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Colossal to De-Extinct the Thylacine, also known as the Tasmanian Tiger, an Iconic Australian Marsupial That Has Been Extinct Since 1936

In partnership with the University of Melbourne, the restoration of this unique keystone species, which was hunted aggressively to extinction, holds promise of ecosystem restoration for Tasmania

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(Photo: Colossal Biosciences)

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DALLAS--(<u>BUSINESS WIRE</u>)--<u>Colossal</u> Biosciences, a breakthrough genetic engineering and de-extinction company, announces it has started the de-extinction of the thylacine, a beloved Australian marsupial that was eradicated by human hunting nearly a century ago. Commonly known as the Tasmanian tiger, the slim, striped keystone species was native to Australia, including Tasmania and New Guinea and had previously roamed the Earth for millions of years. This is the second announced animal de-extinction project from Colossal, which uses breakthrough gene-editing technologies for a new wave of wildlife and ecosystem conservation. **Cookies Settings**

Bringing back the thylacine will not only return the iconic species to the world, but has the potential to re-balance the Tasmanian and broader Australian ecosystems, which have suffered biodiversity loss and the loss of the predator earlier this century. Research shows Australia has the worst mammalian extinction rate in the world. Without an apex predator, ecosystems plunge into a series of cascading trophic downgrading effects, leading to the spread of <u>disease</u>, an increase in wildfires and invasive species, a reduction in carbon sequestration, and a disruption to natural biogeochemical cycles. The thylacine played a critical role in regulating the ecosystem by hunting non-native mesopredators, which prey on native herbivores. When the native herbivores disappear, the natural vegetation changes, transforming the landscape and creating a vicious cycle of degradation.

With the collaboration of local partners, rewilding the thylacine to select areas in Australia and Tasmania could have a topdown effect on restoring the balance to ecosystems, helping return the area to its natural state before the marsupial went extinct as the result of a combination of human poaching and the introduction of non-native predators.

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Colossal to De-Extinct the Thylacine, also known as the Tasmanian Tige... https://www.businesswire.com/news/home/20220816005043/en/Colossa... thylacine team and is near completion of its new dedicated thylacine laboratory.

In Colossal's continued collaboration with leading universities and supporting scientific research, Colossal has partnered with the University of Melbourne and its Thylacine Integrated Genetic Restoration Research Lab, headed up by Andrew Pask Ph.D., the leading marsupial evolutionary biologist and world's foremost Tasmanian tiger expert. In addition to the collaboration, Pask has also joined Colossal's prestigious Scientific Advisory Board bringing a wealth of knowledge to the company around marsupial gestation and evolution. Pask joins such industry luminaries as Beth Shapiro Ph.D., Love Dálen Ph.D., Thomas Hildebrandt Ph.D., Kenneth Lacovara Ph.D., Carolyn Bertozzi Ph.D., and Paul Ling Ph.D. among others.

"We're thrilled to be collaborating with Andrew Pask and the University of Melbourne to restore this amazing animal to Earth while also further developing gestational and genetic rescue technologies for future marsupial conservation efforts," said Ben Lamm, Colossal Co-Founder and CEO. "With our planet's biodiversity at risk, we will continue to contribute scientific resources to preserving the species and ecosystems necessary to sustain life."

"This is a landmark moment for marsupial research and we're proud to team up with Colossal to make this dream a reality," Dr. Pask said. "The technology and key learnings from this project will also influence the next generation of marsupial conservation efforts. Additionally, rewilding the thylacine to the Tasmanian landscape can significantly curb the destruction of this natural habitat due to invasive species. The Tasmanian tiger is iconic in Australian culture. We're excited to be part of this team in bringing back this unique, cornerstone species that mankind previously eradicated from the planet."

The standardization of marsupial biobanking will revolutionize the amount of scientific resources available to all extant species belonging to this non-model group of organisms. The successful birth of the thylacine requires advancement of current marsupial assisted reproductive technology, leading to the development of gestation and maturation devices to help conserve any marsupial.

