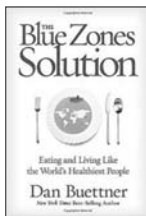


# The Push for the Forefront in Nutrition | BY PATRICIA JOHNSTON

*With a new edition of the Blue Zone books due out on April 7, 2015, television and news crews were making pilgrimages to Loma Linda to interview key people who have put Adventists at the forefront of the discussion of nutrition and longevity. But getting to the forefront has been a struggle since the early years of the university. Pat Johnston recounts the history of Adventist contributions to nutrition breakthroughs.*



Within three years of its founding in 1905, the College of Medical Evangelists (CME, later Loma Linda University) offered the Hygienic Cooking and Baking Course, commonly referred to as a “dietetic course.” The initial curriculum expanded over time, and, in 1922, became the School of Dietetics. Dr. Newton Evans, president of CME at that time, vigorously championed the school. He wrote to his predecessor, “We hope that this will be a start of

something which will be permanent and of much good.”<sup>1</sup>

The first announcement of the Dietitians’ Training Course stated its purpose as “a further effort on the part of the College of Medical Evangelists to fulfill more completely the mission set forth for it.”<sup>2</sup> That same year (1922), Dr. Edward H. Risley, dean of the Loma Linda campus, delivered to the General Conference session a strong and thoughtful message on the latest nutrition science. A man of great vision and dedication to the field of nutrition, he is quoted as saying, “The time is come when nutrition will fast become a big thing. We must be in the forefront.”<sup>3</sup>

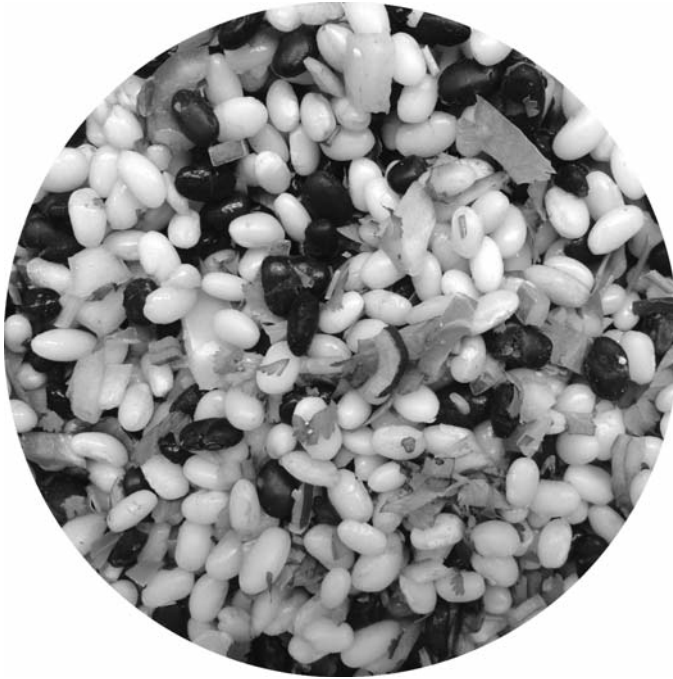
Over the years, several additional changes were made in the names used at LLU to designate the dietetic programs. The School of Dietetics became, in 1952, the School of Nutrition, then the School of Nutrition and Dietetics, which merged with the newly formed School of Public Health in 1967, becoming the Department of Nutrition in that school. Since that time, LLU has not been without a significant nutrition and dietetic education presence except for a brief, two-year hiatus in the 1950s.

## Early challenges

It might be thought, given the early emphasis among Seventh-day Adventists on dietary matters and the strong support of Drs. Evans and Risley and others at LLU, that graduates of the dietetic program would find ready acceptance in Adventist institutions. It was not that easy. Some employers thought the position of dietitian would conflict with that of chief buyer, who would likely have the “advantage of many years of experience and inside details” in the hospitals and “would not care to work under a dietitian.”<sup>4</sup> Other leading persons in the denomination were very much against dietetic work and discouraged students from pursuing it. A letter dated March 13, 1932 from Eunice Marsh, a 1928 graduate of the School of Dietetics, was quoted by



PHOTOGRAPHS: LAURA LAMAR



O. R. Staines in his letter to Dr. Percy Magan. Marsh stated, "I had one or two fine girls lined up for dietetics work when Elder \_\_\_\_\_ came along and advised against it so strongly that they have changed their plans. President Steen has just returned from a trip through the South, and reports many of our general men feel the same way about it."<sup>15</sup>

