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“It’s not just great science we’re proposing, but it is also the setting that provides us a step up compared to lots of places. We have this unique community that we have built and continue to build. It validates the marine biomedicine model we have of having a medical school partnering with NOAA and NIST and world-class analytical chemists and biologists.”

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lations from Florida to South Carolina. Mammals use hormones that are identical to what reptiles use, which is why alligators and crocodiles serve as typical research subjects for Guillette as sentinel species to study environmental impacts on human health.

### Into The Wild

Guillette was asked to go to South Africa to Kruger National Park to examine why almost half of the crocodile population there has died off in the past two and a half years. He went in September for a couple of weeks to catch and test crocodiles, getting chased by hippopotamuses and driving through maternity herds of elephants.

“You would come around a bend and there would be a lion. It’s like being in Africa 100 years ago,” he says.

It was, except that this area is a low-lying drainage basin and the crocodiles are in trouble, as well as catfish. “I do know crocodilians, and there are some things that don’t measure up. Something is going on. The park is an environmental wonderland, a place that people come from all over the world to visit. It resembles New Orleans as far as environmental problems in that it’s a low-lying area susceptible to contaminants that are transported in rivers from all over the country.”

Guillette says the initial four-year study in South Africa will be an interesting collaboration, as will be the three-year BP trust fund-sponsored Gulf of Mexico research grant. Guillette and colleagues Demetri D. Spyropoulos, Ph.D., Satomi Kohno, Ph.D., and John E. Baatz, Ph.D., landed a \$1.2 million grant from the Gulf of Mexico Research Initiative to study the effects of the Deepwater Horizon oil spill on the gulf.

The study, “Using Embryonic Stem Cell Fate to Determine

