# Announcing Fabien Cousteau's PROTEUS™, a Revolutionary Underwater Scientific Research Station and Habitat Addressing Humanity's Most Critical Concerns

"The promise of the Ocean is the answer for our future" -Fabien Cousteau

NEW YORK, NY, July 22, 2020 -- Renowned aquanaut, Ocean explorer and environmentalist Fabien Cousteau announces today his vision for PROTEUS<sup>™</sup>, the world's most advanced underwater scientific research station and habitat to address humanity's most critical concerns: medicinal discoveries, food sustainability, and the impacts of climate change. A project of the Fabien Cousteau Ocean Learning Center (FCOLC), PROTEUS<sup>™</sup> is conceived as the underwater version of the International Space Station; it will be a platform for global collaboration amongst the world's leading researchers, academics, government agencies, and corporations to advance science to benefit the future of the planet.

"As our life support system, the Ocean is indispensable to solving the planet's biggest problems. Challenges created by climate change, rising sea levels, extreme storms and viruses represent a multi-trillion-dollar risk to the global economy," stated Fabien Cousteau. Surprisingly, despite the Ocean representing over 99% of our world's living space, only 5% has been explored to date. "PROTEUS™, contemplated as the first in a network of underwater habitats, is essential to driving meaningful solutions that protect the future of our planet. The knowledge that will be uncovered underwater will forever change the way generations of humans live up above."

PROTEUS™ is envisioned to be more than four times the size of any previously known underwater habitat, and will feature state-of-the-art labs, sleeping quarters, and a moon pool. PROTEUS™ will include the first underwater greenhouse, allowing inhabitants to grow fresh plant life for food, marking a unique approach to address some challenges that come with underwater living, such as not being allowed to cook with open flames. The habitat will be sustainably powered by hybrid sources including wind, solar, and Ocean Thermal Energy Conversion (OTEC). It will include a full-scale video production facility to provide continuous live streaming for educational programming, and delivery of augmented and virtual reality to collaborators world-wide.

As the largest and most technologically advanced underwater station ever built, PROTEUS™ will grant scientists and aquanauts the time to conduct continuous night and day diving and data collection. The PROTEUS™ marine research platform, amongst its many functions, will enable the discovery of new species of marine life, create a better understanding of how

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climate change affects the Ocean, and allow for the testing of advanced technologies for green power, aquaculture, and robotic exploration. PROTEUS<sup>TM</sup> allows divers to spend an entire day conducting research on the Ocean floor because they are saturated (when the bloodstream is equalized with suitable gasses at the pressure of the surrounding water). Saturation enables humans to live, work and explore underwater.

"PROTEUS™ is a hopeful step forward in spreading the message that we must protect the Ocean as if our lives depend on it. Living underwater gives us the gift of time and the incredible perspective of being a resident on the reef. You're not just a visitor anymore," stated Dr. Sylvia Earle, Ocean Ambassador of the FCOLC and American marine biologist, explorer, and National Geographic explorer-in-residence, and fondly known as "Her Deepness".

The onsite state-of-the-art labs will facilitate processing of organic samples that can be studied in real time, rather than the specimens rapidly degrading or dying during the arduous journey to the surface and far-reaching land laboratories. On premise experimentation results in an enhanced pipeline to support the development of new treatments for cancer, antibiotics, vaccines, and much more.

PROTEUS™ will be located off of the Island of Curaçao, at a depth of 60 feet (3 atmospheres) in the richly biodiverse waters in a marine protected area of the Caribbean Sea. Dr. I.S (Steven) Martina, Minister of Economic Development for Curaçao, stated: "We are delighted to be home to PROTEUS™. Our incredible Caribbean Sea holds immense riches yet to be fully discovered. The economic potential of having the first underwater space station located in Curaçao's waters is enormous, from job creation to tourism."