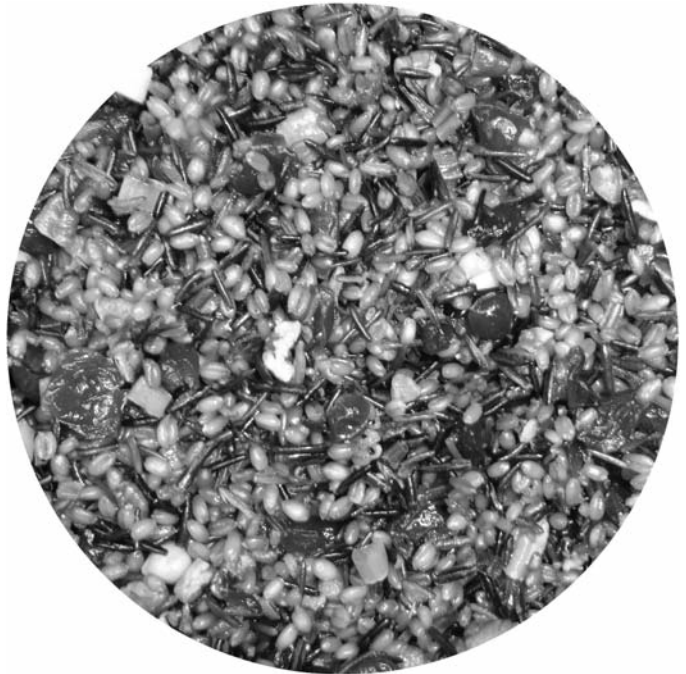
Nonetheless, the nutrition course continued to develop over time and evolved from a two-year program to three and then four years. LLU administrators knew how important it was for dietetic graduates to be eligible for membership in the American Dietetic Association (ADA) and thus developed a curriculum and an internship following the outline of the ADA. They also knew that students must graduate from a four-year program offered by an accredited school. Since the program was offered by an approved medical school, they believed the nutrition program would be acceptable to the ADA. They discovered this was not true and immediately set out to achieve accreditation for the School of Dietetics from the Northwest Association of Secondary and Higher Schools, the regional accrediting body.

That challenging path took considerable time and effort. Beside Drs. Evans and Risley, others supporting these efforts included Drs. Walter Macpherson, George Harding, Percy Magan, and Harold Shryock. After five years of diligent effort, in 1937 the School of Dietetics achieved the desired accreditation from the Northwest Association of Secondary and Higher Schools. But the ADA still refused to give its approval of the academic program or the internship.<sup>6</sup>

## More hurdles

It would seem that the four-year dietetics program would be a positive step. However, it brought unanticipated challenges. The first two years required specified coursework to be taken at an undergraduate college, generally in a Home Economics department. Then, after two years at the undergraduate college, a student would have to transfer to Loma Linda. It is perhaps understandable that heads of such undergraduate departments "would possess a certain amount of professional jealousy of her students. After nurturing them through the first two years of college, she would desire to see them through completion of their college experience."<sup>17</sup> Thus, students who took the first two years at a given college were often discouraged from transferring to LLU.

Lydia Sonnenberg, director of the School of Dietetics from 1949 until the collegiate program closed, appreciated the support of LLU president Dr. Macpherson but shared



with him several problems she felt made it difficult to attract enough students to make the program viable. Among them were lack of adequate promotion, the students' desire to stay on in the liberal arts colleges in which they were enrolled, undesirable working conditions for dietitians, and confusion about accreditation.<sup>8</sup> While Dr. Macpherson recognized that the LLU School of Dietetics was in competition with the colleges for students, he felt some students from the colleges could qualify for an intern-

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ship program at LLU. In 1951, he wrote the presidents of all Adventist colleges and spoke at Fall Council explaining the two-plus-two program (two years at undergraduate college and two at LLU) and his hopes for the future of dietetics. The “presidents were interested and sympathetic and willing to support such a program.”<sup>9</sup> They agreed with Dr. Macpherson that an approved internship was the highest priority.

Yet the problem of too few students remained, and less than two years later, in 1953, the LLU Board recommended that study be given “to discontinuance of the present School of Nutrition and to the establishment in its place of an approved internship or other graduate work in nutrition or dietetics.”<sup>10</sup> Thus, after further study, the developing internship program, which to date was unable to achieve ADA approval, was put on hiatus, and the collegiate program was closed in June 1954 by action of the LLU Board.<sup>11</sup>

### **Was it the meat they didn’t eat?**

Efforts to achieve accreditation from the American Dietetic Association for the initial internship program had started even before LLU recognized that the School of Dietetics itself needed to be accredited. That latter recognition came as a consequence of seeking accreditation from the American Dietetic Association for the internship. If achieving accreditation for the School had been challenging, achieving accreditation of the internship by the American Dietetic Association was even more so. Some have suggested, based on correspondence and personal conversations, that this was partly due to the emphasis on vegetarian diets at LLU, an emphasis that was suspect in the nutrition world of that time. After the first inspection in 1939, ADA recommended, among other things, that LLU “arrange an affiliation for one month of intensive meat experience—grades, cuts, and cookery.”<sup>12</sup> The ADA also raised questions about the lack of formal training among those who were teaching dietetic administration.

