

## CURRICULUM VITAE

**Name:** **Milton Waner**  
**M.B., B.Ch. (Wits)**  
**F.C.S. (S.A.) Otolaryngology**

**Appointment** Co-Director Vascular Birthmark Institute of New York  
Continuum Health Partners

Attending, St. Luke's – Roosevelt Hospital  
Department of Otolaryngology

Attending, Beth Israel Medical Center  
Department of Otolaryngology

### Home Address :

**Date of Birth:** October 29, 1953

**Birthplace:** Johannesburg, South Africa

### Academic Background

**Secondary Education:** Attained First Class Pass in University Entrance Examination, December 1970.  
Johannesburg, South Africa

**Tertiary Education:** Graduated November, 1977 M.B., B.Ch.(RAND)  
The University of the Witwatersrand Medical School, Johannesburg, South Africa.

### Internship

1/1 – 12/1/78 One year's internship Baragwanath Hospital, (a 2,500 bed teaching hospital)  
The University of the Witwatersrand Medical School.

Six Months: General Surgery  
Six Months: Internal Medicine

### Residency

1/1 – 12/1/80 Senior House Officer, Department of Surgery, University of Witwatersrand,  
Johannesburg, South Africa

3 months: Pediatric Surgery  
3 months: Cardiothoracic Surgery  
3 months: Urology  
3 months: Traumatic Surgery/Emergency Room

1/1/81 - 6/30/84 Registrar(Resident) Division Otolaryngology, Department of Surgery,  
University of the Witwatersrand, Johannesburg, South Africa.

12/1/88-3/31/90 Resident, Department of Otolaryngology,  
University of Arkansas for Medical Sciences, Little Rock, AR.

**Fellowship**

7/1/84 – 6/30/85      Research: Department of Otolaryngology and Maxillofacial Surgery,  
Division of Head and Neck Surgery, University of Cincinnati Medical Center,  
Cincinnati, Ohio, U.S. A.

**MEDICAL LICENSURE**

January 1979      E.C.F.M.G. Certification (ECFMG # 0-289-272-7)  
January 1979      South African Medical and Dental Council (Reg. #20348)  
August 1980      British Medical Council (Reg. #2664439)  
November 1986      Registered as a specialist (Board Certified in Otolaryngology)  
South African Medical and Dental Council.  
December 1989      Parts 1 & 2 of the Federal Licensing Exam (FLEX)  
June 1990      Arkansas State Medical Board (C-7874)

**MILITARY TRAINING** (compulsory draft)

1/1 – 12/31/79    3 months:      Basic Military Training .  
                          3 months:      Military Duties, Namibia.  
                          6 months:      Otolaryngology, No. 1 Military Hospital, Voortrekkerhoogte.

**ACADEMIC APPOINTMENTS**

7/1/85-11/15/85      Research Associate, Laser Treatment Center,  
Jewish Hospital, Cincinnati, Ohio, U.S.A.  
2/1/86-12/31/86      Lecturer, Department of Surgery, Division of Otolaryngology,  
University of Sydney, Sydney, Australia.  
1/1/87-9/30/88      Senior Lecturer, Department of Surgery, Division of Otolaryngology,  
University of Sydney, Sydney, Australia.  
12/1/88-3/31/90      Resident, Department of Otolaryngology,  
University of Arkansas for Medical Sciences, Little Rock, AR.  
4/1/90-7/1/93      Assistant Professor, Department of Otolaryngology,  
University of Arkansas for Medical Sciences, Little Rock, AR.  
Director, Laser Institute,  
University of Arkansas for Medical Sciences, Little Rock, AR.  
Assistant Professor, Department of Dermatology,  
University of Arkansas for Medical Sciences, Little Rock, AR.  
7/1/93 - 6/31/99      Associate Professor, Department of Otolaryngology,  
University of Arkansas for Medical Sciences, Little Rock, AR

Director, Laser Institute,  
University of Arkansas for Medical Sciences, Little Rock, AR.

Director, Vascular Anomalies Center,  
Arkansas Children's Hospital, Little Rock, AR.

7/01/99 – 10/31/2001 Professor, Department of Otolaryngology  
University of Arkansas for Medical Sciences, Little Rock, AR

Director, Laser Institute,  
University of Arkansas for Medical Sciences, Little Rock, AR.

Director, Vascular Anomalies Center,  
Arkansas Children's Hospital, Little Rock, AR.

Consultant, Vascular Malformations Center,  
Massachusetts General Hospital, Boston, MA

10/31/2001 – Present Professor, Department of Otolaryngology  
University of Arkansas for Medical Sciences, Little Rock, AR

Benjamin and Milton Waner Endowed Chair  
Pediatric Facial Plastic and Reconstructive Surgery  
Arkansas Children's Hospital.

Director, Laser Institute,  
University of Arkansas for Medical Sciences, Little Rock, AR.

Director, Vascular Anomalies Center,  
Arkansas Children's Hospital, Little Rock, AR.

Consultant, Vascular Malformations Center,  
Massachusetts General Hospital, Boston, MA

### **HONORARY APPOINTMENTS**

Consultant Field Reader: The Office of Orphan Product Development.  
Food & Drug Administration (FDA).

Editorial Board: Journal of Cutaneous Laser Surgery, Martin Dunitz Publishers  
London, UK.

### **HIGHER DEGREES AND DIPLOMAS**

May 1981 Primary F.R.C.S. (Royal College of Surgeons), Glasgow, Scotland.

November 1986 Successfully completed specialist board examination in Otolaryngology  
South African College of Medicine and Surgery

November 1986 Admitted as a Fellow of the College of Surgeons with Otolaryngology  
F.C.S. (S.A.).

## COMMITTEE MEMBERSHIPS

	Class Representative, First Year Medical Class (Elected)
	Member, Students Medical Council
1973	Member, Staff Students Liaison Committee
	Member, Students Medical Council Sub-Committees
1989-Present	Chairman, Joint Laser Committee, University of Arkansas for Medical Sciences, Arkansas Childrens Hospital
1989-Present	Member, Research Committee, University of Arkansas for Medical Sciences
1994-1996	Member, Laser Committee, American Academy of Otolaryngology, Head and Neck Surgery
1995 - 1996 Surgery.	Member, Nominating Committee, American Society for Laser Medicine and
1997 – 1999	Member, Governing Board (Surgical Representative), American Society for Laser Medicine and Surgery
2001- 2003	Member New Technology Committee American Academy of Facial Plastic and Reconstructive Surgery
2002 – 2003	Member Board of Directors Arkansas Children's Hospital
2002- 2003	Member Board Services and Quality Committee Arkansas Children's Hospital

## PAPERS PRESENTED AT NATIONAL AND INTERNATIONAL MEETINGS

Gregor RT, **Waner M**, Davidge-Pitts KJ, Joseph CA. Pre-operative 5 Fluorouracil and Mitomycin-C with Radiation Therapy in Advanced Cancer of the Oral Cavity, Oropharynx, Hypopharynx and Larynx. A Pilot Study. Presented at the South African Otolaryngology Society Congress, October, 1983.

Joseph CA, Gregor RT, Davidge-Pitts KJ, **Waner M**. The Versatility of the Pectoralis Major Myocutaneous Flap. Presented at the International Conference on Head and Neck Surgery, Baltimore, Maryland, July, 1984.

Gluckman J, **Waner M**, Potter WR, Dougherty T, Weiss MA. A New Fluorescence Detection Probe for the Localization of Occult Tumors. An Animal Study. Presented at the Fifth Annual Meeting of the American Society for Laser Medicine and Surgery, Orlando, Florida, April, 1985.

