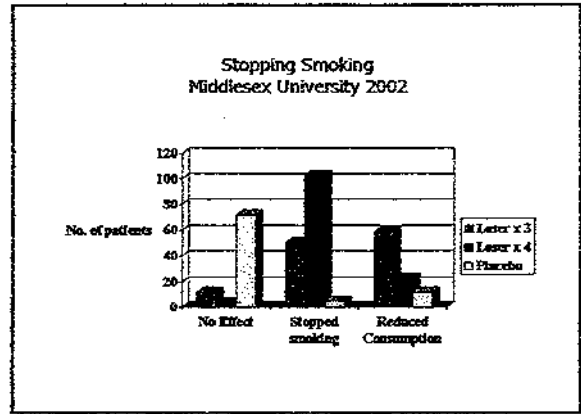
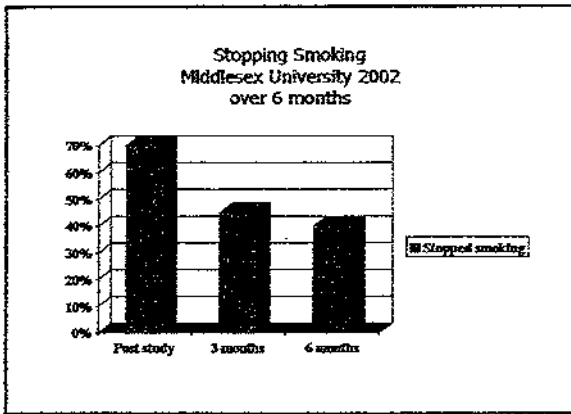


## Omega Laser Systems Ltd

### Middlesex University July 2002

*Low level laser therapy – Double blind  
study to assess the effectiveness as a  
treatment for stopping smoking*



# Low Level Laser Therapy

## *Double blind study to assess the effectiveness of the therapy as a treatment for stopping smoking*

Paul Lowe, Katherine Kerr

### **Brief description of the study**

There has over the last 5 years been a growing interest in the potential for laser therapy as an aid to stopping smoking. The advantages are enormous - LLLT is non invasive, has no side effects, is relatively quick with treatments of around 30 minutes per session over 3 - 5 treatments and laser therapy does not require nicotine or drug replacement. To date only a few relatively small studies have been undertaken, though their results have been encouraging. The completion of a well controlled double blind study by Middlesex University is very welcome.

The aims of Middlesex University were several:

- to show whether there is a clinically significant effect as an aid to stopping smoking using laser therapy compared to control
- if there is a significant effect whether this was frequency of treatment dependent
- the percentage of sustained cessation over 3 and 6 months
- the effect of the treatment on changes in blood pressure
- the patients experience re weight gain

The results of the trial and all relevant clinical parameters are in the process of being written up for publication. This report outlines some of the key findings which it is hoped will improve treatment protocols for already established clinics offering the treatment.

## Details of the study

Base Unit:	Omega Excel Unit
Wavelength and power:	820nm 200mW single probe
Energy per point:	3 J
Energy Density per point:	24 J/cm2
Pulsing repetition rate:	20Hz
Number of points:	6 per ear bilaterally + 3 body points
Frequency of treatment:	3 treatments over 7 days or 4 treatments over 14 days
Number of patients:	Recruited from TV campaign and after exclusion criteria 340 were treated
	Laser group 3 treatments 121
	Laser group 4 treatments 130
	Placebo control 89
	<b>TOTAL 340</b>

## Results – clinical data

Laser Group	No Effect	Stopped Smoking	Reduced consumption
3 treatments	12	50	59
4 treatments	4	103	23
Placebo Control	72	5	12

*Table. Results of Middlesex LLLT stopping smoking study.*

The figures available for the follow up are being compiled and sent but the general finding was as follows:

Laser Group	% cessation post study	% cessation 3 months	% cessation 6 months
Successfully stopped smoking during the study	70%	45%	40%

## Discussion

*Specific, statistically analysed data to be made available in the full write up for the above points.*

The results clearly show that low level laser therapy has a significant effect as an aid in the successful treatment of stopping smoking.

The effect of the therapy is optimised by the use of 4 treatments over 14 days.

The percentage of patients returning to tobacco during the 3 months following the trial reported that they smoked due to particular moments of stress experienced – they can identify the reason why they smoked again. They felt if supplementary treatments had been made available they would have taken them and *perhaps* would not have smoked. This is purely conjecture but the potential for stress management and follow up in the clinic is clear.

Not a single patient gained weight and some lost weight.

Reduction in high blood pressure occurred in severely hypertensive patients, was immediate and was maintained. This effect was more markedly maintained than occurs with use of needles. It could partly be explained by general relaxing in the chair and stopping smoking in general but still warrants further investigation.

General reports of a boost of well being and sleeping well – this without suggestion and generally remarked throughout the laser groups.

Suggested that acupuncture of LI4 be taught to the patient as a method of controlling inevitable moments of craving.