### special tribute ~ remembering Marilyn Rubin

CLASS OF 1954

#### Memories of Marilyn Rubin by Patrice Russo, Executive Assistant & Museum Manager, Concordia Historical Institute March 21, 2013

The staff at Concordia Historical Institute, the Department of Archives and History of The Lutheran Church–Missouri Synod, was saddened to hear of the death of Dr. Marilyn Rubin. Dr. Rubin was instrumental in collecting materials from Lutheran Hospital and delivering them to the Institute for preservation. She focused especially on the School of Nursing and went out of her way to collect personal items from the nurses, ensuring that their history will be maintained for future generations. Dr. Rubin also worked with the staff at Concordia Historical Institute to exhibit the history of Lutheran Hospital with a focus on the School of Nursing and its alumni. The exhibit featured a number of nursing uniforms, including those of military nurses, as well as medical instruments used in the last hundred years. Photographs, class pictures and other documents explained what life was like in Saint Louis for the Lutheran nursing student, and also displayed the accomplishments of many graduates. This display was featured at the Institute from April 2005 through Labor Day of 2006. Dr. Rubin will be remembered fondly for her passion to preserve this history.

#### Marilyn Rubin's memberships & volunteer positions, compiled by the Publications Committee

Besides her many publications and presentations, Marilyn's career included professional memberships in the: Alumni Association– LMCSN; American Physiology Society; American Nurses Association; American Association for the Advancement of Science; American Nurses Association Council of Nurse Researchers; Midwest Alliance in Nursing; Midwest Nursing Research; Missouri Academy of Science; Missouri Nurses Association; Sigma Theta Tau International Society; Sigma Xi; Southern Illinois University (Carbondale) Alumni Association. We are thankful for all of Marilyn's contributions to the advancement of nursing; in particular, we are thankful for her volunteerism with the Alumni LSN (formerly the Alumni LMCSN), where she served as: Chairperson, Membership Committee (1955-56); Treasurer (1956-58); Vice-President (1961-63); Chair, Program Committee (1963); Member, Program Committee (1974-77); Toastmistress, Annual Banquet (1981, 1988); Historian (1985-2005); President (1992-94); Member, Centennial Celebration Committee (2003-05).

## Following are memories from a booklet compiled by niece Rhonda for family and friends

Marilyn Bernice Rubin ('54) was born on February 29, 1932, in Fayette County, Illinois, the eighth child and second daughter of Bernhard and Alma (Pfahlert) Rubin. Besides her many educational and career accomplishments (some of which are listed in her obituary), Marilyn received many awards; among them were the Lifetime Achievement in Nursing Award, Missouri Nurses Association–Third District, and being inducted into the Missouri Nurses Hall of Fame. Please see the next two pages, which are also from the family booklet. Marilyn left a 23-page log of her 1991-1993 experiences at NASA. Following are excerpts from this document.

# Going to NASA

It was a thrilling day when I received the letter from NASA that I had been accepted for a Faculty Fellow Award to be done during the summer of 1991. The Space Program and NASA were of high interest to me; it is no surprise, then, that I was ready for this opportunity. Early June: planning would proceed for the bedrest studies... I went to the Humana Hospital to observe 2 men subjects on bedrest; they were completing their 7-day study, bedrest with a 6 degree head down tilt; the subjects were paid \$10 for 8 hours of each day.

I heard a lecture by Dr. Franz Gerstenbrand, Professor and Chairman, Dept of Neurology, Univ. of Innsbruck, Austria. I was impressed with his 672 published papers and 18 books. Dr. Meinhardt Berger, a neurologist, accompanied him. Dr. Gerstenbrand presented a model for microgravity. I went to San Antonio for a consultation with Dr. John Johnson, a physiologist, who worked at the Univ. of Texas, San Antonio, in the Dept of Physiology; he was using the doppler method of measurement of blood flow in the skin and had published articles on his work. I continued to work on reference materials for my proposal and ordered some of the articles through the librarian. I enjoyed the NASA library very much. I was also very excited to watch the return of Columbia STS-40.