Gluckman J, **Waner M**, Shumrick K. Photodynamic Therapy - A Viable Alternative to Conventional Therapy for Early Lesions of the Upper Aerodigestive Tract. Presented at the Joint Meeting of the American Society for Head and Neck Surgery and the Society of Head and Neck Surgeons, Puerto Rico, May, 1985.

**Waner M**, Straight RC, Gluckman JL, Brown M, La Plant MP, Lampkin BC. A Comparison of the Effect of Pulsed Light and Continuous Wave Light on Neoplastic Tissue. Presented at the 6<sup>th</sup> Congress of the International Society for Laser Surgery and Medicine, Jerusalem, Israel, October, 1985.

**Waner M**, Straight RC, Gluckman JL, Wessler T. The Mechanism of Photodynamic Therapy in Relation to the Tumor Microvascular Compartment. Presented at the 6<sup>th</sup> Congress of the International Society for Laser Surgery and Medicine, Jerusalem, Israel, October, 1985.

Straight RC, **Waner M**, Mechanisms of Localization and Retention of Dyes, Porphyrins and Other Photodynamic Sensitizers in Tumors and Other Implanted Polyvinyl-Alcohol Sponges. Presented at the 6<sup>th</sup> Congress of the International Society for Laser Surgery and Medicine, Jerusalem, Israel, October, 1985.

Olivi A, Sawaya R, **Waner M**, Liwnicz B, Tew JM Jr. Stereotactic Photodynamic Therapy of C6 Gliomas. Implications. Presented at the Annual Meeting of the Association of Neurological Surgeons, Denver, Colorado, April, 1986.

**Waner M**, Gibson WPR. Photodynamic Therapy in Head and Neck Surgery. Presented at the 35<sup>th</sup> Annual General and Scientific Meeting of the Otolaryngological Society of Australia, Sydney, Australia, April, 1986.

**Waner M**, La Plant M, Straight RC, Parker J, Little G. A Comparison of Argon-Dye and Gold Vapor Lasers in Photodynamic Therapy. Presented at the 6<sup>th</sup> Annual Meeting of the American Society for Laser Medicine and Surgery, Boston, Massachusetts, May, 1986.

**Waner M**, La Plant M, Straight RC, Gluckman JL, Brown M, Lampkin BC. Studies on the Effect of Pulsed Light on Neoplastic Tissue. Presented at the 6<sup>th</sup> Annual Meeting of the American Society for Laser Medicine and Surgery, Boston, Massachusetts, May, 1986.

**Waner M**, Olivi A, Wessler T, Straight RC, Sawaya R. Di Hematoporphyrin Ether and the Blood Brain Barrier. Presented at the 6<sup>th</sup> Annual Meeting of the American Society for Laser Medicine and Surgery, Boston, Massachusetts, May, 1986.

**Waner M**, Straight RC, Gluckman JL, Wessler T. The Mechanisms of Photodynamic Therapy in Relation to the Tumor Microvascular Compartment. Presented at the 6<sup>th</sup> Annual Meeting of the American Society for Laser Medicine and Surgery, Boston, Mass., May, 1986.

**Waner M**, Straight RC, Gluckman JL, Lampkin BC, Martin CB. Gold Vapor Lasers and PDT. Studies on the Phototoxic Effect and the Optical Transmission Properties of Pulsed Light. Presented at the 1<sup>st</sup> International Conference on Applications of Photosensitization for Diagnosis and Treatment, Tokyo, Japan, May, 1986.

Chen IW, Sperling MI, **Waner M**, Maxon HR, Gluckman JL. Radio-iodination of a Potential Tumor Imaging Agent, Di Hematoporphyrin Ether (DHE). Presented at the IV International Congress World Federation of Nuclear Medicine and Biology. Buenos Aires, Argentina, November, 1986.

Straight RC, **Waner M**, Lawrence I. Comparison of Argon-Dye, Gold and Copper Metal Vapor and Flashlamp-Dye, Continuous Wave and Pulsed Lasers in Photodynamic Therapy. Presented at the Clayton Foundation Congress in Photodynamic Therapy, Los Angeles, California, February, 1987.

**Waner M**, Abramson A, Brandsma J. Hematoporphyrin Derivative Therapy of Laryngeal Papillomas: A Preliminary Study. Presented at the Sixth International Papillomavirus Workshop, Georgetown University, Washington D.C., June, 1987.

**Waner M**, Abramson A, Halliday GM. The Effect of Photodynamic Therapy on Laryngeal Papillomatosis. Presented at the Annual General and Scientific Meeting of the Otolaryngological Society of Australia, Surfers Paradise, Australia, May, 1987.

Eisinger D, **Waner M**, Rogers JH, Pearson BS. Photodynamic Therapy in the Management of Superficial Bladder Cancer. Presented at the International Surgical Week. 32<sup>nd</sup> Congress of the "Societe Internationale de Chirurgie." Sydney, Australia, September, 1987.

**Waner M**. The Treatment of Facial Capillary Telangiectasia with Pulsed Yellow Light. Presented at the 8<sup>th</sup> Annual Meeting of the American Society for Laser Medicine and Surgery, Dallas, Texas, April, 1988.

Abramson A, **Waner M**. Hematoporphyrin Derivative Therapy of Laryngeal Papilloma. Presented at the 4<sup>th</sup> Biennial Conference of European Laser Association and the 6<sup>th</sup> Annual Conference of the British Medical Laser Association, London, Great Britain, July, 1988.

**Waner M**, Murdoch L, Woods C. The Histological Effects of Pulsed Light (578 nm) on Vascular Tissue. Presented at the 4<sup>th</sup> Biennial Conference of European Laser Association and the 6<sup>th</sup> Annual Conference of the British Medical Laser Association, London, Great Britain, July, 1988.

Malsky M, **Waner M**, Sanders M. Microscopic Localization of Hematoporphyrin Derivative in an Experimental Tumor. Presented at the 3<sup>rd</sup> Biennial Meeting of the International Photodynamic Association, Buffalo, New York, July, 1990.

**Waner M**, Ngo P, Straight RC. A Comparison of Pulsed Light and Continuous Wave Light in Photodynamic Therapy. Presented at the Third International Head and Neck Oncology Research Conference, Las Vegas, Nevada, September, 1990.

Dinehart S, **Waner M**. A Comparison of Copper Vapor and Flashlamp Pumped Dye Laser in the Treatment of Telangiectasia. Presented at the Annual Spring Meeting of the American Academy of Dermatology, Boston, Massachusetts, April, 1990.

Malsky M, **Waner M**. Microscopic Localization of Photofrin in an experimental tumor. Presented at the Third International Head & Neck Oncology Research Conference, Las Vegas, Nevada, September, 1990.

**Waner M**, Suen JY. A Comparison of the Effect of Pulsed Light & Continuous Wave Light in Experimental Tumors. Presented at the Third International Head & Neck Oncology Research Conference, Las Vegas, Nevada, September, 1990.

Key JM, **Waner M**. Selective Destruction of Facial Telangiectasia with a Copper Vapor Laser. Presented at the Southwestern Section Meeting of the American Academy of Facial Plastic & Reconstructive Surgery, Houston, Texas, February, 1990.

**Waner M**, Suen JY. A New Approach to the Management of Hemangiomas. Presented at the 10<sup>th</sup> Annual Meeting of the American Society for Laser Medicine & Surgery, San Diego, California, April, 1991.

Henderson C, Pultro J, **Waner M**, Electrocochleography Intraoperative Monitoring: A Case Study. Presented at the American Academy of Audiology, Nashville, Tennessee, April, 1991.

Suen JY, **Waner M**. A New Approach to the Management of Vascular Malformations. Presented at the 10<sup>th</sup> Annual Meeting of the American Society for Laser Medicine & Surgery, San Diego, California, April, 1991.

