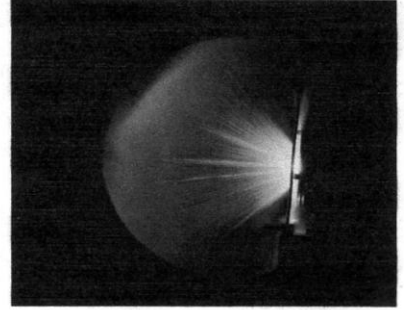


# High Power Laser Ablation Hotel Eldorado Santa Fe, New Mexico 18 - 22 April, 2010

Date: April 21, 2010



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## Innovative drug injection via laser induced plasma

Tae-hee Han and Jack J. Yoh<sup>a</sup>

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**Abstract.** A laser based needle-free liquid drug injection device has been developed. A laser beam is focused inside the liquid contained in the rubber chamber of micro scale. The focused laser beam causes explosive bubble growth, and the sudden volume increase in a sealed chamber drives a microjet of liquid drug through the micronozzle. The exit diameter of a nozzle is 125  $\mu\text{m}$  and the injected microjet reaches an average velocity of 264 m/s. This device adds the time-varying feature of microjet to the current state of liquid injection for drug delivery.

**You have won the Second Poster Prize for your  
paper**

**“Innovative drug injection via laser induced  
plasma”**

Congratulations!

Dr. Claude Phipps

Conference Organizer and Chair, HPLA 2010