



LIGHTWAVE LOGIC™

From the Desk of Jim Marcelli

Open Letter to Lightwave Logic, Inc. Shareholders

Fellow Shareholders,

As we begin 2012, I want to update you on the progress we have made toward reaching the goals I outlined in my July 12, 2011 letter, and then subsequently discussed during our August 11, 2011 annual shareholder meeting.

There have been many exciting corporate and scientific developments going on at the Company, which I believe will ensure our long-term success. First, our recent announcement that we achieved a major breakthrough in the field of organic nonlinear optical materials is a significant accomplishment. We are very proud of our Delaware scientific team for creating this new material, which we named Perkinamine Indigo™. With electro-optical properties (r_{33}) in excess of 250 picometers per volt and thermal stability in excess of 300° C, this material vaults us into the forefront of organic electro-optical technology. From a business perspective, it will give us the ability to fabricate modulator devices that will be able to exceed the performance of existing legacy infrastructure by an order of magnitude in both the telecommunications and data communications markets. Furthermore, we believe the properties of Perkinamine Indigo™ exceed the technical specification requirements set by the major microelectronics company we have been working with for the past two years, and we are now hoping to enter into an agreement with them sometime during 2012.

As you know, initial revenue has not come as quickly as we previously expected, however, the good news is the opportunities are on-course and progressing rapidly. We have recently delivered newly completed design proposals to Lockheed Martin and Celestech and expect that they will be accepted. Further, we have recently received new inquiries from other large potential customers looking to solve their technical problems with our organic nonlinear polymer materials. I look forward to being able to deliver some good news about initial revenues soon.

Last year (2011) was important as we expanded our corporate strategy to include the development of proprietary products. To that end, we have already begun the development of a Spatial Light Modulator and a Multi-Channel Telecom Modulator along with our first-ever all-optical waveguide. We also added key operating and scientific personnel along with changes to our board of directors, like the appointment of RADM Tom Zelibor as our new non-executive Chairman, and Dr. Joseph Miller, Chief Technology Officer of Corning, to help our efforts. We were also pleased to have added Dr. Louis Glasgow, as Chief Technology Officer, who was also previously at Corning. I would also like to extend our thanks to Phil Smith for his dedicated service to the Company as its previous Chairman.

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The recently announced addition of Dr. Fred Leonberger as a Senior Technical Advisor to the Company will greatly enhance our design capabilities. Dr. Leonberger is one of the foremost optical device experts in the country, and with his expertise and industry experience, he will be invaluable to us as we begin developing new devices to address the telecom market. Combining Dr. Leonberger's optical design expertise with a powerful organic nonlinear material platform, including our new Perkinamine Indigo,™ should lead to commercially competitive devices that will offer enormous performance improvements at reduced costs—a winning strategy for both Lightwave shareholders and Lightwave's potential customers.

Finally, we brought Charles Olson on-board as our Vice President of Marketing and Sales. Chuck is a seasoned veteran who has spent his career in various high technology leadership and sales positions. He will be a key point person between the Company and our customers. He has already begun to open potential avenues of future business.

The outlook for Lightwave Logic has never been brighter. We enter 2012 with a deeper understanding of the inner workings of our materials platform that continues to engender powerful new chromophores. Also, having met the technical specifications for our microelectronics initiative clears a major hurdle in moving that project forward into commercialization and demonstrates that we can solve complex chemical synthesis problems.

We also begin the New Year a vastly more capable organization that will be able to move materials and devices through the development and design process more quickly, with two new high-value proprietary products already in progress. And also important, we now have in place a *pipeline* to the capital necessary to finance our success.

I will be introducing Dr. Louis Glasgow, our new Chief Technology Officer, and our Senior Technical Advisor, Dr. Fred Leonberger, on our forthcoming Technology Business Update Web Conference scheduled for January 25, 2012 (details below). They along with the entire Lightwave Logic team will be sharing their thoughts on the business and technology development of our “Next Generation Non Linear Optical Polymer Material Platform” for 2012 and beyond.

I sincerely appreciate your support as shareholders and I look forward to sharing more news and insights with you on the web conference next week.

Sincerely,

Jim Marcelli,
Chief Executive Officer
January 17, 2012



LIGHTWAVE LOGIC™

Lightwave Logic Technology and Business Update Web Event

Date: Wednesday January 25, 2012

Time: 4:00 PM Eastern Standard Time (New York)

Duration: 1 Hour

URL: <https://lightwave.webex.com/lightwave/onstage/g.php?t=a&d=666177781>

Call-in toll number (US/Canada): 1-650-479-3208

Access code: 666 177 781

Telephone access will be in listen only mode.

Attendees who wish to submit questions must access the call by computer and type them into the Q&A panel.

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