

MIRROR, MIRROR IN THE STALL: ANIMAL CLONING AND ITS LEGAL IMPLICATIONS FOR EQUINE REGISTRY ASSOCIATIONS

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On July 5, 1996, Dolly the lamb was born at the Roslin Institute in Edinburgh, Scotland.¹ While nothing about her appearance was remarkable, everything about her birth was noteworthy. Dolly was the first live-born mammal cloned from an adult cell.² Dolly was not the first cloned animal, however.³ Before her, scientists had successfully cloned other non-mammalian animals such as tadpoles, carp,⁴ and frogs.⁵ Since Dolly, scientists have successfully cloned numerous additional mammalian species.⁶

The first cloned member of the equine family was the mule Idaho Gem,⁷ who eventually became one of a set of identical triplets.⁸ The triplet

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¹ Shantille Vos, *Dolly and the Clone Wars*, DOLLY, FIRST CLONED SHEEP (Apr. 2004), http://novaonline.nvcc.edu/eli/evans/HIS135/events/dolly96/Dolly_Module.html.

² *Id.*

³ *Id.*

⁴ Charles Mann, *The First Cloning Superpower*, WIRED.COM, http://www.wired.com/wired/archive/11.01/cloning_pr.html (last visited Mar. 16, 2013) (stating scientists in China created the first cloned carp in 1963, and ten years later, created the first interspecies clone by inserting DNA from an Asian carp into an egg from a European crucian carp, a related species).

⁵ Inbar Maayan & Sean Cohmer, *John Bertrand Gurdon (1933–)*, EMBRYO PROJECT ENCYCLOPEDIA, <http://embryo.asu.edu/view/embryo:128458> (last visited Mar. 16, 2013) (indicating John Bertrand Gurdon successfully produced tadpoles using nuclei taken from gut cells of swimming tadpoles, but his work was not confirmed for nearly five decades).

⁶ See *Human Genome Project Information: Cloning Fact Sheet*, GENOMICS.ENERGY.GOV, http://www.ornl.gov/sci/techresources/Human_Genome/elsi/cloning.shtml#animals (last visited Mar. 21, 2013); *Frequently Asked Questions About Human Cloning and the Council's Report*, PRESIDENT'S COUNCIL ON BIOETHICS, http://bioethics.georgetown.edu/pcbe/topics/cloning_faq.html (last visited Mar. 21, 2013); Paul Arnold, *What Animals Have Been Cloned* (Nov. 21, 2009), <http://www.brighthub.com/science/genetics/articles/26487.aspx>.

⁷ Kentucky Equine Research Staff, *Cloning Horses*, EQUINEWS.COM (Oct. 20, 2005), <http://www.equinews.com/article/cloning-horses>; (explaining that Idaho Gem, cloned by the University of Idaho and foaled in May 2003, was not only the first cloned mule, he was the first clone of any animal in the horse family, two more mule clones were born in June and July of the same year); Richard Black, *Cloning First for Horse Family*, BBC NEWS (May 29, 2003), <http://news.bbc.co.uk/2/hi/science/nature/2944920.stm> (explaining Idaho Gem was the first clone of an animal which cannot normally reproduce).

mules were the result of Project Idaho, a six-year collaborative project involving animal and veterinary science professors from the University of Idaho and Utah State University⁹ and funded by the American Mule Racing Association.¹⁰ In order to effect the cloning, scientists utilized cells from the brother of a champion racing mule named Taz.¹¹ In a process known as nuclear transfer, they inserted the mule DNA into a horse egg cell containing no genetic material, and the resulting cloned embryo was transplanted into the uterus of a surrogate mare.¹² The cloning was successful.¹³ In fact, Idaho Gem won his first race by two-and-a-half lengths.¹⁴ Shortly after the successes with Idaho Gem, the first cloned horse, Prometea, was born in Italy in 2003.¹⁵

The cloning process lends itself to two primary questions — how and why. For the first question, the answer is purely scientific. Prior to Dolly the sheep, two methods of cloning were available to scientists.¹⁶ The first, embryo splitting, has been used in agriculture since the 1980s.¹⁷ In this method, an early-stage multi-cellular embryo is split into two cells to generate clones, and the resulting cells are then implanted into an unrelated surrogate mother.¹⁸ This method is similar to the natural process that creates identical twins and has particular application in the cattle and sheep industry since up to four clones can be produced from each embryo.¹⁹

In the second method, nuclear transfer, technicians remove genetic material from an unfertilized egg in a process called enucleation and then place new genetic material from another cell into the enucleated egg.²⁰ Through administration of a brief electrical pulse or chemical fusion, the donor nucleus is fused with the egg, after which the embryo starts to divide as if it had been fertilized.²¹ When cloning mammals, technicians then place the embryo into a surrogate mother where it continues to develop until birth and is delivered as any newborn.²² Nuclear transfer produced numerous

⁸ Kentucky Equine Research Staff, *supra* note 7.

⁹ *World's First Cloned Equine Athletes Training For Races*, SCI. DAILY (May 17, 2006), <http://www.sciencedaily.com/releases/2006/05/060517082254.htm>.

¹⁰ Nancy Touchette, *Born to Run*, GENOME NEWS NETWORK (May 30, 2003), http://www.genomenewsnetwork.org/articles/05_03/mule.shtml.

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*

¹⁴ Jack Shinar, *Cloned Mule Idaho Gem Rolls in Calif. Debut*, BLOODHORSE (June 23, 2006), <http://www.bloodhorse.com/horse-racing/articles/34104/cloned-mule-idaho-gem-rolls-in-calif-debut>.

¹⁵ Rick Weiss, *First Horse Cloned in Italy*, S.F. CHRON. (Aug. 7, 2003, 4:00 AM), <http://www.sfgate.com/news/article/First-horse-cloned-in-Italy-Foal-s-mother-is-2597975.php>.

