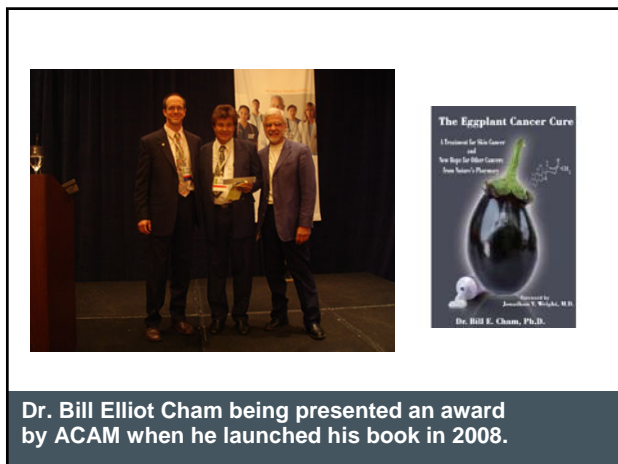
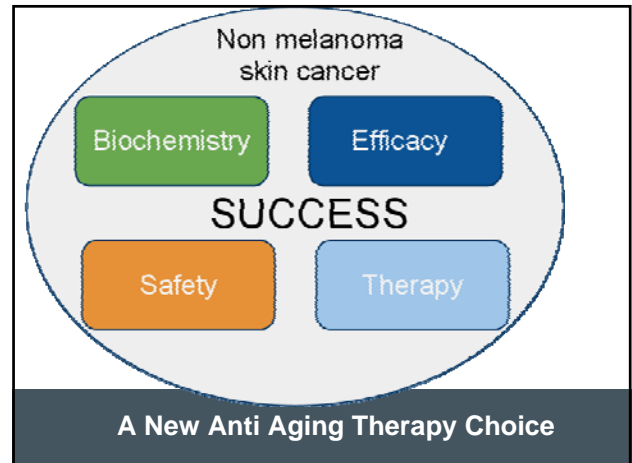


Advancement in a natural, topical, anti-aging therapy for Non-Melanoma skin cancers.

Simon Agius
September
10th, 2010



Citing research by Dr. Bill Elliot Cham as published: Solasodine Rhamnosyl Glycosides in a Cream Formulation is Effective for Treating Large and Troublesome Skin Cancer.
Research Journal of Biological Sciences Year: 2007 | Volume: 2 | Issue: 7 | Page No.: 749-761



Dr. Bill Elliot Cham being presented an award by ACAM when he launched his book in 2008.

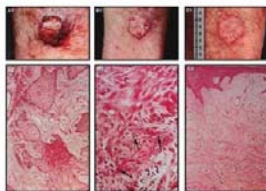
Therapy

Published Clinical Trial & Open Studies have shown these beneficial outcomes:

- * Zero or minimal recurrence rates (10 years).
- * Zero or minimal cosmetic affect.
- * Safe and effective.
- * Treats sensitive areas well.
- * Eliminates all cancer cells in the area.

A new antiaging therapy choice:
Basal Cell carcinoma, Squamous cell carcinoma , Keratosis

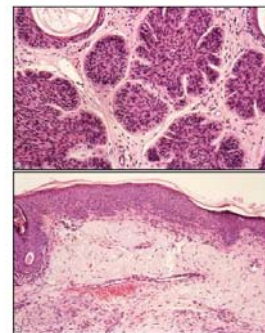
Squamous Cell Carinoma - Leg



Clinical and histological diagnosis of an SCC on a leg of a patient before treatment (lane A); during therapy (lane B); and site of treated SCC after completion of therapy (lane C). 1. clinical diagnosis; 2. histological diagnosis. Arrows indicate cancer cells dying during Curaderm BECS treatment (lane B; 2). The observation of this type of cell death caused by Curaderm BECS is similar to those obtained in cell culture studies.

Simple to understand therapy

BCC- Biopsy



Histological analysis of a BCC before Curaderm BECS therapy showing the deep infiltrated cancer cells well within the dermis (a); after Curaderm BECS therapy no cancer cells are present (b).

