

1 May 2018

Engineering News

During the past several decades, the advances made in the life sciences and health care industries have been astounding, not to mention revolutionary. A presently obscure and experimental treatment may, in a day or week or years' time, become a miraculous cure.

Imagine the ridicule faced by Peyton Rous when he suggested that cancers have an infectious etiology, or Ignaz Semmelweis' observations regarding antiseptic techniques, to name only a few. Today, we celebrate these visionaries and their relentless efforts to promote their research and ideas.

So what can modern society do to further challenge conventional wisdom when considering innovation in medical science? Perhaps the answer lies in a flowering herb that, historically, has grown naturally in many tropical and humid parts of the world - Cannabis.

Cannabis contains two major chemical compounds called cannabinoids, namely CBD oils (cannabidiol) and THC (tetrahydrocannabinol), the former being a non-psychoactive that is becoming increasingly valued for its medicinal properties, and the latter being associated with euphoria and relaxation.

Due to the non-psychoactive nature of the CBD compound, many people are considering whether it may be used as a viable and effective alternative to mainstream pharmaceuticals. Anecdotal evidence has touted the medicinal benefits for ages, but it is only in recent years that the scientific research has offered scientific evidence to support those therapeutic claims.

New research supports the notion that CBD has promising health benefits and, in recent months, this view has been confirmed by the World Health Organisation's Expert Committee on Drug Dependence.

Leading pharmaceutical companies, such as GW Pharmaceuticals, have pioneered efforts to investigate the efficacy of CBD for use in a pharmaceutical form, and have formulated a product known as Epidiolex, which is almost entirely comprised of CBD, and can be used for the treatment of specific forms of epilepsy.

In addition to epilepsy, studies have shown that the use of CBD may assist in reducing anxiety

and depression, and that CBD's anti-inflammatory qualities may assist in the reduction of pain and inflammation.

According to analysts, the CBD oil market is set to grow at an estimated compound annual growth rate of 39.19% between 2017 and 2021, and this positive forecast may result in substantial benefits for those jurisdictions that have approved the use of CBD in therapeutic applications, including the United States of America and several European countries, and certainly for the patients in those jurisdictions.

Previously, the local regulatory authority in South Africa (SAHPRA) only permitted patient access to cannaboid-containing products in exceptional circumstances, and subject to the treating physician first having obtained permission to import the required product.

However, the South African Department of Health and SAHPRA have recently issued guidelines regarding the cultivation of Cannabis, and in an effort order to ensure the availability of quality-assured locally grown Cannabis, exclusively for medical, scientific and clinical research purposes.

As a result, cultivators of Cannabis may now apply to SAHPRA for a licence, in terms of the Medicines and Related Substances Act (Medicines Act) authorising the cultivation, extract and/or testing of Cannabis and Cannabis resins (i.e. CBD) as well as the manufacture, import, export and/or distribution of a cannaboid-containing product.

What will this mean for persons wishing to manufacture cannaboid-containing products in South Africa?

For a start, SAHPRA would require compliance to the local South African pharmaceutical environment, which is highly regulated, and in terms of SAHPRA issued guidelines, licence conditions may include matters related to quality controls, the employment of suitable persons and compliance measures regarding security, transport and/or reporting.

It is promising to note that the South African regulator and the Department of Health have considered the benefits and risks of cannaboid-containing products, and with a view to granting marketing access for medical use purposes.

Perhaps the ambitious foreign direct investment drive recently launched by the South African president, Mr. Cyril Ramaphosa, will encourage those interested in the cultivation of Cannabis or the manufacture of CBD containing pharmaceuticals, to explore the promising CBD "landscape" in South Africa.

Also published in Business Essentials and Polity.org.

> [Read the full article online](#)