

**Jack J.R. Campbell**  
**1918-2007**



Jack Campbell, a native of Vancouver, was born on March 29, 1918. He died peacefully at home with his family on October 22, 2007. He obtained a Bachelor of Science in Agriculture (BS.A.) from the University of British Columbia in 1939. His PhD was obtained in 1944 from Cornell, where he was the first graduate student of I.C. Gunsalus, who remained a life-long friend. Subsequently Jack worked for a time at the Canadian government laboratories in Suffield.

Returning to Vancouver in the late 1940s to take up a position in the Department of Dairying in the Faculty of Agriculture at UBC, Jack rose rapidly to the rank of Professor and became head of the department. The department was housed in one of the many army huts brought to UBC to deal with the rapid expansion of the student population as veterans returned from the armed services. The Dairy Lab, as it became known, was always a hive of activity. Although it did not offer a PhD program, the Dairy Lab attracted a succession of talented undergraduates and M.Sc. students, a number of whom Jack encouraged to pursue PhDs at leading universities in the United States. Since he knew most of the leading microbial physiologists and biochemists personally, Jack's recommendation virtually ensured acceptance at these universities. He believed that the students he trained in the Dairy Lab represented one of his most significant achievements. His students did well not because Jack expected it of them but because he convinced them that they could. He did not allow them to take easy courses, but only those that he thought essential for the training of bacterial physiologists.

In 1965, C.E. Dolman stepped down as the Head of the Department of Bacteriology and Immunology at UBC. Jack was appointed to the position. The name was changed to the Department of Microbiology. He remained in this position until stepping down in 1982. He retired in 1983. There can be no doubt that his greatest achievement was the department he built from the one he inherited. He had a remarkable eye for talent, hiring a number of outstanding young faculty members. All was not smooth sailing, but under Jack's leadership it became the best microbiology department in Canada.

Jack's scientific interests were focused mostly on the aerobic metabolism of *Pseudomonas aeruginosa*, especially glucose metabolism and oxidative phosphorylation. Perhaps his most significant achievement, with his M.Sc. student Roberts A. Smith, was to obtain the first experimental evidence for what came to be known as the glyoxylate cycle, the first anaplerotic pathway to be discovered. Unfortunately, Jack did not follow up on the observations, allowing Smith to take the project with him when he went to Illinois as a PhD student with Gunsalus. Jack later became interested in endogenous respiration in *P. aeruginosa*, work which was, in effect, some of the first on what is now known as the starvation response. In the later stages of his career, Jack focused exclusively on his administrative responsibilities.

Beyond his administrative and scientific work, Jack influenced UBC in other ways. He seemed not just to know but also to be friends with many of the science faculty. He was an early president of the Faculty Association. He took major responsibility for setting up the Biochemical Discussion Group in the 1950s. The Group met one evening a month in the houses of some of the members, although a disproportionate number of the meetings took place in the basement of Jack's house, where his home brew was in plentiful supply. His

students participated in the meetings, giving them invaluable contact with the biochemical community in Vancouver. Through the Discussion Group and because of his conviction of the importance of biochemistry in the biological sciences, Jack was instrumental in ensuring the viability of the discipline at UBC. In the late 1950s the British Columbia Research Council building, adjacent to the Dairy Lab on the UBC campus, was home to Gobind Khorana and his group. Jack became a friend and confidante of Khorana and several of his post-doctoral fellows, among them Gordon Tener and Mike Smith. In the summers, a stream of distinguished visitors passed through Khorana's laboratory, among them Arthur Kornberg, Paul Berg, Leon Heppel and Saul Roseman. Jack befriended all of them, making sure that his students had contact with them..

Jack was influential outside UBC. He was a charter member in 1951 of the Canadian Society for Microbiology, and served as President of the Society in 1974. He was a member of the American Society for Microbiology, friendly with many of the leading microbial physiologists in the society. Some of them would visit Jack in Vancouver, and his students would be invited to his house to meet them. He was elected a Fellow of the Royal Society of Canada in 1961.

Jack was first and foremost a family man, devoted to his wife Emily and his children Sheila, Merle, Anne and Ross, and latterly his seven grandchildren. The annual fishing holiday with them was always a high point of Jack's year. The salmon they brought back would be shared generously with friends, colleagues and students at gatherings at Jack's house. Jack had the happy knack of making colleagues and students feel that they were his friends and on those occasions part of his family.

Jack's legacy is rich and far-reaching, both on a personal and scientific level. He was honored at U.B.C. on November 5 by a lowering of the flag. He will be greatly missed by all who shared his life.

*Credits to the Canadian Society of Microbiology*