Efforts to satisfy the ADA included consulting with and hiring experts in the nutrition field, but

in 1945 another rejection came. The rejection letter stated that it was “ ‘because of the manifest difficulty in reconciling the principles and practices of nutrition as presented in courses approved by the Association with those at the White Memorial Hospital.’ ”<sup>13</sup> In a response letter to the ADA, President Macpherson refuted these conclusions and asked for clarification. Six months later, LLU received a letter stating there was no reason for changing the earlier decision.<sup>14</sup>

### **Accreditation at last**

It is to the credit of LLU leadership that they were not discouraged but set about to achieve the desired goal of accreditation. Further study found that the ADA appeared prejudiced in favor of dietitians heading internship programs who had been trained in administration in the eastern United States. Accordingly, two individuals were sent to Columbia University for six months’ training in administration. One, Jennie Stagg, returned with her master’s degree. The other, Ruth Little, returned three years later with a doctoral degree from Iowa State College.<sup>15</sup> She was immediately given responsibility to develop an internship that could be approved by the ADA. That new internship began in 1956, and one year later the long and tortuous path to ADA accreditation successfully ended, almost 20 years after the initial attempt.

Concurrently with the reopening of the internship, and two years after the collegiate program had been closed, a graduate program leading to a Master of Science degree in nutrition was opened.<sup>16</sup>

### **The sprouts of vegetarian research**

In the early stages of LLU leadership’s struggle to achieve approval of its dietetic internship, Mervyn Hardinge was pursuing a medical degree. He graduated from LLU medical school in 1942 and began teaching anatomy the next year. For a lecture series he began to study nutrition, a topic about which he said he “knew nothing” at the time. The more he read, the more interested he became. Before long he was



## Proposal to the Board of Trustees

April, 1964

as first presented by Mervyn G. Hardinge, MD, DrPH, PhD

### SCHOOL OF NUTRITION AND PUBLIC HEALTH

#### Consolidation would involve the current:

- (1) School of Nutrition and Dietetics
- (2) Division of Public Health and Tropical Medicine
- (3) Department of Preventative Medicine, School of Medicine

#### Purpose: To bring together areas closely related in interests and aims to

- (1) Provide a nucleus for an accredited School of Nutrition and Public Health
- (2) Simplify administration
- (3) Strengthen programs of teaching and research by cooperative effort
- (4) Provide strength to such programs by increased efficiency and economy

#### Objectives: To provide academically strong and scientifically sound programs of instruction and research in areas of nutrition and health in order to:

- (1) Give leadership to denominational health interests
- (2) Meet existing needs and initiate programs for the homeland and overseas fields
- (3) Maintain a dynamic program to keep pace with the changing denominational, national and international needs

#### Advantages: The rapid organization of a school, as can be initiated by the proposed consolidation, will permit

- (1) Accredited offerings in Public Health (M.P.H., D.P.H.) [sic]
- (2) Offerings not now possible because of scattered efforts of personnel
- (3) Obtaining of teaching grants (given only to accredited schools)
- (4) More readily obtain research grants
- (5) Attract support from constituency because of special appeal to individuals

enrolled in the MPH program at Harvard School of Public Health. During the second semester, he decided to pursue a doctorate. At once he asked for God's direction in his research project. He was impressed to compare the nutritional status of vegetarians with that of non-vegetarians. Learning that no one had done such a study, Dr. Frederick J. Stare, Hardinge's advisor, readily agreed. A guidance committee was selected; he passed his candidacy examination and returned to Loma Linda to do the research there while continuing to teach anatomy.

Given the support of LLU administrators for the dietetic and nutrition programs, Dr. Hardinge was surprised when he was summoned by the dean of the School of Medicine and told he must change his research project. His astonished response was, "Why?"

"Because if you find the diets of vegetarians deficient, it will embarrass the church," the dean replied.

Dr. Hardinge responded, "If our diet is deficient, we should be the first to find it out, not others."<sup>18</sup> Even though he argued that he would have to go to a different university and start over, the dean was adamant. Dr. Hardinge stated later, "So was I."