**Waner M**, Suen, JY. The Treatment of Hemangiomas. Presented at the 94<sup>th</sup> Annual Meeting of the American Laryngological, Rhinological and Otological Society (Trilogical Society), Waikoloa, Hawaii, May, 1991.

**Waner M**, Key JM. Selective Destruction of Benign Pigmented Facial Lesions with a Copper Vapor Laser. Presented at the Spring Meeting of the American Academy of Facial Plastic & Reconstructive Surgery, Waikoloa, Hawaii, May, 1991.

Key JM, **Waner M**. The Treatment of Facial Vascular Malformations with Pulsed Yellow Light. Presented at the Spring Meeting of the American Academy of Facial Plastic & Reconstructive Surgery, Waikoloa, Hawaii, May, 1991.

**Waner M**, Suen JY. Management of Hemangiomas of the Head and Neck. Presented at the International Symposium on Head & Neck Surgery, Jerusalem, Israel, November, 1991.

Suen JY, **Waner M**. Management of Vascular Malformations of the Head & Neck. Presented at the International Symposium on Head & Neck Surgery, Jerusalem, Israel, November, 1991.

Stern S, Flock S, Craig J, **Waner M**, Tumor Specific Response to Photodynamic Therapy. Presented at the Annual Meeting of the American Society for Laser Medicine and Surgery, Orlando, Florida, May, 1992.

Flock S, **Waner M**, McGrew B, and Colvin K. The Response of Blood Vessels to Irradiation By Three Different Vascular Lesion Lasers: Argon Dye, Copper Vapor or Flashlamp-Pumped Dye. Presented at the Annual Meeting of the American Society for Laser Medicine and Surgery, Orlando, Florida, May, 1992.

Flock S, **Waner M**, Schwager K, McGrew B, and Montague D. The Response of Blood Vessels to Irradiation by Four Different Vascular Lesion Lasers. Presented at the Fourth International Conference on Photodynamic Therapy and Medical Laser Applications, Milan, Italy, June, 1992.

**Waner M**. Laser Photocoagulation of Proliferating Superficial Cutaneous Hemangiomas. Presented at the Fourth International Conference on Photodynamic Therapy and Medical Laser Applications, Milan, Italy, June, 1992.

Dinehart S, Flock S, **Waner M**. Treatment Spot Overlap of the Flashlamp Pumped Dye Laser. Presented at the Fourth International Conference on Photodynamic Therapy and Medical Laser Applications, Milan, Italy, June, 1992.

Freeman S, **Waner M**. The Treatment of Venous Malformations of the Head & Neck. Presented at the American Academy of Facial Plastic and Reconstructive Surgery, Washington, D.C., September, 1992.

Schwager K, Flock S, and **Waner M**. Effect of Nanosecond Pulsed Light (577 nm) From a Frequency Doubled Nd:YAG Dye Laser on Experimental Vascular Tissue. Presented at SPIE - The International Society for Optical Engineering. OE Lase - Optics, Electro-Optics and Laser Engineering, Los Angeles, California, January, 1993.

**Waner M**, Lasers in the Treatment of Vascular Malformations: State of the Art. Presented at SPIE - The International Society for Optical Engineering. OE Lase - Optics, Electro-Optics and Laser Engineering, Los Angeles, California, January, 1993.

Palesano R, Flock S, Stern S, **Waner M**. Effect of Tissue Oxygenation on Photodynamic Therapy in Rat Livers. Presented at the 13<sup>th</sup> Annual Meeting of the American Society for Laser Medicine and Surgery, New Orleans, Louisiana, April, 1993.

Key JM, **Waner M**. The Treatment of Vascular Lesions of the Lips. Presented at the International Meeting of the American Academy of Facial Plastic and Reconstructive Surgery, San Francisco, California, May, 1993.

**Waner M**, Key JM, Fazekas-May M. The Treatment of Pigmented Lesions with a Q-Switched Frequency Doubled Nd:YAG Laser. Presented at the International Meeting of the American Academy of Facial Plastic and Reconstructive Surgery, San Francisco, California, May, 1993.

Suen JY, **Waner M**. The Management of Vascular Malformations of the Head and Neck. Presented at the Third International Conference on Pediatric Otorhinolaryngology, Jerusalem, Israel; November, 1993.

**Waner M**, Suen JY. The Management of Hemangiomas of the Head and Neck. Presented at the Third International Conference on Pediatric Otorhinolaryngology, Jerusalem, Israel; November, 1993.

**Waner M**, Bekhor P, Arsham K. The Long-Term Sequelae of Excision and Skin Grafting of Portwine Stains. Presented at The American Society for Laser Medicine and Surgery, Toronto, Canada; April, 1994.

Orten S, **Waner M**, Flock S. The Treatment of Port Wine Stains: A Long Term Study. Presented at the 15<sup>th</sup> Annual Meeting of The American Society for Laser Medicine and Surgery, San Diego, California, March, 1995.

**Waner M**, Suen JY, Bower C, Dyleski R. A New Approach to the Management of Hemangiomas. Presented at the American Society for Pediatric Otolaryngology, Durango, Colorado, April, 1995.

**Waner M**, Orten SJ. Skin Resurfacing and the Treatment of Hemangiomas. Presented at the American society for Laser Medicine and Surgery, Orlando, Florida, April 1996.

**Waner M**, Orten SJ, Kincannon J, Capillary Malformations: A Distinct Entity. Presented at the American Society for Laser Medicine and Surgery, Orlando, Florida, April 1996.

Wicker C, Ferguson S, Flock S, **Waner M**. Measurement of Heat Flow through Bovine Tissue using Nd:YAG Laser Irradiation: Concepts for Clinical Treatment. Presented at the American Society for Laser Medicine and Surgery, Orlando, Florida, April 1996.

Flock S, Stern T, Liu G, Lehman, P Franz T, Stern S, **Waner M**: Enhancement of Topical Drug Uptake in vivo after Skin Irradiation with an Er:YAG Laser. Poster Presentation at the American Society for Laser Medicine and Surgery, Phoenix, Arizona, April 1997.

**Waner M** The Treatment of Large Vessel Disorders with a Nd:YAG Laser. Presented at the American Society for Laser Medicine and Surgery, San Diego, California, April, 1998.

Brodsky L, **Waner M**, Shaha S: Otitis Media in Children: Increasing Treatment Versatility with the use of the Flashscanned CO<sub>2</sub> laser. Presented at the Southern Section of the Trilogic Society, New Orleans, Louisiana. January, 1999.

North P, **Waner M**, Mizeracki A, Mihm M: GLUT 1: A Newly Discovered Immunohistochemical Marker for Juvenile Hemangiomas. Presented at the US and Canadian Academy of Pathology, San Francisco, California, March, 1999.

Brodsky L S, Reilly J, Shaha S, **Waner M**. Integrated outcomes for a new Technology in the Treatment of Otitis Media. Presented at the American Academy of Otolaryngology Head and Neck Surgery. New Orleans, September 1999.

**Waner M**, Adams D, North P, Yee S. A rare complication of pulsed dye laser treatment of hemangiomas. Presented at the 13<sup>th</sup> International Workshop on Vascular Anomalies, Montreal Canada. March 2000.

**Waner M**, Waner A, North P, Sigfried E, Frieden E. Identification of two distinct types of hemangioma. Presented at the 13<sup>th</sup> International Workshop on Vascular Anomalies, Montreal Canada. March 2000.

North P, **Waner M**, Mihm M. Juvenile hemangiomas share a unique immunophenotype with the microvasculature of placenta: implications for pathogenesis. Presented at the 13<sup>th</sup> International Workshop on Vascular Anomalies, Montreal Canada. March 2000.

