United States Copyright Office
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September 5, 2013

Fulbright & Jawarski L.L.P.
Attn: Tamsen Barrett
600 Congress Avenue, Suite 2400
Austin, TX 78701

Re: GloFish Red Zebra Danio Glowing in Artificial Sunlight
Correspondence ID: 1-5J9TKJ

Dear Mr. Barrett:

The Review Board of the United States Copyright Office (the "Board") is in receipt of your second request for reconsideration of the Registration Program's refusal to register the work entitled: *GloFish Red Zebra Danio Glowing in Artificial Sunlight*. You submitted this request on behalf of your client, Yorktown Technologies, LP. (the "Applicant"), on March 14, 2011. I apologize for the lengthy delay in the issuance of this determination. After periods of inaction, staff departures, and budgetary restrictions, the Register of Copyrights has appointed a new Board and we are proceeding with second appeals of registration refusals as expeditiously as possible.

The Board has examined the application, the deposit copies, and all of the correspondence in this case. After careful consideration of the arguments in your second request for reconsideration, the Board affirms the Registration Program's denial of this copyright claim. The Board's reasoning is set forth below. Pursuant to 37 C.F.R. § 202.5(g), this decision constitutes final agency action on this matter.

I. DESCRIPTION OF THE WORK

GloFish Red Zebra Danio Glowing in Artificial Sunlight (the "Work") is a living Red Zebra Danio fish that the Applicant has genetically altered so that the fish "fluoresces" when it is exposed to artificial light. The below image is a photographic reproduction of the Work from the deposit materials:



II. ADMINISTRATIVE RECORD

On February 16, 2010, the United States Copyright Office (the "Office") issued a letter notifying you that it had refused registration of the above mentioned Work. *Letter from Examining Division to Tamsen Barrett* (February 16, 2010). In its letter, the Office stated that it could not register the Work because it "lacks the authorship necessary to support a copyright claim." *Id.* at 1.

In a letter dated September 10, 2010, you requested that, pursuant to 37 C.F.R. § 202.5(b), the Office reconsider its initial refusal to register the Work. *Letter from Tamsen Barrett to Copyright RAC Division* (September 10, 2010) ("First Request"). Upon reviewing the Work in light of the points raised in your letter, the Office concluded that the Work "is a 'living' thing that is not subject to copyright protection" and again refused registration. *Letter from Attorney-Advisor, Virginia Giroux-Rollow, to Tamsen Barrett* (January 4, 2011).

Finally, in a letter dated March 14, 2011, you requested that, pursuant to 37 C.F.R. § 202.5(c), the Office reconsider for a second time its refusal to register the Work. *Letter from Tamsen Barrett to Copyright R&P Division* (March 14, 2011) ("Second Request"). In arguing that the Office improperly refused registration, you claim Congress intended the list of categories that qualify for copyright protection contained in 17 U.S.C. § 102(a) to be "illustrative and not limited" and that works of "living authorship " are not *per se* prohibited from registration. In support of this claim, you reference a pair of cases in which courts have analyzed the extent to which copyright protection applies to works that incorporate living elements. *Second Request* at 1-2. Specifically, you point to *Carrell v. Shubert Org., Inc.*, 104 F. Supp. 2d 236 (S.D.N.Y. 2000) and *Kelley v. Chicago Park District*, 635 F.3d 290 (7th Cir. Feb. 15, 2011). *Second Request* at 2.

You also maintain that you are not basing your claim to copyright on the genetic process the Applicant used to create a fluorescing fish. Instead, you clarify that your claim involves the fish itself –which you characterize as "a living work of authorship." *Id. 2-3.* In support of this assertion, you state: "this work is similar to a painter using paint on a canvas; here, the paint is the non-native DNA and the canvas is the Zebra Danio fish. As with a painting, the resulting product, *i.e.* the living work of authorship, is the embodiment of the creative expression of the author and should be registered accordingly." *Id.* at 3.

III. DECISION

After carefully examining the Work and applying the legal standards discussed above, the Board finds the following: First, the Work is not eligible for copyright protection because genetically modified living things do not fall under one of the categories of copyrightable authorship enumerated in section 102(a). Second, even if the Board were to consider genetically modified living things as subject matter eligible for copyright protection under section 102(a), we would find that the Work does not possess the requisite amount of original authorship to warrant registration under the Copyright Act.

(1) The Work is not eligible for protection under Section 102(a).

Title 17, section 102(a) of the United States Code lists the specific categories of subject matter that Congress has designated as eligible for protection under the Copyright Act. These categories include: (1) literary works; (2) musical works, including any accompanying words; (3) dramatic works, including any accompanying music; (4) pantomimes and choreographic works; (5) pictorial, graphic, and sculptural works; (6) motion pictures and other audiovisual works; (7) sound recordings; and, (8) architectural works. Barring statutory revision, subject matter that does not fall into one of these eight categories is not eligible for copyright protection.

Here, you seek registration of "a living work of authorship." *Id. 2-3.* Specifically, a living fish with a genetically modified appearance. The list of subject matter eligible for copyright protection enumerated in section 102(a) does not account for "living works of authorship" or "genetically modified living organisms." Thus, absent statutory revision, such works are ineligible for copyright protection. Although the Board generally agrees with your assertion that Congress intended the section 102(a) list of protectable categories of works to be "illustrative and not limited" (*Second Request* at 1-2), we interpret both the statute and its legislative history as indicating a distinction should be drawn between new ways of expressing currently copyrightable subject matter and new subject matter. *See* 17 U.S.C. § 102(a); *see* H.R. Rep. No. 94-1476 (1976); *and see* S. Rep. No. 473, 94th Cong. 1st Sess. p.50 (1975).[1] In other words, the Copyright Act unequivocally protects new ways of expressing currently copyrightable subject matter; but, does not protect entirely new subject matter. We find that, for purposes of analysis under the Copyright Act, "living works of authorship" and "genetically modified living organisms" are "new subject matter." Accordingly, the Work is ineligible for registration.