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.*

²² *Id.*

mammalian clones during the 1980s and 1990s;²³ however, the practice was still limited because the transfers were from early embryos, and a theoretical maximum of only thirty-two clones could be produced from each transfer.²⁴

That limitation provided even more reason for assigning historical significance to Dolly the sheep.²⁵ Instead of using nuclear transfer, Dolly was produced through a process called “somatic nuclear cell transfer” (SCNT), making Dolly the first animal cloned via nuclear transfer from a cultured somatic cell derived from an adult.²⁶ Since SCNT technology allows cloning from an unlimited number of cells from an adult donor, breeders, and owners can create numerous copies of elite breeding animals or beloved pets.²⁷

In 2010, cloning science took another step forward when scientists at Texas A&M University produced the first foal using oocytes, or egg cells, from live mares.²⁸ The project’s genesis came about at the request of Kit Knotts, owner of a prized Lippizan stallion named Pluto III Marcella, and also known as Marc.²⁹ Projects such as this, and the cloning of other prized animal discussed below, provide at least one answer to the second basic question about cloning, “why.” The answer to this question is less about science and more about tangible costs and rewards. Proponents and opponents of cloning are equally passionate about their positions and have scientific or anecdotal evidence to support their respective arguments.

Opponents of cloning point out several faults in the process. Cloning itself has a low success rate of between 0.1% to 3%,³⁰ The cloned animals develop problems during later development³¹ and exhibit abnormal gene expression patterns³² and telomeric differences.³³ Many cloned offspring die within twenty four hours of birth from respiratory distress or other problems, and many cloned offspring may exhibit increased birth weight or cardiovascular anomalies, some of which have resulted in

²³ *Id.* (citing X.Z. Yang et al., *Risk Assessment of Meat and Milk From Cloned Animals*, 25 NATURE BIOTECHNOLOGY 77 (2007)).

²⁴ *Id.*

²⁵ *Id.*

²⁶ Alison Van Eenennaam, *Animal Cloning* (Apr. 2008), available at http://animalscience.ucdavis.edu/animalbiotech/Outreach/Animal_Clones.pdf.

²⁷ *Id.*

²⁸ *First Cloned Horse Using Oocytes from a Live Mare*, SCI. DAILY (June 14, 2010), <http://www.sciencedaily.com/releases/2010/06/100611204152.htm>.

²⁹ *Id.*

³⁰ *Human Cloning*, AM. MED. ASS’N, <http://www.ama-assn.org/ama/pub/physician-resources/medical-science/genetics-molecular-medicine/related-policy-topics/stem-cell-research/human-cloning.page> (last visited, Mar. 16, 2013); *Cloning Horses*, KY. EQUINE RES. (Oct. 20, 2005), <http://www.equinews.com/article/cloning-horses>.

³¹ Vos, *supra* note 1, at 1-2.

³² *Human Cloning*, *supra* note 30.

³³ Doug Hare, *What of Animal Cloning*, 44(4) CAN. VETERINARY J. 271 (2003), available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC372227/>.

hypertrophic liver and dilated major blood vessels.³⁴ As cloned animals develop, they may exhibit immune system failure, structural abnormalities of the brain, digestive dysfunction, enteritis, and umbilical infections.³⁵ From a pure economic standpoint, the process is expensive, costing in the range of \$20,000 to clone one animal.³⁶ These are just a few of the practical issues with cloning. The unquantifiable issues, such as social, moral and ethical issues, are harder to define or explain.

Proponents of cloning include scientists, livestock breeders, and owners of special or favored animals. While they share a passion for the end result, each has a different perspective on the benefits of cloning. Scientists point out that monitoring the gestation of cloned mules has had many benefits: it led to discoveries concerning the calcium levels necessary to carry a foal to term, provided insights into calcium's role in cell signaling, and could lead to further insights into human diseases.³⁷ Conservationists argue the technique "might be a way to safeguard populations of endangered equine species such as Przewalski's horses and Somali wild asses."³⁸ Further, by introducing new genetic material into small surviving populations, extra copies of individual animals could be moved to new locations, eliminating the possibility that disease or a natural disaster could destroy an entire herd.³⁹

Livestock breeders correctly stress that for centuries, humans have selectively bred livestock and companion animals to develop specific traits.⁴⁰ For example, in the late 1800s, Louis Dobermann wanted a large, fearless dog to guard him and his money.⁴¹ Using several breeds of dogs, he created what we have come to know as the Doberman.⁴² In the early 1900s, Oklahoma rancher Walter Merrick decided to expand his horse and cattle operation to include horse racing so he bred his Quarter Horse mares with Thoroughbred stallions, and that decision changed horse racing forever ensuring Merrick's election to the Texas Horse Racing Hall of Fame.⁴³ Livestock breeders contend that cloning livestock is merely the most recent

³⁴*What Are the Risks of Cloning?*, LEARN.GENETICS, <http://learn.genetics.utah.edu/content/tech/cloning/cloningrisks/> (last visited Mar. 14, 2013).

³⁵*Id.*

³⁶*Facts About Cloning Livestock*, ILL. FARM BUREAU (Oct. 2011), http://www.ilfb.org/media/197302/final_cloning_livestock_cg.pdf.

³⁷ Monica Amarelo, *Advances in Equine Cloning May Aid Insight into Human Diseases*, EUREKALERT! (Feb. 15, 2004), http://www.eurekalert.org/pub_releases/2004-02/aaft-aie020504.php.

³⁸ *Cloning Horses*, *supra* note 30.

³⁹*Id.*

⁴⁰ *Cloning and Animal Ag*, ILL. FARM BUREAU (Oct. 14, 2011), <http://www.ilfb.org/policy-and-issues/current-issues/livestock,-dairy-and-equine/cloning-and-animal-ag.aspx>.

⁴¹*Doberman History*, VOM ZEPHIRBERGE KENNEL, <http://www.vomzephirberge.com/history.htm> (last visited Jan. 5, 2013).

