

FATHER/SON INVENTORS RECOGNIZED AT CLEMSON

CLEMSON, S.C. - Two people, two disciplines, one mind. That's how father-son research team Arthur and John Ballato describe their relationship. The duo recently received recognition from Clemson University for what could eventually be their first patent together -- an invention that slows light to a snail's pace. Slowing light would permit storing it much the way electricity is stored. Given their differing areas of expertise, it's a type of research that may not have happened anytime soon if they were not father and son.

Arthur is the chief scientist with the U.S. Army Communications - Electronics Command - at Fort Monmouth, N.J. As a physicist and electrical engineer, he works with how sound moves through materials, specifically crystals. John is a materials scientist and engineer at Clemson University and works on how light moves through materials.

"Whenever we get together, it is amazing and so much fun because we look at problems from different ways," says John. "My father is the most remarkable mentor, both scientifically and personally. His ability to communicate is stunning. Even when I was a kid, his ability to explain the most difficult concepts in the easiest terms was amazing."

Arthur says he didn't push young John or his brother, Thomas, an attorney, into their respective fields. "I always felt I shouldn't make them love my love. Be what you want to be was my philosophy. But through osmosis it must have rubbed off on John."

That's the philosophy John has adopted for his 1-year-old son Elijah. "It's his life," says John about his baby boy. "How he wants to do it will be up to him. I'll help him however I can. But, I learned from my dad that we follow our own path."

And sometimes those paths cross as in Arthur and John's case, even though they are hundreds of miles away from each other in two separate labs. "We do a lot of e-mail back and forth," says Arthur. "It's great because there's no fanfare and we're on the same wavelength. We simply finish each other's sentences. Holidays are a little different. My wife puts a moratorium on how long we can talk business."

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Editor's note: Arthur Ballato holds 55 patents. He has helped develop nearly everything that keeps track of time or position using crystals: the GPS location system, computers, watches, etc. John Ballato holds six patents and is the director of COMSET, the Center for Optical Materials Science and Engineering Technologies at Clemson University. Collectively, the two have more than 450 publications.