He proceeded with his intended research but faced considerable challenges in finding subjects

because no church publication would allow him to advertise for subjects. Finally he was able to place an advertisement in the *Pacific Union Recorder*, and then he had more subjects than he could use. Dr. Hardinge was meticulous in his study design, data collection, and analyses, knowing that they would be scrutinized in the minutest detail. Just a few months before he returned to Harvard to write and defend his dissertation, the dean relented and gave him some travel and research support.

Dr. Hardinge submitted his dissertation to Dr. Stare, and a few days later heard that it was approved and he could submit it to the other members of his committee. Weeks went by with more and more demands by two particular committee members. Finally, Hardinge's doctoral work was approved by the full committee.

His dissertation defense was open to anyone who desired to attend. After the exam, one of the visitors questioned, "Does a vegetarian make an appropriate investigator for this type of study?"

Dr. Hardinge replied, "Would a non-vegetarian be any less prejudiced?"<sup>17</sup>

Many years later, after Dr. Hardinge retired, I visited him while he was clearing out his office in the LLU School of Public Health. He was discarding materials he considered no longer important to keep. I was astonished to see among them his dissertation research data books, with the names of all the subjects and the information collected from each of them. All the data were entered by hand. He was about to throw the books away. I asked if I could have them, and he readily agreed. We sat and talked about the research project and other projects he had been involved in over the years. The data books remained in my possession until I retired from the School of Public Health in 2004 and gave them to the LLU "Heritage Room."

## The seeds bear fruit

The initial findings of Hardinge's research were published in the prestigious *American Journal of Clinical Nutrition*.<sup>18-21</sup> They are considered the classic, precedent-setting papers in studies of the nutrition-

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al status of vegetarians. It is almost incongruous that, subsequently, more of his scholarly work on the adequacy of vegetarian diets appeared in the *Journal of the American Dietetic Association*, published by the organization that had been so adamantly opposed to the dietary philosophy at LLU.<sup>22-23</sup>

## A school of public health

Dr. Hardinge returned to LLU from Harvard to teach nutrition and assist in the School of Medicine. Over the years, he was a strong proponent for a school of public



health, and in 1964 he was asked to organize such a school. His proposal calling for a School of Nutrition and Public Health was presented to the LLU board that same year. The new school opened in 1967, named the School of Public Health.

U. D. Register, a pioneering researcher on vitamin B<sub>12</sub>, who was then teaching in the School of Medicine biochemistry department, was asked to chair a newly formed Department of Nutrition in the School of Public Health. As Dr. Hardinge had encountered earlier, Dr. Register found many of his School of Medicine colleagues “were downright hostile” to his advocacy of a vegetarian lifestyle.<sup>24</sup> He found that arguing with them accomplished nothing, and he decided to demonstrate the benefits of a vegetarian diet through both animal and human studies. Nutritional research became his passion for the rest of his life. He often said the motto for his animal research was,

“You can’t talk back to a rat.”

Dr. Register’s expertise in vegetarian nutrition became widely recognized, and he was invited to participate in the 1969 White House Conference on Food, Nutrition, and Health. He was elected the third president of the California Nutrition Council, and in 1974, long before vegetarian diets became popular, he was invited by the Food and Nutrition Board of the National Research Council (National Academy of Sciences) to write the board’s position paper on vegetarian diets.

Dr. Register was equally passionate about sharing research findings with the general public in terms that they could understand and in ways that they could apply in their own lives. He had begun his work at LLU as an instructor.

*And though his professorial rank ultimately became emeritus professor, he always remained, in the truest sense of the word, an instructor. He was never one to merely profess, but rather to live what he wanted to teach. And teach he did. In the formal classroom, but equally diligently in the informal setting, wherever that might be. His understanding was combined with a wonderful skill in explaining the complexities of nutritional science and making theory practical to people of widely differing backgrounds.<sup>25</sup>*

Dr. Register’s personal relationships led to the establishment of several large endowments specifically for nutrition research and the support of nutrition students.

In addition to their administrative and teaching duties, Register and Hardinge spoke at many camp meetings and other gatherings of people interested in nutrition. Dr. Register told me once that he always took some dessert at those meetings, preferably a piece of pie, to show that it was acceptable to have some sweet thing now and then. He didn’t want people to go to extremes.

Dr. Register’s worldwide reputation for sound research and intellectual integrity, along with the understandable and practical nature of the messages he shared, paved the way for the Department of Nutrition over the years. While I was in graduate study at the University of Washington, a conversation with one of my professors turned to the LLU SPH Department of Nutrition. My professor, a highly respected individual who later became editor of the *Journal of the American Dietetic Association*, told me she had visited the department at LLU and had been impressed with “how much they could accomplish with so little.” Hardinge and Register would consider it nothing less than the blessings of God.