Results confirmed by Biopsy

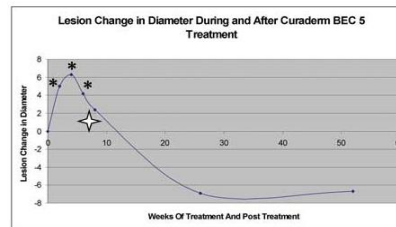
Basal Cell Carinoma - Nose

The systemic adverse effects were non-existent when blood chemistry, haematology and urine analysis were tested and compared before, during and after BEC therapy. No safety risks could be identified.



Clinical diagnosis of a BCC on the nose of a patient before treatment with Curaderm BEC5 (1a), during therapy (1b) and site of treated BCC after completion of therapy (1c). Clinical progress of a BCC close to the eye of the patient before treatment (2a), during therapy (2b), and site of treated BCC after completion of therapy with Curaderm BEC5 (2c).

Outstanding Cosmetic Results



Changes in lesion diameter during and after Curaderm BEC5 treatment.

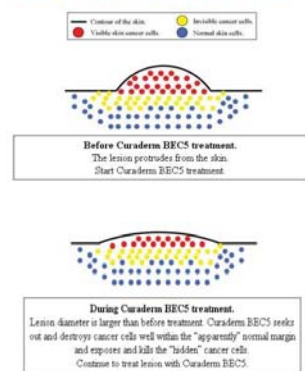
The correlation between the diameter (mm) of the lesion and weeks of treatment with Curaderm BEC 5.

The symbol * illustrates significant differences (Mann-Whitney U-test) from the time prior to treatment.

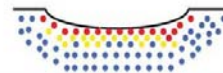
The symbol ◆ denotes the end of Curaderm BEC 5 therapy.

Anti-Cancer Therapy Effect on Lesion

Schematic Representation of the Sequential Events of Skin Cancer Treatment with Curaderm BEC5



BEC reverses the invasion of cancer cells



During Curaderm BEC5 treatment.
Curaderm BEC5 continues to kill the cancer cells that are well within the epidermis and dermis, causing an apparent hole in the skin.
Continue to treat lesion with Curaderm BEC5.

During Curaderm BEC5 treatment.
Most of the cancer cells have been killed. The killed cancer cells are replaced by normal cells. The diameter of the cancer is now smaller.
Continue to treat lesion with Curaderm BEC5.

Conclusion of Curaderm BEC5 treatment.
No more cancer cells are present, only normal cells.
Stop Curaderm BEC5 treatment.

Simple to understand end objective

Clinical Representation of the Sequential Events of Skin Cancer Treatment with Curaderm BEC5

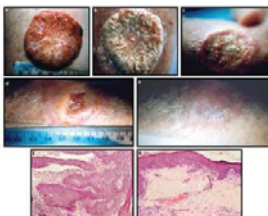


Fig. 6-3: A very large SCC, 6cm in diameter, before (a), during (b - d), and after (e) treatment with Curaderm. The treatment period was for 12 weeks. Note the specificity of Curaderm for the cancer cells and the regrowth of normal cells during Curaderm therapy. The clinical diagnosis was confirmed histologically by punch biopsy (f). After completion of the therapy histopathology determined that no residual cancer was present (g). Clinical assessment 5 years post treatment revealed that there was no recurrence.

Success on both aggressive & passive lesions

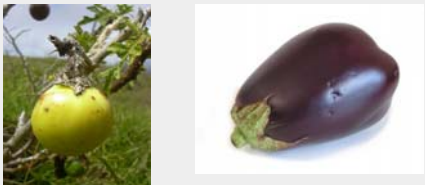
Therapy Success

The primary endpoint is defined as the complete healing of the index lesions, as confirmed by the absence of tumour-

- Determined by clinical (visual) and histological examination (Punch biopsy).
- The cosmetic results after therapy are very impressive replacing the need for complicated skin reconstruction surgery.
- Clinical trial participants have been followed up for 5 & 10 year periods with zero recurrence.
- Over 80,000 patients have now used the therapy successfully.

Therapy Success : complete remission of skin cancer

Biochemistry



SUCCESS

**2% Non-Natural Preservatives
98% Natural ingredients**

Biochemistry

The discovery of BEC was consequential to folklore among farmers in Australia who indicated that the crushing and application of the fruit of a weed known as Devils Apple retarded the progression of ocular squamous cell carcinoma in Hereford cattle.

In 1987, it was published that the fruit of the Devil's Apple plant contained a mixture of glycoalkaloids solasonine glycosides was found to be constant when extracted from the fruits, leaves and stems of the Devil's Apple Plant and is now known as BEC - as first published in 1987, 1990 and many subsequent studies.