⁴²*Id.*

⁴³*Walter Merrick*, TEX. HORSE RACING HALL OF FAME, <http://www.txhorseracingmuseummandhalloffame.org/id51.html> (last visited Jan. 5, 2013).

evolution of selective breeding.⁴⁴ They also stress that it serves as an assisted reproductive technology that allows breeders to create animals with the most desirable attributes, thereby providing farmers and ranchers with additional reproductive options and increased production at a lower cost.⁴⁵ Scientists emphasize that transgenic animals — those containing genes transplanted from a different species — developed for “the production of human therapeutic proteins and other proteins, such as spider web, or as sources of cells, tissues, or organs for xenotransplantation,” can be produced faster, less expensively, and more efficiently than the methods used to create them in the first place.⁴⁶ The efficiency stems from the fact that fewer embryos are required and all offspring are transgenic and of a known sex.⁴⁷ Cloning also offers a kind of insurance. The economic or psychological impact of injury or loss of a popular sire is greatly reduced with the availability of another sire with the same genetic makeup.⁴⁸

Because geldings are castrated horses, owners of valuable or exceptional animals have the opportunity to keep a bloodline alive through cloning. One such remarkable gelding cloned for potential offspring was Scamper, who won ten consecutive barrel racing world titles.⁴⁹ His rider, Charmayne James, paid Viagen \$150,000.00 to clone her gelding.⁵⁰ The clone is not Scamper’s exact physical match, sporting a white spot between his eyes not present on Scamper, but he appears to have the same conformation and a particularly sensitive place on his neck behind his ears that neither he nor Scamper want touched.⁵¹ The colt, named Clayton, is also ornery and confident, just like Scamper.⁵² Because Clayton’s sperm will be exactly identical to Scamper’s, James has decided to have Clayton stand at stud.⁵³

James owned Scamper outright, so no disputes arose among multiple owners.⁵⁴ That is not true, however, of the syndicate that owned Smart Little Lena (Lena), one of the all-time great cutting horses and sire of

⁴⁴ *Facts About Cloning Livestock*, *supra* note 37, at 1.

⁴⁵ *Id.*

⁴⁶ Hare, *supra* note 34, at 1.

⁴⁷ *Id.*

⁴⁸ *Equine*, VIAGEN,

<http://www.viagen.com/benefits/equine/> <http://www.viagen.com/benefits/equine/> (last visited Mar. 16, 2013).

⁴⁹ Stephanie Church, *World Champion Barrel Horse Gelding Cloned*, VIAGEN (Nov. 15, 2006), <http://www.viagen.com/news/world-champion-barrel-horse-gelding-cloned/>.

⁵⁰ Candace Dobson, *World Champion Barrel Racing Horse Cloned*, MSNBC.COM, <http://nbcports.msnbc.com/id/15738839> (last updated Nov. 16, 2006, 1:40 PM).

⁵¹ Church, *supra* note 50.

⁵² *Barrel Racing Legend Scamper Cloned*, THEHORSE.COM (Nov. 15, 2006), <http://www.thehorse.com/articles/17453/barrel-racing-legend-scamper-cloned>.

⁵³ Liz Brown, *Scamper Clone Offered for Commercial Breeding*, THEHORSE.COM (Nov. 15, 2008), <http://www.thehorse.com/articles/22348/scamper-clone-offered-for-commercial-breeding>.

⁵⁴ *Id.*

cutting horses.⁵⁵ At the time of his death in 2010, Lena had won \$577,652 in National Cutting Horse Association (NCHA) competition himself.⁵⁶ Lena also sired 18 American Quarter Horse Association (AQHA) world champions that had won 22 world championships, more than \$32 million in NCHA competition winnings, \$451,916 in National Reining Horse Association competition winnings, \$783,564 in National Reined Cow Horse Association competition winnings, and \$196,499 at the AQHA World Championship Show.⁵⁷ Lena was born in 1979, and in 1982, several investors formed the Smart Little Lena Syndicate.⁵⁸ At first, all was well, with investors recouping their initial \$5,000+ investment within two or three years, with some making large profits within a year.⁵⁹ In the beginning Lena's trainer, Bill Freeman, managed the syndicate.⁶⁰ By 2006, however, Freeman had divorced and remarried, his new wife, Jill, was the syndicate secretary and his ex-wife Karen was suing Freeman and the syndicate over property she claimed she should have received in the divorce.⁶¹

To complicate matters, in 2006, Lena begat five clones, produced that spring through the efforts of Texas A & M University.⁶² Freeman had negotiated the price of \$50,000.00 for the cloning experiment, and while all syndicate shareholders were offered the opportunity to invest, not all of them did.⁶³ Only thirty-nine owners of fifty-three syndicate shareholders actually paid into the separate company, called Smart Little Lena CL LLC.⁶⁴ This corporation was formed in 2005 and registered with the Texas Secretary of State without the knowledge of all of the syndicate shareholders.⁶⁵ The parties were already in litigation in 2006, and the presiding judge ordered a shareholders meeting to sort out some of the lingering questions.⁶⁶ The result of that meeting was to strip Freeman of all authority, to try recoup from the Freemans money allegedly taken from the syndicate, and to hire a lawyer to "restore the devaluation of the syndicate

⁵⁵ Mark Thompson, *Smart Little Lena Euthanized*, QUARTER HORSE NEWS, <http://quarterhorsenews.com/index.php/cutting/cutting-outside-the-pen/9797-smart-little-lena-euthanized.html> (last visited Jan. 23, 2013).

⁵⁶ *Smart Little Lena Euthanized: 1979 Cutting Sire Euthanized After Stroke*, AQHA (Sept. 6, 2010), <http://aqha.com/Showing/News-Articles/2010/Smart-Little-Lena-Euthanized.aspx>.

