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Bioengineered Bunny Glows Green in Dark

by

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Created in a French lab for an art project, the phosphorescent animal has touched off a debate...

Eduardo Kac has held the pet of the future in his arms, and it is Alba, a white bunny that glows in the dark.

Kac, an artist who lives in Chicago, persuaded a team of French genetic researchers last fall to join him in an artistic venture featuring a living, breathing rabbit whose DNA is combined with that of a phosphorescent jellyfish. Alba appears normal, but when illuminated with the kind of "black lights" used in nightclubs, she gives off an otherworldly green glow from every cell in her body: her paws, her whiskers and especially her eyes.

As word has slowly leaked out about Alba--who was supposed to "interact with" Kac as a piece of performance art, but is instead confined to her French laboratory after protests--it is bringing outcries from scientists and animal-rights activists shocked at the idea that the powerful tools of biotechnology would be used for an art exhibit. And there is no way to know, they say, whether Alba is suffering or what effect the mutant bunny would have on the ecosystem if she were to escape and reproduce.

But Kac said the gathering fury is all a part of what he calls an ongoing experiment in "transgenic art," a project whose aim is to create a character, at once "lovable" and "alien," that society must confront.

"It is a new era, and we need a new kind of art," said Kac, 38. "It makes no sense to paint as we painted in the caves."

When scientists completed a rough draft of the human genetic blueprint earlier this year, it was hailed as one of the greatest achievements in the history of science and medicine. Yet social critics say that the work of Kac, and a vanguard of others who are now exploring life as an artistic medium, is a sign that the breakthrough will be seen as a monumental cultural milestone, as well. Just as man's first steps on the moon had wide reverberations in the realms of art, popular culture and religion, so will genetic

engineering.

The same techniques used to create Alba could also be used to fashion a line of glow-in-the-dark pets, scientists said. Modern dogs and cats, they added, are themselves products of a kind of genetic engineering, in the form of breeding by humans over thousands of years. But modern genetic techniques quicken the pace and expand the palette.

"In a sense this rabbit is not any sillier than a Chihuahua," said Mark Hauser, a professor of psychology and neuroscience at Harvard University and author of *Wild Minds*, a book about animal psychology.

Kac and Alba remain apart while Kac tries to convince the French government laboratory, called the National Institute of Agronomic Research, to grant him custody of the bunny. The scientist who created her for Kac, Louis-Marie Houdebine, said he doesn't know when, or if, Alba will be allowed to join Kac but said that she is healthy and has a "particularly mellow and sweet disposition."

Kac, his wife and their 5-year-old daughter hope to adopt Alba as a pet.

The technology that made Alba possible is widely available, scientists said. It is not unusual for researchers to use green fluorescent protein, which can be attached to particular cells, or used to trace the action of particular chemicals, to study how animals and tumors grow and track the workings of genetic diseases such as Huntington's.

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