

# Missoulian

## Spawning a debate

By **BEN BLOCH** for the Missoulian | Posted: Thursday, December 11, 2003 12:00 am

Glofish reveal our fears and our dreams of a genetically altered, colorful new world

Recently, much discussion has centered on the emergence of the world's first genetically altered pet - a zebrafish spliced with a gene from a fluorescent jellyfish that makes it glow in the dark - which will become commercially available in the United States on Jan. 5.

This new kind of pet raises obvious questions: What happens if they escape into the wild? Will their safety, production and distribution be federally regulated? If they get free, will glofish rapidly disrupt eco-systems beyond repair?

Scientists and businessmen are excited; both groups proclaim that the glofish are environmentally benign because they are bred sterile.

But environmentalists aren't having it. They say that even if the glofish are harmless, their introduction on the market sets the precedent for "biological pollution" - the onset of a time when the world could see hundreds or thousands of new genetically engineered animals with a variety of novel genes released into the environment with no regulation at all.

Ironically, the fish were conceived as a way to help fight against biological hazards. They were developed at the National University of Singapore for use in a form of environmental monitoring. The idea was to make fish that glow when they encounter certain pollutants, the marine equivalent of a canary in a coal mine.

But on the way to creating such bio-sentinels, the Singapore scientists first created fish that glowed all the time, and a Texas company snatched up a commercial license for them.

While these moral/ethical issues raised by the commercialization of genetically engineered pets are predictable, a less talked about aspect of their arrival is the way in which these pets - ornamental glofish included - resemble art. Their strange, other-worldly appearance amuses and captivates. As aquarium fish, they're intended solely for visual pleasure as opposed to, say, edible matter. In this sense, the genetically altered fish represents a kind of aesthetic breakthrough that is bound to stimulate - or at least occupy - the collective psyche.

In fact, genetic fusion of this type has already been presented as art. In 2000, Chicago artist Eduardo Kac became well known for conceiving and creating "Alba," an albino rabbit genetically engineered - fused with the same jellyfish gene now in glofish - to glow green under blue light.

Now it appears that life is following art, or at least collapsing into it.

The social anxiety produced by this little fish testifies plainly to the significance of what it portends. Glofish offer the first glimpse of a potential wave of commercialized creations that will surely affect the world of animals and humans alike. Their tangible existence brings the future more into focus, and we understand that what only recently seemed like far-fetched science fiction is shedding some of its preposterousness.

Let's face it. We've mapped the human genome and are capable of cloning living organisms. Already we have an abundance of genetically engineered crops. We grow everything faster and bigger.

We are even beginning to give human growth hormones to children, so that they, like the crops, will grow stronger and taller. We have mice that grow human ears and goats spliced with spider genes to produce silk proteins in their milk.

It's only a matter of time - and not all that much time - until we can buy real live pink unicorns for children, as well as a whole suite of mixed-breed creations that will amaze and entertain, making the world look more like Alice in Wonderland - or the muppets - than it ever has. And like art, these new creations promise to be at least as wondrous as they are frightening.

Whether we revel in the coming newness or shrivel beneath it remains to be seen. It seems to me that the overarching momentum of the technological future is evident, and our growing stack of fears and resistances could be more hindrance than viable safety concern. After all, if we could hack into the human genetic code to pre-emptively eliminate say, cancer or diabetes, would we not do this without qualm?

Indeed, much of the potential practical use for this type of "genetic art" may turn out to be as curative and efficient as it now looks bizarre or threatening.

At bottom, these flurries of development remind us that humans have never been able to confidently conceive of their own purposes (perhaps for some built-in reason), and we therefore cannot convincingly conclude that anything we create and/or produce is "unnatural."

On the contrary, we are repeatedly humbled by a lack of real understanding for our own progresses and capabilities.

Ben Bloch, co-owner of Goatsilk, a Missoula art gallery, writes about the arts twice a month in the Entertainer.