Interview With David C. Dale, MD: A Pioneer in the Treatment of Congenital Neutropenia and President-Elect of the American College of Physicians

David C. Dale, MD

David C. Dale, MD, is an oncologist and professor of medicine at the University of Washington (Seattle, Washington). Dr Dale's career has included many honors, the most recent being his appointment as president of the American College of Physicians (ACP; Washington, DC). He has also served as dean of the University of Washington Medical School and was for many years president of Alpha Omega Alpha, the national medical honor society. Among oncologists, Dr Dale is perhaps best known for

his work on granulocyte colony-stimulating factor (G-CSF) for the treatment of cyclic and congenital neutropenia. The Journal of Oncology Practice spoke with Dr Dale recently about his perspective on many subjects from this stage of his career.

You are having a fascinating career. Where did it all begin?

I'm originally from Knoxville, Tennessee, and I developed an interest in medicine in high school because I so admired the family doctor. I tested that idea by working as a hospital technician during college, and everything followed from there.

What college did you attend?

Carson Newman College in Jefferson City, near Knoxville. From there, I went to Harvard Medical School [in Boston, Massachusetts], and then did residency at Massachusetts General Hospital [in Boston]. I did the equivalent of a fellowship at the NIH [National Institutes of Health in Bethesda, Maryland] in the late 1960s, during the Vietnam War, and then came west for 1 year as medical chief resident of Washington University Hospital [in Seattle, Washington]. After that, I returned to the NIH, but the department head in Washington asked me to come back, so I did. I became director of the student teaching program.

And now you are president of the ACP. What do you hope to accomplish in that position?

Of course, there are hopes and realities. The hope of the college is to improve access to health care in America. It's our grand desire to deal with the disenfranchised and uninsured and with the inequities in medicine.

We're also interested in quality and in education—having doctors whose knowledge is truly current. We have a big educational agenda, including internationally. We want to

help physicians around the world with [the establishment of] medical standards. Another initiative is the Patient-Centered Medical Home, which means everybody having a personal physician. So, a few things to accomplish!

That's quite an agenda. Does the ACP have any issues in common with ASCO?

Yes we do. One of the issues of great interest to me is the medical workforce. I think it's accepted that the track we've been on doesn't train enough American doctors, particularly with the increasing complexity and increasing numbers of people with cancer. There's a shortage of oncologists. The ACP is interested in helping with the health workforce issues to be sure there are enough oncologists.

Another issue is Medicare at the federal level. Last year, the ACP was involved in a big way trying to overcome what will be the net payment decreases under the sustainable growth rate formula, which limit payments to physicians. All internists are together under that issue, but it is especially big for oncologists. So, there's a lot of overlapping interest between the two societies.

You're well known for your work in congenital and cyclic neutropenias, particularly those that occur in childhood and can be life-threatening. How did your interest evolve?

When I began residency at the NIH, I was fortunate enough to get a position in a laboratory [that] was developing a program around host factors to infections. Somewhat by chance (and a little by design, I guess), I became interested in the susceptibility to infection that goes with neutropenia. Low WBC counts became my thing.

Early on, I had a very interesting patient whose father was the poet laureate for the Library of Congress. He lived in the neighborhood. This young boy had cyclic neutropenia. I just found the disease very interesting, and I also connected with the patient and his family.

By chance, there was a disease in collie dogs, essentially the same disease, which was described about this time. I'd grown up in a rural area and had rural instincts, and loved dogs, and so I got interested in raising and caring for these sick dogs. Over a period of many years, I studied the disease in dogs and in humans, and from that came my broader interest in the acute and chronic causes of neutropenia. The chronic cause was essentially an opportunity because not much was known at that time. I've stuck with that area of research for almost 40 years.

And did your veterinary studies enlighten your human studies, and vice versa?

Oh, very much so. It was hand in glove, or parallel, the way the information grew. The dogs, of course, afforded research opportunities, and one of the earliest studies was on the growth factor that seemed to be produced in our bodies when neutropenia occurs. I studied that originally in dogs, and then in people. That growth factor turned out to be the factor we now call G-CSF, which is now marketed as the product Neupogen [manufactured by Amgen Inc, Thousand Oaks, California]. In about 1971, I had a paper in *Science*, which described this factor in the urine of these dogs that seemed to stimulate neutrophil production. I made the suggestion then that it might be the growth factor for neutrophils.

It was an exciting time. It was in the late '60s that we could first grow blood cells in the laboratory, and that was a big springboard for lots of advances.

And are you optimistic about the future of oncology treatment in general?

Oh, I am. At the high level, you see deaths from cancers in decline. At the personal level, we all have friends who have had the disease for several years and are still with us. Just this morning, I talked to one of my very closest friends, a physician, and learned that he has cancer. He actually had optimism in his voice. His initial treatment was something that would not even have been considered just 4 or 5 years ago. The scientific advances are very encouraging, especially at the leading edges where we are gaining a better understanding of cancer cell growth treatment options. So, yes, I'm optimistic.

What do you look for when hiring a new clinician? And what career advice would you give to an oncologist who is just starting out?

It takes commitment to be a good oncologist, because the patients are not only very sick, they also have lots of questions

and concerns. You really have to be committed and to enjoy talking to people and helping them through stressful situations. You will have to stick by them, even knowing that quite often the outcome will be disappointing and sad. Commitment to the patient is the central thing I look for in a partner or a new hire.

Of course, it's more fun to work with smart people . . . people who like to learn and who know what they don't know . . . people who try to find out and then teach somebody else. I enjoy people who are intellectually alive, especially as opposed to those with a lot of other interests and no particular intellectual commitment to medicine. The field of oncology is changing enough that it needs people who will be lifelong learners and can keep up. Those would be my two points: commitment to people and to learning. Most of the rest will follow.

Interesting. Is there anything you would like to add?

In fact, yes. A unique feature of our work in chronic neutropenia was the use of a registry, beginning a number of years ago. The objective was to use an organized, disease-based approach, with the long view in mind. The registry allowed lots of patients to gather under one umbrella to participate in research, contribute samples, and so on, and we found that it made possible a much larger database of both patients and colleagues. It proved to be a wonderful way to advance the rather narrow field of hematology. So, that's my special pitch.

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