

Welcome Letter from our President

The 11th Annual NAALT Conference takes place in Milwaukee, Wisconsin, September 22-24, 2011. It promises to be an exciting meeting. The keynote speakers are Dr. Roberta Chow from Sidney, Australia and Dr. Chukuka Enwemeka, Dean of the College of Health Sciences at the University of Wisconsin (Milwaukee). Dr. Enwemeka has written extensively on wound repair using photobiomodulation and his topic will be 'Advances in Photobiomodulation of Tissue Repair'.^{1,2} Dr. Roberta Chow has raised the profile of this therapy with her acclaimed article on Neck Pain treated with this modality and published in the Lancet and her topic will be 'Laser, Pain and the Peripheral Nervous System'.³

The theme of the conference is 'Shining Light on Inflammation & Repair from Basic Research to Clinic Practice'.

In keeping with the conference theme, some information on the late Prof. Endr? Mester (1903-1984) should be of interest. I have taken much of this from the excellent editorial by Toshio Ohshiro, MD in Laser Therapy, Vol. 17, No. 1, March 2008 and from [The New Laser Therapy Handbook](#) (Jan Tuner & Lars Hode). Born on November 20th, 1903 in Budapest, Hungary, Endr? Mester is considered the "Godfather" of phototherapy. Following in his grandfather's footsteps, he completed his medical studies in 1927 and then continued his studies in Surgery at the Third Surgical Clinic in Budapest. He became a Professor at Semmelweis University in 1963. The name Semmelweis should trigger an immediate recognition for all those familiar with hand washing as a key instrument in preventing the spread of infection. The name should also be a caution to those who challenge established medical practice.

As well as his duties in surgery and teaching, Dr. Mester was an avid researcher. Theodore Maiman presented the first working ruby laser (July 07, 1960 Malibu, California). A few years later, Dr. Mester acquired a ruby laser. To investigate as to whether this new form of radiation was carcinogenic or not, he set up an experiment with two groups of mice whose backs were shaven. One group was irradiated with this 694nm laser at a dose of 1J/cm². The other group was the control. No cancers appeared but by the 10th irradiation the hair on the backs of the laser treated mice had grown back much faster than in the control group. (*Effects of laser on hair growth of mice*, Mester E, Szende B, Totas JG (1967) Kiserl Orvorstud 19). This article was published in Hungarian which at that time was part of the Soviet Union and as such made little, if any, impact on western medical thinking but in fact is the basic research underpinning all the hair growth phototherapy equipment that is now flooding the cosmetic market.

He next devoted his attention to the effects of this modality on wound healing changing to a helium neon laser at 632.8nm. (HeNe). >From successful animal experiments, he moved to treating chronic ulcers in the human population. Again, he was successful in treating ulcers of many months duration and where the patient had two extremities involved, the ulcer on the contra-lateral untreated side also healed although in this case at a slower rate. (*Effects of laser rays on wound healing*, Mester E, Spiry T, Szende B, Tota JG (1971) Am J Surg, 122: 532-535). From then on, he devoted himself to studying the phenomenon of low levels of laser stimulation. He recognized that low doses stimulate while higher doses have no effect. He successfully defended his dissertation on the "*Biomedical Effects of the Laser*" at the Hungarian Academy of Sciences and was awarded the degree of the Doctor of Medical Science. He became chief of the Laser research laboratory at the Postgraduate Medical School and continued working there until his death March 30th 1984.

His two sons, Adam and Andrew Mester, continue their father's work. In 1989 they presented data on a total of 1018 ulcer patients from their father's clinic. All of the patients had proven resistant to conventional treatment techniques and a few had persisted for years. Treatment was with 4J/cm² and an average of 23 treatments was given twice weekly. Complete healing was achieved in 829 patients (81.4%) and only 23 patients failed to show any change. (Mester AF and Mester A (1989): *Wound healing*. Laser Therapy, 1:7-15).

Those of us who use phototherapy in our practices, we are deeply indebted to Professor Endr? Mester. Several trials have confirmed the efficacy of Low Level Light Therapy (LLLT) for wound healing.^{4,5,6,7} His initial foundation has steadily been built upon and his careful observances have allowed extension of this modality to many other areas of medicine. Great progress in this therapy has been made in the face of marked skepticism. Last year's NAALT conference dealt with the effects of light energy on the Nervous System. It is now becoming clear that light can affect poorly functioning cells no matter where the location or what the function.

This year NAALT returns to the basics. Much has been learned since Professor Mester's death. The cellular/molecular effects of photon energy are gradually being revealed. A greater understanding of treatment dose for various conditions is being realized. We now know that the effect of light energy on cells is not just one of stimulation but rather one of modulation. Photobiomodulation aptly describes this therapy. The significance of the Arndt Schulz law in treating the client is becoming increasingly apparent.⁸

I am looking forward to September to learn more about this fascinating subject - a new paradigm in Medicine.

Brian R. Bennett

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