BEC5 - Biochemistry Success

Biochemical profile

SOLASONINE
EN = 139 - 175

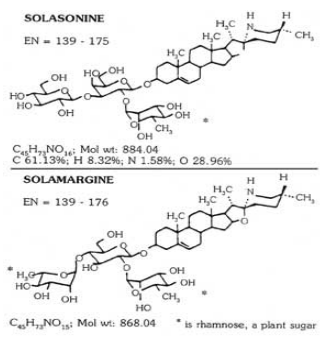
C[C@H]1N[C@@H](C)[C@H](O[C@@H]2[C@@H](CO)[C@H](O)[C@@H](O)[C@@H]2O)[C@H](O)[C@H](O)[C@H]1O

$C_{29}H_{49}NO_{13}$ Mol wt: 884.04
C 61.13%; H 8.32%; N 1.58%; O 28.96%

SOLAMARGINE
EN = 139 - 176

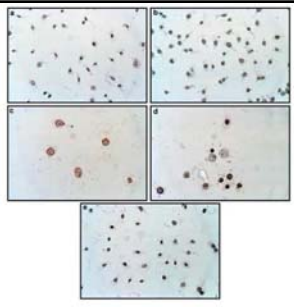
C[C@H]1N[C@@H](C)[C@H](O[C@@H]2[C@@H](CO)[C@H](O)[C@@H](O)[C@@H]2O)[C@H](O)[C@H](O)[C@H]1O

$C_{43}H_{73}NO_{15}$ Mol wt: 868.04 * is rhamnose, a plant sugar



A diagram outlining the structures of solasonine and solmargine.

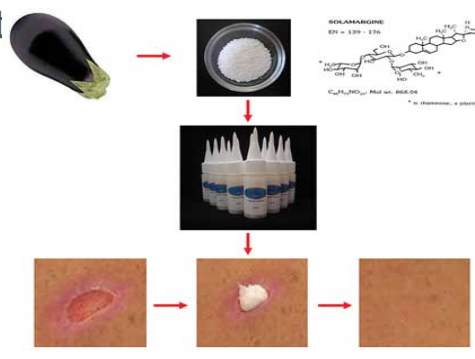
Anticancer Properties



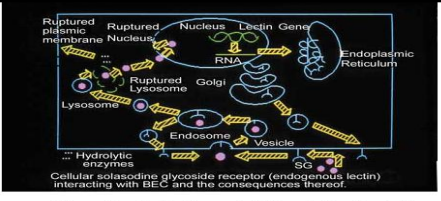
The glycoalkaloids causes the cytoplasm of the cancer cells to undergo dissolution, the nuclei contract and become dark staining (a), nuclei then enlarge (b), the chromatin (contents of nucleus) clumps (c), and finally the nuclei disintegrate (d). Only cellular debris is left after the interaction of the cancer cells with BEC (e). This cell death is characteristic of apoptosis which is also known as programmed cancer cell death.

Programmed cancer cell death. Notice the staining.

Natural topical ext



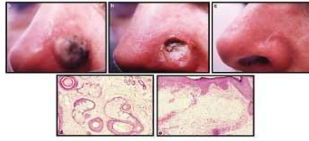
A extraction process related to the topical cream formulation



The results of cell culture and whole animal studies indicate that the mechanism of action of BEC involves the specific recognition of the sugar parts (in particular the sugar rhamnose) of the glycoalkaloids by specific receptors, lectins, located in the plasma membrane. Binding to these receptors, forming a complex of receptor-BEC results in endocytosis of the complex. Once inside the cell, the complex is taken up by the lysosomes (stomach of cell). The lysosome breaks up BEC and the alkaloid Solasonine is generated. Solasonine in turn causes the lysosome to rupture. The contents of the lysosome is spilt into the cell. The contents of the lysosome consists of many hydrolytic enzymes that can digest fats, proteins and carbohydrates. These enzymes then break down and digest the contents of the living cell which leads to sudden death of these affected cells. Malignant cells have greater abundance of these sugar receptors (lectins) than normal cells resulting in killing of cancer cells relative to normal cells.