⁵⁷ *Id.*

⁵⁸ *Smart Little Lena*, ALL ABOUT CUTTING, <http://allaboutcutting.com/history-smart-little-lena.htm> (last visited Jan. 25, 2013).

⁵⁹ *Id.*

⁶⁰ Petition for Writ of Mandamus at 4, *In re Manion*, 2008 TX S. Ct. Briefs 752 (2008) (No. 08-0752) 2008 TX S. Ct. Briefs LEXIS 1649 at *9.

⁶¹ *Smart Little Lena*, *supra* note 59.

⁶² *Id.*

⁶³ *Id.*

⁶⁴ *Id.*

⁶⁵ *Id.*

⁶⁶ *Id.*

shareholders' investments in the syndicate and hold accountable those responsible for the devaluation."⁶⁷

By the time the case was to go to trial in 2008, Freeman had died.⁶⁸ One week before the trial date, the parties settled the lawsuit with the exception of one remaining issue.⁶⁹ The syndicate owned Lena,⁷⁰ and the 2006 foals were cloned using Lena's DNA.⁷¹ Not everyone in the syndicate paid to create the clones, leading to the sticky legal question of whether the syndicate that owned Lena also owned his DNA thus having a stake in the clones regardless of whether those shareholders contributed to the cloning process or not.⁷² At the syndicate shareholders meeting, the shareholders were advised that only one court case had addressed the issue, and that case involved cloned pigs where a jury determined that whoever owned the extracted tissue also owned the clones.⁷³ At the time of this article, this issue has not yet made its way to any appellate court.

Cloning opponents not only raise the issues discussed above, but also worry about the implications to human cloning, also known as the "Dolly Debate."⁷⁴ In fact, embryonic stem cell research is a form of human cloning.⁷⁵ The term "cloning" itself describes the processes that involve making duplicates of biological material.⁷⁶ Usually, genes or cells are cloned for scientific research, and no new animal results.⁷⁷ Somatic cell nuclear transfer — the process used to clone Dolly the sheep — can also produce an embryo from which embryonic stem cells can be extracted to use in research or to grow a new organism altogether.⁷⁸ Therefore, in the past few years, scientific and ethical debates have focused on two potential applications - reproduction (producing a child) and producing embryonic stem cells for research.⁷⁹ The heady topic of human cloning is far beyond the scope of this article and better left for other scholars and fora. For horse owners, breeders, and cloning technicians, a much more pragmatic debate arises. To compete or not compete, to register or not register—those are the questions.

⁶⁷ *Id.*

⁶⁸ Glory Ann Kurtz, *All Smart Little Lena Lawsuits Could Come to an End*, ALL ABOUT CUTTING (Oct. 13, 2008), <http://allaboutcutting.net/?p=394>.

⁶⁹ *Id.*

⁷⁰ *Smart Little Lena*, *supra* note 59.

⁷¹ *Id.*

⁷² See source cited *supra* note 66.

⁷³ See source cited *supra* note 57.

⁷⁴ See Vos *supra* note 1.

⁷⁵ *Cloning/Embryonic Stem Cells*, GENOME.GOV, <http://www.genome.gov/10004765> (last visited Jan. 27, 2013).

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ *Id.*

Equine associations are the main authority for breeding and registration, and the associations are composed of four different types. Breed associations, such as the American Quarter Horse Association (AQHA), require horses to be registered with the association in order to compete in approved shows. In order to register, at least one parent of the horse must be registered with the AQHA while the other must be registered in either the AQHA or another approved association.⁸⁰ A second type of association is based on color, such as the American Buckskin Registry Association.⁸¹ The color associations require the horse to be an approved color in order to be registered and compete in sanctioned events.⁸² A third type of association is performance based, such as the National Reined Cow Horse Association, where horses do not need registration papers and are judged on agility and performance alone, but competition participants must be association members.⁸³ A fourth type of equine association, such as the National Snaffle Bit Association, is a hybrid, where horses are judged on performance rather than conformation, but require registration with an approved breed association in order to compete.⁸⁴

Charmayne James could elect to have her cloned foal Clayton compete in National Barrel Racing Association (NBRA) classes but has chosen instead to use him only for breeding purposes.⁸⁵ Should the owner of Smart Little Lena's clones wish them to participate in cutting horse competitions, they could do so under NCHA rules.⁸⁶ However, syndicate members are divided over whether the cloned foals should compete, with at least one member believing they have more to lose than to gain by entering the clones into competition.⁸⁷

⁸⁰ See AMERICAN QUARTER HORSE ASS'N, AQHA OFFICIAL HANDBOOK OF RULES AND REGULATIONS REG104.1, REG105 (2013), available at <http://www.aqha.com/Resources/Handbook.aspx>.

⁸¹ See AMERICAN BUCKSKIN REGISTRY ASS'N, 2013 ABRA RULE BOOK r.A, F, I (2013), available at http://www.americanbuckskin.org/RuleBook/RR_-_Registration_Rules.pdf.

⁸² See, e.g., *id.*

⁸³ See NAT'L REINED COW HORSE ASS'N, 2013 NRCHA RULEBOOK (2013), available at http://nrcha.com/pdf/news/2013/2013_NRCHA_Rulebook.pdf; see also *Cloning Equids*, THEHORSE.COM, <http://www.equestrianarts.org/Articles-Horse%20Health/Mares,%20Foals%20&%20Breeding/cloning.pdf> (last visited Jan. 5, 2013) (indicating commercially cloned horses are currently permitted to compete in endurance, show jumping, polo, carriage horse competitions, cutting, rodeo events, and dressage).

⁸⁴ See NAT'L SNAFFLE BIT ASS'N, NATIONAL SNAFFLE BIT ASSOCIATION OFFICIAL HANDBOOK at 2, 11 art. IX (2013), available at <http://www.nsba.com/index.php/about-us/nsba-rulebook/download.html?path=2013+NSBA+Rulebook.pdf>.

