Luna DNA Seeks to Blaze New Trail to Data

**BIOTECH:** Co. to Use Blockchain, Cryptocurrency to Build Database

*By JARED WHITLOCK*

At Illumina, Dawn Barry pushed the limits of DNA sequencing, from using the science to seek cures for complex diseases to the goal of resolving criminal cases. Her next challenge: blockchain-powered genomics. Barry recently came on board as president of Luna DNA.

Parking Biz Exec Stays Out of Tough Spots

**SERVICE:** Adapting to Change, Eye for Expansion Drive Success

*By BRAD GRAVES*

Keith Jones knows the lay of the land, and he looks like he knows it. Standing in a business suit outside San Diego International Airport, he attracts the attention of a traveler pulling a rolling suitcase. She wants to know the lay of the land, and he looks like he knows it.

Every Detail Matters in Hospital Seismic Retrofit

**CONSTRUCTION:** Difficulties Abound in Medical Environment

*By JARED WHITLOCK*

Hospital earthquake planning has kept firms in San Diego like Degenkolb Engineers busy in recent years, the result of seismic retrofit deadlines drawing nearer. California law requires earthquake building code compliance from hospitals by 2030, or they can’t provide acute care. The deadline is a ways away from business models that rely heavily on traveling “blockbuster” exhibits to focus on strategies that require less financial risk. Some temporary exhibitions aren’t as popular as everyone hopes they will be,” said Judy Gradwohl, president and CEO of the San Diego Natural History Museum in Balboa Park. “What we’re doing is focusing on in-house collections and exhibitions that allow us to highlight our content. It saves us money. It’s much less expensive to produce our own exhibits. It allows us to be more experimental with our offerings.”

Choosing exhibits that boost attendance and engage the public is a key component of a successful business model for museums. The majority of museums in the U.S. are nonprofits. They typically raise money by putting together revenue from ticket sales, membership fees, grants, and donations.
Museums:

- Supply new sources of revenue. The Natural History Museum recently acquired a permanent liquor license, Gradwohl noted. This will enable it to broaden its appeal as a venue that rents space for special events.

- The cost of booking touring exhibitions can be between several hundred thousand dollars and $1 million. Gradwohl said. Even when an exhibit is successful, the gains may be short-lived, since attendance can drop when an exhibit completes its run.

- The total expense is divided by the size of the space used. For a traveling exhibit, that typically works out to $75 to $125 per square foot at the Natural History Museum, officials said. In comparison, a temporary in-house exhibit can cost between $35 and $85 per square foot.

- When museums create in-house exhibits, there are many ways to reduce costs. In-house exhibits at the Natural History Museum, also known as “theNAT,” come from its permanent collection. An example is the current exhibit “Unshielded: Cool Stuff from Storage,” which features rarely seen specimens, ranging from insects to whale bones.

- Among other factors that bring down the cost of in-house exhibits are use of own labor, material, and specimens; discounts to vendors; and interest by travelling shows to cover the costs of developing, manufacturing, trucking, assembling, and disassembling exhibits; payment of guaranteed fees if an in-house exhibit uses its own facilities; and no requirement to adjust the dimensions of a travelling exhibit.

Going Back to Basics

- The gamble that a museum must take to book costly traveling shows is too big to take, Gradwohl said. "You win big or you lose big," she said. "You rarely hold even. We’re trying to reorient visitors to realize that any time you come, there’s going to be something special. We are in a sense, going back to basics." Michael J. Montgomery, a principal at Montgomery Consulting, a Michigan-based philanthropy and nonprofit management consulting firm, said many museums around the country have reached the same conclusion about travelling exhibits.

- Touring programs “can be costly to rent and in recent years many have failed to do the level of business that many museums need to justify their expense,” Montgomery said. “In response, many museums have developed some of their temporary exhibitions in-house.”

Hunting Revenue

- Museums always are on the lookout for new sources of revenue. The Natural History Museum recently acquired a permanent liquor license, Gradwohl noted. This will enable it to broaden its appeal as a venue that rents space for special events.

- “We’re expanding our food and beverage services,” she said. “That is another source of revenue. Our largest source of earned revenue is through our consulting services and we are hoping to expand those as well.”

- The museum consults with local government and developers to make sure that construction in the region doesn’t destroy fossils or restrict biodiversity.

- The Natural History Museum’s operating annual budget has remained relatively consistent over the past decade, at about $11 million to $12 million. About one-third of revenue comes from exhibitions and public programs, one-third from contributions, and one-third from earned revenue.

- About 52 percent of annual expenses are spent on exhibitions, education, and marketing. Twenty-nine percent goes for collections and research. Nineteen percent is spent for fundraising, membership, and administration.

Not All About Profit

- Making ends meet requires museums to spend wisely, but calculating return on investments isn’t always easy. Because their missions require them to engage and educate the public, there often isn’t a dollar-for-dollar return on every expense. Not every program is expected to turn a profit.

- Mission-oriented work includes contributions to scholarly journals. In 2017 the Natural History Museum’s researchers contributed 156 such articles. Another example is the “Canyoneering” program which offers free guided nature hikes to the public.

Focusing on the Mission

- Whenever a museum develops a new program, in addition to being financially viable it must fit in with its mission. In the case of the Natural History Museum, the mission is to promote understanding of the evolution and diversity of South ern California and the Baja California peninsula.

- “We are competing for people’s time and attention,” Snyder said. “There are so many alternatives and things you can do with your time. Our biggest challenge is ‘How do we make sure that what we’re trying to do is relevant with the community?’”

- The Fleet booklets a blend of in-house and touring exhibits each year. Snyder said. He acknowledged that balancing the cost of touring shows with associated revenue is difficult.

- “The performance of those shows can be extremely different from city to city,” he said. “Sometimes what kills in Philadelphia can die in Chicago.”

- Rather than relying on touring exhibits, the Natural History Museum recently opened a permanent exhibition on the history of cannibalism in the world. It’s called “Cannibals, Myth & Reality” a history of cannibalism in cultures around the world, and “Monsters,” an interactive children’s exhibit for under-five children created from throughout history. What such exhibits have in common is a desire to create unique experiences, Garcia said.

- “We wanted to deepen the embrace with the community and become sustainable financially,” said McMahon. “From fiscal year 2010 to 2017 we increased the admissions revenue by over 3 percent.”

A Never-Ending Quest

- For all public, nonprofit museums, solvency is a precondition for success. All museums struggle to varying degrees with giving people reasons to visit, said Montgomery, the consultant. Even successful museums work hard to keep revenues up. While educating the public and achieving academic recognition are important goals, the difference between success and failure often is having enough revenue to keep the doors open for another season. At the Fleet Science Center, about 5 percent of the annual budget comes from earned revenue, well above the national average of 5 percent. Even so, officials know there are no guarantees when it comes to museum finances. The quest to remain solvent never ends.

- “Our overall position is good (but) the pressure is to keep on winning,” Snyder said. “We have to be very smart about how we run our business.”