



Life Tribute for **Jay Louis Bucher**

10 July 1949 – 18 April 2014

Presented April 25, 2014 at a Memorial Service
Cress Funeral Home, Sun Prairie, Wisconsin

Written and Presented by James B. Borlaug

The Twenty-Third Psalm

The Lord is my shepherd; I shall not want.

He maketh me to lie down in green pastures;
he leadeth me beside the still waters.

He restoreth my soul; he leadeth me in the paths of
righteousness for his name's sake.

Yea, though I walk through the valley of the shadow of death,
I will fear no evil; For thou art with me;
thy rod and thy staff they comfort me.

Thou preparest a table before me in the presence of mine
enemies; thou anointest my head with oil;
my cup runneth over.

Surely goodness and mercy shall follow me all the days of my
life; and I will dwell in the house of the Lord forever.

Welcome. My name is James Borlaug and I have the privilege today to serve as the funeral celebrant for our time together. We are here to remember, and to honor, Jay Louis Bucher, whose mortal life was taken far too soon.

Jay spent so much of his life and his energies on the science of measurement, enabling precise calculations using carefully and expertly calibrated instruments. But there is no method, no tool available to measure the loss, the pain, the sadness that is present here today.

For you, Keiko and AJ, your grief truly is beyond measure, beyond our ability to comprehend. We come together today, not to provide answers or even relief from this moment, but to stand with you in your grief, if even in a small way. We are here to tell you, that as lonely as you may feel, you are not alone.

On behalf of the family, I thank all of you for being here for this important time. Your lives and Jay's life were intertwined in many direct, and for some, indirect ways. No one here has the full picture of who Jay was among us. For that reason it is important for each of you to share your own stories today, and in the days to come, of who Jay was in your lives. By doing this, you will enrich one another, and will begin the process of converting grief into memories.

For nearly 3,000 years individuals have turned to the words of the Twenty-Third Psalm that I read moments ago. They turned to them for comfort and hope during times like this. The words were significant for Jay as well, as Keiko discovered when she came across a card in his wallet containing the psalm.

Jay knew the power of science, but he also knew its limits. If a person can do good for himself, his family, for others, he should do it. But he knew that there are times in which there is nothing

we can offer, nothing we can do. At such times, Jay knew he could only turn to the God who understands all mysteries and for whom there are no limitations. Today we face one of those times.

As I prepared for this Tribute, it became clear that Jay's life was also not easy to measure. So much of what Jay did was quite complicated and it was so easy to get tangled up with the acronyms, various organizations, certifications, procedures and protocols, areas of study, achievements, and even just the terms themselves.

But who Jay is, is not complicated. He was very straightforward—a man of family, country, duty and honor. Honesty and a commitment to deliver on your word was non-negotiable.

He knew the critical importance of his work and he preached it with the enthusiasm of an evangelist. He treasured dearly the love of his family, and the relationships with his friends, personal and professional. He enjoyed good food, good music, and good entertainment. And while he may have earned a PhD in a highly technical field, he could still enjoy a trashy romance novel.

Even near the end, when he had great difficulty focusing his attention, his Kindle was not far away, even if not turned on.

He had strong opinions, firm convictions, but he was also very interested in learning about people whose backgrounds, experiences and culture were very different from his own.

Jay did love music, primarily rock 'n roll. He did, after all, grow up in the 50s and 60s. Keiko and AJ went through the music of some of the musicians he enjoyed, to select a few songs for us today. The title of the first song describes something of his own zest for life-- *I Don't Want To Miss A Thing* by Aerosmith.

Small Beginnings...



From the very start, life presented a serious challenge for Jay. He was born July 10, 1949 to Lyle Donald and Marda (Young) Bucher in the rural community of Pipestone in southwest Minnesota. It was a prosperous community of over 5,000 residents at that time—not bad for a small town in the Upper Midwest.

