Robert J. Goldman, M.D., FAAPM&R, CWS¹

Wound Care & Rehabilitation Medicine Consulting Practice Philadelphia, PA <u>Robert.goldman@verizon.net</u>

Education:

1971-75	B.A Temple University (General Studies, Biology concentration)			
1975-82	MS Drexel University (Biomedical Engineering)			
1983-87	MD University of Texas Medical Branch, Galveston			
Postgraduate Tra	ining and Fellowship Appointments:			
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1987-88	Pre-Clinical Fellowship, Burn Research, Shriners Burns Institute,			
	Galveston, TX			
1988-89	Intern, Department of Internal Medicine, Hospital of the Medical Colleg			
	of Pennsylvania, Philadelphia, PA			
1989-92	Residency, Department of Physical Medicine and Rehabilitation, Albert			
	Einstein College of Medicine, Bronx, NY			
1992-94	Postdoctoral Research Fellowship, Department of Rehabilitation			
	Medicine, Hospital of the University of Pennsylvania, Philadelphia, PA			
Current Practice	Locations:			
2007-	The Wound Care Center of Chester County Hospital; Building B, Suite			
	103, 915 Old Fern Hill Rd.West Chester PA, 19380			
2007-	The Chester County Hospital; 701 East Marshall St; West Chester PA,			
	19380			
Hospital and Adr	ninistrative Appointments:			
1994-2006	Attending Physician, Department of Rehabilitation Medicine, University			
	of Pennsylvania Medical Center			
1998-2006	Director, Rehabilitation Wound Clinic, Department of Rehabilitation			
	Medicine, University of Pennsylvania Medical Center, University of			
	Pennsylvania Health System			
1996-2006	Fellow, Institute of Aging, University of Pennsylvania			
1996-2006	Attending Physician, Department of Rehabilitation Medicine,			
	Presbyterian Medical Center			
2001-2006	Division Chief, Presbyterian Medical Center			
2001-2006	Member, Medical Executive Committee, Presbyterian Medical Center			
2005-2006	Attending Physician, Division of Rehabilitation Medicine, Pennsylvania			
	Hospital.			
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¹ Fellow American Academy of Physical Medicine and Rehabilitation, Certified Wound Specialist.

2005-2006	Attending Physician, Chestnut Hill Rehabilitation Hospital, Wyndmoor, PA
2006	Attending Physician, Memorial-Hermann Hospital, Houston TX
2006-	Attending Physician, Comphealth Locum Tenens Physicians, Salt Lake
	City, UT
2007	Healthsouth Rehabilitation Hospital of Gadsden, Gadsden, Alabama.
2007-	Attending Physician, Chester County Chester Hospital, West Chester PA
2007-	Attending Physician, Montgomery Rehab Hospital, Wyndmoor, PA
2007-	Attending Physician, LifeCare Hospital of Chester County, West Chester,
	PA (credentialing in process).

Faculty Appointments:

1994-2004	Assistant Professor of Rehabilitation Medicine, University of Pennsylvania
	School of Medicine, Philadelphia, PA
2004-2006	Associate Professor of Physical Medicine and Rehabilitation, University of
	Pennsylvania School of Medicine
2006	Visiting Clinical Assistant Professor, Department of Anesthesia,
	University of Texas at Houston

Specialty Certification:

1994	Diplomate, American Board of Physical Medicine and Rehabilitation		
2004	10 Year Recertification, American Board of Physical Medicine and		
	Rehabilitation		
2007	Certified Wound Specialist, American Academy of Wound Management.		
<u>Licensure</u> :	Pennsylvania, California, New York, Texas, Ohio, Alabama.		
Awards, Honors and Membership in Honorary Societies:			
1993	Clinical Investigator Award, Bioelectric Repair and Growth Society		
1994	Fellow, American Academy of Physical Medicine and Rehabilitation		
2001	Best presentation First Research Day Department of Rehabilitation		

- 2001 Best presentation, First Research Day, Department of Rehabilitation, University of Pennsylvania
- 2001 Outstanding Peer Reviewer Award, Advances in Skin and Wound Care
 2005 Henry L Moses Prize Competition, Publication in Clinical Research
 Category, 2nd Prize, Montefoire Medical Center, Bronx, NY