⁸⁵ See Church, *supra* note 52.

⁸⁶ See NAT'L CUTTING HORSE ASS'N, 2013 OFFICIAL HANDBOOK OF RULE AND REGULATIONS (2013), available at

http://www.nchacutting.com/ag/judges/pdf/rule_book.pdf.

⁸⁷ See Mark Thompson, *Smart Little Lena Clones*, AUSTRALIAN WESTERN HORSE SHOWCASE, <http://www.australianwesternhorseshowcase.com.au/Features/medical/SmartLittleLenaclones.html> (last visited Jan. 22, 2013).

Whether clones can compete is not an issue in at least one breed registry, the AQHA, simply because cloned horses are ineligible for registration.⁸⁸ Other breed registries have not addressed the issue.⁸⁹ The AQHA is the largest equine breed registry and membership organization in the world.⁹⁰ In 2011, AQHA had 247,049 members in all fifty states and over 90 members in foreign countries.⁹¹ Horses registered by AQHA from its inception through the end of 2011 in the United States alone numbered 2,635,349.⁹² As a result, many of the lawsuits involving equine registries or registration issues involve AQHA.⁹³

Prior to 2000, AQHA was secure in its decisions regarding registration rules and which horses were excluded from AQHA. That changed when *Floyd v. Am. Quarter Horse Ass'n*, No. 87-598C, (Potter Co. Dist. Ct. Tex. filed 2000) arose.⁹⁴ For the first time, a court held that AQHA's registration rules discriminated against a portion of its membership and were "anti-competitive restraint[s] adopted for the purposes of limiting the supply of registered quarter horses."⁹⁵ AQHA settled with Floyd, registered her horse, and changed its registration rules to include all horses born through surrogacy or embryo transfer retroactive to 1980.⁹⁶ Other registration changes soon followed. Beginning May 1, 2003, AQHA began registering horses with coat colors known as perlino⁹⁷ or

⁸⁸ See AMERICAN QUARTER HORSE ASS'N, *supra* note 80, at REG106.1.

⁸⁹ See, e.g., APPALOOSA HORSE CLUB, 2013 APPALOOSA HORSE CLUB OFFICIAL HANDBOOK (2013), available at <http://www.appaloosa.com/pdfs/rulebook13.pdf>.

⁹⁰ See Don Treadway, *Welcome, AQHA*, <http://www.aqha.com/About.aspx> (last visited Jan. 5, 2013).

⁹¹ See AM. QUARTER HORSE ASS'N, 2011 ANNUAL REPORT 5-7 (2011), available at http://www.aqha.com/About/Content-Pages/About-the-Association/~/_media/Files/About/Annual%20Report/2011%20Annual%20Report%2008222012.ashx.

⁹² *Id.*

⁹³ See, e.g., *Hatley v. Am. Quarter Horse Ass'n*, 552 F.2d 646, 657 (5th Cir. 1977) (explaining AQHA's registration rules are legitimate tools for breed improvement); *Burge v. Am. Quarter Horse Ass'n*, 782 S.W.2d 353, 356 (Tex. Civ. App. 1990) (explaining AQHA can deny registration to horse with prohibited white markings); *Adams v. Am. Quarter Horse Ass'n*, 583 S.W.2d 828, 834, 837 (Tex. Civ. App. 1979) (explaining courts will not interfere with internal management of voluntary associations.)

⁹⁴ Floyd sued AQHA over registration of a foal born through embryo transfer. For a more complete discussion of Floyd, see Mary W. Craig, *Just Say Neigh: A Call for Federal Regulation of Byproduct Disposal by the Equine Industry*, 12 ANIMAL LAW 193 (2006); Mary W. Craig, *A Horse of a Different Color: A Study of Antitrust and Restraint of Trade Violations in the Equine Industry*, 22 ST. THOMAS L. REV. 433 (2010).

⁹⁵ Letter from Hon. Patrick A. Pirtle to Robert E. Garner & Barry D. Stone (Dec. 15, 2000) (on file with author).

⁹⁶ See Eric Mitchell, *AQHA Lifts Embryo Transfer Registration Ban Entirely*, BLOODHORSE, <http://www.bloodhorse.com/horse-racing/articles/10055/aqha-lifts-embryo-transfer-registration-ban-entirely> (last visited Jan. 5, 2013).

⁹⁷ Perlinos have light or pink skin over the body, white or cream-colored hair, and their names, tails and lower legs are slightly darker than their body color. See AMERICAN QUARTER HORSE ASS'N, *supra* note 80, at REG114.16.

cremello.⁹⁸ One year later, AQHA eliminated its “excessive white” rule and agreed to register horses that were previously refused registration because they had white hair above their knees or hocks, or behind a line drawn from the outside of the eye to the corner of the mouth.⁹⁹ AQHA added some caveats such as requiring the registration certificate for any horse with excessive white markings to bear a notation that excessive white on a Quarter Horse is an undesirable trait and requiring DNA parentage verification.¹⁰⁰

By settling with Floyd, AQHA avoided setting any legal precedents that required the association to change its registration rules.¹⁰¹ Savvy observers could see what was on the horizon and knew questions about cloned animals were approaching. In 2004, AQHA adopted a rule prohibiting registration of any cloned animal.¹⁰² In 2008, the association began studying cloning and the impact it could have on the breed.¹⁰³ In 2009, at its annual convention, AQHA hosted a cloning forum, attended by over 400 members, and webcast live on AQHA.com.¹⁰⁴ The Stud Book Committee recommended forming a task force to study the issue and address the membership at the 2010 convention.¹⁰⁵ No changes were made to the registration rules as a result of the study in either 2009 or 2010.¹⁰⁶ In 2011, the Committee considered a member-proposed rule change that would allow registration of cloned horses for breeding purposes only.¹⁰⁷ The Committee and the Board of Directors did not adopt the change.¹⁰⁸ Prior to the 2012 convention, a member proposed a rule change allowing registration of the progeny of a cloned horse.¹⁰⁹ Once again, the Committee and the Board of Directors declined to adopt the rule change.¹¹⁰

No longer willing to wait on the membership or the Stud Book Committee, Abraham & Veneklasen Joint Venture, Abraham Equine, Inc. and Jason Abraham sued AQHA in federal court, on April 23, 2012, for

⁹⁸ Cremellos have light or pink skin over the body, blue eyes, and white or cream-colored hair. *See Id.*

⁹⁹ *See* Lori Bucholz, *It's Not All Black and White – The “White Rule”*, EQUINE CHRON. ONLINE (July/Aug. 2005), <http://www.equinechronicle.com/riding-and-training/you-be-the-judge/its-not-all-black-white.html>.

