



Certificate of Grant of Patent

Patent Number: GB2364602
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Inventor(s): Patrick A Walsh

This is to Certify that, in accordance with the Patents Act 1977,

a Patent has been granted to the proprietor(s) for an invention entitled
"Therapeutic device" disclosed in an application filed **21 May 2001**.

Dated 15 January 2003



Alison Brimelow
Comptroller General of Patents,
Designs and Trade Marks
UNITED KINGDOM PATENT OFFICE

The attention of the proprietor(s) is drawn to the important notes overleaf.

5 TITLE: THERAPEUTIC DEVICE

10 DESCRIPTION

15 The present invention relates to a device for mitigating adverse effects of electromagnetic radiation, particularly but not exclusively radiation experienced by users of mobile telephones or cellphones or of VDU monitors.

 A recent large-scale study of Scandinavian cellphone
20 handset usage (Oftedal, Mild et al., 1998) revealed that heavy users suffer an elevated incidence of headaches and fatigue, among other symptoms. In most cases these symptoms could be mitigated by decreasing the call time, but a large proportion of U.K. users (presently 24 million
25 and increasing) make use of cellphones for business purposes requiring long conversations. The hands-free kits widely available from cellphone producers have often been regarded by the public as a means of protection from

radiation, but this is not so: the Consumers Association recently pointed out that such devices may actually increase radiation levels at the skull surface, and the industry (which officially still denies adverse health effects) only offers such kits as a means of 'phone conversation whilst driving a vehicle.

Regulatory authorities use the Specific Absorption Rate ("SAR") as their metric, though this may not be correct if non-thermal effects are taken into consideration. Most handsets comply with this metric, but are not far from the limit and on occasion can exceed the limit according to experts in the field.

In an attempt to solve this problem, a number of devices have emerged which claim to mitigate adverse effects of cellphone radiation. One such device is the 'PHON-PULSE' device invented by the present application and developed by Pulse Developments. The PHON-PULSE device comprises a casing with a metallic base portion which houses quartzite-schist crystals. The ability of such a crystal structure to influence bio-energy systems has been investigated by the Coghill Research Laboratories, Pontypool, Gwent by using an established cell model, the human peripheral blood lymphocyte. Samples of the lymphocyte were subjected to radiation from mobile 'phones, to some of which PHON-PULSE devices had been attached. Analysis showed not only that the mobile 'phones had an adverse affect on the number of viable cells in each sample (as compared to a control sample), but also that the number

of non-viable cells was greatest in the samples exposed to radiation absent the PHON-PULSE device. Accordingly, the conclusion reached by the researches was that the study gave some indirect support to the claim that the PHON-PULSE device protects 5 against headaches and fatigue attributed to use of mobile 'phones.