(As published in The Oak Ridger's Historically Speaking column the week of October 16, 2023)

Lee Riedinger has a most high respect for Joe Johnson. I am fortunate enough to have gotten to know Lee over the past several years and even cotaught a course at the University of Tennessee with him, well, I told stories and he taught the class! From that experience has come a book that is soon to be published on the relationship between UT and Oak Ridge. The title of the book is: *Critical Connections* The University of Tennessee and Oak Ridge from the Dawn of the Atomic Age to the Present.

More on that as I have asked Lee to give Historically Speaking readers some previews of what will be in the book. Publication is scheduled for 2024 so look for some insight into the content of the book over the coming weeks and months.

But now you are privileged to get to know UT President Emeritus, Dr. Joseph "Joe" Johnson, through the shared experiences Lee Riedinger had with him.

The quality and the impact of University of Tennessee presidents have varied over its history, but Joseph Johnson was undoubtedly in the top class of excellent ones. Joe served as UT president of the statewide system from 1990 to 1999 and came back in an important interim role from 2003 to 2004 (after one of the failed presidencies).

He helped the university in many ways over a long career, as the executive assistant to the university president from 1963 to 1969, vice president for development from 1969 to 1973, chancellor of the Center for the Health Sciences from 1970 to 1973, and vice president for development and executive vice president from 1973 to 1990. He is a legend for his grace and finesse in working with people. No one was better at remembering names, knowing details of the lives of friends and colleagues, and sending thankyou notes. Joe died on September 29, 2023, at age 90.

President Johnson helped grow the university in many ways throughout his long career. One of the most important contributions was his support, and even leadership, in advancing the UT partnership with Oak Ridge National Laboratory. Though not a person trained in science or engineering, Joe understood opportunities and trusted people, always utilizing the knowledge and instincts of those around him. He was the president that took the lead in forming the UT-Battelle partnership that has managed ORNL since 2000.

When Union Carbide decided to end its role as the operator of the three Oak Ridge facilities (ORNL, Y-12, K-25) after 35 years, UT formed a committee in 1982 to study whether the university should enter the fray and compete for the Oak Ridge management contract. Paul Huray, who grew up in Oak Ridge and by then was a physics professor, was appointed to lead a large committee to study whether and how UT should compete, and I was another physics professor serving on the committee.

In the end, the Department of Energy decided to keep the operation of the three facilities in one contract, and the university decided not to proceed in mounting a bid. Our connections with ORNL were robust, but we had few credentials to manage Y-12 and K-25, even with a partner. Plus, UT was not ready as an institution to manage Oak Ridge facilities.

This picture changed considerably in subsequent years. UT partnerships with ORNL expanded, as the Science Alliance formed in 1984 as a highly visible joint program with the national laboratory. Previous decades had seen increasing connections between UT and Oak Ridge, starting with physics professor William Pollard forming Oak Ridge Institute of Nuclear Studies (later Oak Ridge Associated Universities) in 1946. In 1950, over 30 UT faculty served as consultants at the Oak Ridge facilities.

In 1963 the Ford Foundation funded a grant to bring 28 ORNL researchers to part-time faculty roles at the university. Many UT graduate students performed thesis and dissertation research at ORNL. Still, the Science Alliance was a big step forward, enabling the first hiring of eventually 20 nationally recognized

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joint faculty (Distinguished Scientists) between UT and ORNL and the construction and operation of the first joint institute (Joint Institute for Heavy Ion Research).

The decade of the 1990s saw a big advance in the UT-ORNL partnership, with President Joe Johnson playing a critical leadership role. Martin Marietta became Oak Ridge facilities manager in 1984 and in 1995 DOE split the contract into two pieces, with Lockheed Martin Research Corporation operating ORNL and Lockheed Martin Energy Systems managing Y-12 and K-25.

The university felt it was ready to compete if an opportunity arose, and on June 13 Joe Johnson said in a Knoxville News Sentinel article that the university would consider getting involved in a bid process if Energy Secretary Hazel O'Leary should decide to open the ORNL management contract to competition. In August 1996, O'Leary announced a two-year contract extension to Lockheed Martin for management of ORNL, valid until the end of March 2000.

In May, 1998, retired ORNL leader Alex Zucker visited me and Homer Fisher, a UT vice president reporting to Joe Johnson. Alex's message was clear - the competition for the ORNL management contract would soon begin and UT should choose a partner and mount a bid. The time had come in the view of Alex and others. However, some felt that UT was not ready for this big step and did not possess the expertise or the resources to make a competitive bid and should instead play a subordinate role in supporting the organization DOE would ultimately select to receive the management contract. Joe Lenhard, a senior official in DOE's Oak Ridge Operations office, was initially one such skeptic.

Pete Craven, an Oak Ridge business leader and UT supporter, arranged for Lenhard to meet with Fisher, and Homer impressively listed the ways in which UT had multiple connections with ORNL, understood the laboratory well, and was ready to compete. After that, Fisher and Johnson met with Jim Hall of ORO to make similar arguments.

