PIs: Elaine Johnson and Sandra Porter

Depot Executive Director Daniel Michael

NSF ATE Center Awards: <u>1998-2000</u> / <u>2001-2005</u> / <u>2004-2010</u> / <u>2014-2018</u>

www.biolinkdepot.org

PURPOSE AND BACKGROUND

Bio-Link was launched in 1998 as "Bio-Link: A National Advanced Technological Education Center for Biotechnology," funded by the National Science Foundation, becoming a National ATE center in 2009 and 2014. In 2014, Bio-Link received another ATE award allowing it to continue as the National ATE Center of Excellence for Biotechnology and Life Sciences until 2018. Bio-Link was formed to prepare technicians to meet industry needs. The three goals during the last award cycle were to:

- 1. Utilize Bio-Link's network of information sharing to foster communities of practice that enhance the preparation of skilled technicians.
- 2. Deepen and diversify industry outreach and engagement to ensure that training programs nationwide respond to industry needs.
- 3. Increase access to and use of educational and training resources to improve student skill attainment.

The Bio-Link National Center resided at City College of San Francisco (CCSF). Over 40 states take advantage of Bio-Link offerings through over 109 programs.

The Bio-Link Depot, a subcomponent of the Center and the focus of this study, was formed in 2002 at the request of industry. Its purpose was to connect Northern California teachers with science supplies and equipment for their classrooms. When upgrading, restructuring or moving, companies donate their excess materials; the Depot then distributes the materials to teachers who need them. The Depot has become a gathering place where teachers meet, pick up equipment and supplies, and also donate their time and ideas. The Depot was designed to support teachers in the Bay Area, but draws from a much wider geographic region. The Depot is now a 501(c)3 non-profit organization, partially supported by environmental organizations through donations and grants, as the redirected biotech supplies and equipment that are donated reduce deposits into the landfill.

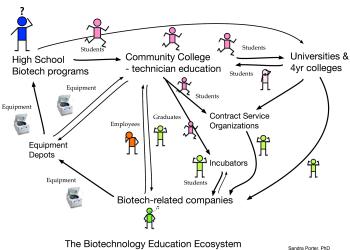


Figure 1, created by Co-PI Sandra Porter, shows the relationship between the various elements of the Bio-Link project.

HISTORY

2002:

Genentech gives the Depot \$50,000 in seed funding and CCSF/Bio-Link starts program

2006:

Depot begins functioning as a distribution center

2011:

Bio-Link publishes an Equipment Depot Resource Guide

2013:

The Depot Advisory Committee is formed

2015:

The Depot is incorporated as a 501(c)3

2017:

The Depot moves from SFCC/SFO campus to Oakland and Foothill College sites

2018:

The Depot receives the California Life Sciences Association (CLAS) Biotech Educator of the Year award.

EVOLUTION

In 2015 Bio-Link hired Mr. Daniel Michael, a consultant with a background in social enterprises and entrepreneurship, to help the team think through how to sustain Bio-Link. Mr. Michael recommended that Bio-Link become a non-profit entity. Bio-Link leadership rejected this path for the main project, but was open to moving the Depot into its own organization. The move to a non-profit became particularly appealing when the Depot needed to find a new physical home in 2017.

Until 2017 the Depot was located in a warehouse about 4 miles away from the main CCSF campus, on a small satellite CCSF campus at the airport that primarily prepared airline mechanics and fire fighters. This location was fortuitous as, according to Mr. Michael, it "had all of the CCSF resources but none of the constant oversight and attention." In 2017, however, CCSF closed the airport campus, and the Depot relocated to Oakland. The location is not as convenient, nor is the parking, which requires a fleet of volunteers to direct teachers' cars and rental trucks when they come to pick up their supplies, but it was the only space available.

Although the Depot was an essential part of the Bio-Link mission, it was not critical to the CCSF mission. Being on a remote campus allowed it to fly under the radar even through several administrative changes at the college. PI Johnson was adept at reporting the activities and accomplishments of Bio-Link in a manner that resonated with the administrators, and deliberate on when and how the Depot was promoted.

Mr. Michael noted that "if [the Depot] had been on campus, the literal mess would not have been tolerated." The Depot is a large and often messy space. Frequently donations come in big waves. When a lab shuts down, the lab may "donate everything to the Depot, like incubators, tables and chairs and glassware. The process of going through the donation and getting rid of what cannot be used takes a huge amount of effort."

Looking for a new space raised two existential challenges:

- 1. The Depot itself was not a legal entity, making it impossible to sign a lease independent of CCSF systems.
- The college administration was not particularly supportive of the Depot, as it did not directly align with the mission of the organization.