North P, Mizeracki A, Thomas JR, Nicholas R, **Waner M**, Mihm MC. Intramuscular "hemangiomas" are vascular malformations immunodistinct from juvenile hemangiomas. Presented at the US and Canadian Academy of Pathology, San Francisco, California, March, 2000.

North P, Mizeracki A, **Waner M**, Mihm MC, Mrak RE. Do juvenile hemangiomas originate from endoneurial microvasculature? Presented at the Annual Meeting of the American Association of Neuropathologists. Atlanta, GA. June 2000.

Van Laborde S, Dover J, Pon K, Arndt K, Zelickson B, Burns J, Kilmer S, Hruza G & **Waner M**. Use of the NLite laser for non-ablative wrinkle reduction. Presented at 22<sup>nd</sup> Annual meeting of the American Society for Laser Medicine and Surgery. Atlanta GA. April 2002.

Zharov V, **Waner M**, Lapotko D & Romanovskaya T. Photothermal time-resolved imaging of thermal effects in laser microsurgery. Presented at 22<sup>nd</sup> Annual meeting of the American Society for Laser Medicine and Surgery. Atlanta GA. April 2002.

**Waner M**, Buckmiller L, Suen J, North P. The management of nasal hemangiomas. Identification of two distinct types of hemangioma. Presented at the 14<sup>th</sup> International Workshop on Vascular Anomalies, Nijmegen, Holland,. May 2002.

**James CJ, Waner M**, Buckmiller L. Interstitial laser therapy for venous malformations of the tongue. Presented at the 14<sup>th</sup> International Workshop on Vascular Anomalies, Nijmegen, Holland,. May 2002.

## JOURNAL PUBLICATIONS

Hertzanu Y, Mendelson DB, **Waner M**, Gregory RT. Protruding jugular bulb presenting as a middle ear mass. *South African Medical Journal*. 1983;63:900.

Joseph CA, Gregor RT, Davidge-Pitts KJ, **Waner M**. The versatility of the pectoralis major myocutaneous flap. *Head and Neck Surgery*. 1985;7:5.

Gregor RT, **Waner M**, Davidge-Pitts KJ, Joseph CA. Evaluation of a suspected malignant lymph node in the neck. *South African Journal of Surgery*. 1985;23:79-82.

Joseph CA, **Waner M**, Gregor RT, Davidge-Pitts KJ. Pharyngo-esophageal reconstruction with the pectoralis major myocutaneous flap. *South African Journal of Surgery*. 1985;23:67.

**Waner M**, Penzak ML. Hypertension. *Amer J Otol*. 1985;6:6.

Gluckman J, **Waner M**, Shumrick K. Photodynamic Therapy - a viable alternative to conventional therapy for early lesions of the upper aerodigestive tract? *Arch Otolaryngol Head Neck Surg*. 1986;112(9):949.

La Plant M, Parker J, **Waner M**, Little GL, Straight RC. Comparison on the optical transmission properties of pulsed continuous wave light in biological tissues. *Lasers in Surg and Med*. 1987; 7:336-338.

Straight RC, Davis RK, **Waner M**. The Effect of photosensitizer and light dose on vascular targets in albino mice. *Laryngoscope*. 1988;98:1-4.

Abramson AL, **Waner M**, Brandsma J. The clinical treatment of laryngeal papillomas with hematoporphyrin phototherapy. *Arch Otolaryngol Head Neck Surg*. 1988;114:795-800.

Pennington DG, **Waner M**, Knox A. Photodynamic therapy for multiple skin cancers. *Plast Reconstr Surg*. 1988;82:1067-1071.

Suen JY, **Waner M**. Treatment of oral cavity vascular malformations using the neodymium YAG laser. *Arch Otolaryngol Head Neck Surg*. 1989;115:1329-1333.

**Waner M**. Classification of Port-Wine Stains. *Fac Plast Surg*. 1989;6:162-166.

Go P, Reed RN, Straight RC, **Waner M**. Laser photodynamic therapy of papilloma viral lesions. *Arch Otolaryngol Head & Neck Surgery*. 1990;116:1177-1180.

Gross DJ, **Waner M**, Schosser RH, Dinehart SM. Squamous cell carcinoma of lower lip involving large cutaneous surface. *Arch Dermatol*. 1990;126:1148-1150.

Key JM, **Waner M**. Selective Destruction of Facial Telangiectasia with a Copper Vapor Laser. *Arch Otol Head Neck Surg*. 1992;118:509-513.

**Waner M**, Suen JY, Dinehart S. The Treatment of hemangiomas of the head and neck. *Laryngoscope*. 1992;102:123-1132.

Dinehart SM, **Waner M**, Flock S. The Copper vapor laser for treatment of cutaneous vascular and pigmented lesions. *J Dermatol Surg Oncol*. 1993;19:370-375.

Stern SJ, Craig J, Flock S, Montague D, **Waner M**, Jacques S. Tumor specific response to photodynamic therapy. *Lasers Surg Med*. 1993;13:(4)434-439.

Dornhoffer J, **Waner M**, Arenberg I. Immunoperoxidase study of the endolymphatic sac in meniere's disease. *Laryngoscope*. 1993;103:1027-1028.

**Waner M**, Dinehart S, Wilson MB, Flock ST. A Comparison of copper vapor and flashlamp pumped dye lasers in the treatment of facial telangiectasia. *J Dermatol Surg Oncol*. 1993;19:992-998.

**Waner M**, Dinehart S, Mallory SB, Suen JY. Laser photocoagulation of superficial proliferating hemangiomas. *J Dermatol Surg Oncol*. 1994; 20, 1-4.

Palesano R, Flock S, Stern S, **Waner M**. Effect of tissue oxygenation on photodynamic therapy in rat livers. *Lasers Surg Med*. (in press).

Dinehart S, Flock S, **Waner M**. Beam Profile of the Flashlamp Pumped Pulsed Dye Laser: Support for Overlap of Exposure Spots. *Lasers Surg Med*. 15, 277-280, 1994.

Schwager K, **Waner M**, Hohmann D. Laser therapiekonzept ber Teleargiektasien und beim Naevus Flammeus. *Laryngo-Rhino-Otol*. 1994; 73, 287-290.

**Waner M**, Suen JY. The Management of Congenital Vascular Lesion of the Head and Neck. *Oncology*, 9:989-997, 1995.

Orten SS, **Waner M**, Flock ST, Roberson PK, Kincannon J: Portwine stains: An assessment of five years of treatment. *Arch. Otol. Head Neck Surg*. 122:1174-1179, 1996.

**Waner M**: Lasers in Facial Plastic Surgery. *Current Opinion in Otolaryngol. Head & Neck Surgery*. 4:231-235, 1996.

Fonseca V, Flock S, **Waner M** : An erbium:YAG laser to obtain capillary blood samples without a needle for point of care laboratory testing. *Arch Pathol Lab Med*. 121:685-688, 1997

Bower CM, **Waner M**, Flock S, Schaeffer R: Flashpump Dye Laser Treatment of Laryngeal Papillomas. *Ann. Otol. Rhinol. Laryngol*.107:1001-1005, 1998

James CA, Allison JW, **Waner M**: Pediatric Case of the Day: Klippel-Trenauney Syndrome. *Radiographics* 19: 1093-1097, 1999.

Orten SS, **Waner M**, Flock SF, Bardoles R: Q Switched Nd:YAG Laser treatment of Lentigo Maligna. *Otolaryngology Head and Neck Surgery* 120:296-301, 1999.