Selected Grants

1994-99	Principal Investigator: NIH Clinical Investigator Development Award, Electric Fields and Metabolism in a Chronic Wound Model, \$350,000.
1998-99	Co-investigator and Medical Director. NIH SBIR Award, Osteoarthritic Knee Isometric Exerciser for Home Use Phase I Institute of Arthritis
	Musculoskeletal and Skin Diseases, \$100,000.
1999-03	Principal Investigator. NIH SBIR Award, Electrotherapy reverses
	inframalleolar ischemia, National Heart, Lung and Blood Institute,
	\$143,000.
2001-03	Co-investigator and Medical Director. NIH SBIR Award, "Osteoarthritic
	Knee Isometric Exerciser for Home Use Phase II" Institute of Arthritis
	Musculoskeletal and Skin Diseases, \$880,000

Memberships in Professional and Scientific Societies:

1992-2000	Member, Society of Physical Regulation in Biology and Medicine, Member Executive Council (1997-98); Chairman, Program Committee (1998-99)
1996-	Member, American Academy of Physical Medicine and Rehabilitation Vice-Chairman, Wound Care Special Interest Group (1998-
	2000)Chairman, Wound Care Special Interest Group (2000-2002); (2004-2006); Co-Chairman, Wound Care Special Interest Group (2007-2008)
1998-2005	Member, Wound Healing Society
2000-	Member, FDA Orthopedics Review Panel, Ad Hoc member
2005-	Member, Association for the Advancement of Wound Care
2007-	Member, Undersea and Hyperbaric Medicine Society

Editorial Positions:

1996-2000	Reviewer, Bioelectromagnetics
1996-	Ad Hoc Reviewer, Archives of Physical Medicine and Rehabilitation
1998-2005	Advances in Skin and Wound Care, Editorial Board, Peer Review Panel
2002-	Ad Hoc Reviewer, Journal of Rehabilitation Research and Development
2004	Ad Hoc Reviewer, Neural Regeneration and Neural Repair (Journal)
2005-	Journal of Ostomy and Wound Care, Editorial Board, Peer Review Panel
2007	Ad Hoc Reviewer, IEEE Transactions on Medical Imaging

Organizing Roles in Scientific Meetings:

October 1998 Organizer, Seminar on Rehabilitation and Technology Transfer, Society of Physical Regulation in Medicine & Biology; Long Beach, CA. January 1999 Program Chairman, Annual Conference, Society of Physical Regulation in Medicine & Biology, Miami FL

September, 2002	Planning Panel; 17th annual Clinical Symposium on Advances In Skin and Wound Care, Dallas, TX
October, 2002	Organizer of symposium "State of the art in wound care – from Bench to Bedside". American Congress of Rehabilitation Medicine, Philadelphia, PA
November, 2002	Mini-symposium Director, "Cutting-Edge Non-Invasive Therapies to Heal Intractable Wounds" 2002 Annual Assembly, Academy of Physical Medicine and Rehabilitation, Orlando, FL
January, 2003	Planning Panel; 18th annual Clinical Symposium on Advances In Skin and Wound Care, Chicago, Il
October, 2005	Workshop Moderator, "Advances in Diagnosis and Treatment in the Diabetic Foot: Challenges and Solutions". 2005 Annual Assembly, Academy of PM&R, Philadelphia, PA

Selected Lectures by Invitation at National Conferences:

September, 1999	"Vascular Assessment", 1	15 th Annual Syr	mposium on	Advances in	Wound
	Care; Denver, CO				

October, 1999 "Technology Transfer: The partnership between practitioners and industry" (Lecture to 1000 participants) 15th Annual Symposium on Advances in Wound Care, Denver, CO

