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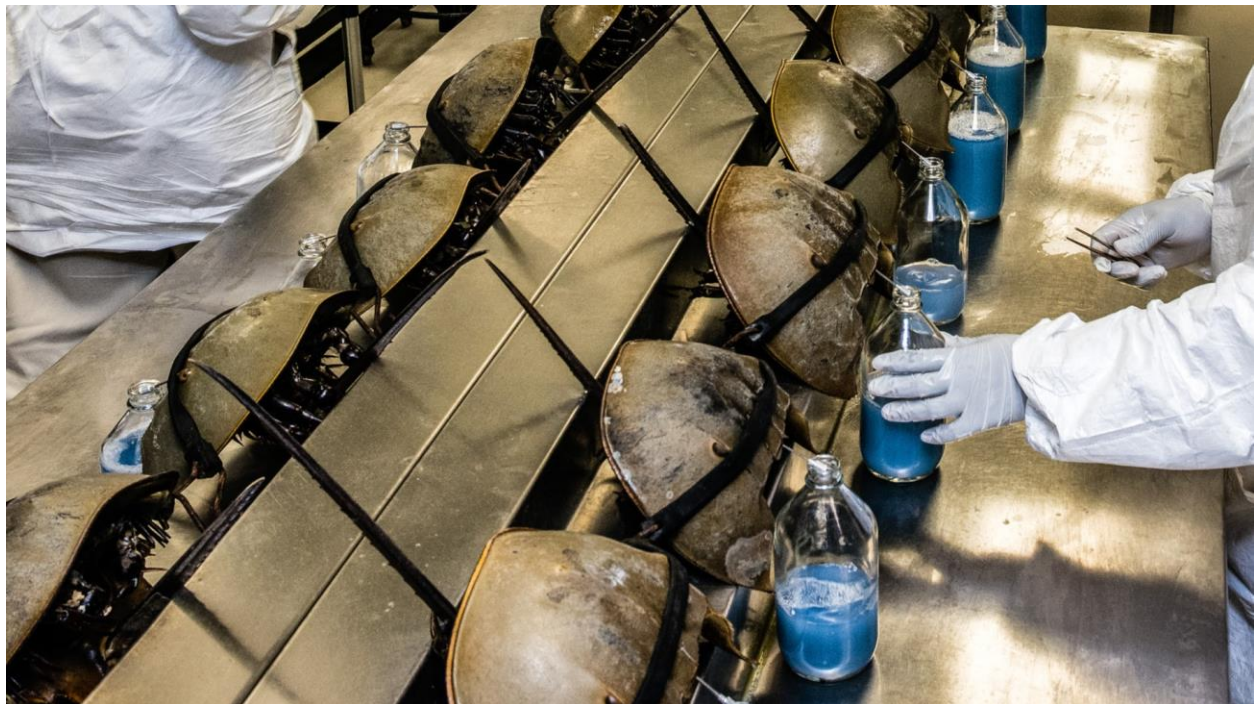
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First-of-its-Kind Scorecard Tracks Adoption of Synthetic Alternatives to Replace the Use of Horseshoe Crab Blood in Drug and Vaccine Manufacturing

Pharmaceutical and conservation groups come together to stop the harvest of ancient species



American horseshoe crabs in a bleeding facility | Photo credit: Timothy Fadek

SAUSALITO, CA | A coalition of pharmaceutical companies and conservation groups are working together to accelerate the adoption of synthetic alternatives to horseshoe crab blood used for safety testing everything from vaccine manufacturing to production of popular GLP-1 inhibitors for weight loss and diabetes. The launch of the Sustainability Scorecard for Endotoxin Testing will provide consumers with transparency into the sustainability of the injectable medicines and vaccines on which we all rely.

A joint initiative of Revive & Restore, the Horseshoe Crab Recovery Coalition, and the Center for Biological Diversity, the Sustainability Scorecard will measure and track the adoption of

synthetic alternatives to horseshoe crab blood for endotoxin (contaminant) testing of drugs and vaccines by the world's 50 largest pharmaceutical companies.

Horseshoe crabs are an ancient (~450 million years old) species critical to the ecological function of American estuaries. The American Horseshoe Crab is native to ecosystems along the east coast of the United States, and plays an essential role in the survival of migratory shorebirds. The species is currently listed as "vulnerable" by the International Union for the Conservation of Nature (IUCN), and its designation as a "U.S. Endangered Species" is under consideration by the National Marine Fisheries Services (NOAA Fisheries).

