

# Researching Complex Carbohydrates: Interview with Dr. Alan Darvill

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*Dr. Alan Darvill is Regents Professor and Director of the Complex Carbohydrate Research Center (CCRC). His research focuses on the structural characterization of plant carbohydrates and determining complex structures in plants. Dr. Peter Albersheim and Dr. Alan Darvill established the CCRC as directors in 1985 along with their 16-member research team. Since then, they have found many revolutionary discoveries about various carbohydrate structure and function in the plant cell.*

## What is your academic background?

I received my Ph.D. in the UK at the University of Aberystwyth, which is in Wales. Though I received a Ph.D. from a different country, the process of getting it is mostly the same. There is research and no coursework. After finishing my Ph.D., I came to the U.S. in 1976, where I went to the University of Colorado for my postdoc in plant carbohydrate science.

## What prompted you to pursue plant biology?

I was interested in studying how plant cells control the growth of plants. Each cell is encased in a box of carbohydrates and when the cells grow, the boxes of carbohydrates have to elongate and expand. This adds new material each time. Trying to figure out how that happens and what controls that was my job. That was what my Ph.D. was all about.

## How would you describe the work you do?

It is a mixture of plant physiology, plant biochemistry, and chemistry. That is how I got interested in the structure and function of carbohydrates.

## What is the most enjoyable part of your job?

The most enjoyable part of my job is facilitating the research of the faculty, postdocs, and students at the CCRC. That is my job as director: to make this place enjoyable for research and to make sure they can do it.

## What is a typical day at work like to you?

It is hectic! I come in and do emails. Then, I walk around labs and talk to people and see what they are doing. Then I work on grants, write papers, and answer questions on campus. This continues for the rest of the day. Occasionally, I get interviewed by students!

## What is an interesting event you experienced during your career?

I came to America and made a change of country and environment to continue my research. This stimulated my interest not only in science but also all aspects of life. It was possibly the most stimulating thing that I could do.



## What are important qualities one must possess in your profession?

People like me need to possess a real interest in how to find out processes, to use research methodologies to understand processes, to develop methods to understand biological processes, and to make sure those methods are reproductive.

## Who was your inspiration for working in this field?

One of my inspirations is my Ph.D. advisor, Dr. Michael Hall at the University of Aberystwyth. Following down from him was the person I did the postdoc within the University of Colorado. His name was Peter Albersheim; later on, he and I formed the CCRC. Both Michael and Peter were my inspirations, scientifically.

## What are your hobbies outside of work?

My hobbies are sports, usually. Cricket and soccer were my favorites, and I was particularly interested in soccer. I also spend a lot of time with my daughter and her family.

## Do you believe you have work-life balance?

Yes – although I work longer hours than usual, I put a lot of effort into finding the balance. I can still balance and have off-time to enjoy the other parts of my life. It was harder to do so when I was younger; I tended to put more effort into work and less into non-work activities.

## What do you see yourself doing at the Complex Carbohydrate Research Center in the coming years?

There is a vacant faculty spot that we need to fill, so we need to hire for that. We need to lodge research grants that we have to

renew, so we will be working very hard on that. Underneath that is continuing all the research in the various research projects we have. There's plenty to do.

**What advice would you give to students as they pursue their own careers?**

My advice is what I tell everyone: to enjoy what they are doing, to put enough time into what they are doing so they do their best, and to not make quick decisions on what they want to do for the future. There is so much to see and do at any university, so they should not put themselves in a narrow path too early because they may change their mind.