His birth was followed just a short time later by the arrival of his sister, guaranteeing that he would have a playmate growing up on the farm. But sharing things with twin sister Rebecca also had a downside, at least in the pre-birth phase. Jay weighed just under three pounds at birth and, in 1949, his odds of survival were not what they would be today.

Rebecca was a full pound heavier, a significant difference.

There were those who thought it unlikely that Jay would survive, let alone flourish. But his mother, Marda, rejected such thought. She was determined that both babies would make it, and perhaps with help from a spirit for whom surrender was not an option, Jay not only survived but did flourish.

Jay was named after his maternal grandfather, Louis Young. According to Sister Rebecca, Jay was also credited with having the fun-loving character of his namesake.

Life of the Party, Quite a Talker...

Growing up, Jay was always the “life-of-the-party” in any situation, Rebecca tells. And he had quite the gift-of-gab, as soon became quite evident. There was a bit of a problem initially, however. Jay spoke “twin-speak”—that language that only your twin can understand. Fortunately, Rebecca was bilingual and served as his translator until he expanded his vocabulary.

Jay was always the one talking. He would talk away while others were trying to focus on their chores in the barn, and he was also quite talkative during classes at school—something that got him into trouble more than once, his sister reports.



Rebecca and Jay at their fifth birthday in 1954.

Rebecca tells that she and Jay were often sent along on the dates of their older siblings. Don was almost six years older and Megan was four years older. You can just imagine what Donnie and Megan thought when it came to having the twins with them.

“We were told to be quiet and not bother them,” Rebecca explains. But as you can imagine, this was very difficult for Jay. “I couldn’t sit still, but he couldn’t stop talking, we were often getting into big trouble with Don and Megan,” she says.

Jay was active in the church youth group and Sunday School. “Our mom didn’t give him a choice,” Rebecca admits. It really helped that Jay’s best friends—Bob, Mike, Brad, and Jim—were also part of that crowd. “But did he talk? Absolutely!” she adds.

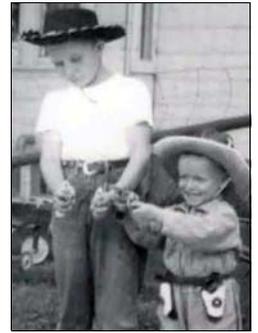
“We were each others only playmates on the farm,” Rebecca continues. The two were close, very close, but not so close that she wouldn’t tell us that Jay cheated at hide-’n-seek. “He would take our collie around with him, because the collie would find me when he couldn’t.” When it came time for her to find Jay, it wasn’t a great challenge. “He liked to talk so much that he didn’t stay hidden for very long.”

The twins would play in and around the house, in the barns, in the oat bins (often filling their pants with oats) and, if you can believe this, Rebecca says they even played on the roof of the house. “Yes,” she says, “we once jumped off the roof of the

house so our mother wouldn’t find us—his idea,” she says.

Jay also liked to play cowboys. There is a photo in the video slide show that has big brother Don playing cowboys with little Jay—not bad for a brother so much older.

Like so many who grew up in the 50s and 60s, rock ‘n roll music became a big part of Jay’s life. He even got himself a guitar, learned how to play it, and formed something of a band with a few others from the neighborhood. His sister says it lasted a couple years, but faded away as the kids went their separate ways.



Wrestling in high school.

Jay was also on the Pipestone High School wrestling squad. A photo of him in action is included in the slide show that you may have seen earlier.

After high school Jay attended Minnesota State University at Marshall for one quarter, switching later to the Pipestone Vocational School where he completed the auto mechanic program.

After returning from the Navy, his brother Don started farming on the home place. Jay helped him out in the summer of 1970. He joined the National Guard that same year and the US Air Force the following year.

Preparing for this memorial, I had several people ask me about Jay’s pig farming background. I was told that he would often refer to himself as an “old pig farmer from Minnesota.”

