MAKING A BIG IMPACT ON A SMALL SCALE

by Chris Hayes • Photography by Lynn Mozena

Everyone remembers the old adage that if solving a problem is easy or inconsequential, "it ain't curin' cancer." John Cleveland, Ph.D., rarely hears that phrase, because it just happens to be his life's work.

"All of my career has been working on childhood cancer," he said. That career began at Wayne State University in Detroit, Michigan, where he received his Ph.D. in Immunology and Microbiology. A new molecular biology project caught his attention and eventually brought him to the National Cancer Institute as a post-doctorate fellow, where he worked for over four years. A colleague at the institute then recruited him to St. Jude Children's Research Hospital in Memphis, Tennessee, one of the country's top pediatric treatment and research facilities. For over seventeen years he collaborated at St. Jude to make major discoveries in the biochemistry field, such as the study of oncogenes, a protein-encoding gene that is integral in the onset and development of cancer.

"We kind of stumbled onto the fact that oncogenes not only cause cancer, but they also can cause normal cells to die," he said.

Now in his second year at the Scripps Research Institute, which recently completed the first phase of their construction in Jupiter, he is able to use their superior facilities and technology to utilize much of what he has studied for his entire career.

"When I was at St. Jude's we did a lot in terms of basic research (pathway identification, identification of new targets), and at Scripps the idea is to take basic research targets and apply them to develop novel medicines to prevent, treat and cure cancer."

Cleveland did not come to Scripps alone. He brought with him from St. Jude over a half-dozen others, including post-doctorate fellows, technicians, staff scientists and a lab manager, all of whom wasted no time getting to work.

"We kind of hit the ground running," he said. "St. Jude's is an awesome place to work; it has great scientists, but here the technologies give this institute a leg up, and it allows you to apply your work."

There are three major academic departments at Scripps Florida: Infectology, Molecular Therapeutics and Cancer Biology, of which Cleveland is Chairman. Another integral component at Scripps is the Translational Research Institute, which is composed of a number of different groups that "collaborate toward the discovery and development of therapeutic agents for unmet needs in a variety of diseases."

"It's the technology that really drives the science here," Cleveland said. For him, that means utilizing their screening center to turn cancer models into small molecules, which are then passed on to the medicinal chemists, who convert these molecules into drugs; there's no outsourcing required.

"To really have a successful institute requires interactions and collaborations between groups, and this institute is actually perfectly set up for that because it has the core facilities that foster that kind of interactions."

Though the funding required to maintain Scripps Florida is significant, each department is expected to account for the necessary funding and grants.

"This is a soft money institute, and what that means is that each investigator has to pull his full weight for all the costs for his or her laboratory. So there is no dead weight at Scripps."

Though the Scripps Florida staff is still under 400 people, within five years that number is projected to reach 1,000. With an additional seventy acres across Donald Ross Road expected to be used for Phase Two as well as the Max Planck Institute moving in right behind the Cancer Biology building, there are bound to be major advancements in Palm Beach County's future. Needless to say, Cleveland is keeping busy.

"My job here is to keep that ball rolling in terms of my own research program, but also to recruit in a cadre of talented younger investigators who will interact and form a cohesive unit that can tackle cancer on many fronts."

The work being done is by no means limited to the lab; with the biotech field in the county expanding at almost an exponential rate, there is much to be done to keep the public informed.

"We're reaching out locally throughout the community where ever we can, and we just want to get the message out about what's going on here," he said. "It's an exciting atmosphere. There's so much going on all the time."

As Cleveland views it, "This is just the beginning." ***PBG***