

# EFFICACY STUDY

## according to system of devices of Rayonex Biomedical GmbH

For more than 40 years, Rayonex Biomedical with offices in the Sauerland Pyramids has continued to research and develop the field of bioresonance according to Paul Schmidt. He postulated as early as in 1976 that the organs of human beings and animals can be activated and stimulated by specific immanent frequency spectra. To date, Rayonex has performed numerous application monitorings and studies in the efficacy of the medical devices produced - all of them with good results. However, critically it must be acknowledged that the placebo effect, i.e., therapeutic success based on imagination, cannot fully be excluded in these studies. For this reason, Rayonex supported by the Association for the Promotion of Vibrational Medicine had for some time been looking for a scientifically based method of proving the efficacy of the bioresonance devices produced.

When, early in 2011 Prof. Dr. med. habil. E. W. J. Mikus approached Rayonex and proposed a cell biological study as basic work, the Vereinigung zur Förderung der Schwingungsmedizin was very willing to make a financial contribution to the project.



The final report by the Fraunhofer Institute is handed over to Rayonex on 24 August 2011. BSc Johanna Melke, Franz Markert Bachelor student, Dr. rer. nat. Eva-Maria Kniep, Dipl.-Ing. (TH) Dietmar Heimes, Dr.-Ing. habil. Christiane Wetzel, Prof. Dr. med. habil. E.W.J. Mikus (left to right). Very actively involved but not seen in the photo because she is a student in the UK: BSc Susanne Klamke.

Prof. Dr. Mikus proposed that the study should be performed by the das Fraunhofer Institute (FEP) in Dresden. Under the management of Dr. Ing. habil. Christiane Wetzel, the institute developed a method by which cell complexes can systematically be damaged. If a defined degree of damage exists in a cell complex, it can be assessed whether and to what degree a therapeutic approach, e.g., bioresonance therapy according to Paul Schmidt is effective.

In all over 7000 cell samples were examined after they had been treated with different frequency spectra using bioresonance accor-

ding to Paul Schmidt and the RAH (Rayonex Analysis and Harmonization System) as well as different Rayonex devices (Rayocomp PS 1000, Rayocomp PS 10, Thyreogym) and were compared with untreated cell complexes.



Final report on the effect of harmonising vibrations by means of Rayonex device systems on cell cultures

The result is summarized in the final report as follows: 'All Rayonex device systems with their harmonising vibrations increase the metabolic activity of FIBROBLASTS up to 8 %.' And further: 'The results obtained with KERATINOCYTES are particularly interesting. Damaged cells show significantly high activities in the cell division phase. This applies, in particular, to thyreogym with up to 22 % increase and also PS 1000 with even 40 % increased activity, ...'

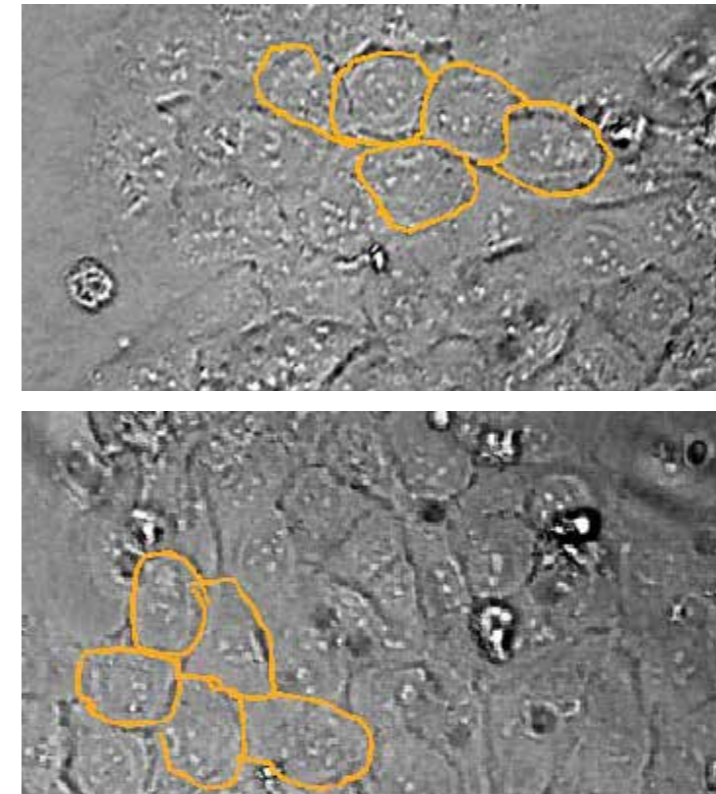
Taking the study as a whole and looking at the results in terms of what they mean to therapists and patients, three points stand out:

### 1. Cell morphology

Treated and untreated cell cultures were examined for their cell morphology. The study continues: 'As with the fibroblasts, keratinocytes also do not show any morphological differences in cell appearance between the different test groups! This is a very valuable statement for every patient, every therapist and for bioresonance medicine as a whole. Because it means that bioresonance according to Paul Schmidt and the RAH meet the requirements of an effective therapy with a low level of side-effects.