A Unique & Novel Mode of Action - As Published, cited & utilised

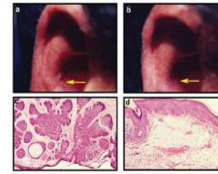
Squamous Cell Carinoma - Nose



SCC on the nose of a patient before (a), during (b) and after Curaderm treatment (c). Curaderm was applied for 5 weeks. Note the depth of the cancer as cartilage was exposed during treatment. The clinical diagnosis was confirmed histologically by punch biopsy (d). After completion of the therapy histopathology determined that no residual cancer was present (e). Clinical assessment 5 years post treatment revealed that there was no recurrence.

BEC selectively destroys tumour cells relative to normal cells

Basal Cell Carinoma - Ear



Clinical (a) and histological (c) diagnosed BCC in the ear of a patient before Curaderm treatment. Clinical (b) and histological (d) analyses after treatment. Duration of treatment was 10 weeks. Clinical assessment 5 years post treatment revealed that there was no recurrence.

Therapy is effective on hard to surgically remove locations.

Safety

Haematological, biochemical and urinalytical paramaters have been tested at concentrations in cream formulations

No BEC or its metabolites could be detected in the blood indicating that no systemic absorption of BEC occurred.

A non toxic, non surgical safe therapy.

Safety

The conclusion of the UK dermatologists whom participated in the Phase III & IV clinical trials stated:

"The topical preparation is safe and effective and an ideal therapy for outpatient treatment. A much-needed alternative to surgery for BCC. This is the most common cancer in Caucasians worldwide and the prevalence continues to increase with an increasing ageing population. A cost effective treatment for both primary and secondary skin cancer care"

BEC5 Safety & Clinical trial success

Blood Haematological constituents monitored before, during and after Curaderm BEC5 treatment.

White blood cells	Red cell distribution width
Red blood cells	Platelet count
Haemoglobin	Mean platelet volume
Haematocrit	Heterophils
Mean corpuscular volume	Lymphocytes
Mean corpuscular haemoglobin concentration	Basophils
Mean corpuscular haemoglobin	Monocytes

Therapy results obtained in Clinical Trials and open studies demonstrate the topical therapy to be safe. Reported effects have been restricted to:

- Local skin irritation
- Some pain and erythema (reddening) occurred during treatment.

Safety - Clinical trial results

Squamous Cell Carinoma - Head

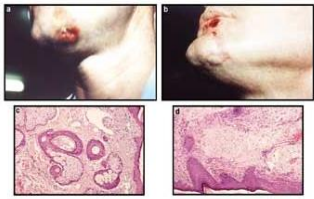


SCC on the head of a patient before (a), during (b, c) and after (d) Curaderm BEC5 treatment. The arrow indicates where the lesion was prior to treatment. It is difficult to distinguish where the cancer once was. This SCC is similar to the one described earlier (Figures 5-12, 5-15). Again it is shown that the cosmetic result is excellent.

Although Curaderm BEC5 treats large skin cancer lesions, it is extremely important that patients in consultation with their health professionals treat skin cancers in their early stages. The smaller the lesion, the shorter the treatment duration and the less troublesome for the patient.

Scalp surgery poses significant risk

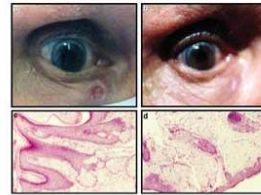
Squamous Cell Carinoma - Chin



This patient had a deep seated SCC under the chin (a). After 6 weeks treatment with Curaderm the cancer cleared up (b). The clinical diagnosis was confirmed histologically by punch biopsy (c). After completion of the therapy histopathology determined that no residual cancer was present (d). Clinical assessment 5 years post treatment revealed that there was no recurrence.

All clinical results confirmed by biopsy & visual confirmation.

Squamous Cell Carinoma - Eye Region



SCC under the right eye of a patient before (a) and after Curaderm treatment (b). Careful application of Curaderm was required to ensure that the cream did not enter the eye. After treatment there was no trace of the SCC. Confirmation by histological analysis of the SCC before treatment (c) and after treatment (d) are shown. The total treatment period was 14 weeks. Clinical assessment 5 years post treatment revealed that there was no recurrence.