- October, 1999 "The Scientific Argument for Magnetic Field Therapy" Mini-symposium: "Magnetic Field Therapy: The Hype and the Science": 61st Annual Assembly. Academy of Physical Medicine and Rehabilitation, Washington, DC
- November, 1999 "Phase I Study of an Isometric Muscle Reeducation Device: Efficacy in Osteoarthritis of the Knee". American College of Rheumatology and Rheumatology Health Professionals Annual Scientific Meeting, Boston MA
- September, 2002 "Electrical Stimulation: A useful alternative". 17th Annual Clinical Symposium on Advances in Skin and Wound Care, Dallas TX
- September, 2002 "Patient-centered Limb Salvage: When Appropriate, When Not, and How To Get There". 17th Annual Clinical Symposium on Advances in Skin and Wound Care, Dallas TX
- September, 2002 "Meet the Professors". 17th Annual Clinical Symposium on Advances in Skin and Wound Care, Dallas TX
- October, 2002 "State of the Art in wound care: From Bench to Bedside" Clinical research. Symposium at American Congress of Rehabilitation Medicine, Philadelphia, PA
- November, 2002 "Cutting edge therapies to heal intractable wounds Electrotherapy". 64th Annual American Academy of Physical Medicine and Rehabilitation Annual Conference, Orlando, FL
- October, 2003 "Wound Academy" 18th Annual Clinical Symposium on Advances in Skin and Wound Care, Chicago, IL

October, 2003	"Vascular assessment" 18th Annual Clinical Symposium on Advances in
	Skin and Wound Care, Chicago, IL
October, 2003	"Skin Failure" (Lecture to 1000 participants) 18th Annual Clinical
	Symposium on Advances in Skin and Wound Care, Chicago, IL
October, 2005	"Advances in Diagnosis and Treatment in the Diabetic Foot: Challenges
	and Solutions". 65th Annual Assembly, Academy of PM&R, Philadelphia,
	PA

Research Publications, peer reviewed:

- Goldman, R.J., McCauley, R., Ritchie, D., Abrams, S., Robson, M., and Herndon, D.: Electrically induced modulation of collagen synthesis in cultured human fibroblasts. Surgical Forum, 616-618, 1990.
- Goldman, R.J. and Pollack, S.: Conductivity of a chronic wound model. Bioelectromagnetics 17:445-449, 1996.
- Goldman, R.J. and Pollack, S.: Electric fields and proliferation in a chronic wound model. Bioelectromagnetics 17:450-457, 1996.
- Cheng, K. and Goldman, R.J.: Electric fields and proliferation in a dermal wound model: cell cycle kinetics. Bioelectromagnetics 19: 68-74, 1998.
- Goldman, R.J. Pollack, S. and Cheng, K. Electric field modulates DNA synthesis of dermal fibroblasts in collagen matrix. Electricity and Magnetism in Biology and Medicine. Bersani (editor), Kluwer Academic/Plenum Publishers, pages 879-881, 1999.
- Binhi, VN and Goldman, RJ. Ion-protein dissociation predicts "Windows" in electric field induced wound-cell proliferation. Biochimica Et Biophysica Acta – General Subjects. April 6; 1474: 147-156, 2000.
- Mohler, ER, Klugherz, B, Goldman, RJ, Kimmel, SE, Wade, M and Sehgal C. Trial of a novel prostacyclin analog, UT-15, in patients with severe intermittent claudication. Vascular Medicine, 5, 231-237, 2000.
- Wakeshima, Y and Goldman, RJ.: (Abstract) "The use of hyperbaric oxygen therapy as an adjunctive treatment modality for the management of refractory osteomyelitis in the immuno-compromised patient – a case report". Archives of Physical Medicine and Rehabiliation 81: 1309, 2000.
- Goldman, RJ, Brewley, BI, and Golden, MA "Electrotherapy re-oxygenates inframalleolar ischemic wounds on diabetic patients—A case series: Advances In Skin & Wound Care 15: 112-120, 2002.
- Goldman, RJ and Salcido, R. More than one way to measure a wound: An Overview of Tools and Techniques. Advances in Skin & Wound Care;15(5):236-243, 2002.
- McGuckin, M, Goldman, RJ, Bolton, L. Salcido R. The Clinical Relevance of Microbiology in Acute and Chronic Wounds. Advances in Skin and Wound Care, 16(1): 12-23, 2003.
- Goldman, RJ, Brewley, BI, Zhou, L, Golden, M. Electrotherapy reverses inframalleolar ischemia: A retrospective, observational study. Advances in Skin and Wound Care; 16 (3): 79-89, 2003.