Kathleen Keen Zolber joined LLU just as Dr. Hardinge was organizing the School of Public Health. She taught in the internship program and then became the first director of the new ADA-approved approach to dietetic education, named the Coordinated Undergraduate Program in Dietetics. The program came under the School of Allied Health Professions because at the time it offered undergraduate degrees, while the new School of Public Health offered only graduate degrees. At the same time, Dr. Zolber served as director of Nutritional Services of the LLU Medical Center. When Dr. Register retired from the SPH nutrition department chairmanship in 1984, she assumed those duties, a position she held until 1990. Dr. Zolber's administrative abilities, commitment to excellence, and personal integrity were widely known and appreciated.

### Relations with the American Dietetic Association

The attitude of the ADA changed significantly over the years from hostility to vegetarianism and rejection of the adequacy of vegetarian diets to acceptance and then promotion of them. One early sign of change was the publication of portions of Dr. Hardinge's research and a subsequent three-part history of vegetarian diets.<sup>26-28</sup> In 1973 Dr. Register was invited, with Lydia Sonnenberg, to present on the vegetarian diet at the ADA annual meeting, with the subsequent publication of their presentation.<sup>29</sup> Shortly thereafter, they, with Dr. Zolber, were asked to author the ADA manual, *The Vegetarian Diet, Food for Us All*.<sup>30</sup> Dr. Zolber con-



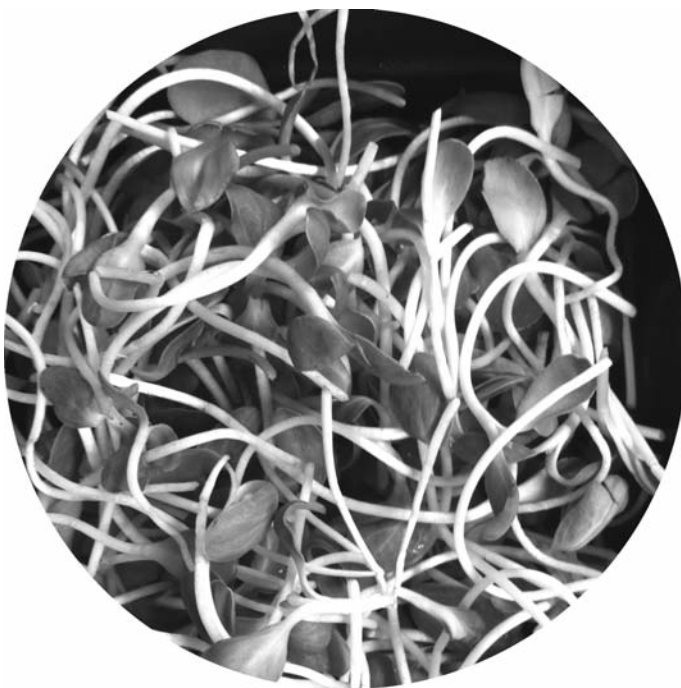
ducted ADA workshops on vegetarian diet and became an ADA accreditation evaluator for other programs.

Then in 1982, in what could be considered the ultimate evidence of a change in attitude toward vegetarians, the ADA elected Dr. Zolber as president of the 50,000-member organization. During her time in office, among other activities, she implemented a long-term strategic plan and launched a capital campaign to establish the National Center for Nutrition and Dietetics.

In years prior to Dr. Zolber's ADA presidency, executive and other committee meetings that the president would normally attend had often been held during Sabbath hours, and wine was served. She made known in a kindly way that she would not be in attendance on Sabbath, nor would she consume alcoholic beverages. Significantly, meeting times and practices were changed out of respect for her personal beliefs.<sup>31</sup> Ten years after she was president, she was awarded ADA's highest honor, which reads in part, "In recognition of her high standards of excellence and commitment to lifelong professional growth."<sup>32</sup>

### International Congress on Vegetarian Nutrition

The esteem with which Dr. Zolber was held proved pivotal to the success of the first International Congress on Vegetarian Nutrition and to those that followed. The idea for such a congress originated in the early 1980s with Allan R. Buller, then CEO of Worthington Foods. He shared his idea at the SDA Dietetic Association meeting,





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and all agreed that Dr. Zolber was the person to organize the conference. She consented to serve in this capacity and engaged me as her co-chair. Nutrition and dietetic faculty members from the School of Public Health and the School of Allied Health Professionals worked together on various aspects of the congress.