Rebecca wondered what he meant by that since she didn’t recall that they ever had pigs on the farm, although she says they might have at one time. Jay did help with chores with the dairy operation, and with haying and other crops.

The dairy cows and any other livestock were gone a couple years before Jay finished high school. And while Donnie may have added hogs when he returned, it also seems possible that the identification as a “pig farmer” was more of a reference to his humble roots than anything else—roots that he came to treasure. [After the service, a friend from Pipestone did confirm that Don did have pigs when Jay helped him out for one summer.]

Bucherview was the name of the family farm, and it would later become the name of Jay’s own company, despite suggestions that he select another name for the world of high tech. But Bucherview it would be.

The decision to join the Air Force, and the subsequent decisions to make it his career, set him on a course unlike anything a farm boy from southwest Minnesota could have imagined.



Nat'l Guardsman.



Jay and sister Rebecca.

Rebecca was able to spend time with Jay before he passed. It was undoubtedly a very special time for both of them. From her home in Alaska, her thoughts today are with Keiko, AJ and, of course, her twin brother Jay.

“Jay has always been a bright light in my life,” she says. “I will miss him until I see him again in Heaven.

We will now listen to another song—*After All* by Peter Cetera and Cher.

The New World of Metrology...

As Jay watched the milk truck arrive at his father's dairy those many years ago, it is quite doubtful that Jay wondered whether the gauges on the truck had been properly calibrated or whether the equipment used to detect bacteria counts was functioning according to standards. He may not have thought about it at the time, but he very likely did have such thoughts after he was introduced to the wonderful world of metrology at the Precision Measurement Equipment Laboratories of the United States Air Force.

There must have been something from his aptitude tests and personality profiles that indicated that he was a good candidate for this work. The military was having difficulty with high attrition in the training programs for PMEL. Whoever it was who made the determination that Jay was an ideal candidate certainly hit a home run.

Jay graduated with distinction from the Air Force Technical Training School that prepared him for the career which he would have for the remainder of his 24 years in the Air Force, and for another 18 years in the private sector. He continued to excel in further training and in his work.

I don't pretend to understand all the technical aspects of Jay's work over those many years. But it's not difficult to understand that making sure that mechanical and electronic measurement calculations are accurate is of critical importance to the military, and to the general public. Recent recalls, lawsuits and investigations in the auto industry provide a vivid, current reminder of just how important accurate testing is for public safety. The first chapter in one of his books—*The Quality Calibration Handbook*—covers the reasons why the subject is so critical. The title of the chapter is “Preventing the Next Great Train Wreck.” To him, it wasn't an overstatement—it was only the nature of the disaster that might be different if this critical work is not done well.

Jay truly excelled in his new work, as if he had been born for it. He went from being a bench technician to section supervisor, and then from the quality assurance manager to the senior calibration laboratory manager position in the Air Force Precision Measurement Equipment Laboratories.

And it altered how Jay looked at things outside the lab. Keiko tells that whenever they would be around equipment, especially

medical equipment at a clinic or hospital, Jay would check for the calibration sticker on the back of the equipment to determine if it was up-to-date. And if it wasn't, he would definitely have a chat with the manager. He would even do it at the airport, whether it was for the scales or the detection equipment.

Close enough for government work was not applicable in this field. Even the slightest malfunction in an instrument measuring the thickness of metal for the hull of a ship or the skin of a fighter could have catastrophic results. In the medical arena, a poorly calibrated piece of equipment could result in a missed or incorrect diagnosis, or even the failure to find a cure for a disease. And making sure instruments function precisely is only the beginning, there must be protocols and procedures to ensure that the accuracy is maintained. And of course, leaders are necessary to train, inspire others to do the work in the manner required. Jay did just that.

His work for the Air Force took him far from the pastures and grain fields of Pipestone County. Of his 24 years in the military, 19 were overseas, with most of that time spent in Japan.

Commanding Officer Reflects...