PROTEUS™'s strategic partners include Northeastern University, Rutgers University, as well as the Caribbean Research and Management of Biodiversity (CARMABI). Other academic experts include University of Rhode Island's Graduate School of Oceanography. The initial concept design of PROTEUS™ is co-conceived by renowned industrial designer, Yves Béhar and his firm fuseproject, which has worked with blue chip companies such as Samsung, General Electric, Herman Miller, and Prada. A link to PROTEUS™'s renderings can be found HERE (https://www.dropbox.com/sh/tpmghqmikpj1r46/AADJMtkAgFNi7GGbGvwc9cbya?dl=0)

Dr. Mark Patterson, Associate Dean for Research and Graduate Affairs in the College of Science at Northeastern University, Professor of Marine & Environmental Sciences/Civil & Environmental Engineering, and Advisory Board member of the FCOLC stated: "PROTEUS™ will transform how we conduct underwater science and engineering. The innovation cycle will be shortened by having a true laboratory underwater, rather than a simple living space like prior underwater habitats. Extended duration missions allow new ways of working, such as virtual

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international teams of experts, and the participation of citizen scientists." Patterson is advising on the scientific program for use of PROTEUS<sup>TM</sup>'s state-of-the-art wet and dry labs, which are intended to be leased to corporate, government and academic entities. An experienced aquanaut with 89 days of saturation diving over 10 missions, Patterson hopes to use PROTEUS<sup>TM</sup> to test advanced sensors and underwater robots developed in his lab at the Coastal Sustainability Institute.

Yves Béhar commented: "PROTEUS<sup>TM</sup>'s design intent is to offer an effective, comfortable and attractive facility for researchers, and an exciting underwater structure that garners the same passion for ocean exploration as we have for space exploration. The PROTEUS<sup>TM</sup> spiral architecture houses social and work spaces as well as a communication studio and a submersible moonpool. PROTEUS<sup>TM</sup> is both practical and an icon that will change the way we experience ocean research."

Oscar Schofield, Professor of Biology and Chair of the Department of Marine and Coastal Science at Rutgers University stated: "The oceans contain an unprecedented genetic diversity and this offers a potential gold mine of cellular innovation that could inform our efforts to develop novel medicines and compounds for the future."

PROTEUS™ builds off of the monumental success of Mission 31 (2014), when Fabien Cousteau led five aquanauts at Aquarius, a 400-square-foot station in the Florida Keys. He set the then record for longest amount of time living underwater there: 31 days, and performed 3 years of equivalent research in a month that resulted in 12 published scientific studies and 9,800 scientific articles. Additionally, he reached 100,000 students for experiential education via telepresence. The impact of the mission resulted in 34 billion media impressions, as audiences watched and experienced life under the sea with Fabien and his team of aquanauts.

PROTEUS™ expands upon the Cousteau family's previous iconic achievements in underwater living, discovery and ocean cinematography. This includes the first underwater research habitats built in 1962, by Jacques-Yves Cousteau: Conshelf I, II and III, documented in his Academy Award-winning film, *Le Monde sans Soleil* (World Without Sun) (1964).

Jean-Michel Cousteau, Fabien's father, an oceanographic explorer, environmentalist, educator, and film producer, supports the evolution of underwater exploration and research that PROTEUS™ will provide. "PROTEUS™ is a critical step in understanding that humans have the capacity to design our own future, to take a lesson from the past, from living things around us and bring our values and actions in line with ecological necessity. We must first realize that ecological and social and economic issues are all deeply intertwined. There can be no solution to one without a solution to the others. "

"We must dare to dream bigger and look to our Ocean as part of the solution," stated Fabien Cousteau. "PROTEUS™ will be integral to giving back to our future generations that which we have taken for granted."

## **ABOUT The Fabien Cousteau Ocean Learning Center (FCOLC)**

Founded in 2016, the Fabien Cousteau Ocean Learning Center's mission is to raise awareness, educate, and empower the citizens of the world to protect and preserve the planet's coastal areas, endangered marine habitats and marine life. The FCOLC, a non-profit, is committed to creating long-term education and engagement initiatives, conservation efforts and marine research projects that will accelerate innovation and activate and inspire communities all over the world, consistently aiming to drive collaboration in order to create solutions that will help save our Ocean to benefit human well-being. Programs of the FCOLC include Coral Reef Restoration, Mangrove Restoration, Sea Turtle Restoration and PROTEUS™.

### PRESS INQUIRIES

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