Brodsky L, Brookhauser P, Chait D, Reilly J, Deutsch E, Cook S, **Waner M**, Shaha S, Nauenberg E. Office based insertion of pressure equalization tubes: The role of laser assisted tympanic membrane fenestration. *Laryngoscope* 109:2009-2013,1999.

Hochman M, Vural E, Suen J, **Waner M**: Contemporary Management of Vascular Lesions of the Head and Neck. *Current Opinion in Otolaryngology & Head and Neck Surgery* 7:161-166, 1999.

Siegel G, Brodsky L, **Waner M**, Shaha S: Office based laser asisted tympanic membrane fenestration in adults and children: pilot data to support an alternative to traditional approaches to otitis media. *Int J Ped Otolaryngolog.* 53:111-120,2000.

North P, **Waner M**, Mizeracki A, Mihm M: GLUT 1: A Newly Discovered Immunohistochemical Marker for Juvenile Hemangiomas. *Human Path.* 31:11-22, 2000.

Berg JN, Walter JW, Thisanagayam U, Evans M, Blei F, **Waner M**, Diamond AG, Marchuk DA, Porteous ME: Evidence for Loss of Heterozygosity of 5q in Sporadic Hemangiomas- Are Somatic Mutations involved in Hemangioma Formation? *J.Clin Path*, in press, 2000.

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Shafirstein G, Ferguson S, **Waner M**. Conductive Interstitial Thermal Therapy (CITT) Device. U.S. Patent Application No. 10/336,973 & 10/228,482.

#### **PUBLICATIONS IN CONFERENCE PROCEEDINGS**

Flock S, **Waner M**, Schwager K, McGrew B, and Montague D. The response of blood vessels to irradiation by four different vascular lesion lasers: Argon-dye, Copper-vapor, Flashlamp-dye, and Q-switched Frequency-doubled Nd:Yag. In: *Proc Int Conf on Photodynamic Therapy and Medical Laser Applications*. (P. Spinelli, M DalFante and R Marchesini, eds.), Elsevier, Amsterdam, 1992;945-949.

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#### TEXTBOOK CHAPTERS

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**Key JM, Waner M**, Lasers in Facial Plastic Surgery. North American Clinics of Facial Plastic and Reconstructive Surgery. Vol. 4, No. 2; WB Saunders, New York, New York 1996.

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## RESEARCH GRANTS

1. Straight RC, (PI) et. al. [Waner M. (Co-PI)]. Basic Photobiological and Preclinical Studies of Free electron Laser Irradiation of Biological Targets. United States Navy, Office of Naval Research. \$1.3 million (1987-1989). Renewed 1990.
2. Waner M. (PI). The Microvascular Effects of Pulsed Light. Research and development grant. Metalaser Pty. Ltd. \$30,000.00 P/A (1988-1990).
3. Flock S. (PI), Waner M. (Co-PI). A Study of the Thermokinetics During the Treatment of Vascular Lesions with Pulsed Yellow-Light Lasers. \$6,874, University of Arkansas Medical Research Endowment, 1 October 1991-30 September 1992.
4. Flock S.(PI) and Waner M. (Co-PI). Tissue Response to Pulsed Yellow Light Laser Irradiation. \$34,654, Arkansas Science and Technology Authority, 1 January 1992-31 December 1992.
5. Flock S.(PI), Waner M.(Co-PI) and Vestal C. Research and Development of a Laser Skin Perforator (Collaborative project with Venisect, Inc.). \$49,638, Arkansas Science and Technology Authority (Energy Related Tech. Dev. Project), 1 May 1993-31 October 1993.
6. Flock S. (PI) and Waner M. Quantification of Laser Induced Thermal Damage with Polarization Dependent Reflectance. \$6,455, University of Arkansas for Medical Sciences Pilot Study Grant Program, September 1992-August 1993.

Flock S (PI), Fink L, Waner M (CoPI). Effects of Ethanol on Photosensitizer clearance (1 RO3 DCO1985-01A1); \$49,709 plus 47% indirect costs, National Institute on Deafness and other Communication Disorders -NIH, December 1993- November, 1995.

Shafirstein G, Waner M(Co PI). Mathematical and Pathological Analysis of the Response of Portwine Stains to Pulsed Dye lasers. Lyon Foundation \$50,000 2002-2004

Waner M, North P(CoPI). Hemangiomas and Vascular Malformations: Mechanisms of Pathogenesis. \$250,000 Arkansas Children's Hospital Foundation 2000-2005.

## INVITED PRESENTATIONS AT LOCAL, NATIONAL AND INTERNATIONAL MEETINGS

Lasers in Medicine and Surgery: New Advances. Surgical Grand Rounds, Royal Prince Alfred Hospital. Sydney, Australia, May, 1986.

Basic Mechanisms in Photodynamic Therapy. University of Utah. Salt Lake City, Utah, May, 1986.

Lasers in Medicine and Surgery: New Advances. Royal North Shore Hospital, Grand Rounds. Sydney, Australia, August, 1986.

Photodynamic Therapy and the Treatment of Cancer. Surgical Grand Rounds, Johannesburg Hospital. Johannesburg, South Africa, November, 1986.

Lasers in Surgery and Medicine. Keynote address at the Australian Conference on Lasers and Spectroscopy, Surfers Paradise, Australia, May, 1987.

Photodynamic Therapy. Annual Meeting of the Royal Australian College of Dermatologists. Sydney, Australia, May, 1987.

Laser Photocoagulation of Vascular Malformations. Surgical Grand Rounds. Royal Prince Alfred Hospital. Sydney, Australia, May, 1987.

Photodynamic Therapy. Grand Rounds, Department of Otolaryngology. Long Island Jewish Medical Center. Long Island, New York, June, 1987.

Photodynamic Therapy and the Treatment of Laryngeal Papilloma. The 32<sup>nd</sup> Congress of the "Societe Internationale de Chirurgie." Sydney, Australia, September, 1987.

Lasers in Medicine and Surgery. The Mater Hospital. Brisbane, Australia, September, 1987  
Copper Vapor Lasers and Cutaneous Laser Surgery. University of Singapore Medical Center. Singapore, April, 1987.

Photodynamic Therapy - A Brief Review. Annual Scientific Meeting of the Royal Australian College of Surgeons. Sydney, Australia, August, 1988.

Photodynamic Therapy. The 41<sup>st</sup> annual meeting of the Southwestern Surgical Congress. Monterey, California, April, 1989.

Obstructive Sleep Apnea. Surgical Considerations. The Sixth Annual WW Stead Arkansas Chest Symposium. Mountain View, Arkansas, May, 1989.

Cutaneous Laser Surgery. The Fifth International Symposium of the American Academy of Facial Plastic & Reconstructive Surgery. Toronto, Canada, June, 1989.

Lasers in Otolaryngology Head & Neck Surgery. The Annual Congress of the Society of Otorhinolaryngology and Head and Neck Nurses. New Orleans, Louisiana, September, 1989.

Photodynamic Therapy: Clinical Overview. The Eighth International Congress on Applications of Lasers and Electro-Optics (ICALEO). Orlando, Florida, October, 1989.

Photodynamic Therapy in Head & Neck Surgery. The Lederle PDT Symposium. Toronto, Canada, March, 1990.

Photodynamic Therapy & Skin Cancer. The Northeast Dermatological Association. New York, New York, April, 1990.

Laser Photocoagulation of Facial Vascular and Pigmented Lesions. The Philadelphia Society of Facial Plastic Surgeons, Inc. Philadelphia, Pennsylvania, October, 1990.

Laser Photocoagulation of Vascular Malformations. Surgical Grand Rounds. Department of Plastic Surgery. Baylor Medical College. Houston, Texas, October, 1990.