Jay's commanding officer during his final tour of duty in Japan was Byron Hinton. He regrets that he is unable to be here today to share this time with all of you. Lieutenant Colonel Hinton, now retired, did provide some thoughts on Jay that I want to share with all of you this afternoon.

“Jay,” he writes, “was a perfectionist in all that he did. A gentleman and scholar, he ran a very tight ship but maintained the trust and adoration of all his employees whether civilian Japanese nationals, Airmen or NCOs.

“We had fitness standards,” Hinton explains, “and Jay loved food.” (I seem to have heard that mentioned by a few others as well.) His workouts were focused on that purpose...to eat. He was a racket ball player and quite good too from his tails of success that he told. His frequent outings were often from challenges in his metrology section in the Avionics Branch. One day I had a call from the emergency room...Jay had torn a tendon in his arm and the doc's had to mend his tear and then cast his arm. That injury sidelined his physical fitness workouts and he was sorely concerned about his annual fitness test. But Jay had an Angel flying top cover...the Squadron Section Commander adored Jay's work ethic and surprisingly his test results that year were among his best ever!

“Jay was an Air Force 'Chief' but time and circumstances in the promotion cycles prevented his attaining that level of recognition,” Hinton explains. “Among my largest frustrations was not being able to get him promoted. But we discussed that and he was a friend for life and a 'Facebook Mate' to the end! Wise beyond his years, his guidance I sought, and his leadership an element of my strength as a Commander. He will be missed, but I celebrate having shared time with him along life's path.

His sentiments at this time, Hinton writes, are best expressed in the poem, *I'm Free*, that he included with his note and which I will read to you.

Don't grieve for me, for now I'm free,
I'm following the path God laid for me.
I took his hand when I heard his call,
I turned my back and left it all.

I could not stay another day,
To laugh, to love, to work, to play.
Tasks left undone must stay that way,
I've found that peace at the close of the day.

If my parting has left a void,
Then fill it with remembered joy.
A friendship shared, a laugh, a kiss,
Ah yes, these things I too will miss.

Be not burdened with times of sorrow,
I wish you the sunshine of tomorrow.
My Life's been full, I savored much,
Good friends, good times, a loved one's touch.

Perhaps my time seemed all too brief,
Don't lengthen it now with undue grief.
Lift up your heart and share with me,
God wanted me now, He set me free.

The words, says Hinton, give him peace. "I smile knowing that Jay is without pain and at peace."



He attached a picture (above) of Jay with him along with some of his PMEL employees and friends at his farewell party in Japan.

"That's the way I remember him...smiling and enjoying every minute! That he went home on Good Friday is so like him to share the message of peace and rest," he concludes.

24 Years in Military Ends...

Jay retired from active duty in the fall of 1995. He had done his best to keep Keiko close to her family in Japan. But now it was time to travel a bit closer to his boyhood home as the family continued their life together.

Jay actually had thoughts of a different direction for his post military career—perhaps something in the computer field that interested him so much. But he soon discovered that there was great need for his particular skills in the private sector.

He built upon the expertise he had developed with Air Force, and continued with his education as well, completing a BS and MS in Electronics Technology and a PhD in Traceable Calibration Technology, which he completed just three years ago. At an age when others are planning to wind down their careers, Jay was getting into high gear with consulting, training and writing.

Madison was an ideal location for Jay and Keiko upon his return to civilian life. There is plenty of opportunity here in the high tech medical field that relies so heavily on his work. Keiko was the first to land a job here, going to work for Covance in client services. Jay went to work for Raytheon, but once again he was taken far from home, this time to Saudi Arabia.

He worked six months as Senior Metrologist for the Royal Saudi Air Defense Force PMEL in Jeddah for Raytheon Middle East Systems. Fortunately, he was soon able to return to Madison to assume a position with Promega as manager of metrology services. He remained with them for ten years, after which time he decided to work as an independent trainer, consultant and writer.

