

John Eisenbrey

Post-conference Report

The 14th European Symposium on Ultrasound Contrast Imaging
Rotterdam, The Netherlands, January 21-23rd.

The European symposium on ultrasound contrast imaging is held annually and represents the leading edge in ultrasound contrast agent research. Ultrasound contrast agents consist of a small (< 8 μm) gas bubble, which provides ultrasound contrast, stabilized by an outer shell. Areas of interest in this field include development of new agents, modeling of agent behavior, development of targeted agents, new imaging strategies, and the development of new agents for drug delivery. The symposium was hosted by The Erasmus Medical College Thorax Centre in Rotterdam and included over 180 participants from around the world. Over the 3-day conference over 60 oral and poster presentations were given, discussing emerging areas in contrast agent research.

Traveling to the conference, which focuses entirely on our area of interest, allowed me the opportunity to continue collaborations with groups we have previously worked with, as well as setting up new potential collaborations. The forum also gave us the opportunity to present our research and current strategies in ultrasound-assisted drug delivery. At the conference I presented a poster of our current research entitled "Delivery of Encapsulated Doxorubicin for Sustained Intratumoral Release by Localized Size Reduction of Polymeric Ultrasound Contrast Agents." The research highlighted success both *in vitro* and *in vivo* of using external ultrasound for *in situ* degradation of drug-loaded polymer contrast agents that when activated are able to escape out of the tumor vasculature and provide a sustained, intratumoral release of chemotherapeutic. The research was well received and at the end of the conference I received the Martin Blomley Poster Prize for Medical Research. This was truly an honor due to the high level of competition and because the award was judged by leading contrast agent researchers from both industry and academia around the world.

I would like to thank the Office of International Programs for the travel award without which I would not have been able to travel to such an important conference, Dr. Onaral from the Department of Biomedical Engineering for the support, and of course my adviser Dr. Margaret Wheatley for the continual guidance and support of our research.

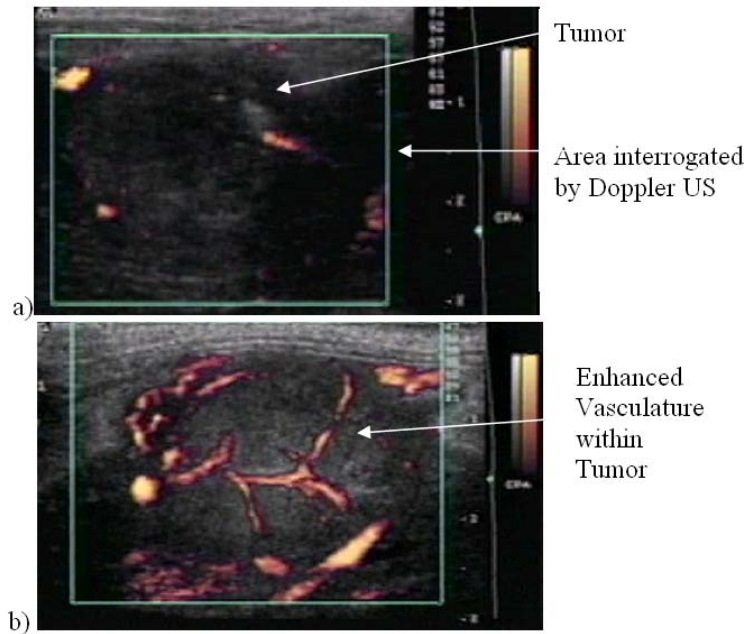


Figure 1: A VX2 tumor implanted within the left liver lobe of a New Zealand rabbit a) pre-injection, and b) post injection of 70 mg of doxorubicin loaded polymeric contrast agents. External, power Doppler ultrasound was used to trigger drug delivery of the agent only within the tumor model, increasing efficacy and reducing systemic side effects

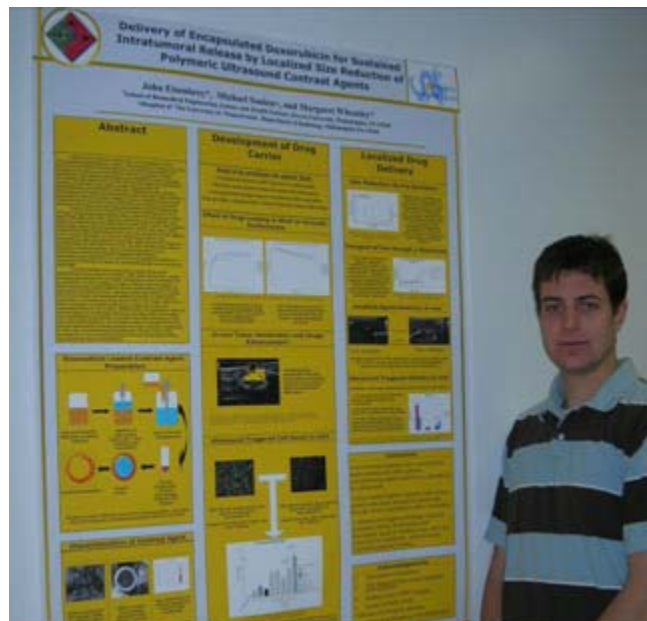


Figure 2: Myself with my poster presented at the 14th Annual European Symposium on Ultrasound Contrast Imaging in Rotterdam, The Netherland, Jan 21-23rd 2009.