the bone anabolic and catabolic activities of parathyroid hormone. *Ann. NY Acad. Sci.* 1316:11-24
PMCID: PMC4803611
45. **R. Pacifici**. 2016. The Role of IL-17 and Th17 Cells in the Bone Catabolic Activity of PTH. *Frontiers in Immunology* 7:57. PMCID: PMC4756106
46. Parathyroid Diseases and T Cells. N. Weitzmann and R. Pacifici. 2017. *Curr. Osteoporos. Rep.* 2017. 3:135-141.
47. RM. Jones, JG. Mülle, and **R. Pacifici**. 2017 Osteomicrobiology: the influence of gut microbiota on bone in health and disease. *Bone*. (In Press)
48. **R. Pacifici**. 2017. Bone remodeling and the microbiome. 2017. *Cold Spring Harb Perspect Med.* (In Press)
49. Neish AS, **Pacifici R**, Mülle JG, Kraft CS, Stephens DS. 2017. The microbiome: current and future view of an ancient paradigm. *Future Microbiol.* (In Press)
50. Emory Hsu and **R. Pacifici**. 2017. From osteoimmunology to osteomicrobiology: how the microbiota and the immune system regulate bone. *Calcif. Tissue Int.* (in Press).