- Goldman, RJ, Reinbold, KA, Iglarsh, ZA, Newstadtler, LM, Oatis, C and Schumacher, HR. Phase I Study of an Isometric Muscle Reeducation Device: Efficacy in Osteoarthritis of the Knee. Journal of Rehabilitation Research and Development; 40 (2): 95-108, 2003.
- Goldman, RJ, Franklin, D, Brewley, BI, Salcido, R. Case report: Measured Improvement in Rate of Healing of Venous Ulceration Associated with a Hyper-Absorptive Capillary Dressing. British Journal of Nursing, 12: 177-183, 2003.
- Goldman, RJ, Brewley, BI, Cohen, R and Rudnick, M. Case report: Use of Electrotherapy to Reverse Expanding Cutaneous Gangrene in End Stage Renal Disease. Advances in Skin and Wound Care; 16 (7): 363-365, 2003
- Goldman, RJ. Update on Growth Factors and Wound Healing: Past, present and future. Advances in Skin and Wound Care, 17(1):24-35, 2004 Jan-Feb.
- Goldman, RJ, Brewley BI and Golden, M. Home-based electrotherapy improves healing of ischemic wounds: A phase I prospective study. Advances in Skin and Wound Care, 17(6): 284-294, 2004.
- Pierce, JR, Reinbold, KA, Lyngard, BC, Goldman, RJ and Pastore, CM. Direct measurement of punch force during six professional boxing matches. Journal of Quantitative Analysis in Sports. 2006.

Editorials, Reviews, Chapters):

- Goldman, R.J.: Pressure Ulcers in Forciea, M. and Lavizzo Mourey, R. (eds.) Geriatric Secrets, Hanley & Belfus, Philadelphia 1996, pages 214-218.
- Goldman, R.J.: Pressure Ulcers in Forciea, M. and Lavizzo-Mourey, R. (eds.) Geriatric Secrets 2nd Edition, Hanley & Belfus, Philadelphia 2000.
- Salcido R., Goldman RJ., The Management and Prevention of Pressure Ulcers and other Chronic Wounds Chapter 31 in *Physical Medicine and Rehabilitation*, Randall L. Braddom, ed. W.B. Saunders: 2000, pages 645-664.
- Goldman, RJ. The patient.com, 1 Year Later. (editorial) Advances in Skin & Wound Care 2002;15(6):254-256.
- Goldman, RJ. Guest Editorial: "Technology Transfer in Rehabilitation: A personal account. Journal of Rehabilitation Research and Development, 40(2): ix-xiv, 2003.
- Goldman, R.J.: Pressure Ulcers in Forciea, M. and Lavizzo-Mourey, R. (eds.) Geriatric Secrets 3nd Edition, Hanley & Belfus, Philadelphia, 2003.
- Goldman, R.J.: 5 Things You Need to Know About ABIs. Advances in Skin and Wound Care, 15 (3) 2003.
- Goldman, RJ.: 5 Things You Need to Know About Compression Therapy. Advances in Skin and Wound Care, 2003.
- Salcido R., Goldman RJ., The Management and Prevention of Pressure Ulcers and other Chronic Wounds Chapter 31 in *Physical Medicine and Rehabilitation*, Pocket edition. Randall L. Braddom, ed. W.B. Saunders: 2003.
- Goldman, R.J, Popescu, A, Hess, C and Salcido, R. The Prevention and Management of Chronic Wounds"; Chapter 33 in *Physical Medicine and Rehabilitation*, 3rd *Edition*, Randall L. Braddom, ed. Elsevier (2007).

Media: Television::

"Aggressive non-invasive outpatient wound care works wonders" Eyewitness News, KYW-TV (CBS Philadelphia), October 21, 1998.
"Electrotherapy proves effective in promoting healing of chronic wounds". Eyewitness News, KYW-TV (CBS; Philadelphia), July 2, 2003
"Electrotherapy proves effective in promoting healing of chronic wounds". 11 PM News, WCBS (CBS; New York City), July 15, 2003.

Electrotherapy and limb salvage". Action News, WPVI (ABC, Philadelphia), February, 2004.