"We are excited about the applications of these technologies in being able to conserve marsupial species that are on the brink of extinction before we lose them forever," said Barney Long, senior director of conservation strategies for Re:wild.

This technology will be instrumental in the preservation of marsupials at large, which are highly concentrated on Australia, the country with the fastest rate of loss of biodiversity.

"Andrew and his lab have made tremendous advances in marsupial research, gestation, thylacine imaging, and tissue sampling. Colossal is excited to provide the necessary genetic editing technology and computational biology to bring this project, and the thylacine, to life. It's an incredible collaboration and project with far reaching benefits for animal conservation efforts at large," said Dr. George Church, Colossal Co-Founder and a world-recognized leader in genomics.

"Colossal is propelling the scientific community forward by spearheading the current approach to de-extinction," said Thomas Tull, lead investor in Colossal. "I am proud to support the vision of Ben Lamm, Dr. George Church and the worldclass scientists on Colossal's Board as they develop thoughtful and innovative solutions that have the potential to Accept All Cookjes influence the future of pharmacology and genetics, as well as create a lasting environmental and social impact."

Rewilding the Tasmanian Tiger Can Restore Biodiversity

Colossal's conservation efforts are aimed at combating the negative effects of the Anthropocene through ecosystem restoration as well as species preservation. The rewilding of species to their original habitats has been shown to effectively restore and revitalize damaged ecosystems with examples such as the <u>reintroduction</u> of wolves to <u>Yellowstone</u>, and the <u>Tasmanian Devil</u> to Australia. Though rewilding any species is a long and layered process, the creation of a proxy species of the Thylacine has the potential to similarly restore ecosystems that are missing keystone species. Colossal is committed to following global and national best practices, which includes in depth consultation and partnership with government agencies, local and Indigenous communities, conservation groups, and a host of other stakeholders.

By clicking "Accept All Cookies", you agree to the storing of cookies on your device to enthing strict anisotic contract of the storing of cookies on your device <u>Cookies Policy (http://setvoreblic.asthess.forth.com/gookiespaire</u>) conservation. In addition to leading conservation partners, Colossal has attracted many like-minded impact investors, including nature gaming group Untamed Planet and "We partnered with Colossal due to their incredible vision of de-extinction of keystone species to combat climate change and restore ecosystems," said Jonathan Smuskowitz, Director of Untamed Planet. "I could not be more excited that Colossal's second species is the Tasmanian tiger."

Kirstin Scholz, General Manager of WildArk continued, "With many conservation projects across Australia and Tasmania, this particular project is near and dear to my heart. Seeing first-hand the rapid loss of biodiversity that Australia has been facing, it brings me great joy to support a company who is dedicated to not just preventing further extinction but also in some cases, reversing it."

The Hemsworth family has a long history of supporting global conservationist efforts and was critical to the successful return, protection, and re-release of the Tasmanian devil to mainland Australia.

"Our family remains dedicated to supporting conservationist efforts around the world and protecting Australia's biodiversity is a high priority. The Tassie Tiger's extinction had a devastating effect on our ecosystem and we are thrilled to support the revolutionary conservation efforts that are being made by Dr. Pask and the entire Colossal team," said Chris Hemsworth.

ABOUT COLOSSAL

Colossal was founded by emerging technology and software entrepreneur Ben Lamm and world-renowned geneticist and serial biotech entrepreneur George Church, Ph.D., and is the first to apply CRISPR technology for the purposes of species de-extinction. Colossal creates innovative technologies for species restoration, critically endangered species protection and the repopulation of critical ecosystems that support the continuation of life on Earth. Colossal is accepting humanity's duty to restore Earth to a healthier state, while also solving for the future economies and biological necessities of the human condition through cutting-edge science and technologies. To follow along, please visit: <u>www.colossal.com</u>

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