The once bare hallways of Keck Graduate Institute’s Building 517 have received a significant makeover, courtesy of Robert E. Finnegan Professor and Center for Biomarker Research Director Jim Osborne and Beckman Coulter.

KGI welcomed the Science Heritage Center as the newest addition to the KGI campus on December 1st. The exhibit showcases multiple inventions by Arnold Beckman and Wallace Coulter and stretches from the northern hallway to the eastern hallway inside Building 517.

“I spent 25 years at Beckman Coulter and I was the chair of the heritage committee there,” Dr. Osborne said. “At one point, the entire heritage exhibit needed to be moved to a new site. We gave a lot of the devices away but then I decided to bring 70 percent of the equipment here [to KGI] and asked if they would let me set this up here.”

Visitors to the exhibit can see the actual items in display cabinets, many of which are still in working condition. Posters on the walls complement the display items by providing more information on the devices and their purposes. The inventions themselves provide a sampling of science history from the 1930s through the 1990s. Included in the exhibit are items such as the pH Meter (1935), DU Spectrophotometer (1940), oxygen analyzer (1943), DNA sequencer (1989) and the first automated blood cell counter (1949). Originally designed to determine the pH level of lemon juice, the Beckman pH Meter has many uses today (e.g., monitoring water quality, soil, sewer and waste disposal) and is a National Historical Chemical Landmark.

What we’ve done is charted a lot of historic inventions that changed the landscape in science,” Dr. Osborne explained. “The pH Meter is one of those first systems that was fully automated. It was designed based on a friend’s request and that is how Arnold Beckman started the company.”

The devices are displayed in chronological order, and the next instrument after the pH Meter is the oxygen analyzer. According to Dr. Osborne, the invention helped to keep immature babies healthy when they were kept in incubators.

“This was built for the Navy but it was also used for premature babies who were kept in hospitals,” he said. “Because the babies were receiving too much oxygen while in the hospital, many of them were becoming blind. When the oxygen analyzer started being used in hospitals, then the amount of oxygen could be controlled and that helped to eliminate blindness.”

Dr. Osborne came to KGI 3 years ago on a part-time basis but has since transitioned to a full-time faculty position at the graduate school as of September. Three months later, he was in charge of the grand opening of the new exhibit where the founding Beckman’s daughter, Pat Beckman, cut the ribbon.

Yet the KGI professor is not satisfied with the current display. With many more items available for use, he wants to continue adding to the collection over time.

“I want this to expand and cover the full landscape of science,” Dr. Osborne said. “Hopefully, we’ll extend the hall [display] and people can start coming and teachers can bring their students in to get them excited about science and commercial science. And maybe some people have something in their homes that they can dust off so we can display it along with the other items that have changed the landscape.”

—Landus Rigsby

Exhibit gives KGI campus a scientific heritage

The current scientific instrument museum lines 2 hallways at Keck Graduate Institute although Professor Jim Osborne would like to see the collection expanded.