The Australian Synchrotron and the Berkeley Lab Connection

By Alan Jackson

LBNL has been involved in some ways since the inception of the Australian Synchrotron. The "grandfather" of the project, John Boldeman, then head of the Physics Division at the Australian Nuclear Science & Technology Organization (ANSTO), visited our Advanced Light Source sometime in the mid-'90s and was convinced that a synchrotron light source was the "right piece of scientific infrastructure" for Australia.

In about 1999 or early 2000, a senior delegation from the Victorian State Government, plus the Governor of Victoria, visited the ALS as part of their fact-finding mission on light sources. They were very impressed with the ALS and the science being carried out here.

In 2001, an international machine advisory committee (IMAC) was set up, and I was asked to head it.

In November 2001, the first IMAC was hosted here at LBNL.

In October 2002 I began as Technical Director and held a month-long "Design Task Group" (here at LBNL) of 9 people, including six from LBNL: myself, Rick Donahue, Yoshi Minamihara, Hiroshi Nishimura, Dulie Reavill, and Jack Tanabe. The others were John Boldemen (the aforementioned "grandfather"), Jeff Corbett (SLAC), and Erhard Huttel (ANKA, Germany). The goal of the group was to finalize the deign of the storage ring so that all other systems could be specified.

The storage ring as built is identical to the design that came out of the Task Group. It's amazing what you can do with a small group of good people, drawing on the experience of existing machines!

Speaking of small teams, the AS started with three people in October 2002. After funding for the project was announced at the end of January 2003, I started recruiting, and our staff has grown almost linearly to its current level of 54.

Speaking of the speed of building this facility - on a green-field site, with a relatively inexperienced team - it took us only 3 1/2 years from funding announcement to first light!