

# A Tale of Two Investors: The Founding of Coherent Inc.

Eugene Watson

To mark the 40<sup>th</sup> anniversary of Coherent Inc.—a world leader in laser technology—company founder Eugene Watson tells the unlikely tale of how it all began.

My impetus for forming Coherent Radiation Laboratories (CRL; now Coherent Inc.) was the unwillingness of Spectra-Physics management to develop gas ion laser products. As manager of sales and marketing, I knew that demand was growing for continuous-wave lasers that produced more power and shorter wavelengths than the HeNe lasers for which Spectra-Physics was known.

The precipitating event was the 1966 American Physical Society Meeting in New York, where I first saw a CO<sub>2</sub> laser at the Perkin-Elmer exhibit. CO<sub>2</sub> lasers had been discovered two years earlier by Kumar Patel at Bell Labs, and were the first ones capable of doing useful work. I was struck by the laser's simplicity. Even I could build one, I thought.

Upon returning home, I attended a Spectra-Physics board meeting to recommend that the company immediately begin developing a line of CO<sub>2</sub> lasers. When the board rejected my proposal, I announced my resignation to embark on a new venture to produce gas ion and CO<sub>2</sub> lasers.

## Acting on the vision

The next few months were filled with uncertainty and drama. I asked my best

friend, Earl Bell—one of the founders of Spectra-Physics—to be a co-founder of the new enterprise. As the discoverer of the gas ion laser, Earl was an intuitive scientific genius. When he signed on, I was delighted.

At this time, I was also looking for investors. I approached the DuPont Company because they had a strong interest in holography for optical data

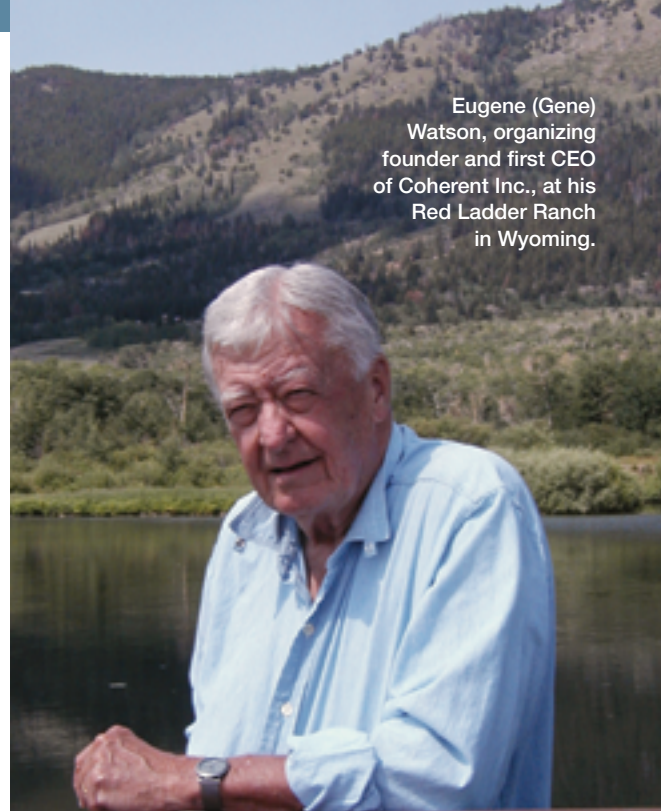
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storage and had formed a subsidiary, Holotron Corp., to develop the technology. DuPont executives explained their interest in multi-wavelength "white light" lasers for their holography project and asked if my new company could provide this capability. With Earl as my technical guru, I said yes with confidence.

I agreed to form my company and then return to negotiate the terms of a possible investment. I was excited. Having a major company as an investor carried numerous advantages, including sharing the prestige associated with its name, contacts and resources. Best of all, DuPont didn't want a controlling interest.

After these initial negotiations, I encountered a serious set-back. Earl Bell had changed his mind about joining the new venture. He did not want to abandon Spectra-Physics for what some viewed as a competing enterprise. (Although Spectra-Physics was not producing gas ion or CO<sub>2</sub> lasers at that time, they began to develop them soon after the formation of CRL.)