### 2. Difference in effect Rayocomp PS 1000 polar and PS 10

Because the Rayocomp PS 10 is distinctly smaller, it might suggest that its effect is appropriately weaker than that of the Rayocomp PS



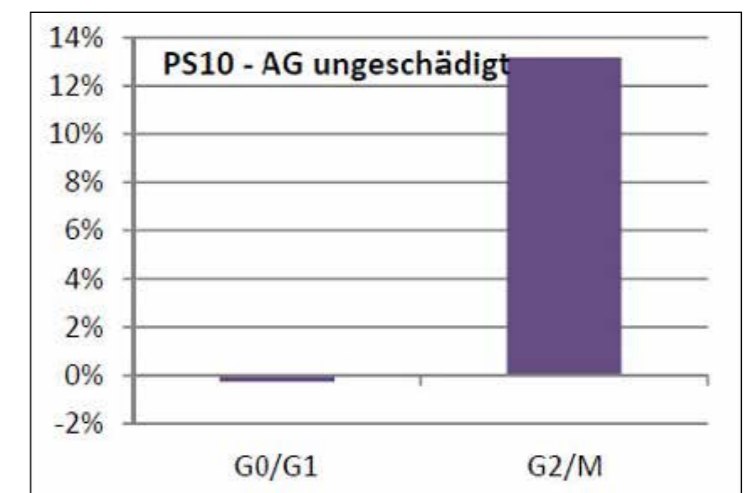
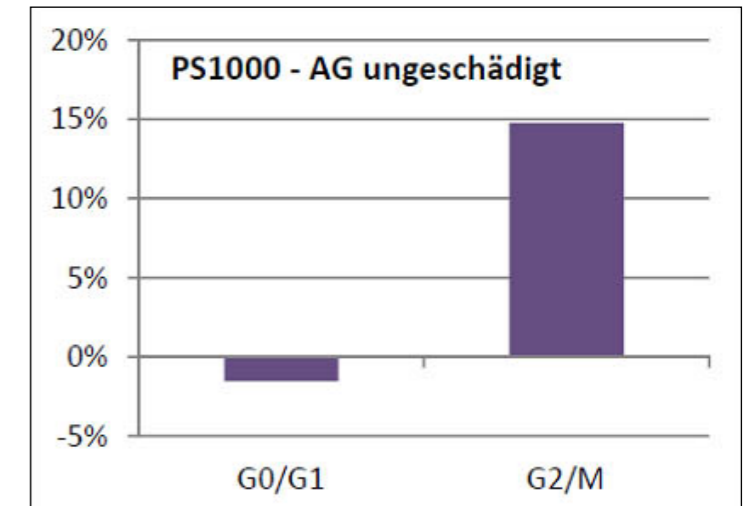
Cells treated with bioresonance according to Paul Schmidt and the RAH (top) show no morphological changes in comparison with untreated cells (bottom).

1000 polar. And, the study found that the PS 1000 is indeed 'stronger' than the Rayocomp PS 10 (2 % higher in absolute terms and by about 15 % relatively, see diagram).

### 3. The postulate by Paul Schmidt

The study examined the effect on fibroblasts as well as on keratinocytes. One frequency spectrum produced good results on fibroblasts but not on keratinocytes. Another frequency spectrum stimulated the keratinocytes but failed with the fibroblasts. This result underpins the postulate established by Paul Schmidt in 1976 that every organ, every tissue and therefore every cell structure has its own frequency spectrum by which it can be stimulated. For this reason, the differentiation of the programs in the RAH, all of which are based in different frequency spectra, is so important.

In the final report, the Fraunhofer Institute comes to the following conclusion: 'It has been shown that the sensitive method of cell metabolic activity generally is a very good tool for measuring the effect of harmonic vibrations in in-vitro cell cultures. In addition to this, the examinations of the cell cycle provide significant clues



The study found that the effect of the Raycomp PS 1000 polar was a little stronger than that of the Rayocomp PS 10 - in this case, the rate of stimulation was about 2 % higher in absolute terms and by about 15 % relatively.

as to the effect of the device systems on the activation of cell division. It is recommended that an optimum examination concept should be developed by a further study. In particular, the suitability of the frequencies must be adapted specifically to the effects to be obtained. As regards the application of the harmonic vibrations in therapeutic applications, much better effects should be expected because even the basal cells reveal positive changes that can significantly be established.'

The study is a major milestone on the way to the general acceptance of bioresonance according to Paul Schmidt and underlines the relationships found in the past. For this reason, additional fundamental work has started to derive more information, e.g., on the optimum duration of treatment.