

## JLO Travelling Fellowship 1994 Report

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The grant awarded by the JLO was to enable an ENT surgeon in higher training to travel abroad in order to gain experience in a field of his/her choice not readily available in the U.K. As such a trainee, my interest is in the field of laser surgery particularly with respect to out-patient and ambulatory surgery. Therefore I chose to visit the U.S.A., where a higher technological profile and better funding lead to widespread innovation in this field. I chose to visit 11 key centres over a 32 day period, a schedule that involved 21 flights and a variety of hotels and motels (Table I).

During the visits to each centre, I was able to give two lectures, one on photodynamic therapy and one on the current state of laser surgery in the U.K., from an ENT perspective. I was able to discuss the role of lasers in ENT with all the clinicians I visited, and watched a great many laser procedures being performed. I was particularly interested to know their opinions on several key areas of surgery where the role of the laser appears to be controversial or expanding:

1) Larynx and trachea: The use of the laser, in particular the carbon dioxide (CO<sub>2</sub>) appears to be waning in this area, apart from its use in cases of stenosis or papilloma. The jury is still out regarding the treatment of malignancy, although excision of premalignancy seems to have an established role. The majority of benign vocal fold lesions are thought best treated with cold steel. The CO<sub>2</sub> laser seems to have an adjunctive role in the treatment of Reinke's oedema.

2) FESS: Although most clinicians accepted the potential advantages of the Holmium YAG and KTP lasers in this area, the majority felt that the expense of providing

these systems could not be justified for use in this area alone.

3) Skin: ENT surgeons in the U.S.A. are heavily involved in the treatment of skin lesions, in particular where lasers are used. This is partly because facial plastics is a fully integrated part of ENT, and partly because ENT surgeons have historically been enthusiastic users of clinical lasers. Conditions treated ranged from vascular lesions such as haemangiomas of all types, telangiectasias and AV malformations, to tattoos, wrinkles and treatment of a variety of cosmetic problems, including scar revision. Lasers used range from all types of CO<sub>2</sub>, Q-switched Nd-YAG, KTP and Alexandrite, Copper Vapour, Flashlamp pumped dye and CW KTP. Virtually none of this work in the U.K. is currently carried out by ENT surgeons, the results are so good that I personally feel that this is an area we would do well to get involved in.

4) Cancer: Apart from the excision biopsy of tumours with the CO<sub>2</sub> laser, there was little else happening. My own experience with new PDT drugs and light sources seemed to excite an interest in this area that had dropped during the 1980's and early 90's due to the lack of a universally accepted drug and light combination.

5) Snoring: The laser assisted uvulo-palatoplasty (LAUP) has taken off in a major way in the U.S.A. All centres were performing this surgery, and there was virtually unqualified enthusiasm for the technique, although some expressed reservations about the amount of pain patients suffered postoperatively. Most clinicians were happy that the operation did not compromise further medical treatment of unidentified sleep apnoea and there-

TABLE I

Centre	Clinicians	Lasers
New England Medical Centre, Boston	Shapshay, Poe	CO <sub>2</sub> , Diode
St Lukes/Roosevelt Hospital, New York	Krespi, Pearlman	CO <sub>2</sub> (Swiftlase and Silktouch), Nd-YAG
Roswell Park Memorial Hospital, Buffalo	Henderson, Dougherty, Hicks, Oseroff	Photodynamic Therapy
Abbot Northwestern Hospital, Minneapolis	Biel	CO <sub>2</sub> (Swiftlase), Photodynamic Therapy
Vanderbilt Medical Center, Nashville	Ossof, Ries	CO <sub>2</sub> Free Electron
Arkansas General Hospital, Little Rock	Waner	CO <sub>2</sub> (Silktouch), Flashlamp Pumped Dye, Copper Vapour, Q-switched Nd-YAG and KTP
Cosmetic Center of the Mid West, Indianapolis	Chernoff	CO <sub>2</sub> (Ultrapulse and Silktouch), Q-switched Alexandrite
Laser Center of Virginia, Norfolk	McDaniel	CO <sub>2</sub> (Ultrapulse), Q-switched Alexandrite, Flashlamp pumped dye
Long Island Jewish Medical Center	Lofgren, Shikowitz, Ronn	Photodynamic Therapy
Henry Ford Hospital, Detroit	Schweizer	Photodynamic Therapy
New England Medical Center, Boston	Pankratov, Rebez	Photodynamic Therapy

TABLE II

Company	Product
Coherent U.K.	Ultrapulse CO <sub>2</sub> , Holmium YAG, Q-switched Nd-YAG and KTP lasers
Diomed	Diomed 25 diode laser, Diomed LED light source (PDT)
Dynamic Light	Pendulase CO <sub>2</sub> , copper vapour and copper vapour pumped dye lasers (PDT)
Laserscope U.K.	KTP, Nd-YAG and tuneable dye lasers (PDT)
Sharplan U.K. (Litechnica)	Swiftlase and Silktouch CO <sub>2</sub> lasers
Scotia	mTHPC (photosensitising drug for PDT)

fore sleep studies were generally not considered mandatory.

6) Miscellaneous: I was surprised that despite the enormous variety of lasers at the surgeon's disposal, many operations were still carried out in the standard manner. The variety of my own experience was usually greater than theirs, although this probably reflects the fact that I have been trying a series of different lasers for ENT surgery in order to gain a personal experience, whereas they have been established at the same site for many years and have made their choices. The re-use of laser fibres occurred almost everywhere, this is becoming a problem in the U.K. They tended to be fairly relaxed about laser

safety, although protection of the eye was taken very seriously.

In summary, I feel the trip has been an invaluable learning experience. I have been taught many new procedures both as an observer and in three recognized preceptorships that I undertook. I also attended the Harvard Skin Laser Course (in New York!). The contacts and friends made will enable me to keep up to date with new techniques as they come along, and on the PDT front, I will be setting up collaborative research programmes with the Boston, Detroit, Buffalo and Minneapolis groups.

Thanks:

1) To the JLO, who provided real money (£3,000) for the trip, rather than the often inadequate amounts associated with other such awards.

2) To the Consultant ENT Surgeons at Northwick Park Hospital, in particular Mr Garry Glover, who enthusiastically supported the trip and who allowed me to take the time off, knowing as they did my interest in lasers and realizing what an important learning experience it would be.

3) To the laser companies I have worked with in the past who generously donated the rest of the money to fund the trip (£3,000) so that I was not out of pocket (Table II).

4) Most of all to my wife Catriona, who has occasionally been exasperated by my enthusiasm for this subject, for her support and for looking after our two young children, Jessica and Georgina whilst I was away.