Promega and a New Career...

Ray Bandziulis, formerly with Promega, was part of the management team that hired Jay in the role as Metrology Manager. He shared the following with me this week.

"We were building a formal, certified quality management system at the time, and metrology was key to the success of this new infrastructure.

"In the final interview, I asked Jay a standard question I used to get candidates to open up about their future career plans to see if we had a match in that area. If you had a magic wand, I asked Jay, where would you most like to be working and why. Jay did not hesitate in his reply: 'If I had a magic wand, I would be working at Promega helping you to build a world class quality system.'

"I remember laughing out loud at his response—delighted in his vision of the future! Jay, I said, if you only could bolster your self-confidence, imagine what you could do! I answered with a big smile. Jay got the job—pretty much on the spot. We enjoyed working together for many years—he was a solid and skilled partner in building quality into our manufacturing and testing processes."

Gene Bohn Offers Reflections...

Another man who worked with Jay at Promega was Gene Bohn. They were coworkers and friends, and in at least a small way, competitors. Gene sent me the following note this week:

"As a colleague, Jay and I worked closely together in making sure that our respective departments were 'World Class' and at the same time we also tried to add a wrinkle or two to try to out-do each other. A customer or government audit never fazed Jay; if he could not win them over with his professionalism and 'world class' department procedures (which he usually did) he would surely get them with his business card that looked like a \$100 bill. The look on the auditor's faces after realizing it was a fake bill, and not a bribe, was priceless.

"Nothing made Jay stand straight with his chest puffed out with a mile-wide smile than talking about his two cherished ladies, Keiko and AJ...well, maybe the mentioning of his dogs also. He was extremely proud of calling Keiko his wife and of her business accomplishments. His daughter AJ was his pride and joy. He was so proud of her going into the Air Force, 'following in the old man's footsteps' as he would say, beaming from ear to ear. Those two gals were the sparkle in his eyes.



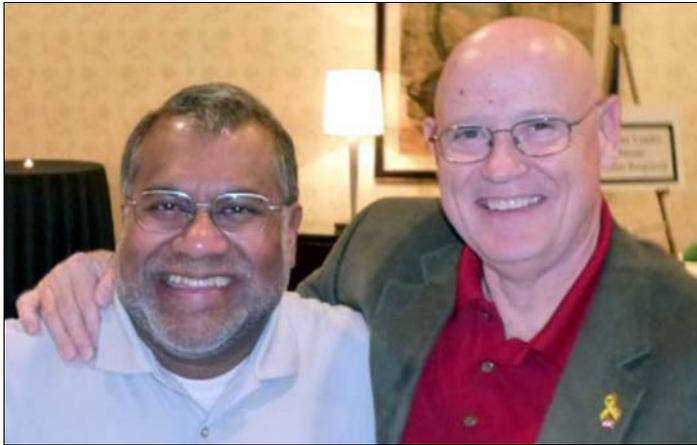
AJ and Dad after graduation from basic training in 2010.

“Jay was the ultimate professional and friend. He was always willing to lend a helping hand, the shirt off his back or just being available to listen and offer some advice from his vast experiences. He took great pride in his work and family.

“Jay will be deeply missed, but he has given us all memorable moments to cherish and hold dear to our hearts. Rest in peace my friend,” he concludes.

Lou Mezei Brings a Surprise...

Another colleague of Jay's from Promega is Lou Mezei. He has a surprise for Keiko and AJ, and for all all us. He wouldn't even tell me what it was about. [See end of Tribute for surprise.]



Dilip Shah of Ohio (pictured above with Jay) is another colleague in the with whom Jay shared mutual respect and close friendship. He shared some of his reflections on his work with Jay as well.