A Depot-specific advisory board was convened to address the question of sustainability. The board was composed of faculty, teachers, and industry representatives. The board addressed the logistics of running the Depot including managing donations, running open houses, etc. Through their work, they realized they "needed a checking account to accomplish any goals," since going through the CCSF financial system was lengthy and burdensome.

PROJECT CONTINUATION

In 2017-2018 the Depot received donations valued over \$1.74 million. It distributed almost \$700,000 worth of equipment and materials to over 200 schools, reaching 400 teachers and nearly 100,000 students in the San Francisco Bay area.

The Depot is staffed by a manager, a finance specialist and an office manager, all of whom are part-time employees. The board includes a mix of educators and industry representatives and is in the process of finalizing bylaws and the annual budget. As the business model continues to evolve, it has begun to create some tension within the board. For example, occasionally a company will donate a large, expensive piece of equipment that is not appropriate for teacher use and/or is not utilized for more than one year. The Depot will sell that piece of equipment and put the money back into the operations budget. Some board members feel that this violates the intention of the donation as contributing to educational purposes, while other board members feel that, because the funds are put back into supporting the Depot, it is within the spirit of the donation.

About 40 volunteers help out at the Depot, many of whom are teachers who benefit from the donations and volunteer on a day off to "give back." Companies also organize volunteer days where the Depot might be a site for volunteering. Faculty and researchers who help by going into labs or companies to pick up donations occasionally find themselves developing relationships with company representatives that can lead to internships for students.

The Depot also provides resources for other colleges looking to do something similar. People around the nation regularly call the Depot looking to obtain materials. The Bio-Link Network is then leveraged as a referral agency, though few organizations replicate the Depot.²

The advisory committee has since become the board of directors for the non-profit organization. The board is responsible for making decisions about the priorities of the Depot, fiscal oversight, maintaining relationships with stakeholders, and fundraising.

Beyond local industry and teachers, the Depot has another stakeholder – the environmental community. The Depot has been the recipient of several large grants for keeping this equipment out of the landfill.

When marketing the Depot, the leadership team ensures they know their audience. As PI Johnson said, "When I talk about keeping all of this out of the landfill, people start to nod their heads and people want to support this effort. This group doesn't care so much about getting the equipment to the teachers. That's a hard sell, since they are not in the classroom so they don't understand how important it is for the teachers, but really get it for keeping it out of the landfill." By focusing on the environmental impact, the project personnel are able to engage the community.

The leadership team relayed that they find it easy to get support from the university for the Center overall; many mid-level administrators at universities have science and biotech fall under their purview, even if they themselves lack laboratory background.

Moving forward, Mr. Michael sees the potential to expand the Depot nationally, although it is not yet a goal for the board. He notes that 60% of biotech businesses go out of business due to competition. Much of the materials and equipment in these labs is then thrown out or sold for pennies on the dollar because the industry doesn't know that donation is an option. The Depot has done no marketing for over a year because they have constant calls and emails from companies looking to donate.

The Depot continues to be sustained through grants and donations. Local companies, environmental groups, and grants provide financial contributions.

²There is a Depot in Australia; a group in Boston would like to replicate but cannot find space; and there is at least one college that tried to create a small Depot using shipping containers owned by the physical plant department, but they were asked to shut down.

EQUIPMENT DEPOT RESOURCE GUIDE

The purpose of this Bio-Link publication is to create a resource guide for how to start a Science Equipment Depot using Bio-Link's Equipment Depot at City College of San Francisco as an example and model that can be adapted by other community colleges or organizations.

LESSONS LEARNED Spinning a component of the Center into a non-profit organization is a matter of timing and creating the right leadership structures. Once the Depot had traction with the biotech and educator communities, the Bio-Link team began to think about sustainability. Because the Bio-Link Depot was ancillary to CCSF it was easy, and in fact necessary, that it leave the banner of the college. Creating an advisory board and hiring an executive director ensured that the Depot would continue to thrive by honoring its mission under the stewardship of someone focused on its success.

The Depot fit within the Bio-Link educational mission, but also met the needs of the environmental community. By highlighting the environmental impact of recirculating supplies and materials, the Depot was able to secure additional grant funding.

Author's Note: As a whole, Bio-Link was a long and productive center which has since evolved into InnovATEBIO led by Linnea Fletcher and Sandra Porter. This case write up does not do justice to the lasting impact of the center as a whole, rather we focused on one component for the study, the Depot.