At the outset, guidelines were established for the congress's program. Among some in the medical field, there remained a good deal of skepticism regarding the adequacy of vegetarian diets. According to the goals set by the program committee, speakers and attendees at the congress would be involved in "assessing current research on vegetarian nutrition in both developed and developing countries; exploring applications of research findings; and increasing awareness of the health implications of vegetarian dietary practices."<sup>33</sup> When researchers understood that the congress intended to examine the potential risks as well as the potential benefits of vegetarian dietary practices, they readily agreed to participate.

The first congress was held in Washington, DC in 1987 with more than three hundred in attendance, and the Proceedings were published as a supplement to the highly respected *American Journal of Clinical Nutrition*.<sup>34</sup> Thereafter, a congress has been held every five years, with the second also taking place in Washington, DC and four since then at Loma Linda.<sup>35</sup> Attendance at the last congress was more than eight hundred, with attendees from all around the globe.

The first congress was primarily concerned with the nutritional adequacy and potential risks associated with vegetarian diets. From the second congress on, increasing attention has been given to the ecological and environmental impacts of various dietary practices. A testament to the persisting quality of the research presented is that the Proceedings of each congress continue to be published by *American Journal of Clinical Nutrition*.<sup>36-40</sup> The respect engendered by the congresses led to other opportunities for nutrition faculty, among them writing the first chapter on vegetarian nutrition to be included in the so-called "bible" of

nutrition, *Modern Nutrition in Health and Disease*, and editing a comprehensive book on vegetarian nutrition.<sup>41, 42</sup> That such a small department in a small school of public health could contribute so significantly to the world of nutrition certainly fulfills Dr. Risley's aspiration that "we must be in the forefront."

In the 1990s, Dr. Hardinge said,

*Forty years ago the attitude in scientific circles of vegetarians and their diets was one of either extreme intolerance or downright skepticism and ridicule. But research through the last four decades has proven otherwise. . . . We feel we played a part in the advancing knowledge in this area of human nutrition.*<sup>43</sup>

Similarly, those involved in the International Congress on Vegetarian Nutrition feel they played a significant role in increasing knowledge about vegetarian diets and affirming their adequacy while also teaching people how to avoid any potential risks.

### **Studies of Adventists and nut studies**

In the 1960s, as planning was underway for the new School of Public Health, the Adventist Mortality Study began to investigate causes of death among Adventists.<sup>44</sup> It was followed by the Adventist Health Study-1 (AHS-1)<sup>45</sup> and the ongoing Adventist Health Study-2 (AHS-2), a very large study designed to answer even more questions about the relation of diet and health.<sup>46, 47</sup> Nutrition faculty members are intimately involved in the ongoing, interdisciplinary AHS-2, including quality control and analyses of all aspects of the dietary data, analyses of biologic samples, and guiding graduate students and fellows in their related projects.

One very interesting finding from AHS-1 was that nut consumption was related to reduced risk of coronary heart disease (CHD).<sup>48</sup> This led Joan Sabaté, a physician from Spain who obtained his DrPH in nutrition at LLU, to conduct a series of studies on different kinds of nuts to ascertain their effects on various parameters related to CHD. His first study was published in the *New*

*England Journal of Medicine* and is considered the classic dietary study of nuts, setting the standard for those that followed.<sup>49</sup> The so-called nut studies have brought worldwide recognition to Dr. Sabaté, to the Department of Nutrition and the School of Public Health, and to the university as well. They have resulted in many more scientific papers and several millions of research dollars that have supported these studies as well as the students and other faculty and staff who assist him.

## Department leadership and current status

There have been just four chairs of the LLU School of Public Health nutrition department. After Dr. Register's tenure, Dr. Zolber remained as chair until she retired in 1990, when the SPH was reorganized. I served as chair until Dr. Sabaté took the helm in 1996, and he served until 2013.

The past leaders were indeed "giants in the land." Dr. Hardinge set the stage for the School of Public Health and for a reasonable approach to lifestyle (as evidenced in his Philosophy of Health class). Dr. Register marked the course for sound research, validating the adequacy of vegetarian diets. Dr. Zolber guided the programs to academic and administrative excellence. And Dr. Sabaté greatly expanded the research activities of the department and significantly increased external funding.

Each of the leaders in the history of nutrition at LLU would be quick to say they didn't do it alone but as part of a faculty group with complementary training and interests to provide a melting pot where ideas could be explored. Scores of papers have resulted from their work, millions of dollars in funding have been received, hundreds of students have been educated. Dr. Evans's hope for "much good" has been fulfilled by the hard work and dedicated efforts of SPH nutrition faculty.

