

# VeriChip

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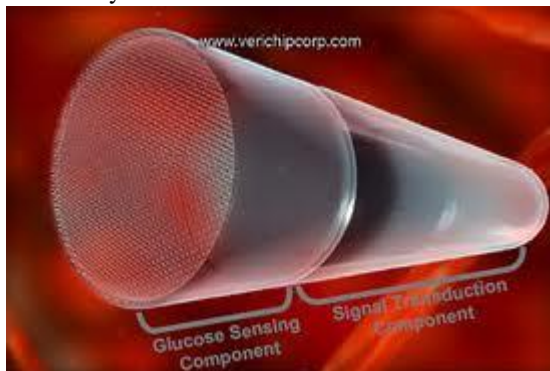
**Abstract—Verichip is the company that invented and an implantable medical scanning device. This device is simply called an RFID chip (Radio Frequency Identification Device). Its purpose is so if someone gets injured or hurt, and the ambulance needs to be called in, this chip can be scanned and it will display all important medical information. This includes anything from allergies, to past medical operations.**

## I. INTRODUCTION

THE idea first emerged back in 2001 that people needed to have immediate ways to identify yourself in case of medical emergency. September of 2001 people started realizing that firemen were writing their badge number in permanent marker on their chest every time they went out for a fire call. This was because if they got burnt, lost, hurt or injured they wanted people to be able to identify them. A new company was then created by December of 2001 called VeriChip. They specialized in making a implantable chip that could tag e person and hold information that could be accessed at any point by medical or government programs. The chip that started the business was RFID microchip that acted like a flash drive with an antenna.

## II. METHODS

The RFID chip made by VeriChip is an injectable identification chip that was originally used in home domesticated animals. If an animal got lost, any medical vet can scan a chip in their neck and find all the information about the animal. This chip is meant to go under the skin of humans and act as a mini flash drive that can wirelessly communicate important information. The capsule is coated with a porous polypropylene called Biobond. Bio Bond allows for the capsule to stay stationary in the body under the skin thought its life. Think of having a wallet that is on your body and contains information that could save your life if anything threatens your life.



This chip is made of a harmless polymer that doesn't affect your skin or cause irritation to your body. This device is about the size of a grain of rice and is made of 2 parts. The first part is a small micro antenna that can transmit a signal to a

receiver, and the second part is a storage drive that can hold 300 megabytes of information. The intention of this information is for medical emergencies where a doctor needs to know key information about you to save your life in the case of major injury. These receiving stations can even be put into an ambulance so information can be scanned and processed before arriving at a hospital.



## III. RESULTS

This is a relatively simple device that made it through FDA approval with no problems and has been on the market since 2004. This chip has been used many times in people (particularly elderly people) and has help medical personnel to save many lives. More people than can count were implanted with this device and it proved to be a success in the medical field for about 6 years before the ethical questions emerged.

## IV. DISCUSSION

This RFID chip has been taken off the market in 2010 due to ethical and privacy concerns. People felt that having this information on them was an invasion of privacy. Although this product may contain easy access key information to save one's life, having this information made you vulnerable to other people. This product was originally intended to function as a wireless medical bracelet that one would never have to worry about losing or taking off. Since this product has been discontinued, other companies have taken advantage of this technology for security systems, automated data collection and medical purposes.

## REFERENCES

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