



FOR IMMEDIATE RELEASE

Researchers Develop Unconventional Coral Reef Restoration Device, Drawing Interest from Global Marine Science Community

Revolutionary “Coral Fort™” features an unlikely component - a marine biodegradable drinking straw called phade® - to protect and restore coral reefs, increasing transplanted coral survival rates from less than 40 percent to over 90 percent

Fort Lauderdale, FL (April 11, 2024) – A team of local marine scientists has developed a revolutionary solution for growing new, healthy coral to restore reefs along Florida’s coastline, capturing interest from coral restoration scientists across the globe.

The team created the “Coral Fort™,” a device that uses a limestone disc surrounded by the phade® brand of marine biodegradable drinking straws to protect laboratory-grown coral moved to the ocean in reef restoration efforts. Predators like parrotfish bite and destroy newly transplanted coral, but the straws shield the coral and then safely biodegrade, leaving nothing behind. The team’s research findings show more than 90 percent of corals placed within Coral Forts™ off the coast of Fort Lauderdale were free from parrotfish bites and are now thriving, up from less than 40 percent survival rate without assistance from Coral Forts™.

“Coral reefs represent some of the most diverse ecosystems in the world, providing a habitat for a variety of marine life,” said Kyle Pisano, who conducted offshore experiments with the Coral Fort™ as part of a master’s degree program at Nova Southeastern University (NSU) and is now CEO of a new venture called Reef Fortify, Inc., which represents the new technology. “With global coral reef populations in steep decline, scientists all over the world are searching for solutions for restoration. No other device for predator protection like this exists. All of the other devices that have been tried require cleaning by divers when excessive algae accumulates on them. The phade® straws in the Coral Fort™ disintegrate before then, so there is no need for divers to come back after the Coral Fort™ is put into the ocean, which saves a huge amount of labor and money. Once and done! Now that we know Coral Forts™ work, Reef Fortify and the phade® team will begin exploring how to make them available where coral reefs are most threatened all over the globe.”

Predation of corals transplanted from laboratories to the ocean has hindered reef restoration efforts for years and an effective means of protecting corals has eluded experts until now.

“This new solution is a significant development for global coral reef restoration,” said Dr. Kirk Dotson, inventor of the patent-pending Coral Fort™ and CFO of Reef Fortify Inc. “We have received interest from researchers all over the world who are faced with coral predation challenges like we have here in Florida

with parrotfish. The Coral Fort™ is a simple, inexpensive, and environmentally safe solution that allows coral put into the ocean in reef restoration efforts to grow and thrive. We hope that Coral Forts™ utilizing phade® straw technology can be used on a massive scale to rapidly replenish reefs around the world.”

Upon discovering the damage to transplanted coral caused by parrotfish bites, Reef Fortify Inc. explored solutions that would deter predatory fish so that the coral could grow to a healthy, sustainable size, but then disappear once predators lose interest and stop biting the coral. The researchers tested tube and straw options made with PHA (polyhydroxyalkanoate), a new biopolymer derived from the fermentation of canola oil, to ensure their safety in a marine environment and found the phade® straw proved to degrade far more rapidly than tubes. The phade® straws maintain the look and feel of traditional plastic straws but safely biodegrade and return to nature quickly. Nothing other than water and carbon dioxide remains after the phade PHA straws have disintegrated on the ocean floor.

“We are humbled to play a role in the critically important work of Reef Fortify Inc.,” said Brad Laporte, CEO of WinCup the manufacturer of phade®. “Who could have imagined that a drinking straw – something that is often thought of as a pollutant in marine environments – could be a potential solution to the rapid disappearance of our coral reefs.” Cyrus Nikou, founder of Atar Capital, had a vision of a more sustainable world when embarking on the purchase of phade® in 2020. “We couldn’t be prouder that this team is using phade® as part of an innovative solution to solve yet another global crisis,” Nikou added.

Pisano’s research team also includes Dr. Abby Renegar, who was his advisor at NSU and is the CSO of Reef Fortify Inc. Their research results can be found [HERE](#).

Coral reefs are a significant part of the oceanic ecosystem. They occupy less than one percent of the ocean worldwide but provide food and shelter to nearly 25 percent of sea life. Coral reefs also dramatically reduce storm surges, thus protecting humans and valuable coastal property during hurricanes. And most importantly, they provide resources for income, food, and protection for more than half a billion people each day around the world according to the National Oceanic and Atmospheric Administration (NOAA).

Researchers across the global science community have expressed interest in using Coral Forts™ including teams focused on coral reef health at the University of Miami and the Hawaii Division of Aquatic Resources. The team in Hawaii has begun testing Coral Forts™ to protect coral from predators off the coast of Honolulu. The University of Miami was also intrigued by the research study and recently purchased 50 Coral Forts™ to bolster its efforts to create a sustainable source of healthy coral colonies for use in active reef restoration.

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About Reef Fortify Inc.

Reef Fortify Inc. manufactures, markets, licenses, and distributes devices and products for coral reef restoration. Its Coral Fort™ product protects laboratory-grown coral moved to the ocean in reef restoration efforts.

About WinCup, Inc.

WinCup, Inc. is headquartered in Atlanta, Georgia. WinCup is a leading manufacturer of traditional and sustainable disposable cups, bowls, containers, lids, and straws, including the phade® straw, the world's first home compostable and marine biodegradable drinking straw. The company's eight manufacturing locations are committed to high-quality products and superior customer service. WinCup is owned by Los Angeles-based global private investment firm Atar Capital, which invests in companies committed to sustainability and environmental protection. To learn more, please visit www.wincup.com and www.phadeproducts.com.

About Atar Capital

Atar Capital is a global private investment firm that acquires a wide range of lower middle market businesses exhibiting opportunities for growth, revitalization and significant value creation. Atar Capital's principals have collectively completed 90 private equity transactions across 18 countries worldwide.

Atar Capital's combination of operational expertise, industry knowledge and investment experience provides a unique edge in creating value and working as a true partner with its portfolio companies. The firm assists in activities ranging from growing the business to improving operations and financial performance, leveraging all available resources and talent within Atar's leadership team, as well as its bench of seasoned senior advisors with deep sector and functional expertise. For more information, please visit www.atarcapital.com.