

Professor Emeritus George Wagner, Recipient of the 2016 Tobacco Science Research Conference Lifetime Achievement Award

Laudatio to the award given by

Orlando Chambers, Kentucky Tobacco Research & Development Center, Lexington, KY, USA



It is my distinct honor and privilege to introduce the 2016 Tobacco Science Research Conference Lifetime Achievement Award recipient, Dr. George Wagner. Given that the purpose of this award is to honor a distinguished scientist for a lifetime of outstanding contributions to tobacco science research, George is certainly a deserving nominee. As his publication record will attest, George has dedicated his career to research on tobacco and has been very prolific and productive with over 100 peer-reviewed research papers and more being developed.

In general George has made significant contributions to the understanding of tobacco and the tobacco research literature in the areas of cadmium accumulation, trichome gum studies, and the discovery of anti-fungal peptides. George is a world leader on research in these areas which continues with current efforts on cisgenic transformation to impact cadmium accumulation and new strategies to impact tobacco leaf surface chemistry for applications such as improved disease and insect resistance. These major accomplishments are important discoveries and have positively advanced the dialog and scientific tobacco literature in these fields. Even more significant is that George has focused on research topics that have commercial potential, and he pushes to make sure his discoveries are tested in field trials or, in one case, by initiating his own company based on the technology that he developed. George has a keen desire to keep his scientific research

moving forward in a way that will impact the tobacco industry, and he comments regularly that he wants to see his research developed and utilized by tobacco growers and in commercial products.

Although serving in a post-retirement, George continues, through his passion for research, to be one of the most productive and hard-working tobacco research scientists at the University of Kentucky. He continues to have an impact on our tobacco research community through his extensive knowledge of tobacco and his willingness to provide advice and to mentor other tobacco scientists, including me and the many students, post-docs and tobacco researchers he has worked with over the years. His familiarity with, and understanding of, tobacco research history helps our tobacco researchers by providing guidance and suggestions on new projects that are being initiated, but maybe more importantly by providing guidance on which projects not to undertake. It is difficult to convey the breadth of his tobacco knowledge and the significance of his impact in willingly offering input and suggestions for improvement to tobacco research projects at the University of Kentucky. This could only come from, and results from, a lifetime of tobacco research. We are extremely fortunate to have someone as uniquely qualified and experienced in tobacco research as George is to help steer our tobacco research programs and I appreciate the significance of his scientific accomplishments. It is my distinct pleasure to introduce my mentor, my friend, who is a truly outstanding tobacco scientist and the recipient of the 2016 Tobacco Science Research Conference Lifetime Achievement Award, Dr. George Wagner.

Dr. Wagner accepted this award on behalf of all the collaborators, students and others who have contributed to the accomplishments of his laboratory over the years.

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UK Ag scientist honored with lifetime achievement award

A life spent in discovery was recognized recently when the Tobacco Science Research Conference presented University of Kentucky Professor Emeritus George Wagner with its Lifetime Achievement Award at its 70th annual conference in Palm Beach Gardens, Florida.

From his laboratory in the Kentucky Tobacco Research and Development Center, Wagner has been a global leader in unlocking the mysteries of tobacco, making major contributions in the areas of cadmium accumulation, trichome gum studies and the discovery of anti-fungal peptides. The UK College of Agriculture, Food and Environment professor has focused on many research topics that have commercial potential, pushing for his discoveries to be tested in field trials, so that others could profit from his work.

Dr. Wagner gives much credit to people who have contributed to the research successes he and his co-workers have made over his career. These include his parents, family, teachers, individuals who have provided funding and laboratory infrastructure, and especially, research associates, post doctorals, graduate students, collaborators, and preceeding scientists that provided fundamental information that he has built upon. Regarding preceeding tobacco work, Dr. Ray Severson (dec), from the USDA ARS lab in Athens, GA and Dr. D. Michael Jackson of the UASD ARS lab in Oxford, NC stand out. Their work provided extensive characterization of tobacco gum biochemicals, and the impact of these on disease and insect resistance. He notes that their publications remain important sources of information for his current work.

Wagner spent years studying the pesticidal properties of

trichomes, small outgrowths on the surface of tobacco leaves. In the process, he and then doctoral student Ryan Shepherd discovered that sGSTs, or short glandular secreting trichomes, produce a protein that appears to protect the plant against major fungal diseases, such as blue mold and a number of major diseases of turfgrasses. Believing the growing organic sector and the turfgrass industry could benefit from his tobacco research, Wagner and Shepherd began PhylloTech, a company based in Kentucky and Wisconsin, to develop new, natural fungicides derived from that substance.

Retirement has not slowed Wagner. He continues his research in a post-retirement capacity. He has a keen desire to keep his scientific inquiries moving forward in a way that will positively impact the tobacco industry.

“George continues to have an impact on our tobacco research community through his extensive knowledge and his willingness to provide advice and to mentor other tobacco scientists, including me and the many students, post-docs and tobacco researchers he has worked with over the years,” said Orlando Chambers, KTRDC managing director. “We are extremely fortunate to have someone as uniquely qualified and experienced as George is to help steer our tobacco research programs.”

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