Treatment of Pigmented Lesions with the Copper Vapor Laser. Treatment of Vascular Cutaneous Lesions and Malformations in Port Wine Stains and Telangiectasias. The Annual Clinical Assembly of Osteopathic Specialists. Los Angeles, California, October, 1990.

Yellow Light Lasers. The annual meeting of the American Academy of Dermatology. Atlanta, Georgia, December, 1990.

Copper Vapor Lasers. Annual Meeting of the American Academy of Dermatology. Atlanta, Georgia, December, 1990.

A New Approach to the Treatment of Hemangiomas. Grand Rounds, Arkansas Children's Hospital. Little Rock, Arkansas, June, 1991.

Lasers in Medicine & Surgery. Scientific Session of the Arkansas Caduceus Club. 1991 Alumni Weekend. University of Arkansas for Medical Sciences, Little Rock, Arkansas, June, 1991.

The Classification and Natural History of Hemangiomas and Vascular Malformations of the Head and Neck. Grand Rounds, Department of Otolaryngology, University of Wurzburg Medical School. Wurzburg, Germany, October, 1991.

Grand Rounds. Department of Otolaryngology, University of Wurzburg Medical School. Wurzburg, Germany, October, 1991.

Otitis Media in Young Children. Presentation at Arkansas Children's Hospital. Sponsored by The University of Arkansas at Little Rock. Little Rock, Arkansas, February, 1992.

Photodynamic Therapy. Issues and Advances in Oncology Nursing Practice. Little Rock Chapter of the Oncology Nursing Society. Little Rock, Arkansas, March, 1992.

The Management of Vascular Lesions of the Head and Neck. Grand Rounds, M.D. Anderson Hospital, University of Texas. Houston, Texas, April, 1992.

Classification and Treatment of Vascular Lesions of the Head and Neck. Fourth Annual Otolaryngology Resident Research Presentation Forum, Henry Ford Hospital. Detroit, Michigan, June, 1992.

Classification and Management of Vascular Lesions of the Head and Neck. Advanced Applications of Laser Technology in Medicine. Lahey Clinic Medical Center. Burlington, Massachusetts, September, 1992.

Lasers and the Larynx; Do's and Don'ts. Arkansas Academy of Otolaryngology, Head & Neck Surgery Fall Meeting. Heber Springs, Arkansas, September, 1992.

Laser Surgery-Master's Seminars. American Academy of Facial Plastic and Reconstructive Surgery, Washington, DC; September, 1992.

Lasers in Otolaryngology - What's New. Presbyterian Laser Center. Charlotte, North Carolina, November, 1992.

Q-Switched Nd:Yag Laser. Presbyterian Laser Center. Charlotte, North Carolina, January, 1993.

Treatment of Common ENT Problems in Primary Care Setting. UAMS Outreach Program, Rebsamen Medical Center. Jacksonville, Arkansas, February, 1993.

Q-Switched Frequency-doubled Nd:YAG Lasers. International Dermatology Symposium. Seoul, Korea, May, 1993.

Q-Switched Frequency-doubled Nd:YAG Lasers. The Laser Medicine Society - Republic of China. Taipei, Taiwan, May, 1993.

Practical Laser Use in Facial Plastic Surgery. American Academy of Facial Plastic and Reconstructive Surgery. Minneapolis, Minnesota; September, 1993.

Lasers in Otolaryngology. The International Inner Ear Symposium. Aspen, Colorado; July, 1994.

The Classification and Management of Congenital Vascular Lesions of the Head and Neck. University of Witwatersrand Pediatric Grand Rounds. Johannesburg, South Africa; November, 1994.

Recent Advances in Lasers in Otolaryngology-Head and Neck Surgery. Presented to the Otolaryngology Society of St. Louis. St. Louis, Missouri; April, 1995.

The Classification of Congenital Vascular Anomalies. Combined Grand Rounds. Washington University School of Medicine and St. Louis University Medical School. St. Louis, Missouri; April, 1995.

The Q-Switched Nd:YAG Laser and the Treatment of Pigmented Lesions and Tattoos. Medical College of Wisconsin. Milwaukee, Wisconsin; September, 1995.

The Classification of Congenital Vascular Lesions. The First Annual Conference of the National Vascular Malformations Foundation; Dearborn, Michigan, March, 1996.

The Classification and Management of Hemangiomas. New Orleans Children's Hospital, New Orleans, Louisiana, June, 1996.

The Classification and Management of Hemangiomas and Vascular Malformations of the Head and Neck. The Houston Society of Otolaryngology Head and Neck Surgery. Houston, Texas, May 1997.

The Management of Vascular Malformations of the Head and Neck. Presented at Pediatric Grand Rounds, The Children's Hospital at Buffalo, Buffalo New York, September 1997.

Carbon Dioxide Lasers and Skin Resurfacing. Presented at The First European Congress of Aesthetic Medicine and Dermatologic Aesthetic Surgery. Brussels Belgium. Nov. 1997.

Lasers in Cosmetic Surgery. Presented to the Iceland Society of Plastic Surgeons and the Iceland Society of Dermatology, Reykjavik, Iceland. March, 1998

Management of Extracranial Vascular Malformations. Presented at a Conference on Congenital Vascular Malformations. Sponsored by the Department of Diagnostic Radiology, University of Lund, Malmo, Sweden. October 1998.

The Management of Vascular Malformations. Presented at The International Congress of the European Society for Laser Aesthetic Surgery. Oxford, UK. March, 1999

The Treatment of Craniofacial Vascular Malformations. Presented at the annual scientific Meeting of the British Association of Maxillofacial Surgeons. Birmingham UK. June, 1999.

The Classification and Management of Vascular Lesions of the Head and Neck. Presented at Grand Rounds, Baptist Medical Center, Little Rock AR. June 1999.

New Horizons in Pediatric Otolaryngology: Innovative and Versatile Approach to Otitis Media. The American Academy of Otolaryngology Head and Neck Surgery. New Orleans, September 1999.

OtoLAM and the Management of Otitis Media. Presented at the Los Angeles Society of Otolaryngology, Los Angeles, CA. Feb. 2000.

Lasers in Otolaryngology. Presented at the 9<sup>th</sup> International Symposium of the Prosper Meniere's Society. Aspen, Co. March 2000

Lasers in Dermatology and The Classification and Management of Hemangiomas and Vascular Malformations. Presented at Dermatology 2000: Annual Congress of the Dermatological Society of South Africa. Sun City, South Africa. March 2000.

Non-ablative skin resurfacing. Presented at the 8<sup>th</sup> International Symposium of Facial Plastic Surgery. New York, New York. May. 2002

New developments in the Diagnosis and Management of Hemangiomas. Presented at the Annual Meeting of the Swedish Medical Society. Gotheburg, Sweden. Nov. 2002

## **FACULTY PARTICIPATION AT EDUCATIONAL COURSES**

Director: Laser Photocoagulation of Vascular and Pigmented Malformations. Brisbane, Australia; March, 1988.

Director: Laser Photocoagulation of Vascular and Pigmented Malformations. Brisbane, Australia; September, 1988.

Lecturer: Advanced Laser Surgery. New York Medical College, Westchester, New York; October, 1988.

Director: Advanced Laser Surgery. University of Utah Medical Center, Salt Lake City, Utah; March, 1989.

Lecturer: Cutaneous Laser Surgery. Abbot Northwestern Hospital, Minneapolis, Minnesota; March, 1989.

Lecturer: Basic & Advanced Laser Surgery. New York Medical College, Westchester, New York; June, 1989.

Director: Laser Photocoagulation of Vascular & Pigmented Malformations, University of Arkansas for Medical Sciences, Little Rock, Arkansas; September, 1989.

