

## Robert Giaquinta

### How did you spend your career?

After completing my PhD in biology (plant physiology) in 1972 under Donald Geiger at the University of Dayton, I did two years of postdoctoral research in the laboratory of Richard Dilley at Purdue University. My PhD focused on phloem transport, and my postdoc research was on chloroplast membrane electron transport and bioenergetics. In January 1975, I joined the DuPont Company's Central Research & Development Department as a research scientist and established a program on phloem physiology that focused mainly on the pathway and mechanism of sucrose loading.

By the early 1980s, my activities were split between continuing phloem research and taking on management responsibilities for various plant science programs, including plant physiology, biochemistry, and the emerging area of plant biotechnology. By the mid- to late 1980s, my career path had transitioned to managing research and technology programs, including basic research in yield enhancement and crop protection, biotechnology, technology and business acquisitions, and research alliances. I was fortunate that these activities and the company's strategic positions related directly to plant science research. Thus, I had a multi-phasic career over approximately 40 years at DuPont. Each phase exposed me to scores of talented and creative scientists (ranging from newly hired to senior scientists) and their respective science programs. I retired from DuPont in September



2014 after a professionally rewarding career along a path I could not have envisioned during my early days doing basic research in the lab as a graduate student, postdoc, and scientist at DuPont.

### What do you consider to be your most important contributions to plant science?

My research on phloem loading of sucrose in the mid-1970s to mid-1980s supported an apoplastic route for transfer of sucrose from the mesophyll to the phloem, followed by the energy-dependent membrane transfer of sucrose into the phloem via a selective sucrose carrier coupled to a proton cotransport system. I was fortunate to receive ASPB's Charles Albert Shull Award in 1985 for my research on phloem loading. I would also like to believe that my nonlaboratory work during the rest of my career made a modest contribution to DuPont's scientists and their research programs as well as to the DuPont and Pioneer companies.

### When did you become a member of ASPP/ASPB?

I became a member in 1971–1972 during my PhD studies at the University of Dayton. My adviser, Donald Geiger, was an internationally recognized expert in phloem translocation and assimilate partitioning and a longtime member of ASPP who published extensively in *Plant Physiology*. His students were encouraged to attend and present their research at sectional and annual meetings of ASPP and to publish their work in *Plant Physiology*. Membership also provided a personal copy of the eagerly awaited monthly issue of *Plant Physiology*, which was an important way to keep abreast of plant physiology science.

### How did the Society impact your career, and what motivated you to become a Founding Member of the Legacy Society?

The Society had a significant impact on my career and professional development. It gave me the opportunities and vehicles to present my research at regional, national, and international meetings and symposia and to publish in *Plant Physiology* and other plant science journals. These activities led to additional opportunities, such as university seminars, travel, and interaction with fellow plant scientists. I also served on the ASPP Executive Committee (1982–1986) and Future Plans Committee (1981) and was on the editorial board of *Plant Physiology* (1982–1987). All were made possible by my early career as a practicing plant physiologist,

*continued on next page*



## ASPB Legacy Society Founding Member

and all contributed to my personal and professional development. For these reasons, I was honored to be asked to be a Founding Member of the Legacy Society.

### **What important advice would you give to individuals at the start of their career in plant science?**

Try to get as much experience and exposure as possible by giving oral presentations of your research at any venue that presents itself,

including lab meetings, in-house seminars, regional and annual meetings, and nonresearch venues. Such public speaking will not only build your confidence but also hone your ability to communicate well-organized and concise information in a way that resonates with and is interesting to the audience. This skill is transferable and can serve you well throughout your career.

Be open to considering and exploring career opportunities that can branch from your laboratory

work. The knowledge, insights, and training you gain from your research can be used to advance a broad range of science-based programs. We need more research scientists influencing activities and championing the importance of research in downstream arenas.

### **Academic Family Tree**

<https://academictree.org/cellbio/tree.php?pid=809111>