



GloFish[®]

Experience the Glo![®]

About GloFish

- 🐟 First widely available biotech animal and most visible example of consumer biotech in the world
- 🐟 Tropical aquarium fish that express fluorescent proteins, available in 4 species and 17 lines
- 🐟 First line developed at the National University of Singapore to detect water toxins
- 🐟 Each line reviewed by FDA as described in Guidance 187



It all started with a little fish...

“Sometime in the future...moralists and historians of science will try to pin down the moment when the new age began. I think the moment is now. And the creature that embodies the escape of biotechnology into the world at large — a movement that will never be reversed — is an aquarium fish that glows in the dark.”

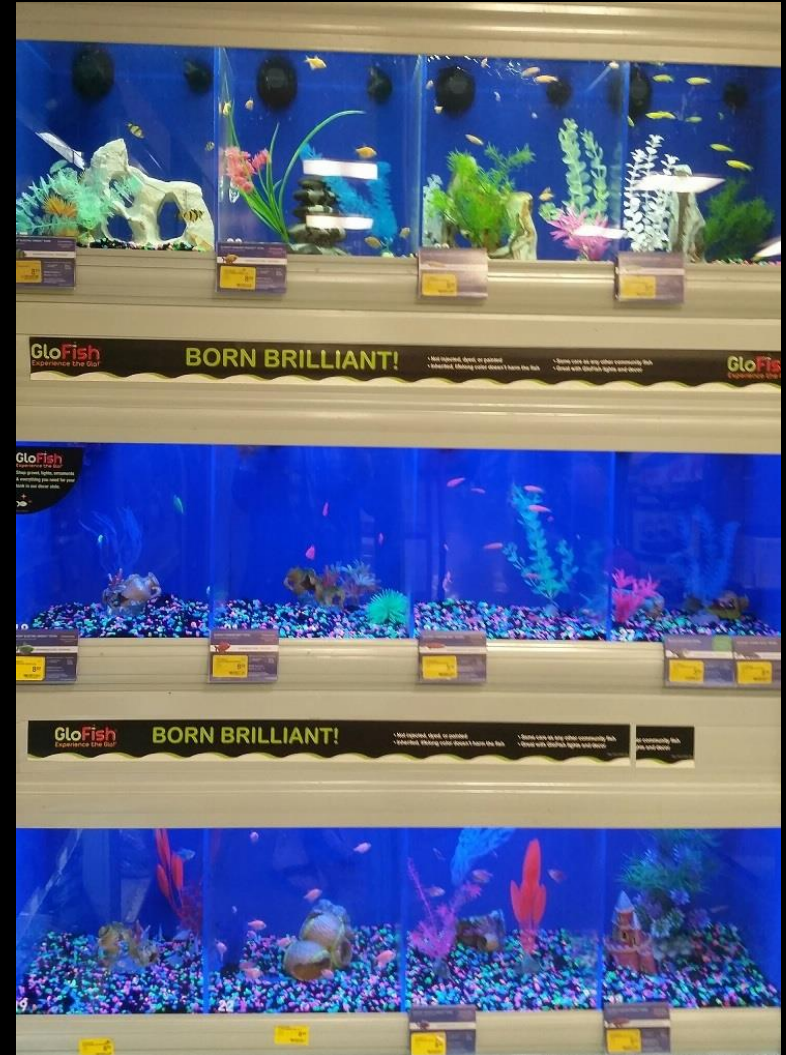
- New York Times, 12/2/03







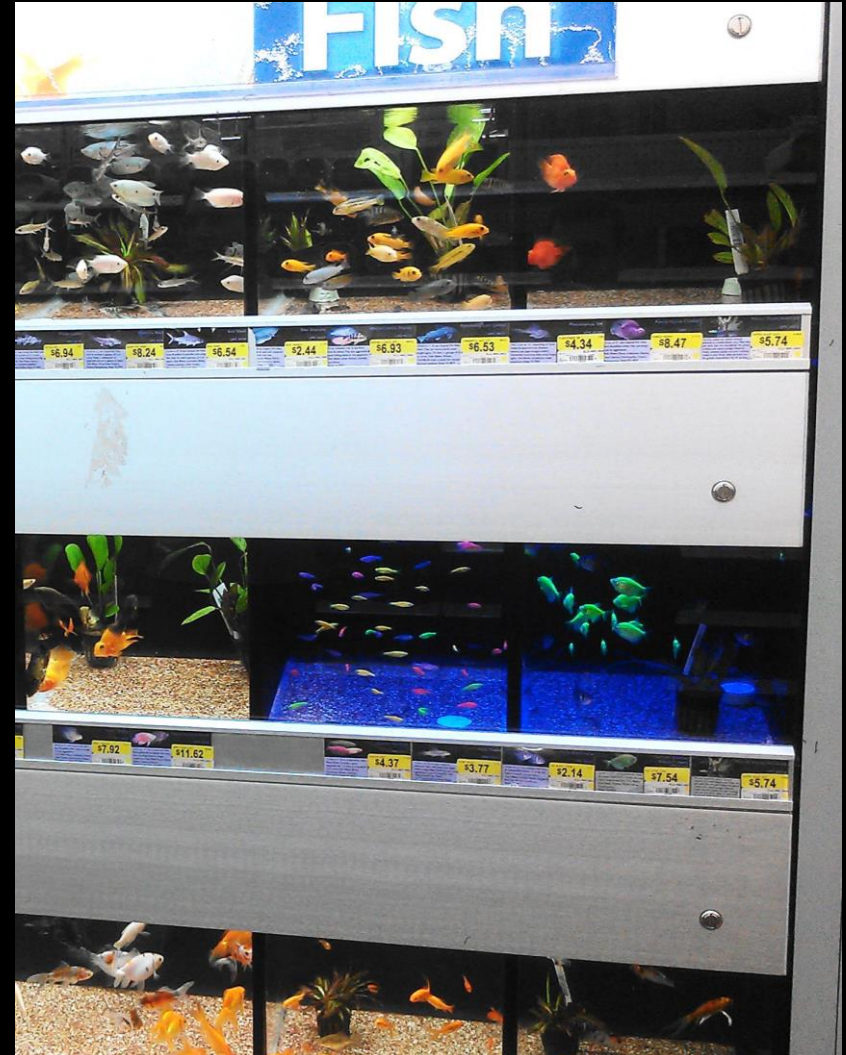
GloFish in PetSmart



GloFish in Petco



GloFish in Walmart



BORN BRILLIANT!



- Not injected, dyed, or painted
- Inherited, lifelong color doesn't harm the fish
- Same care as any other community fish
- Great with GloFish lights and décor

Pop Culture & Media Visibility



Follow charity: water



GloFish Timeline Recent

EXPERIENCE THE GLO!

VISIT US AT WWW.GLOFISH.COM

GloFish

105,464 likes • 5,186 talking about this

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PEOPLE

131,124 likes



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Looking Ahead: A Holistic Approach

- 🐟 There is often an inherent assumption that only the *active* use of biotechnology has ethical implications. It is very important that we consider the ethical implications of the *lack of use* of biotechnology as part of any discussion.
- 🐟 Moving the biotechnology debate towards a holistic ethical framework that takes this into consideration would be very helpful in building consensus across different stakeholder groups.
- 🐟 Such an approach would be particularly useful for people who influence direction and evaluate potential applications, but are often not experts in the field, such as journalists and business leaders.






Urgent Matters for Consideration

Human Welfare

-  Disease eradication through insect modification
 -  Elimination of malaria and dengue fever
 -  Avian flu resistance in poultry
-  Nutrition support through animal disease resistance
 -  Cattle resistant to sleeping sickness
 -  Goats that produce anti-microbial milk
-  Reduce overuse of antibiotics
-  Organs for transplantation

Animal Welfare

-  Horn-free (i.e. polled) cattle
-  Sex selection in chickens
-  African swine fever resistance in pigs



All That We Ethically Can?

**Are we doing all that we ethically can with
the tools we have available to alleviate
human and animal suffering?**

And, if not us, who, if not now, when?





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