“A nice guy! Lots of energy! Very welcoming! Those were my first impressions when I met Jay for the first time in 2002 at the first ever ASQ Certified Calibration Technician exam workshop in Milwaukee. (ASQ, by the way, is the American Society for Quality). Both Dilip and Jay have served in various capacities within the organization. And the two of them worked on *The Metrology Handbook* with eight co-authors with Jay leading the project.

“Keeping all the authors in line and on schedule was like herding cats,” Dilip writes. Somehow, Jay managed to pull it off with his dedication and discipline, and he delivered the project on time, says Shah.

“Jay was awarded the 2004 Max J. Unis Award, MQD's highest honor, for his leadership on the Metrology Handbook project. I encouraged him to be a volunteer leader for MQD and he served for the next ten years. We did booth duty at many conferences promoting the organization, presenting papers and tutorials.”

(MQD is the Measurement Quality Division of the ASQ—I warned you about these acronyms!)

Dilip continues, “I got to know Jay well during those years. He was a man of integrity and he loved his family. He spoke with pride about them. He was a very unselfish person.

“Jay's dedication to promoting science education to the younger generation was unmatched. Reliability: When he promised you something by a certain time, he delivered.

“Imagine me,” he writes, “receiving a text message from him

from the ER room worried about a column he was to write for the Quality Progress magazine, asking if I would find someone to fill in for him. He then mentioned that it was thought that he had brain tumors. One cannot be more dedicated than that.”

Returning to the Time in Japan...

At this time I need to return to Jay's sojourn in Japan. I skipped over something very important—her name is Keiko. The first time the two of them encountered each other was in the English classroom. Jay was a very occasional substitute teacher and Keiko was a student. One day, as fate would have it, Jay was the substitute teacher.

Now, remember what I told you about Jay's talkative nature? As it turns out, he wasn't the only one. But rather than being sympathetic, Jay got annoyed at this talkative young woman.

“He actually told me to shut up,” Keiko tells of her first experience with Jay. “Maybe I was a little chatty,” she admits, and wasn't paying sufficient attention to the teacher, but telling your future wife to “shut-up” is not a good way to start things. The regular teacher returned and Keiko continued her studies.

Four years later, Keiko wanted to improve her conversational English skills. As it turned out, Jay was still hanging around, picking up the occasional teaching assignment. When he heard that Keiko was looking for a tutor to help with her English, he offered to help. Fortunately, this encounter went better than the first one.

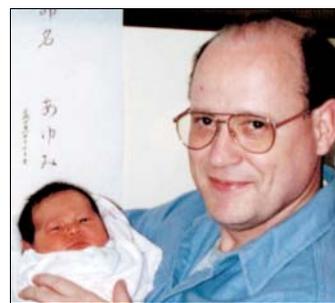


Keiko and Jay, Dec. '82.

Jay and Keiko were married June 9, 1984. Keiko's family members were initially quite concerned about this seemingly “wild” American serviceman who drove a motorcycle. But he eventually won them over.



June 9, 1984



Ayumi Jane at 1 week.

Ayumi Jane “AJ”, arrived Jan. 16, 1992. And once again, Jay's life was forever changed.

And did all of you know about Jay's acting career? He was quite the television star, at least for a time, and at least according to him. And he was such an unselfish star as well, gladly willing to share his autograph with anyone, even includ-

ing those who had absolutely no idea who he was.

His first appearance on the small screen in Japan was in a dramatic television series. His first role was as a U.S. soldier in a street scene. When Keiko saw the program for the first time, she missed him entirely in the scene. Jay had to back up the tape so she could notice his back and the side of his face. A star was born.

He later performed more substantial roles for the Grand Drama historical series produced by Japan National Broadcasting. He appeared four times in different roles, including that of a U.S. Colonel battling the Japanese in the jungles of the Philippines. Another was as a guard at a Japanese internment camp in Montana. This was in 1983-84. He may have been well on his way to the fame he promised when he handed out his autograph saying "Some day this will be worth something." But the military career intervened and a remote assignment to South Korea ended his blossoming acting career.