I met with Dr. Victor Schneider in regard to his bedrest research studies. He had subjects at Hermann Hospital in Houston and they were in the midst of a study. On July 12, the bedrest studies started at Humana Hospital. Subjects came to the lab at 7 a.m. for fasting tests; they then went to Humana; I used the Perimed doppler monitor for measurement of skin blood flow. This completed the 6th week. The next several days were spent collecting data from the subjects. After all the baseline measurements were done, the subjects were put on bedrest with a 6 degree head down tilt. The head down tilt was to increase the body's adaptation to simulated weightlessness. On July 31, our final research reports were due. Niece Rhonda came to Houston to assist with my return to St. Louis.

We had been told that we could not apply for another Faculty Fellow award but that we would need to be invited; I was fortunate to be invited back for the summer of 1992. However, since I fractured my foot and since the campus at NASA is extensive, I knew that I would not be able to manage it. I called Dr. Stan Goldstein at NASA and asked for a postponement to the summer of 1993. With the consent of Dr. Fortney, this was approved.

As the summer of 1992 proceeded, it became apparent to me why God wanted me in St. Louis. One of our Alumni and Director of Education during the time that I was a senior at Lutheran died. I went to her funeral at Holy Cross. That summer, my first instructor in nursing, Katharine Beckmann, was terminally ill from hepatitis C which she had contracted as a student nurse. It had been with her all those intervening years and had destroyed her liver. She was hemorrhaging.... I spent some time with her in her final days at Saint Louis University Hospital. She tried her best to recover with the prime concern for her sister Paula, who was then a patient needing skilled nursing care for strokes at the Lutheran Altenheim. Katharine would write her letters to encourage her because this was their only means of communication. Katharine also died and her funeral was held at Holv Cross. A number of Lutheran alumni attended, as did I. In the fall I returned to the University and completed another academic year.

By February, 1993, I received the invitation to return that summer to NASA. I sent my acceptance immediately. By the time that I got to NASA, Dr. Fortney and her research team were already involved in bedrest studies.

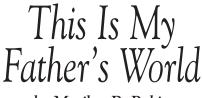
In my second summer at NASA I spent much more time on research and started planning a proposal upon arrival. Dr. Fortney had selected a laser doppler to use and had purchased it. It now came with a computer program which recorded the data. This was much easier than collecting the data manually. I immediately helped Dr. Fortney with the bedrest studies,

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which were in progress, and collected data on the doppler. I met Roberta Bondar, M.D., the first woman astronaut from Canada. She was a neurologist and had already been up in space and had done research there. She had an assistant, Flo Stein, from the University of New Mexico, Albuquerque, who helped her with collecting laser doppler data from the arteries supplying the brain. Dr. Bondar was interested in my study and asked to collect data as well. Dr. Fortney and I both approved this.

It was no small feat to coordinate all of the research team for my study. The research studies and training of astronauts had priority in the use of the laboratory. Therefore, I needed to schedule my research on days when they weren't there. Next, I wanted 30 subjects in my study to have an adequate power for statistical significance. The laboratory manager was quite surprised that I wanted that many. They usually worked with either single subjects or less than 10. I really appreciated the convenience of the office that kept a file of normal people who would participate in studies at NASA. Two nurses were in charge of this office to recruit subjects and they would screen them with particular guidelines and tests before they approved them to be subjects. I told the nurses what I planned to do and the age range of the subjects that I wanted. They produced a list for me and I started calling people. I finally had my study scheduled and would need to do data collection over two days. Dr. Bondar and Flo could only be with me on those days as well.

During shuttle missions, I went over to Mission Control. Faculty Fellows, astronauts and family members as well as friends could visit this facility during special hours, usually after 5 p.m. or later in the evening. As I reflect on these experiences I know that I was very fortunate and blessed. As far as is known I was the first nurse to be a Faculty Fellow at NASA. Undoubtedly, my doctorate in physiology was important in my selection. Several nurses had applied for the astronaut program and were not accepted. In the NASA brochure, it states that nurses and physical therapists do not qualify for this program. It did not give a reason; however, I think that most nurses do not have a broad science background. The experience of living in the Houston area afforded me the opportunities to explore that part of Texas. Their summer climate made me appreciate the climate of St. Louis, even with its humidity.



by Marilyn B. Rubin

This is my Father's world, And to my list'ning ears All nature sings, and round me rings, The music of the spheres. This is my Father's world; I rest me in the thought of rocks and trees, of skies and seas; His hand the wonders wrought.



Daughter, Sister, Aunt, Great-Aunt Nurse, Teacher, Researcher Poet, Historian, Collector Colleague, Mentor Friend Child of God

(picture and caption courtesy of the Rubin family)