

WIPO

The use of turmeric in wound healing



Case Study E – The use of turmeric in wound healing / MISSISSIPPI MEDICAL CENTER UNIVERSITY – *The turmeric patent by Das & Cohly*

Title of the invention	Use of turmeric in wound healing
Assignee/Proprietor	UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
The patent	US5401504A – pdf file of the patent

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Abstract

The patent application entitled “*Use of turmeric in wound healing*” was filed by inventors Suman K. Das and Hari Har P. Cohly on December 28, 1993 at the USPTO and was granted to University of Mississippi (assignee) on March 28, 1995, for the healing properties of turmeric administered both orally and topically. However, at that time numerous uses of turmeric were already known in India as part of traditional knowledge which led to patent revocation after the Council of Scientific and Industrial Research (CSIR) of India filed a re-examination request for the same. The patent was revoked on grounds of being obvious by an order dated November 20, 1997. The example of this patent is often cited as an illustration that traditional knowledge and practices in the use of genetic resources, when forming part of the prior art, may anticipate a claimed invention.

Case Study E – An example of a traditional knowledge-related invention which does not fulfill the novelty requirement

The patent application was made by Cohly *et al* and claimed that an effective amount of turmeric enhances the efficacy of healing of wounds, surgical cuts or ulcers. The patent also discloses the methods of application of turmeric in the wound healing process which included topical and/or oral administration of turmeric powder. The patent was granted on March 28, 1995 (Patent No. 5,401,504).

On October 28, 1996, the Council of Scientific and Industrial Research (CSIR) of India filed a request of re-examination and submitted 32 prior art documents from various scientific and traditional publications. In addition, the CSIR claimed that wound healing properties of turmeric and its application in both oral and/or topical forms are well known in India as existing traditional knowledge and have been well practiced for hundreds of years.

The non-final office action on re-examination, issued by the USPTO on March 28, 1997, rejected all 6 claims individually, stating that they could be anticipated by the prior art submitted by the CSIR and hence are invalid in lieu of the novelty criterion prescribed by 35 USC §102(a)¹. Additionally, the claims were also rejected in

¹ 35 USC §102(a) Novelty; Prior Art: A person shall be entitled to a patent unless—

(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention; or (2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or

their entirety pursuant to the obviousness criteria of 35 USC §103(a)² and based on the combined teachings of the references submitted by the CSIR. In response, the patentee argued that their claim was directed to the use of turmeric powder instead of turmeric paste as they have different physical properties in terms of absorbability and bio-availability. It was argued that the prior art only cites administration of turmeric in paste form, and thus the patentee's claims could not be obviated on the ground of lack of novelty. However, these arguments were rejected by the USPTO. Thereafter, the patentee submitted an amended set of claims, which were limited in nature.

The amended claims were directed to:

- a) A method of promoting healing of a surgically inflicted non-healing wound in a patient, which consists essentially of administering wound-healing agent consisting of an effective amount of turmeric powder to the said patient.
- b) (5) The method according to claim 1, wherein said wound is a surgical wound.

The patentee argued that the addition of 'non-healing' criteria shall make the claimed invention patentable over the prior art. This amended claim was rejected by the USPTO in the Re-examination Advisory Action (Serial No. 90/004,433) as being 'too vague and broad', and the Office reiterated that using turmeric in the art of healing surgically inflicted wounds has been an age old practice and disclosed in the prior art submitted by the CSIR.

The patent was revoked after the patentee did not respond to the advisory action issued by USPTO on November 20, 1997.

deemed published under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.

² 35 USC §103(a) Non-obvious subject matter: A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.