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The Most Interesting Lawyer of the Week: Will Worden in BBA News

How a former stable hand ended up at Pierce Atwood...and at the forefront of transactional law and animal cloning

Say the name "Dolly" and most people will think of the country singer or the child's toy. Twenty years ago, however, the name immediately brought to Scotland's most famous sheep.

July 5th marks the 20th anniversary of the birth of Dolly the sheep, the first animal to be cloned from an adult cell, using the technique of somatic cell nuclear transfer. That event – called the "breakthrough of the year" by *Science Magazine* – set into motion a new phase of research, and a new area of transactional law. At the forefront was Will Worden, Partner-in-Charge at Pierce Atwood's Boston office and one of the pioneering attorneys on transactions involving animal cloning technologies.

But how does a then-Portland based attorney find himself on the cutting edge of animal science? One *could* say it started with the Vietnam War.

"I grew up in a big family in Ware, Mass," said Worden. "When I got out of high school, I went to Bridgewater State College for a year. It was during the Vietnam War, and all the turmoil that was going on. By the end of that year, I was a hippie and I dropped out. I ended up in a farm management apprentice program in Virginia."

Not just any farm management program, but one that attracted 3,000 applicants a year for just 12 spots, and one that had earned a reputation for placing program participants into management positions at world class farms.

"I served an apprenticeship on a farm that was breeding Morgan horses and cattle, and growing thousands of acres of alfalfa hay, corn, and soybeans. I learned everything about the farm's 'seasons': breeding, foaling, calving, planting, and harvesting. I also learned about genetics. I was involved in cutting edge technology; we were breeding animals via embryo transfer, and I learned from people who were the best."

After working his way up from stable hand to management positions at various farming operations, Worden was ultimately appointed general manager of Dearborn Farm in Lexington, Kentucky, one of the big thoroughbred breeding farms at the time. In an industry where management positions are often passed down from father to son, Worden's new role was a significant achievement.

"When I got to Kentucky, I realized that I had achieved part of my goal, but I really wanted to have a college education. So I left and went to UMass Amherst and did an undergraduate degree in animal science in two years. I took a job as the general manager of a big farm in Virginia for two years, and then had the bug to further my education."

After returning to UMass for a master's degree in agriculture and resource economics, Worden was recruited by Drake University Law School, one of just two schools at the time with a program in agricultural law. While Worden intended to take that degree back to Virginia or Kentucky and the farms, he ended up on a different path.

"I did a summer associate program at Pierce Atwood, and then returned there after clerking for a federal trial judge for a couple of years," explained Worden. "One morning I came into work, and there was a private placement memorandum on my desk with a note from one of the senior corporate partners. A big, world class poultry genetics farm had purchased a startup company out of UMass Amherst called Advanced Cell Technology (ACT), and the core technology of ACT was somatic cell nuclear transfer."

"The note read 'Do you know any of the terminology or technology that's talked about in this memo?' I opened it up and I saw the names of professors whom I knew and had studied with at UMass, and that's when I started working with animal cloning."

This was in the late 1990s, when the world was talking about the birth of Dolly. Meanwhile, Worden was working with ACT, whose scientists – including James Robl, Steve Stice, and Jose Cibelli – famously cloned the Holstein calves George and Charlie.

"I actually met George and Charlie; they were created by UMass/ACT scientists and were born in Texas. Shortly after they were born, George and Charlie came back to live in Amherst. What's really interesting for me is that ACT improved the technology that was used to clone Dolly. After that, cloning actually became a business. Working with Dr. Mike West at ACT, I created a cloning services contract that was the first widely used commercial cloning services agreement. It was a brave new world."

Worden's role working with Advanced Cell Technology allowed him a close-up view of how the technology was being used to improve lives.

"Scientists were looking at this technology as a way to improving the quality of meat and milk. The thing that was really interesting was that you could clone, say a Holstein, so that she would produce milk with a certain protein that could be extracted and used as a human therapeutic. It was the early years of regenerative medicine."

Today, Worden remains on the cutting edge, working with clients, including with Dr. Mike West (now at BioTime, Inc.) in the commercialization of regenerative medicine technologies, including stem cell technologies. It's an area that wouldn't have developed without the science that led to Dolly, George and Charlie.

"I always thought the legal work that I was doing was laying a foundation for human medicine. It was groundbreaking work that I think contributed quite a bit. Now, here we are in 2016 and I think we're within a short window of seeing real therapeutics hit the market from all this work, it's pretty fascinating. I'm very proud to have worked on this."

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