BEC selectively destroys tumour cells relative to normal cells

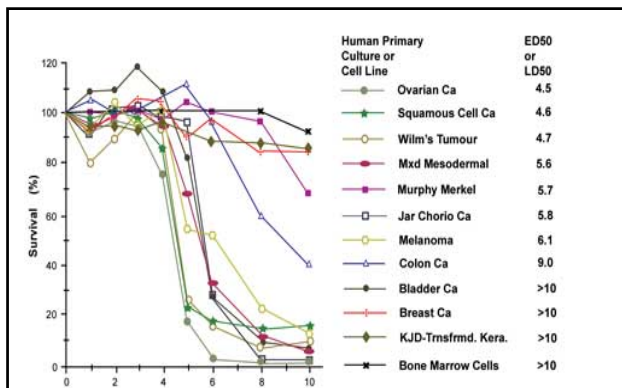
Efficacy

BEC selectively kills cancer cells without harming normal cells. This is apparent in both slow growing and fast growing facial and body Non-Melanoma skin cancers.

Pharmacodynamics

- Mechanism of action of BEC is unique
- BEC is not anti-mitotic
- BEC identifies cancer cells through specific receptors (known as EELs)
- BEC is lysosomotropic
- BEC kills cancer cells at both proliferating (dividing) and resting stages

A new antiaging therapy choice



General Cancer Fighting Evidence

Clinical Trials I & II

Phase I Clinical Trials (62 Patients)
Tested safety of BEC or its metabolites could be detected in the blood or urine while Curaderm BEC5 was used twice daily for 13 weeks. Haematological, Biochemical and Urinalysis were unaltered during Curaderm BEC5 therapy.

Phase II Clinical Trials (129 Patients)
Tested Efficacy of BEC for keratosis, keratoacanthoma, basal cell carcinoma (BCC) and squamous cell carcinoma (SCC).
Dosage tolerance and optimal dosage for future trials.
Possible adverse effects and safety risks.

Clinical Trials III & IV

Phase III Clinical Trials (232 Patients)
Independent single and randomized double-blind placebo controlled studies were completed on patients with non melanoma skin cancers.

Phase IV Clinical trials (over 50,000 patients) - the Phase IV studies were important to establish the clinical benefit of the topical lotion. Studies provided further independent verification as well as provided more clinical data.

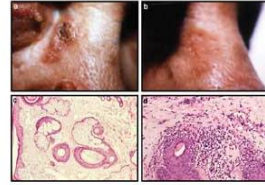
Safety - Clinical trial results

Efficacy

- * Independent centres show the topical lotion to be 78% if the lesions are treated for long enough (12 weeks).
- * The cosmetic result is excellent.
- * Lesions treated result in no recurrence.
- * The amount of BEC in Curaderm is very small. One average-sized egg plant fruit (300g) contains the same amount of BEC as 60 tubes of Curaderm! Thus, the toxicology profile is safe, as shown by the many published studies.
- * The purified within the emulsified extract is an ideal therapy for Non Melanoma skin cancers.

Safety - Clinical trial results

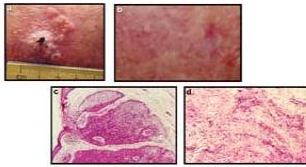
Squamous Cell Carinoma - Nose / Eye Region



SCC on the nose close to the eye (a). This SCC was starting to impair the vision of the patient. After Curaderm therapy the lesion was ablated (b). After completion on treatment the vision was restored. Treatment duration was 10 weeks. The clinical diagnosis was confirmed histologically by punch biopsy (c). After completion of the therapy histopathology determined that no residual cancer was present (d). Clinical assessment 5 years post treatment revealed that there was no recurrence.

General Cancer Fighting Evidence

Basal Cell Carinoma - body



BCC before treatment (a) and after 8 weeks of Curaderm treatment (b). The clinical diagnosis was confirmed histologically by punch biopsy (c). After completion of the therapy histopathology determined that no residual cancer was present (d). Clinical assessment 5 years post treatment revealed that there was no recurrence.

Natural active. Visible Elimination Process.

Efficacy



International Journal of
Dermatology



International Journal of Biological Sciences



BEC5 - Peer Reviewed, Published Research

The Topical BEC5 formulation is the end result of extensive research, pre-clinical-and clinical studies.

No experimental shortcuts were taken and the development. All the necessary stringent pathways, time requirements and investments which are essential before any new therapy, natural or synthetic, can be marketed have been achieved.

The treatment protocol does not require physician or hospital attendance. However, it is recommended that a health professional supervise the treatment.

The cosmetic result obtained after the eradication the the skin cancers with BEC5 therapy is very impressive.

Conclusion