Jay's flair for the dramatic is evident in this shot from his participation in the 1987 Misawa Dragon Festival.

Jay also had thoughts of being an author. Friends wondered just what sort of trashy romances he might write. But there were no romance novels, trashy or otherwise. He did write books, but they were of a very different nature.

Metrology was his professional life, and it would have continued to be, were it not for a very rude intrusion of cancer into his life.

A trip to the ER this past February 21 led to brain surgery later that same day. A tumor was removed, but much was left untouched. It was not good. The months that had been expected turned to mere weeks. As it so often happens, Jay had to battle the effects of the treatment as well as the disease.

Though the outlook was bleak, Jay fought on. His spirit did not surrender.

Jay was not an outwardly religious person. His spirituality was deep within him, something he did not share easily, not even with his family. Just as he wrote how he came to increasingly treasure over the years what his parents had provided to him, perhaps, in the face of life's stark realities, the lessons learned in the Methodist church those many years ago provided him with a power in which to rest, when he had none of his own.

Keiko says that there is a piece of paper or card of some sort in the midst of all of Jay's books and papers that contains the words of what has become known as the Serenity Prayer made famous by AA.

Jay sought to do what is right, mindful that he had not always done so, he sought to always speak the truth, knowing that he had

not always done so. He sought the courage to change those things he could change, the serenity to accept the things that he could not, and the wisdom to know the difference.

I will read the original full version of the prayer, as written by 20th Century American theologian Reinhold Niebuhr. May it provide strength to each of you this day, and in the days to come.

God, give me grace to accept with serenity the things that cannot be changed, Courage to change the things which should be changed, and the Wisdom to distinguish the one from the other.

Living one day at a time, Enjoying one moment at a time, Accepting hardship as a pathway to peace,

Taking, as Jesus did, This sinful world as it is, Not as I would have it, Trusting that You will make all things right If I surrender to Your will, So that I may be reasonably happy in this life, And supremely happy with You forever in the next. Amen.

Closing music: *Open Arms* by Journey.

Touching military honors were provided by the Scott Air Force Base Honor Guard, with assistance from two local veterans.

Lou's Surprise...

There were two parts to Louis Mezie's surprise. Lou, Senior Scientific Fellow at Promega, first of all wrote new verses for Neil Diamond's song, *Done Too Soon*, which goes "Jesus Christ, Fanny Brice, Wolfie Mozart and Humphrey Bogart and Genghis Khan and on to H. G. Wells..." He explained that he has personally known five Nobel Prize winners, of which three are deceased. Jay, he said, certainly met the level of standards of personality and professionalism traits of those individuals. Jay is now also deceased too soon. So Lou read (not brave enough to sing, or perhaps too considerate to do so), new lyrics to the song:

"Francis Crick, Arthur Kornberg, Howy Temin, and on to JL Bucher. And each one there has one thing shared: They have sweated beneath the same sun, Looked up in wonder at the same moon, And wept when it was all done. For bein' done too soon, For bein' done too soon, For bein' done."

He then explained that one of Jay's projects at Promega was the development of the Metrology Automated Management System, for which Lou wrote the code. Amazingly, although the software is 17 years old, it is still in use today. Now, a new software program has been written by Lou that will enable the exchange of research data on projects throughout Promega.

The software—the Electronic Laboratory Notebook—has a dedication to Jay written into the code by Lou. It states: This Electronic Laboratory Notebook code is dedicated in loving memory to Jay Louis Bucher (July 10, 1949—April 18, 2014) and to honor his vision and passion for electronic laboratory records, without whose inspiration ProBooks would not exist."

It is a memorial to Jay that will endure for many years among some of the top scientists in the world. Thank you, Lou.

James Borlaug is an independent funeral celebrant from Madison, Wisconsin. He can be contacted via e-mail at: JBorlaug@charter.net, or by phone at 608.848.1346.