

## **Drinking in the Name of Science**

**Presentation by Ben Ver Steeg (Engineering '98) at Harvey Mudd College**

**October 6, 2010**

### **Overview:**

Noninvasive, optical based measurement and diagnostic techniques continue to be a growing field, particularly in medicine and material inspection and safety. This lecture will discuss some of the recent advances in this area along with a detailed discussion of the technology developed by TruTouch Technologies to quantitatively measure alcohol in people via NIR tissue spectroscopy. Both the technology and some of the business aspects of bringing this type of new product to the market will be discussed from the perspective of a relatively recent HMC alumnus.

### **Bio for Ben Ver Steeg ('98)**

Ben Ver Steeg is the Co-Founder and Vice President of Engineering at TruTouch Technologies in Albuquerque, NM. At TruTouch, Ben led the technical team that invented, developed, and sold the world's first optical, noninvasive system for alcohol detection in humans. The original system was recognized as one of Time Magazine's top inventions of 2006 and TruTouch is now working on their 3<sup>rd</sup> generation platform.

Ben Ver Steeg graduated with an engineering degree from HMC in 1998 and has spent the last 12 years working in the field of noninvasive optical diagnostics using NIR spectroscopy. Prior to TruTouch, Ben had the opportunity to work on applications ranging from serious medical diagnostics for diabetes and critical care monitoring to the automated gender sorting of fertilized chicken eggs.

In early 2005, Ben and two other colleagues formed TruTouch Technologies and joined the world of venture capital financed technology development. Customers in industry and law enforcement are currently using TruTouch's NIR alcohol detection systems to make over 15,000 tests per month. In 2009, TruTouch was one of three companies worldwide who were selected to receive a development grant under the DADSS program which is a 5 year national initiative to create an automobile alcohol interlock device suitable for use as standard safety equipment. Ben continues to be active in the technology development at TruTouch and has been an author on 6 peer-reviewed publications and 7 US patents.