Disappointed, I pressed on. I was very fortunate to recruit Jim Hobart, a skillful laser scientist at Spectra-Physics, and Wayne Mefferd, an accomplished mechanical engineer. On Jim's



Eugene (Gene) Watson, organizing founder and first CEO of Coherent Inc., at his Red Ladder Ranch in Wyoming.

Diane Watson

recommendation, I brought on a second laser scientist, Steven Jarrett, who had been Jim's fellow graduate student at the University of Michigan. I rounded out the team with Bob Rorden, an excellent electronics engineer. These outstanding individuals led Coherent to become the world-class organization it is today.

To finance the start-up, we used \$20,000 of the proceeds from the sale of Varian stock that I had acquired. We moved the enterprise into my house in Palo Alto, Calif. The laser-development lab, which required running water and 220 VAC, was set up in the laundry room.

### Enter DuPont— with seed capital

Next, I departed for the East Coast to negotiate a deal with DuPont (headquartered in Wilmington, Del.). After intense negotiations, the company agreed to give CRL a nine-month contract to develop a 100-W CO<sub>2</sub> laser with at least one delivery to a customer. DuPont would pay all expenses and, in return, receive an option to take a minority position in the company at the end of the contract. DuPont/Holotron would negotiate an additional contract for the development of two "white light" krypton ion lasers.

Ed Gee, the DuPont representative, offered what turned out to be an ominous caveat. He told me to keep in mind that, for whatever reason, DuPont may not exercise the option to invest at the end of the nine-month period. "By that time you will have acquired spending momentum and you need to plan for that possibility," he said. Although the term "spending momentum" is now permanently etched in my mind, at that time I did not take this warning as special cause for concern.

Nine months passed in a blur. A highlight was our demonstration of Jim Hobart's laundry-room CO<sub>2</sub> laser, which reflected the beam onto my across-the-street neighbor's garage door. The dark, smoking spot proved without a doubt

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that the beam was, indeed, coherent. I don't think my neighbor ever figured out where the spot had come from.

Jim and I also made a memorable delivery to our first customer, the Boeing Manufacturing Research Lab in Seattle. We realized that the laser was operating when it burned a hole in our customer's new tweed jacket. The installation was not considered a success until we replaced the jacket.

### Exit DuPont, enter the Rockefellers

After those first nine months, CRL had indeed acquired significant spending momentum. As our demand increased, so too had our need for additional financing. When I returned to DuPont's headquarters to seal the deal, however, Ed Gee reminded me of his earlier caution and confirmed that DuPont was not, in fact, planning to exercise its option. Facing a possible shortfall, DuPont had put all outside investments on hold. End of deal.

Who would have predicted that CRL would perform but DuPont wouldn't? Stunned, I asked for some private time in a conference room to collect my

thoughts. Since I was already on the East Coast, I decided to give the Rockefellers a call. However, I doubted they would be interested in any deal that DuPont had turned down.

Therefore, I asked Ed Gee to back up my story and recommend CRL to the Rockefellers. He was less than enthused about the prospect of sharing information about DuPont's cash crunch. However, being a true gentleman, he said, "OK, Gene, I'll tell one person, on the phone, one time. Your job is to make sure I'm talking to the right person."

I started with the phone book. Of the many Rockefellers listed in Manhattan, the one for "Rockefeller Family & Associates—30 Rockefeller Center" seemed right. I told the receptionist the reason for my call. She transferred me to Charles Smith, who turned out to be the appropriate contact. True to his word, Ed corroborated the facts of my story during a single phone conversation with Charlie.

The rest is history. At Charlie's invitation, I flew to New York to visit the hushed, richly paneled inner sanctum of Rockefeller Family & Associates (now Venrock Associates). Subsequent discussions culminated in the Rockefellers agreeing to invest in CRL. Shortly afterward, I received an envelope in the mail that contained personal checks signed by siblings David, Laurence, Nelson and Abby. I promptly deposited them in the CRL bank account—which by that time had become seriously depleted by spending momentum.

### Postscript

Sometime later, over a beer, Charlie confided in me that I normally would not have had any chance of getting a hearing from the Rockefeller group, which receives more than 1,000 proposals a year. What made the difference? "I just had to know what was going on at DuPont," Charlie said. ▲

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