The Board is not persuaded by your argument that the Work warrants registration under the current act as "a painting on a living canvas." *See Second Request* at 3. In likening the injection of non-native DNA into a fish's genetic makeup to "a painter using paint on a canvas," you suggest the Work is eligible for registration under 17 U.S.C. §102(a)(5). *Id.* (extending copyright protection to works of visual arts such as pictorial, graphic, and sculptural works). Besides finding this analogy to be strained, the Board concludes that there is nothing in the Copyright Act, or its legislative history, that indicates the types of pictorial, graphic, and sculptural works that are generally considered acceptable for copyright registration as works of

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[1] Section 102(a) states: "Copyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression, now known or *later developed* . . ." (emphasis added). Both the House and Senate Reports related to the drafting of the current Copyright Act make the subtle point that new or "later developed" ways of authoring or expressing currently copyrightable subject matter may be eligible for protection under the Copyright Act; meanwhile, completely new forms of authorship or subject matter must wait for a Congressional amendment to the Act in order to be eligible for protection. *See* H.R. Rep. No. 94-1476, at 51 (1976); *see also* S. Rep. No. 473, 94th Cong. 1st Sess. p.50 (1975); *see also* William F Patry, *Patry on Copyright* § 3:60 (2011) (stating "[t]he distinction drawn in the statute is one between new ways of expressing currently copyrightable subject matter and new subject matter, the former being protected without the need for statutory revision, the latter requiring an amendment").

visual arts include the anatomical appearance of living organisms. Although the Applicant's technical skill may be comparable to that of a master painter or sculptor, we find that there is no basis to conclude that a genetically modified living organism can qualify for protection as a painting or sculpture under section 102(a)(5).

Finally, your attempts to analogize the Work at issue with the works discussed in *Carrell v. Shubert Org., Inc.* and *Kelley v. Chicago Park District* are also unpersuasive. 104 F. Supp. 2d 236; 635 F.3d 290. The courts in *Carrell* and *Kelly* analyzed the extent to which copyright protection applies when authors incorporate living elements into their works. They did not rule on whether the living elements themselves were eligible for copyright protection. *See Carrell,* 104 F. Supp. 2d 236 (addressing the copyrightability of 2D makeup designs as applied to a human face); *and see Kelly,* 635 F.3d 290 (involving an artist's arrangement of flowers to create the outer shell of a sculpture). Indeed, these cases demonstrate the vast difference between seeking protection of the mere "incorporation" of living things as aspects of a work and seeking protection of the living thing itself –in this case a sentient fish passing through its life cycle.

In sum, the Board finds that the Applicant's claim to copyright in a genetically modified, living Red Zebra Danio fish fails to qualify as subject matter eligible for copyright protection under section 102(a).

(2) Even if eligible for protection under section 102(a), the Work lacks sufficient authorship to qualify for copyright registration.

Pursuant to section 102(a), all copyrightable works must qualify as "original works of authorship fixed in any tangible medium of expression." 17 U.S.C. § 102(a). As used with respect to copyright, the term "original" consists of two components: independent creation and sufficient creativity. *See Feist*, 499 U.S. at 345. First, the work must have been independently created by the author. *Id.* Second, the work must possess sufficient creativity. *Id.*

The term "authorship" implies that, for a work to be copyrightable, it must owe its origin to a human being. For example, works owing their form to the forces of nature cannot be copyrighted. *See Kelley v. Chicago Park District*, 635 F.3d at 304 (quoting William F. Patry, Patry on Copyright § 3.19 n.1 (2010): "authorship is an entirely human endeavor"; and, quoting U.S. Copyright Office, Compendium II: Copyright Office Practices § 503.03(a): "'a work must be the product of human authorship' and not the forces of nature").

Here, in asserting a claim of copyright in "a work of living authorship," you imply that the Applicant is the sole "author" of the Work's appearance (specifically, the Work's appearance when it glows in artificial sunlight). As a living fish, however, the Red Zebra Danio's appearance is subject to the forces of nature. For example, environmental factors, such as amount of available light, feeding habits, level of nutrients in the water, age, etc, all have the potential to greatly affect a fish's appearance. It stands to reason that, no matter how many of these genetically altered fish are hatched, no two will ever be identical. Even with similar genetic coding, each will possess the individuality inherent in living things as they pass through their life cycle. Thus, despite your claim that the Work is similar to "a painter using paint on a

canvas" with the paint being "non-native DNA" and the canvas being the Zebra Danio fish, the fact remains that forces of nature are responsible for the actual appearance of each individual, genetically modified fish.

In sum, the Board finds that the Applicant's claim to copyright in a genetically modified, living Red Zebra Danio fish fails to satisfy the requirement of authorship enumerated in section 102(a) and is therefore ineligible for registration under the Copyright Act.

IV. CONCLUSION

For the reasons stated herein, the Review Board of the United States Copyright Office affirms the refusal to register the work entitled: *GloFish Red Zebra Danio Glowing in Artificial Sunlight*. This decision constitutees final agency action on this matter. 37 C.F.R. § 202.5(g).

Maria A. Pallante
Register of Copyrights

BY: _____
William J. Roberts, Jr.
Copyright Office Review Board