In the fall of 2013 the Department of Nutrition, along with all other departments in the SPH, was disbanded and the chairs relieved of their duties by the then LLU dean. Faculty members were no longer organized by professional expertise and training but were placed within three centers for the ostensible purpose of facilitating cross-disciplinary research. (A careful reading of nutrition department faculty curricula vitae shows their research is indeed interdisciplinary and has always been so.) The nutrition faculty were scattered to various offices throughout the school and were physically separated from their clinical research laboratories and from close proximity to the dietetic and nutrition

faculty in the School of Allied Health Professions. All endowments established to support research and scholarships were frozen and (as of this writing) remain inaccessible to the nutrition faculty.

Those supporting nutrition at LLU have persevered through many difficult changes and even discouraging times. Those seeds were planted by people who held a strong belief in the importance of nutrition as part of a healthy lifestyle and a deep conviction that our bodies are the "temple of the Holy Ghost," and we have a responsibility to understand and to care for them and to share that knowledge with others.

Nutrition and Dietetics is still a viable departmental entity in the School of Allied Health Professions at LLU and shares in the rich nutrition history with the School of Public Health. Yet it remains to be seen whether "the mission set forth" so many decades ago will be sustained and meet the challenges of today in the SPH. As the issues of public health become more dramatic in the 21st century, the dedication of the pioneers and the achievements of the early developers of the LLU nutrition programs matter. The question is how the seeds of nutrition sunk into the soil of LLU so long ago can help "chart the future" of nutrition in the SPH. ■

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**Patricia Johnston** served as chair of the nutrition department, associate dean and dean of the School of Public Health at Loma Linda University, retiring after 25 years in 2004.



**Note:** The views expressed in this article are solely those of the author and do not represent the official view of any organization.

## References

1. Florence Tidwell Otto, "An Historical Analysis of the School of Nutrition and Dietetics, Loma Linda University" (master's thesis, Loma Linda University, 1963), 4.
2. *Ibid.*, 9.
3. *Ibid.*, 10.
4. *Ibid.*, 14.
5. *Ibid.*
6. *Ibid.*, 18.
7. *Ibid.*, 23.
8. *Ibid.*, 24.
9. *Ibid.*, 25.
10. *Ibid.*, 26.