¹⁰⁰ *Id.*

¹⁰¹ *See* Mary W. Craig, *Just Say Neigh: A Call for Federal Regulation of Byproduct Disposal by the Equine Industry*, 12 ANIMAL L. 193, 211 (2006).

¹⁰² *AQHA on Cloning: Wait Another Year*, QUARTERHORSENEWS.COM, http://quarterhorsesnews.com/index.php?option=com_content&task=view&id=7241&Itemid=58 (last visited Jan. 5, 2013).

¹⁰³ *Cloning*, AM. QUARTER HORSE ASS'N (April 26, 2012), <http://www.aqha.com/Showing/News-Articles/04262012-Cloning.aspx>.

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

¹⁰⁷ *Id.*

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

“private enforcement of § 2 of the Sherman Antitrust Act (15 USC § 2)” brought under §§ 4 and 16 of the Clayton Act.¹¹¹ The suit seeks treble damages under § 4 of the Clayton Act for economic injury to their businesses, a permanent injunction under §16 of the Clayton Act, relief under Tex. Bus. & Comm. Code 15.05(b), damages under Tex. Bus. & Comm. Code 15.21(a), and a permanent injunction under Tex. Bus. & Comm. Code 15.21(b).¹¹² The lawsuit correctly points out that originally a foal had to be the result of natural breeding between a stallion and a mare, but that as technology developed, AQHA changed its rules to allow registration of all foals born through embryo transfer.¹¹³ The suit then details that AQHA allows registration of “identical twins and horses that are the result of Intracytoplasmic Sperm Injection (‘ICSI’)” and argues that ICSI uses the same procedure and technique as Somatic Cell Nuclear Transfer, also called cloning or nuclear transfer.¹¹⁴ Plaintiffs then make the same argument discussed earlier in this article, that cloning is merely an assisted reproductive technique similar to in vitro fertilization and artificial insemination.¹¹⁵ Plaintiffs assert competitive disadvantages and foreclosure of competition.¹¹⁶

AQHA responded to the complaint with a Motion to Dismiss for failure to state a claim under Fed. R. Civ. Pro. 12(b)(6), arguing that Plaintiffs “failed to establish circumstances sufficient to overcome the doctrine on non-intervention” and “failed to allege facts sufficient to establish the requisite elements of their monopolization claims.”¹¹⁷ In its supporting brief, AQHA argued the “Doctrine of Non-Intervention” precluded court interference in the internal management of private associations except in limited circumstances.¹¹⁸ AQHA asserted the

¹¹¹ Plaintiffs’ Original Complaint, Abraham & Veneklasen Joint Venture, Abraham Equine, Inc. and Jason Abraham v. Am. Quarter Horse Ass’n, No. 2:12-CV-103-J (N.D. Tex. July 12, 2012) (No. 2:12-CV-103-J).

¹¹² *Id.*

¹¹³ Plaintiffs’ Original Complaint, *supra* note 111, at 4.

¹¹⁴ *Id.* at 5. However, Plaintiffs’ claims are not entirely correct. See, e.g., *Intracytoplasmic Sperm Injection for Infertility*, WEBMD, <http://www.webmd.com/infertility-and-reproduction/guide/intracytoplasmic-sperm-injection-for-infertility> (last visited Jan. 6, 2013) (explaining ICSI injects a single sperm into a mature egg in order to enhance in vitro fertilization.)

¹¹⁵ Plaintiffs’ Original Complaint, *supra* note 111, at 6.

¹¹⁶ *Id.* at 14.

¹¹⁷ Defendant’s Motion to Dismiss for Lack of Jurisdiction and Failure to State a Claim at 2, Abraham & Veneklasen Joint Venture, Abraham Equine, Inc. and Jason Abraham v. Am. Quarter Horse Ass’n, No. 2:12-CV-103-J (N.D. Tex. July 12, 2012) (No. 2:12-CV-103-J), available at <http://allaboutcutting.com/images/glo-images/PDFs/Cloning-pdfs/Cloning-lawsuit-4-12/AQHAMotionDismiss5-15-12.pdf>.

¹¹⁸ Defendant’s Brief in Support of Motion to Dismiss for Lack of Jurisdiction and Failure to State a Claim at 2, Abraham & Veneklasen Joint Venture, Abraham Equine, Inc. and Jason Abraham v. Am. Quarter Horse Ass’n, No. 2:12-CV-103-J (N.D. Tex. July 12, 2012) (No. 2:12-CV-103-J) (citing *Tex. Thoroughbred Breeders Ass’n v. Donnan*, 202 S.W.3d 213, 224 (Tex. App. 2006)), available at <http://allaboutcutting.com/images/glo-images/PDFs/Cloning-pdfs/Cloning-lawsuit-4-12/AQHASupportMotion5-15-12.pdf>; *Hatley v. American Quarter Horse Ass’n*, 552 F.2d 646, 656 (5th

voluntariness of membership in the association and the subsequent subjection to AQHA rules and regulations, as well as the contractual nature of a private association and its members.¹¹⁹ AQHA also argued that the rules against registration of cloned horses do not discriminate against only a portion of the membership but instead apply to all cloned horses, do not violate law or public policy, and do not unfairly affect property interests.¹²⁰ AQHA then argued that the Plaintiffs failed to show that the association attempted to monopolize the relevant market.¹²¹ The Plaintiffs, of course, disagreed and responded to the Motion to Dismiss by alleging that because AQHA's actions are unlawful, the "Doctrine of Non-Intervention" is inapplicable, that Plaintiffs did state a claim upon which relief could be granted, and included an alternate motion for leave to amend the complaint in case the court agreed with the Defendant.¹²² AQHA replied that Plaintiffs' allegations were all legal conclusions, not facts, and that the facts the Plaintiffs did allege did not constitute a plausible claim of anti-competitive conduct.¹²³ According to a source at AQHA, the case is in the discovery phase.