These 1998 meetings started to turn the tide and soon thereafter President Johnson appointed a small group (Fisher, Riedinger, Zucker, and research vice chancellor Mike Devine) to study various aspects of a possible bid. On August 17, Johnson sent a letter to Martha Krebs, head of the DOE Office of Energy Research, saying that UT was supportive of Lockheed Martin's continuing role in managing ORNL, but, if a contract competition were to occur, the university would be involved in some manner.

On October 14, President Joe Johnson and Knoxville Chancellor Bill Snyder announced a set of four teams to work on different issues pertaining to a potential bid for the ORNL contract. Fisher and Devine coordinated the process, and I was named the UT team leader.

We spent six weeks interviewing a series of leaders of companies or university consortia who wanted to team with UT in a contract bid. Johnson and Fisher visited the Governor's office to explain the goals of this potential bid and get their quiet support. Amid this flurry of meetings and potential bid considerations, we had not been able to engage the Battelle Memorial Institute in Columbus, Ohio, in a serious conversation about teaming.

Battelle has managed Pacific Northwest National Laboratory (PNNL) since 1965 and won the contract to manage Brookhaven National Laboratory in 1996 in partnership with Stony Brook University. There was speculation that Battelle was, itself, considering entering the bidding process for the ORNL contract.

Just before Thanksgiving 1998, Homer and I met with Barry Goss, a local business leader and consultant to UT on the bid process. We discussed that we had to choose a bid partner soon and lamented that we had been unable to engage Battelle in a serious discussion. Goss replied that he would get Bill Madia, the PNNL director, to Knoxville next week, and we were happy but a little skeptical that this could happen so quickly.

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But it did happen, and on Monday November 30 the meeting of Madia and Johnson in the president's office occurred. Those of us present watched the skilled UT president deftly lay out the university's qualifications and goals. Madia, the well-known Battelle leader, responded in kind, and a partnership was born. The formation of UT-Battelle LLC came from this crucial meeting at a crucial time.

Intense work on writing the UT-Battelle proposal to manage ORNL started soon thereafter. Battelle's Jeff Smith was a co-chair of the group to write the operations part of the proposal, and I was co-chair of the science and technology group (we later became the respective deputy directors of ORNL under Madia).

In February 1999, Johnson, Fisher, and Johnson's executive assistant Billy Stair met with Governor Don Sundquist and Deputy Governor Justin Wilson about a substantial commitment of state funds to back the UT–Battelle proposal. There was a precedent for such state-backed financial support. In 1982 then-Governor Lamar Alexander committed state funds (\$350,000) for the construction at ORNL of the first joint institute building, focused on joint programs in nuclear physics.

Now UT–Battelle proposed to construct three additional facilities to house UT–ORNL joint institutes, in computational, biological, and neutron sciences. The meeting in Nashville led to a \$12 million pledge of state support for these new joint institute buildings, which would make the UT-Battelle proposal more attractive to DOE reviewers.

The UT-Battelle proposal was orally presented to the DOE Source Evaluation Board on August 16, 1999. The lead-off talk was given by new UT president Wade Gilley, since Joe Johnson retired at the end of July. Optimism reigned about the new president's enthusiasm for UT-Battelle, but that did not last long (another story to be told). In October DOE announced that UT-Battelle won the contract to manage ORNL, besting a competitive bid by Lockheed Martin and the University Research Association. The UT-Battelle LLC contract to lead ORNL began on April 1, 2000, and continues to this day with high marks of success.

Under Joe Johnson's leadership, the University of Tennessee took its place among a small group of universities involved in managing national laboratories, including the University of California (Berkeley, Livermore, and Los Alamos), the University of Chicago (Argonne), and Stony Brook (Brookhaven). This is a prestigious club for UT, one that was impossible to contemplate when the partnership began in 1943 and grew through the decades.

The university is now a far better institution partially as a result of this partnership, and the national laboratory has benefited greatly by virtue of its shared researchers, graduate students working on site, and employees hired. Joe Johnson was the right president at the right time, and we thank him for his leadership in making all this happen.

In fact, he felt that this accomplishment in starting UT-Battelle and greatly boosting the UT-ORNL partnership ranks at the top of his long list of successes in his career, according to his wife Pat, as told to me at Joe's memorial service on October 4, 2023. He did have a huge impact. May he rest in peace.

As you can see, Joe Johnson was a key element in creating what has become a most successful partnership UT-Battelle. The Oak Ridge National Laboratory has grown over the past several years to one of the premier scientific laboratories in the nation and even in the world. Its leadership in a wide variety of scientific fields from supercomputing to basic sciences in most every area being researched today has come to be expected of ORNL. The Y-12 National Security Complex has also benefited from relationships with UT over the years as has the city of Oak Ridge as well.

Joe Johnson has been engaged in many of the interactions and encouraged the relationships to grow over time. Thank you. Lee, for bringing us your personal insights into a wonderful and charming leader of

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our area whose leadership style is one many leaders would benefit from considering. The writing of thank you notes being just one of many fine traits exhibited by "Joe," as many knew him, and yes, his impact will be felt for a long time to come.



UT President Emeritus, Dr. Joseph "Joe" Johnson