Director: Flashlamp Pumped Dye Laser Accreditation Course, Baylor Medical Center, Dallas, Texas; May, 1990.

Director: Laser Photocoagulation of Vascular and Pigmented Malformations. University of Arkansas for Medical Sciences, Little Rock, Arkansas; June, 1990.

Faculty: Lasers in Facial Plastic and Reconstructive Surgery, American Academy of Otolaryngology - Head and Neck Surgery, San Diego, California; August, 1990.

Faculty: Cutaneous Laser Surgery, Abbott Northwestern Hospital, Minneapolis, Minnesota; October, 1990.

Faculty: Principles of Yellow Light Lasers. Lasers in Medicine: A Multispecialty Perspective. Loma Linda University Medical Center. Loma Linda, California; May, 1991.

Director: Cutaneous Laser Surgery. University of Texas Southwestern Medical School, Dallas, Texas; August, 1991.

Director: The Management of Hemangiomas and Vascular Malformations of the Head and Neck. American Academy of Otolaryngology-Head and Neck Surgery, Kansas City, Missouri; September, 1991.

Faculty: New Concepts in Cutaneous Laser Surgery, Harvard Medical School, Boston, Massachusetts; October, 1991.

Faculty: Cutaneous Laser Workshop, Pascack Valley Hospital, Westwood, New Jersey; November, 1991.

Faculty: Laser Photocoagulation of Vascular and Pigmented Malformations. A Hands-On Course. Department of Otolaryngology, University of Wurzburg Medical School, Wurzburg, Germany; March, 1992.

Director: Controversies in Cutaneous Laser Surgery, Aspen, Colorado; August, 1992.

Director: The Management of Hemangiomas and Vascular Malformations. American Academy of Otolaryngology, Head and Neck Surgery, Washington, D.C.; September, 1992.

Faculty: Cutaneous Laser Workshop, Pascack Valley Hospital, Westwood, New Jersey; November, 1992.

Director: Controversies in Cutaneous Laser Surgery, Aspen, Colorado; August, 1993.

Director: The Management of Hemangiomas and Vascular Lesions of the Head and Neck. American Academy of Otolaryngology-Head and Neck Surgery, Minneapolis, Minnesota; September, 1993.

Faculty: Plastic Surgery Education Foundation. "Laser Surgery Symposium", Orlando, Florida; October, 1993.

Faculty: Cutaneous Laser Workshop, Pascack Valley Hospital, Westwood, New Jersey; November, 1993.

Faculty: Hands on Multi-wavelength laser workshop. University of California at Los Angeles, School of Medicine, Los Angeles, California; June, 1994

Director: The Management of Hemangiomas and Vascular Lesions of the Head and Neck. American Academy of Otolaryngology, Head and Neck Surgery, San Diego, California; September, 1994.

Co-Director: Lasers in Facial Plastic Surgery. American Academy of Otolaryngology-Head and Neck Surgery, San Diego, California; September, 1994.

Faculty: Lasers in Cutaneous and Cosmetic Surgery Sponsored by the University of Minnesota, Hilton Head, South Carolina; September, 1994.

Faculty: Cutaneous Laser Workshop, Pascack Valley Hospital, Westwood, New Jersey; November, 1994.

Faculty: Lasers in Plastic and Reconstructive Surgery, University of Texas Southwestern Medical Center, Dallas, Texas; April, 1995.

Faculty: Laser-Assisted Skin Resurfacing, Massachusetts General Hospital. Harvard University Medical School, New York, New York; May, 1995.

Course Director: Laser-Assisted Skin Resurfacing and Hair Transplantation, University of Arkansas for Medical Sciences, Little Rock, Arkansas; June, 1995.

Course Director: Controversies in Cutaneous Laser Surgery. Sponsored by Harvard University Medical School, Hamilton, Bermuda; August, 1995.

Course Director: Lasers in Facial Plastic Surgery, American Academy of Facial Plastic & Reconstructive Surgery, New Orleans, Louisiana; September, 1995.

Course Director: Lasers in Facial Plastic Surgery. American Academy of Otolaryngology Head & Neck Surgery, New Orleans, Louisiana; September, 1995.

Faculty: Laser-Assisted Skin Resurfacing, Massachusetts General Hospital for Harvard University Medical School. Boston, Massachusetts; October, 1995.

Faculty: Lasers in Cutaneous & Cosmetic Surgery. Sponsored by University of Minnesota, Minneapolis, Minnesota; October, 1996

Faculty: Lasers in Plastic Surgery. Sponsored by The American Society for Plastic and Reconstructive Surgery; Montreal, Canada, October 1995

Faculty: Cutaneous Laser Workshop. Pascack Valley Hospital, Westwood, New Jersey; November, 1995.

Faculty: Laser Assisted Skin Resurfacing. Sponsored by The International Society of Aesthetic Plastic Surgeons. Johannesburg, South Africa. March, 1996.

Faculty: Laser Assisted Skin Resurfacing. Sponsored by American Society Of Aesthetic and Restorative Surgery and The Austrian Society of Surgical Dermatological Surgery, Laser Surgery an Wound Healing Research; Vienna, Austria. April, 1996.

Faculty: Laser Assisted Skin Resurfacing. Sponsored by The Monteverdi Day Clinic; Milan, Italy, April, 1996.

Faculty: Laser Assisted Skin Resurfacing. Sponsored by The British Association of Aesthetic Plastic Surgeons; Oxford, United Kingdom, May 1996.

Faculty: Cutaneous Laser Surgery Symposium. Sponsored by The Plastic Surgery Foundation and The American Society For Aesthetic Plastic Surgery; Dallas, Texas, June 1996.

Faculty: Pulsed Lasers: Aesthetic and Medical Cutaneous Applications. Sponsored by Harvard University Medical School. Location, Las Croabas, Puerto Rico. Feb. 1997.

Co-Director: Laser Assisted Skin Resurfacing. Sponsored by the British Association of Aesthetic Plastic Surgeons. Bradford, England. June, 1997.

Course Director: Controversies in Cutaneous Laser Surgery. Sponsored by Harvard University Medical School, Santa Fe, New Mexico; August, 1997.

Co-Director: Cutaneous Laser Surgery and The Facial Plastic Surgeon. Sponsored by the American Academy of Otolaryngology Head and Neck Surgery. San Fransisco, September 1997.

Co-Director: Cutaneous The Diagnosis and Management of Hemangiomas and Vascular Malformations of the Head and Neck. Sponsored by the American Academy of Otolaryngology Head and Neck Surgery. San Fransisco, September 1997.

Panelist: Miniseminar on Laser Skin Resurfacing. The American Academy of Otolaryngology Head and Neck Surgery. San Fransisco, September 1997.

Faculty: Contemporary Cutaneous Laser Surgery. Sponsored by the the Plastic and Reconstructive Surgery Committee of the American Academy of Otolaryngology Head and Neck Surgery. San Fransisco, September 1997.

Panelist: Applications of the Laser in Otorhinolaryngology – Head and Neck Surgery. Sponsored by the Advisory council for Otorhinolaryngology, of the American College of Surgeons. Chicago, Illinois, October 1997.

Faculty: Advances in Pediatric Facial Plastic and Reconstructive Surgery. Sponsored by the American Society of Pediatric Otolaryngology. Monterey, California, October 1997.

Faculty: The Logical and Rational Approach to Laser Treatment of Ageing Skin: Sponsored by Fundacion Antoni De Gimberant. Cambrils Spain. Nov. 1997.

Faculty: 2<sup>nd</sup> International Laser Course. Sponsored by Freie Universitat Berlin. Benjamin Franklin Medical Center. Berlin, Germany. Nov. 1997

Faculty: Lasers in Cutaneous and Cosmetic Surgery. Sponsored by the St. John's Institute of Dermatology at St. Thomas' Hospital, London, England. March 1998.

