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Casinos bet on Applied DNA



by Gregory Zeller
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Things just got a lot harder for Ocean's Eleven.

Thanks to unique detection protocols devised by a Florida security expert and its Stony Brook-based partner, casinos from Vegas to Macau are taking better care of their poker chips, playing cards and other potential targets of crafty counterfeiters.

Defrauded and frustrated by phony gambling paraphernalia, small and large casinos have long sought a silver bullet against such thievery - and may have found it in a two-part system combining leading-edge security inks with botanical DNA.

With its high-profile casino clients suffering fraud's sting, distributor Palm Gaming International of Daytona Beach, Fla., placed its chips on Jupiter, Fla.-based H.W. Sands Corp., a "product differentiation" specialist that develops and distributes custom dyes and chemicals used to mark various products.

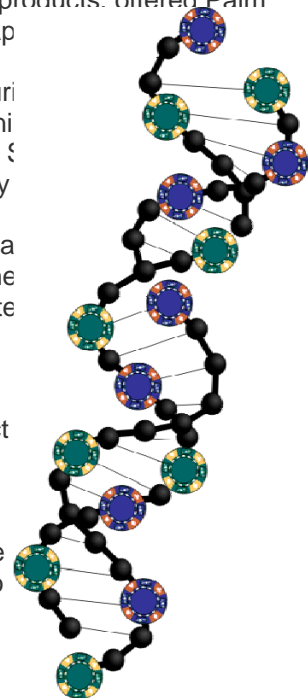
This was a unique challenge for H.W. Sands: Alone, its chemical markers could be duplicated, especially by high-tech counterfeiters targeting the casinos. A second security layer was required, something that would truly immunize the chips and cards against these ingenious grifters.

The company, which partners with various firms on numerous corollary products, offered Palm Gaming several options, and "the one they found most appealing was Applied DNA Sciences of Stony Brook - which patents DNA-based security brands and even intellectual property - was now in the game. By combining SigNature DNA, gathered exclusively from botanical sources, with H.W. Sands' casino property could be protected by an easily detected and completely blanketed.

The SigNature DNA and an H.W. Sands' instant-detection marker such as an ultraviolet fob light can then be used to quickly authenticate out fake chips smuggled in by cheaters.

"We encrypt the DNA so it cannot possibly be copied, even with a genome machine," Applied DNA spokeswoman Janice Meraglia said. "DNA in itself is not easy to copy. You have to have tremendous intellect and superior equipment to do it. And on top of that, we do our own special sauce."

The good news of working with DNA as a security device is that a single DNA molecule contains an enormous amount of information. That's also



the bad news: It can take a while to plow through the genomic code and make sure the DNA you're scanning is the DNA you're looking for. That's where the marriage of Applied DNA's science with H.W. Sands' markers becomes critical.

"We put our DNA into a security ink that allows for a rapid scan that can be done with a handheld detector, in a casino or wherever it needs to be," Meraglia noted. "It's a lock-and-key technology. It's not just the encrypted genome; it's two parts you need together to make it work."

For security reasons, Palm Gaming won't reveal which casinos are employing this new technology. But the distributor - which is finalizing a deal with H.W. Sands to become the gambling industry's exclusive dealer of SigNature DNA-encoded devices - butters its bread primarily in Las Vegas, as well as numerous Native American-owned casinos and various private markets, including what Strahl termed "high-end personal clientele."

"They probably like the novelty of it, rather than the security," he said of those individual clients.

"They can say 'I use the world's most super-high-security poker chips when I play with my buddies on Thursday nights.'"

SigNature DNA's potential usage extends well beyond the gaming industry. Palm Gaming is the first deal struck since H.W. Sands and Applied DNA announced its partnership earlier this summer, but according to Meraglia, the encrypted DNA/rapid-detection marker process has virtually limitless security applications.

"Microchips, cotton shirts, silk scarves, crude oil ... this application is very broad-based," Meraglia noted. "We can use it to mark everything from wine bottles to electronic components to secured documents."

Partnering with Applied DNA is "an excellent opportunity" that's opened several new doors, Strahl said. "H.W. Sands has represented various products over the years, and we keep on refining ourselves - looking for the next thing, the most innovative thing," he said. "Things that can't be duplicated, so our clients can stay a step ahead."