11. *Ibid.*, 28.
12. *Ibid.*, 33.
13. *Ibid.*, 36A.
14. *Ibid.*, 37.
15. *Ibid.*, 38.
16. *Ibid.*, 43.
17. All of these recollections are quoted from Mervyn G. Hardinge, "My Nutritional Interests." Author's personal files, n. d.
18. Mervyn G. Hardinge and Frederick J. Stare, "Nutritional Studies of Vegetarians: 1. Nutritional, Physical and Laboratory Studies," *American Journal of Clinical Nutrition* 2, no. 2 (March 1954): 73–82.
19. Mervyn G. Hardinge and Frederick J. Stare, "Nutritional Studies of Vegetarians: 2. Dietary and Serum Levels of Cholesterol," *American Journal of Clinical Nutrition* 2, no. 2 (March 1954): 83–88.
20. Mervyn G. Hardinge, Alma C. Chambers, Hulda Crooks, and Frederick J. Stare, "Nutritional Studies of Vegetarians: III. Dietary Levels of Fiber," *American Journal of Clinical Nutrition* 6, no. 5 (September 1958): 523–5.
21. Mervyn G. Hardinge, Hulda Crooks, and Frederick J. Stare, "Nutritional Studies of Vegetarians: IV. Dietary Fatty Acids and Serum Cholesterol Levels," *American Journal of Clinical Nutrition* 10, no. 6 (June 1962): 516–24.
22. Mervyn G. Hardinge and Hulda Crooks, "Fatty Acid Composition of Food Fats," *Journal of the American Dietetic Association* 34, no. 10 (October 1958): 1065–71.
23. Mervyn G. Hardinge, Hulda Crooks, and Frederick J. Stare, "Nutritional Studies of Vegetarians: V. Proteins and Essential Amino Acids," *Journal of the American Dietetic Association* 48, no. 1 (January 1966): 25–28.
24. Glen Blix, "Pioneers in Vegetarian Nutrition," audiovisual presentation at the Recognition Banquet of the Third International Congress on Vegetarian Nutrition, March, 1997.
25. Patricia K. Johnston, eulogy for U. D. "Reggie" Register, Loma Linda University Church of Seventh-day Adventists, July 22, 1997.
26. Mervyn G. Hardinge and Hulda Crooks, "Non-Flesh Dietaries: I. Historical Background," *Journal of the American Dietetic Association* 43, no. 6 (December 1963): 545–9.
27. Mervyn G. Hardinge and Hulda Crooks, "Non-flesh Dietaries: II. Scientific Literature," *Journal of the American Dietetic Association* 43, no. 6 (December 1963): 550–8.
28. Mervyn G. Hardinge and Hulda Crooks, "Non-flesh Dietaries: III. Adequate and Inadequate," *Journal of the American Dietetic Association* 45, no. 6 (December 1964): 537–42.
29. U. D. Register and Lydia M. Sonnenberg, "The Vegetarian Diet: Scientific and Practical Considerations," *Journal of the American Dietetic Association* 62, no. 3 (March 1973): 253–61.
30. Lydia M. Sonnenberg, Kathleen Zolber, and U. D. Register, *The Vegetarian Diet, Food for Us All* (American Dietetic Association, 1974).
31. Personal conversations with Kathleen Zolber.
32. Bert Connell, Georgia Hodgkin, and Darlene A. Dougherty, "Kathleen Keen Zolber—1916–1999," *Journal of the American Dietetic Association* 99, no. 5 (May 1999): 604.
33. "First Announcement and Call for Papers," First International Congress on Vegetarian Nutrition, 1986.
34. Patricia B. Mutch, Patricia K. Johnston, eds., "Proceedings, First International Congress on Vegetarian Nutrition," *American Journal of Clinical Nutrition* 48, no. 3 (September 1, 1988): 707–927.
35. International Congress on Vegetarian Nutrition home page, <http://www.vegetariannutrition.org>.
36. Patricia K. Johnston, ed., "Second International Congress on Vegetarian Nutrition," *American Journal of Clinical Nutrition* 59, no. 5 (May 1, 1994): 1099S–1262S.
37. Patricia K. Johnston and Joan Sabaté, eds., "Third International Congress on Vegetarian Nutrition," *American Journal of Clinical Nutrition* 70, no. 3 (September 1, 1999): 429S–634S.
38. Joan Sabaté and Sujatha Rajaram, eds., "Fourth International Congress on Vegetarian Nutrition," *American Journal of Clinical Nutrition* 78, no. 3 (September 1, 2003): 501S–668S.
39. Sujatha Rajaram and Joan Sabaté, eds., "Fifth International Congress on Vegetarian Nutrition," *American Journal of Clinical Nutrition* 89, no. 5 (May 1, 2009): 1541S–1716S.
40. Sujatha Rajaram, Michelle Wien, and Joan Sabaté, eds., "Sixth International Congress on Vegetarian Nutrition," *American Journal of Clinical Nutrition* 100, no. 1 (July 1, 2014): 303S–502S.
41. Patricia K. Johnston, "Nutritional Implications of Vegetarian Diets," in *Modern Nutrition Health and Disease*, 9th Edition, ed. M. E. Shils, J. A. Olson, M. Shike, and A. G. Ross (Baltimore, MD: Williams and Wilkins, 1999), 175S–67.
42. Joan Sabaté, ed., *Vegetarian Nutrition* (Boca Raton, FL: CRC Press, 2001).
43. Quoted from Mervyn G. Hardinge, "My Nutritional Interests." Author's personal files, n. d.
44. "The Adventist Health Study: Mortality Studies of Seventh-day Adventists," Loma Linda University School of Public Health, <http://www.llu.edu/public-health/health/mortality.page>.
45. "The Adventist Health Study-1: Gathering Data," Loma Linda University School of Public Health, <http://www.llu.edu/public-health/health/gathering.page>.
46. "About Adventist Health Study-2," Loma Linda University School of Public Health, <http://www.llu.edu/public-health/health/about.page>.
47. Adventist Health Studies home page, <http://www.llu.edu/public-health/health/index.page>.
48. Gary E. Fraser, Joan Sabaté, W. Lawrence Beeson, T. Martin Strahan, "A Possible Protective Effect of Nut Consumption on Risk of Coronary Heart Disease: The Adventist Health Study," *Archives of Internal Medicine* 152, no. 7 (July 1992): 1416–24, doi:10.1001/archinte.1992.00400190054010.
49. Joan Sabaté, Gary E. Fraser, Kenneth Burke, Synnove F. Knutsen, Hannelore Bennett, Kristian D. Lindsted, "Effect of Walnuts on Serum Lipid Levels and Blood Pressure in Normal Men," *New England Journal of Medicine* 328, no. 9 (March 4, 1993): 603–7.