

OKs Implantable Chip With Patient Info

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Note from Pastor Kevin: Please see other related handouts to see the Biblical implications of this technology.



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Identity Badge Worn Under Skin Approved for Use in Health Care

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The Food and Drug Administration has cleared the way for a Florida company to market implantable chips that would provide easy access to individual medical records.

The approval, which the company announced yesterday, is expected to bring to public attention a simmering debate over a technology that has evoked Orwellian overtones for privacy advocates and fueled fears of widespread tracking of people with implanted radio frequency tags, even though that ability does not yet exist.

[Applied Digital Solutions](#), based in Delray Beach, Fla., said that its devices, which it calls VeriChips, could save lives and limit injuries from errors in medical treatment. And it expressed hope that such medical uses would accelerate the acceptance of under-the-skin ID chips as security and access-control devices.

Scott R. Silverman, chairman and chief executive of Applied Digital, said the F.D.A.'s approval should help the company overcome "the creepy factor" of implanted tags and the suspicion it has stirred.

"We believe there are far fewer people resisting this today," Mr. Silverman said. But it is far from clear whether implanted identification tags can overcome opposition from those who fear new levels of personal surveillance and from some fundamentalist religious groups who contend that the tags may be the "mark of the beast" referred to in the Book of Revelation.

In Applied Digital's vision, patients implanted with the chips could receive more effective care because doctors, other emergency-room personnel and ambulance crews equipped with Applied's handheld radio scanners would be able to read a unique 16-digit number on the chip.

The chip does not contain any records, but with the number, the care provider would be able to retrieve medical information about blood type, drug histories and other critical data stored in computers. The records could be easily updated.

Tiny radio frequency identification, or RFID, tags similar to VeriChip have been embedded in livestock and pets in the millions in recent years as a more secure form of identification than external tags. But no device maker has yet been able to create a market for human implantable tags like VeriChip, which are the size of a grain of rice and are inserted under the skin of the arm or hand with a syringe.

Applied Digital's distributors overseas have achieved some highly publicized, if limited successes. This summer, Rafael Macedo de la Concha, Mexico's attorney general, announced that he and scores of his subordinates had received implanted chips that control access to a secure room and documents considered vital in Mexico's struggle with drug cartels.

Also, Solusat, the sole distributor of VeriChip in Mexico, says about 1,000 people have received the chip implants to link to their medical records. "You can have all the benefits of radio identification," a Solusat executive, Antonio Aceves, said, "but now it is inside your body."

In March, the Baja Beach Club in Barcelona began offering VeriChips to regular patrons who wanted to dispense with traditional identification and credit cards. About 50 "V.I.P.'s" have received the chip so far, according to a spokesman, which allows them to link their identities to a payment system. The program has been expanded to a club in Rotterdam also owned by Baja, and about 35 people there have signed up for the implants, the company said.

VeriChip announced last week that it had signed a distribution agreement with a British company, Surge IT Solutions, which it said intended to use the technology to control access to government facilities. And Antonia Giorgio Antonucci, an Italian doctor, is leading a study using VeriChip at the National Institute for Infectious Diseases Lazzaro Spallanzani in Rome.

"We want to see if the doctors think the device is practical or not," Dr. Antonucci said.

Applied Digital has been free to sell VeriChip in the United States for nonmedical applications, but lack of acceptance of the technology made F.D.A. approval for medical uses a high priority.

"I've believed all along that the medical application was the best, followed by security and financial applications," Mr. Silverman said.

Still, the science-fiction specter of a nation of drones tagged with sub-dermal bar codes may be a difficult image for the company to overcome in selling its technology.

Online conspiracy theorists, for example, often attach abilities to the technology that do not exist, like the ability to track individuals via satellite.

But real privacy concerns have emerged. "At the point you place the chip beneath the skin, you're saying you will not have the ability to remove the ID tracking device," said Marc Rotenberg, executive director of the Electronic Privacy Information Center, a public interest advocacy group in Washington. "I think, increasingly, if this takes off - and it's still not clear that it will - the real social debate begins around prisoners and parolees, and perhaps even visitors to the U.S. That's where the interest in being able to identify and track people is."

Indeed, the debate over civil liberties and privacy has made discussing any practical benefits of a technology like VeriChip harder.

"The fact that we're engaged in such a deep, fundamental privacy debate really does complicate the prospect for this kind of technology," said Clyde Wayne Crews Jr., director of technology studies at the Competitive Enterprise Institute, a regulatory research group in Washington. "We haven't even sorted out the appropriateness of a RFID tag that goes on a pallet of tomatoes," Mr. Crews said, "much less one that can go under a person's skin."

Applied Digital has tried to counter such concerns by arguing that the implantation of chips is voluntary and the only records linked to a VeriChip will be those authorized by the person with the chip.

But critics say that if the technology gains a foothold, employers, government authorities and others with power over individuals could dictate how it is used. For instance, if chips were to replace dog tags as military identification, the decision would not be up to the discretion of individual soldiers.

The evolution of radio identification technology also concerns some critics. Passive tags like VeriChip do not broadcast radio waves and cannot now be used to track a person's movements. And current scanners cannot read the passive chip from more than a few feet away. But design advances or the addition of a separate power source for the chip could expand those ranges and make tracking possible.

Mr. Silverman has said that the current chip could help managers of high-security installations like nuclear power plants locate people in the building because scanners in doorways should be able to track who enters and leaves a room.

Applied Digital has VeriChip distribution agreements with companies in several states, but those have been largely dormant. It said it hoped to find big medical distribution companies to market the chip to doctors' offices, specialty clinics and emergency rooms.

Dr. Richard Seeley, Applied Digital's medical adviser, said the company would concentrate on winning acceptance of the chip among patients with complex problems like diabetes, which require them to see many doctors, and those with disorders like Alzheimer's disease.

Dr. Seeley said the company was also talking to large orthopedics companies to demonstrate the value of linking the chip to medical devices like hip and knee implants.

Mr. Silverman said that surveys had shown that 14 percent to 22 percent of people would consider having the implant, but more than 80 percent of those surveyed said they would consider having the implant if the question was framed to show a medical benefit from the chip.

Applied Digital, which has been losing money for years, cautioned yesterday that it did not expect substantial revenue or profit from VeriChip anytime soon. But investors were optimistic enough about the F.D.A. news to send the company's shares up 68 percent, to close at \$3.57 yesterday. Shares of Digital Angel, a subsidiary of Applied Digital that makes animal tags and manufactures the VeriChip, rose nearly 29 percent, to \$3.49.