The outcome of this case is far from certain. A federal judge is in no way bound by a settlement reached in state court, even as to the state claims raised by the Plaintiffs, so *Floyd* will have little to no effect on the court's decision.¹²⁴ AQHA's decision to relax the color rules with regard to perlinos and cremellos was based on extensive scientific research; this alteration of the rules was not arbitrary or influenced by pressure from the association's membership.¹²⁵ For instance, its decision to amend the "excessive white" rule was based upon the knowledge and admission that full-blooded Quarter Horses sometimes produced foals with excessive white, and the color pattern is not a genetic abnormality.¹²⁶

Whether the trial court leaves AQHA's anti-cloning rule intact will likely turn on the court's interpretation or application of the "Doctrine of

Cir. 1977); *Whitmire v. National Cutting Horse Ass'n*, No. 2-08-176-CV, 2009 Tex. App. LEXIS 5713, at *12 (Tex. App. July 23, 2009).

¹¹⁹ *Id.* at 5-6.

¹²⁰ *Id.* at 9-10.

¹²¹ *Id.* at 12.

¹²² See Plaintiffs' Brief in Support of Defendant's Motion to Dismiss, and Alternate Motion for Leave to Amend Complaint, Abraham & Veneklasen Joint Venture, Abraham Equine, Inc. and Jason Abraham v. Am. Quarter Horse Ass'n, No. 2:12-CV-103-J (N.D. Tex. July 12, 2012) (No. 2:12-CV-103-J), available at <http://allaboutcutting.com/images/glo-images/PDFs/Cloning-pdfs/Cloning-lawsuit-4-12/Plaintiff-brief-3-6-4-12.pdf>.

¹²³ Defendant's Brief in Support of Motion to Dismiss for Lack of Jurisdiction and Failure to State a Claim, *supra* note 118, at 5.

¹²⁴ See U.S. CONST. art. VI, cl. 2.

¹²⁵ P.K. House & Natalie Nelson, *The Color of a Storm*, CREMELLO & PERLINO EDUC. ASS'N, <http://www.doubledilute.com/article.htm> (last visited Jan. 5, 2013) (explaining that cremellos and perlinos were thought to be albinos, but when the Board of Directors looked at scientific evidence, it found that the color patterns were the result of double-dilute genes, not genetic abnormalities).

¹²⁶ Bucholz, *supra* note 99.

Judicial Nonintervention.” While Texas state courts have not ruled extensively on the issue, several cases explain and apply the doctrine.¹²⁷ For the past three decades, Texas courts have declined to interfere with the inner workings of a voluntary association stating that “if the courts were to interfere every time some member. . . had a grievance, real or imagined, the. . . organization would be fraught with frustration. . . and would founder in the waters of impotence and debility.”¹²⁸ Someone who elects to become a member of an association subjects himself to the rules made by the association, and asking a court to interpret and administer those rules subverts the association’s contractual right to handle its own affairs.¹²⁹ For that reason, courts leave internal management decisions to the associations unless the associations substitute legislation for interpretation, violate public policy, or “overstep the bounds of reason.”¹³⁰

Courts will intervene if the harm done to the plaintiff is great enough, but whether the property right asserted is valuable enough to warrant protection is within the trial court’s discretion.¹³¹ “There is no bright line test. Courts must weigh the importance of the property or civil right at issue and determine whether it is great enough to justify deviation from the traditional rule of allowing associations the greatest possible autonomy.”¹³² Therefore, the *Abraham* court must determine whether registering a cloned horse with AQHA, ostensibly only for breeding purposes, is a sufficient property right warranting interference. Until *Floyd*, mere registration issues were insufficient to warrant intervention.¹³³

In support of their claim, the Plaintiffs point to historical decisions by AQHA to relax or amend their registration requirements.¹³⁴ That reliance may be misplaced. AQHA’s decision to register all embryo transfer foals after its settlement with Floyd continued to allow AQHA to determine

¹²⁷ See *Harden v. Colonial Country Club*, 634 S.W.2d 56, 60 (Tex. App. 1982) (holding that so long as the actions of an association are not illegal, not against some public property, not arbitrary, capricious, fraudulent, and are proper actions of the club, then the court will not get involved in the interest of avoiding immense claims); see also *Dickey v. Club Corp. of Am.*, 12 S.W.3d 172, 177 (Tex. App. 2000) (holding that if the courts were to intervene every time members felt tee time restrictions were unreasonable, operations of such clubs would become unreasonable, and judicial resources would be wasted).

¹²⁸ *Harden*, 634 S.W.2d at 60.

¹²⁹ *Id.* (quoting Bhd. of R. R. Trainmen v. Price, 108 S.W.2d 239, 241 (Tex. Civ. App. 1937)).

