

The renaissance of silver

The use of silver as an anti-bacterial agent.

IN popular mythology, vampires and werewolves are often affected or killed by weapons containing silver, often because silver (supposedly) acts against the virus causing vampirism and lycanthropy.

As strange and as far-fetched as this sounds, there may actually be some truth to it.

The use of silver as an anti-microbial agent dates back to ancient Egypt where it was commonly used to cure and prevent various diseases.

In ancient Greece and Rome, silver containers were used to keep liquids like milk from spoilage.

Even throughout the Middle Ages in Europe, silver was used to treat battle wounds, and wealthy families gave their children silver spoons to suck on to ward off infections, possibly giving rise to the saying, "Born with a silver spoon in his mouth".

By the late 1800s, the recognition that silver was lethal to bacteria in relatively low concentrations was common knowledge.

A.B.G Lansdown, a leading authority on the use of medicinal silver from the Faculty of Medicine in Imperial College, UK, stated after reviewing all available silver literature of the past 200 years that, "Metallic silver and silver com-

pounds are used widely in medical devices and healthcare products to provide antibacterial and antifungal action. Experience has shown that they are generally safe for use and effective in controlling pathogenic organisms."

Between 1900 and 1940, silver was the primary antibiotic used in medical practice. Physicians mixed silver preparations in their offices, and they were either taken orally or injected.

However, the shelf life of these silver preparations was poor, as they had no way to keep the silver particles in suspension for prolonged periods.

The use of sulpha drugs and the discovery of penicillin's antibiotic effect in the 1900s contributed to the decline of silver-based treatments within the medical community.

Over the last two decades, researchers have developed techniques to bind sub-microscopic clusters of silver particles within a suspension of pure ionised water by placing tiny electrical charges in each particle, resulting in a colloidal silver solution that has a much higher level of efficacy and an indefinitely prolonged shelf life.

According to Dr Martin E. Roberts from the Faculty of Medicine and

Health Sciences at UCSI University, Kuala Lumpur, colloidal silver works through the oligodynamic effect, where silver ions bind to cell walls,

and are then absorbed into the single-cell bacteria or fungus where they interfere with cellular energy production and kill the organism.

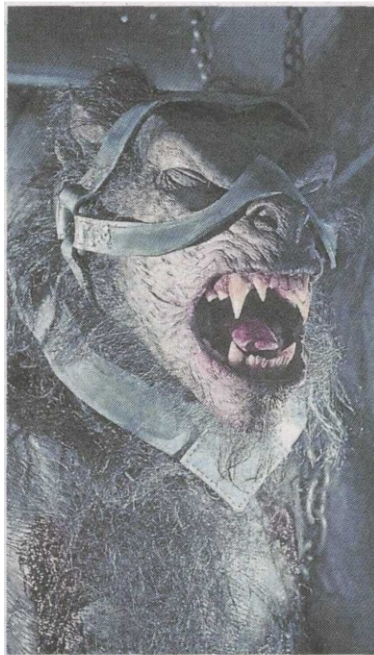
"The fermentation system of energy production used by these single-cell organisms is different than the aerobic energy-producing system of human cells, which are not significantly affected by silver. This means that silver is ultimately not toxic to human cells," says Dr Roberts.

Silver is undergoing a renaissance with the advent of innovative new products that are able to enhance the utility of silver ions, thus enabling better healthcare applications.

Companies such as Trumer International Berhad understand the substantial benefits of colloidal silver and are preparing to launch a range of personal care products.

Joseph Lim, a spokesperson for the TruCare brand, says: "Not all

colloidal silver solutions are created equal, some merely contain minute shavings of silver. For colloidal silver to be effective, it must be of a size small enough to interact with microbes at a molecular level.



Not just for werewolves: Metallic silver and silver compounds are used widely in medical devices and healthcare products. - Filepic