Faculty: Hemangiomas and Vascular Malformations. Organized by The British Association of Plastic Surgeons. Held in Plymouth, England, June 1998.

Faculty: Cutaneous Laser Surgery Symposium. Sponsored by The Plastic Surgery Education Foundation and The American Society For Aesthetic Plastic Surgery; Dallas, Texas, July, 1998.

Faculty: Lasers in Cutaneous and Cosmetic Surgery Sponsored by the University of Minnesota, Minneapolis, Minnesota; August, 1998.

Faculty: Lasers in Cutaneous and Cosmetic Surgery. Sponsored by the Department of Dermatology, University of California, School of Medicine, San Fransisco, California, June 1999.

Course Director: Controversies in Cutaneous Laser Surgery. Sponsored by Harvard University Medical School, Sonoma, California; August, 1999.

Panelist: Miniseminar on Minimally Invasive Facial Plastic Surgery. The American Academy of Otolaryngology Head and Neck Surgery. New Orleans, September 1999.

Co Director: Laser Surgery Workshop. American Academy of Facial Plastic & Reconstructive Surgery, New Orleans, LA. Sept. 1999

Faculty: 4<sup>th</sup> International Laser Course. Sponsored by Freie Universitat Berlin. Benjamin Franklin Medical Center. Berlin, Germany. Nov. 1999

Faculty: The Diagnosis and Management of Hemangiomas and Vascular Malformations. The American Academy of Dermatology. San Francisco, March 2000.

Faculty: Vascular Anomalies 2000. New York University School of Medicine. New York, April 2000.

Course Director: Controversies in Cutaneous Laser Surgery. Sponsored by Harvard University Medical School, Woodstock, Vermont; August, 2000.

Co Director: Cutaneous Laser Surgery and the Facial Plastic Surgeon. Presented at the Annual Meeting of the American Academy of Otolaryngology- Head and Neck Surgery. Washington, DC, September 2000.

Course Director: The Management of Hemangiomas and Vascular Malformations. Presented at the Annual Meeting of the American Academy of Otolaryngology- Head and Neck Surgery. Washington, DC, September 2000.

Course Director: The Management of Hemangiomas and Vascular Malformations. Presented at the Annual Meeting of the American Academy of Otolaryngology- Head and Neck Surgery. Denver CO. Septyember, 20001

Course Director: Controversies in Cutaneous Laser Surgery. Sponsored by Harvard University Medical School, Vail CO. August, 2001.

Faculty: 6<sup>th</sup> International Laser Course. Sponsored by Freie Universitat Berlin. Benjamin Franklin Medical Center. Berlin, Germany. Oct. 2001

Faculty: Complex Hemangiomas and Vascular Malformations. Post Graduate Course: American College of Surgeons. New Orleans, Oct. 2001

Faculty: 10 Annual Head and Neck Laser Course. University of Iowa, Iowa City, Iowa. June, 2002.

Faculty: 7<sup>th</sup> International Laser Course. Sponsored by Freie Universitat Berlin. Benjamin Franklin Medical Center. Berlin, Germany. Sept.. 2002

Course Director: The Management of Hemangiomas and Vascular Malformations. Presented at the Annual Meeting of the American Academy of Otolaryngology- Head and Neck Surgery. San Diego, CA. September, 2002

Co Director: Cutaneous Laser Surgery and the Facial Plastic Surgeon. Presented at the Annual Meeting of the American Academy of Otolaryngology- Head and Neck Surgery. San Diego CA, September 2002.

Faculty: Vascular Anomalies 2003. New York University School of Medicine. New York, May 2003

## **SOCIETY MEMBERSHIPS**

1984	South African Society of Otorhinolaryngology
1986	South African Medical Society
1990	Arkansas Academy of Otolaryngology
1990	Arkansas Medical Society
1990	American Society for Laser Medicine and Surgery, Inc.
1991	American Academy of Facial Plastic and Reconstructive Surgery
1992	American Academy of Otolaryngology Head & Neck Surgery
1994	Alpha Omega Alpha Honor Medical Society
1998	British Association of Aesthetic Plastic Surgeons (Honorary member)
2000	The International Society for the Study of Vascular Anomalies

## **VISITNG PROFESSORSHIPS**

October 1990	Baylor College of Medicine, Department of Plastic Surgery, Houston, Texas.
October 1991	University of Wurzburg, Department of Otolaryngology, Wurzburg, Germany.
April 1992 Houston, Texas.	M.D. Anderson Hospital, Department of Otolaryngology, University of Texas,
June 1992	Henry Ford Hospital, Department of Otolaryngology, Detroit, Michig
September 1992 Massachusetts.	Lahey Medical Center, Department of Otolaryngology, Burlington,
April 1994	University of Texas Southwestern, Department of Otolaryngology, Dallas, Texas.

April 1995 St. Louis University Medical School, Department of Otolaryngology,  
St. Louis, Missouri.

July 1995 University of Utah Medical School, Department of Otolaryngology,  
Salt Lake City, Utah.

June 1996 Louisiana State University Medical School, Department of  
Otolaryngology, New Orleans, Louisiana.

January 1997 The Children's Hospital of Buffalo, Department of Otolaryngology,  
Buffalo, New York.

July 1997 The Children's Hospital of Seattle, Department of Otolaryngology,  
Seattle, Washington.

November 1997 St. Thomas' Hospital, Department of Plastic Surgery, London, United Kingdom

February 1998 Madigan Army Hospital, Department of Surgery, Tacoma Washington.

June 1998 University of California San Francisco, Department of Dermatology,  
San Francisco, California.

June 1999 University of Florida College of Medicine, Department of Otolaryngology,  
Gainesville, Florida.

June 1999 Madigan Army Hospital, Department of Surgery, Tacoma Washington.

March 2000 Schneider Children's Hospital and Tel Aviv University, Department of  
Otolaryngology.

June 2000 University of West Virginia, Department of Otolaryngology, Morgantown, West  
Virginia.

July 2001 The Children's Hospital of the King's Daughters. Norfolk VA

June 2002. University of Iowa, Department of Otolaryngology. Iowa City, Iowa.

Nov. 2002 University of Lund, Department of Plastic Surgery, Malmo Sweden.

July 2003 University of Texas, Department of Otolaryngology, Houston, Texas.

Nov. 2003 Oregon Health Sciences University, Department of Otolaryngology.

## **HONORS AND AWARDS**

1994 Alpha Omega Alpha Honor Society, American Academy of Otolaryngology Head and Neck Surgery:  
Highest Rated Courses

1996 - Present Listed in "The Best Doctors in America" Published by Woodward and White, Aiken, South  
Carolina

1997 American Academy of Otolaryngology Head and Neck Surgery: Highest Rated Courses, Honor  
Award

1998 Center of Excellence Award: Arkansas Children's Hospital, Appointed Honorary Member: British  
Association of Aesthetic Plastic Surgeons

1999 Featured in the lead article "America's Best Hospitals" (US News and World Report July 1999)

2000 Best Scientific Paper: The 13<sup>th</sup> International Workshop on Vascular Anomalies, Montreal Canada, March 2000

Honorable Mention (second place), Weil Award for best presentation in experimental Neuropathology, American Association of Neuropathologists Annual Meeting, Atlanta, GA, June 2000

2001 Listed in Castle & Connolly Guide: America's Top Doctors

Chair endowed in name of Benjamin and Milton Waner, Arkansas Children's Hospital, October 2001 (endowment of one million dollars given anonymously)

2003 Listed in Castle & Connolly Guide America's Top Doctors

2003 Children's Miracle Network Award