¹³⁰ See *Dickey*, S.W.3d at 176; *Burge v. Am. Quarter Horse Ass’n*, 782 S.W.2d 353, 354 (Tex. App. 1990); *Butler v. Hide-A-Way Lake Club, Inc.*, 730 S.W.2d 405, 410 (Tex. App. 1987); *Harden*, 634 S.W.2d at 59; *Adams v. Am. Quarter Horse Ass’n*, 583 S.W.2d 828, 834 (Tex. Civ. App. 1979); *Hoey v. San Antonio Real Estate Bd.*, 297 S.W.2d 214, 217 (Tex. Civ. App. 1956); Bhd. of R. R. Trainmen v. Price, 108 S.W.2d 239, 241 (Tex. Civ. App. 1937).

¹³¹ See *Whitmire v. Nat’l Cutting Horse Ass’n*, 2-08-176-CV, 2009 WL 2196126, at *11 (Tex. App. July 23, 2009) (granting relief to a voluntary member of an association while also deferring to the association’s rules).

¹³² *Id.* at *4.

¹³³ See *Hatley v. Am. Quarter Horse Ass’n*, 552 F.2d 646, 656 (5th Cir. 1977).

¹³⁴ Plaintiffs’ Original Complaint, *supra* note 111, at 4 ¶ 15.

parentage through DNA testing, an important element in parentage verification.¹³⁵ Even though an egg was harvested from one mare, then fertilized and implanted into another mare, the foal was still born through fertilization of a mare's egg by a stallion's sperm.¹³⁶ Registering cloned horses presents AQHA with a unique DNA challenge, however, that cannot be overcome with current technology.¹³⁷ For example, no feasible method exists currently to differentiate whether a particular offspring is by an original stallion or by the clone of the stallion, and if a stallion is cloned more than once, no feasible method exists to differentiate whether a particular offspring is by the original stallion, Clone No. 1 of the stallion or Clone No. 2 of the stallion.¹³⁸ In addition, current DNA testing cannot distinguish the foal of a deceased stallion's frozen semen from the foal of a live clone stallion.¹³⁹

AQHA can and should argue that with the problems inherent in cloned animals, registering cloned horses with possible or probable health issues created by the cloning process itself goes against the mission of the association to "ensure not only the integrity and welfare of American Quarter Horses, but also the integrity and welfare of the entire horse industry."¹⁴⁰ AQHA is not alone in arguing that cloning does not promote the general welfare of equine communities.¹⁴¹ Stallions eventually are gelded or die, the bloodlines get diluted, and new bloodlines are cycled in and out to improve the gene pool.¹⁴² Making multiple clones of one stallion or one mare and reproducing the same horse over and over limits the gene pool, and the practice becomes more harmful than helpful.¹⁴³

¹³⁵ *Id.* at ¶ 17.

¹³⁶ *Id.* at ¶ 25.

¹³⁷ See *Pure Genetics*, AM. QUARTER HORSE J., Feb. 2009, at 40, 48-49, available at <http://www.allaboutcutting.com/images/glo-images/PDFs/Cloning%20pdfs/3-Pure-Genetics-QHJml.pdf>.

¹³⁸ *Id.*

¹³⁹ Katherine W. Ross, *Cloning and Embryo Transfer Legal Issues*, BLUEGRASS EQUINE DIG. (May 2012), <http://www.ca.uky.edu/gluck/images/BED/BED-May12.pdf>.

¹⁴⁰ *AQHA 2013 Rules*, AM. QUARTER HORSE ASS'N, <http://www.aqha.com/Resources/Handbook/Policy-Statement.aspx> (last visited Jan. 5, 2013).

¹⁴¹ See Justin Gillis, *New to the Stable: Two Championship Clones*, WASHINGTONPOST.COM (Mar. 31, 2006), <http://www.washingtonpost.com/wp-dyn/content/article/2006/03/30/AR2006033001913.html> (stating that the Humane Society believes horses should not be treated as commodities and deserve respect and humane treatment); see also Eric Adelson, *Cloning Horses is the New Frontier for the Equestrian World*, YAHOO! SPORTS (July 23, 2012, 11:00 AM), <http://sports.yahoo.com/news/olympics--cloning-horses-is-the-new-frontier-for-the-equestrian-world.html> (citing a Jockey Club spokesperson arguing that cloning is against a horse's best interest and will not allow a cloned horse to register for thoroughbred racing).

¹⁴² See *Pure Genetics*, *supra* note 137, at 46 (stating that expansion of a horse's bloodline has led to the emergence of recessive traits resulting in economic loss).

¹⁴³ Keri Elise Dinsmore, *Equine Cloning*, HOT TOPICS IN THE EQUINE INDUSTRY (Oct. 15, 2011, 9:09 PM), <http://www.personal.psu.edu/wbs14/blogs/topics/2011/10/equine-cloning.html>.

Carol Harris, a long-time Quarter Horse breeder in Ocala, Florida, opined that breeding is an art, while cloning is merely replication.¹⁴⁴ Breeders want to clone because "[t]hey smell money. They're looking for a shortcut to a great horse."¹⁴⁵ If that is true, then breed registry associations are not the place to turn. Smart Little Lena's descendants have earned approximately \$33 million in competition, but less than \$200,000 of that, or about .006 percent, came in AQHA competition.¹⁴⁶ If the same percentages apply to Abraham's horses, then a judge may have a difficult time finding economic discrimination in AQHA's rules on cloning. If so, then the Plaintiffs' anti-trust claims must fail, and AQHA will be left to administer its own rules and regulations once again.

¹⁴⁴ Stephen Hudak, *Cloning of Horses Prompts Debate Over Registering Genetic Duplicates*, WASHINGTONPOST.COM (May 4, 2010), <http://www.washingtonpost.com/wp-dyn/content/article/2010/05/01/AR2010050100186.html>.

¹⁴⁵ Dinsmore, *supra* note 144.

¹⁴⁶ *Smart Little Lena Clones to Sell*, QUARTERHORSENEWS.COM (Oct. 8, 2010), <http://quarterhorsesnews.com/index.php/cutting/cutting-outside-the-pen/9909-smart-little-lena-clones-to-sell.html>.