"The plummeting horseshoe crab population threatens the delicate balance of our coastal ecosystems," said Larry Niles, wildlife biologist and co-founder of the Horseshoe Crab Recovery Coalition. "Shorebirds like the Red Knot, and other marine species, rely on these ancient creatures for their protein-rich eggs. Switching to synthetic alternatives for biomedical testing is a simple, effective way to protect horseshoe crabs without compromising public health."

Despite the American Horseshoe Crab's critical ecological function and precarious population status, about 1.1 million crabs are currently bled alive every year for use by the biomedical industry, an increase of about 115% since 2018. Up to 30% of crabs don't survive the bleeding process, and the ones that do often cannot reproduce when returned to the ocean.

Safe and effective synthetic alternatives to horseshoe crab blood have been available for decades. However, adoption has languished due to the lack of clear guidelines. On November 1, 2024, the U.S. Pharmacopeia (USP) Microbiology Expert Committee published the final text of Chapter 86, which removed a significant barrier for the pharmaceutical industry to replace horseshoe crab-derived *Limulus amoebocyte lysate* (LAL) with synthetic alternatives for safety testing. Based on USP's guidance, synthetic alternatives are considered equivalent to LAL. There is now a level playing field between horseshoe crab blood and sustainable synthetic alternatives.

"The Sustainability Scorecard is intended to encourage pharmaceutical companies to do the right thing, and to recognize companies already committed to change," says Ryan Phelan, co-founder and Executive Director of Revive & Restore. "Doing the right thing means stopping the harvest and removing the use of this vulnerable, ancient species from drug manufacturing."

To gather information for the Sustainability Scorecard, starting in December 2024, the coalition will provide a survey to representatives of the 50 largest pharmaceutical companies, measured by total revenue in 2023. The survey asks questions about the company's endotoxin testing methodologies and their plans to transition from using LAL to synthetic alternatives. The Sustainability Scorecard operates on a point system and each question is weighted. A company's total number of points corresponds to a sustainability rating. The more points, the higher the rating.

“This scorecard is an opportunity to celebrate companies that are already helping to protect horseshoe crabs by transitioning to synthetics,” said Will Harlan, Southeast director and senior scientist at the Center for Biological Diversity. “These companies recognize that synthetics are a far more secure source for medical safety tests than the blood of a dwindling and critically imperiled species.”

The Sustainability Scorecard is an ongoing project that will engage the pharmaceutical community, conservation groups, and consumers in important conversations about the value of biotechnology to protect and restore biodiversity. Learn more about the Sustainability Scorecard at www.pharmascore.org. Survey results and sustainability ratings will be available on that website beginning in February 2025.

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About Revive & Restore

[Revive & Restore](#) is the leading wildlife conservation organization promoting the incorporation of biotechnologies into standard conservation practice. The Sausalito, California nonprofit was formed in 2012 with the idea that 21st century biotechnology can and should be used to enhance genetic diversity, build disease resistance, and facilitate adaptation. Its mission is to enhance biodiversity through the genetic rescue of endangered and extinct species.

About the Horseshoe Crab Recovery Coalition

The [Horseshoe Crab Recovery Coalition](#) (HCRC) is composed of more than 50 biomedical and conservation groups dedicated to ensuring the future of the American Horseshoe Crab. In addition to the Center for Biological Diversity and Revive & Restore, multiple Audubon societies, the National Wildlife Federation, the American Littoral Society, the American Bird Conservancy, Physicians’ Committee for Responsible Medicine, the Humane Society of the United States and the Humane Society International are among the coalition’s leading partners. Since 2018, the group has led science-based campaigns aimed at halting years of decline in horseshoe crab populations and to fully restore them by 2030.

About the Center for Biological Diversity

The [Center for Biological Diversity](#) believes that the welfare of human beings is deeply linked to nature. Because diversity has intrinsic value, and because its loss impoverishes society, the Center works to secure a future for all species, great and small, hovering on the brink of extinction. The Center uses science, law and creative media to protect the lands, waters and climate that species need to survive.

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Metatitle: New scorecard tracks pharmaceutical adoption of sustainable alternatives to horseshoe crab blood

Metadescription: Pharmaceutical companies have begun to adopt sustainable alternatives to horseshoe crab blood for safety testing drugs and vaccines. A new scorecard tracks industry progress.