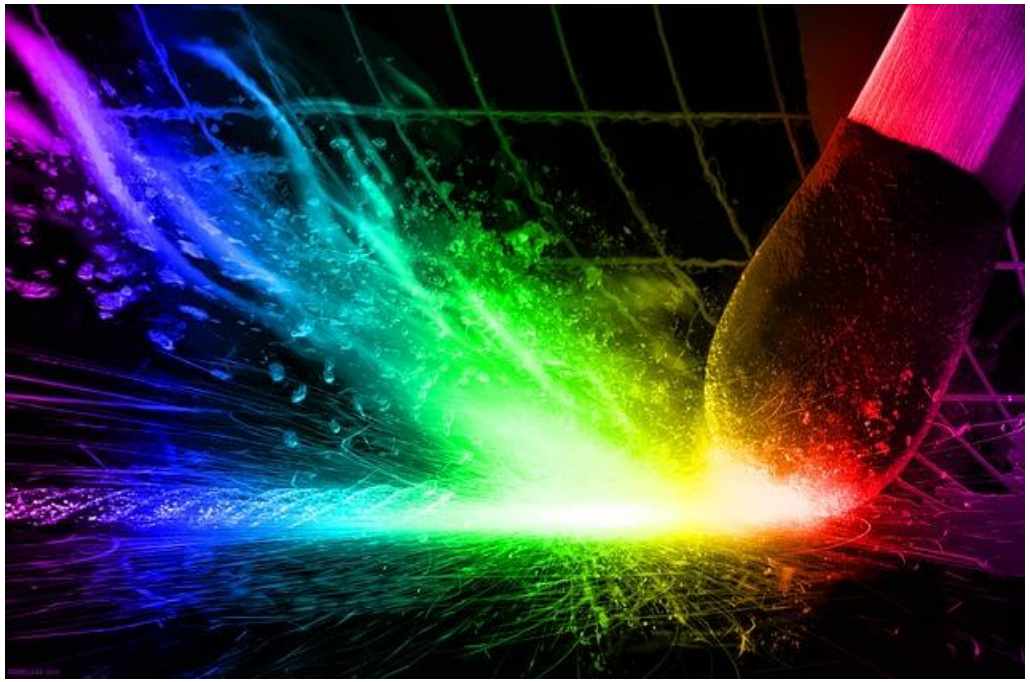
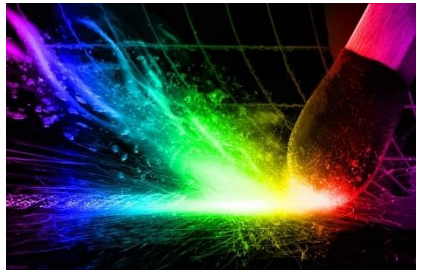


Boston E-Net, April 17, 2018

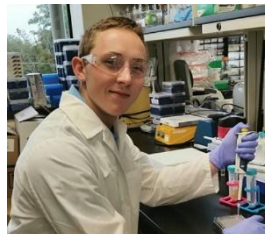
Martha Farmer, President & CEO

NORTH SHORE
INNOVENTURES
BIOTECH & CLEANTECH INCUBATORS



NSIV – Sparking Innovation

- **What we do:** Develop young biotech & cleantech companies through excellent mentoring, first-class lab facilities and a vibrant business-focused community.



- **What we have:** 13,000 sq. ft. of well-equipped labs, conference and office space, a deep mentor and advisor pool, a deeper network, and a commitment to our clients.

- **Where we are:** 45 minutes outside Boston on commuter rail line in a growing cluster of technology businesses and service providers

- **Impact!** 54 companies created 285 jobs & secured $250M in investment and grants, 215 patents filed.

www.nsiv.org

NORTH SHORE INNOVENTURES
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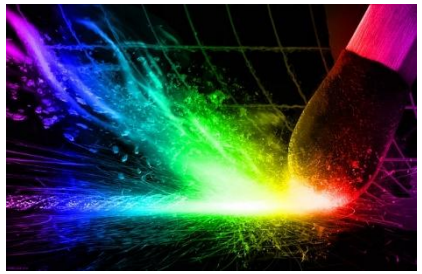
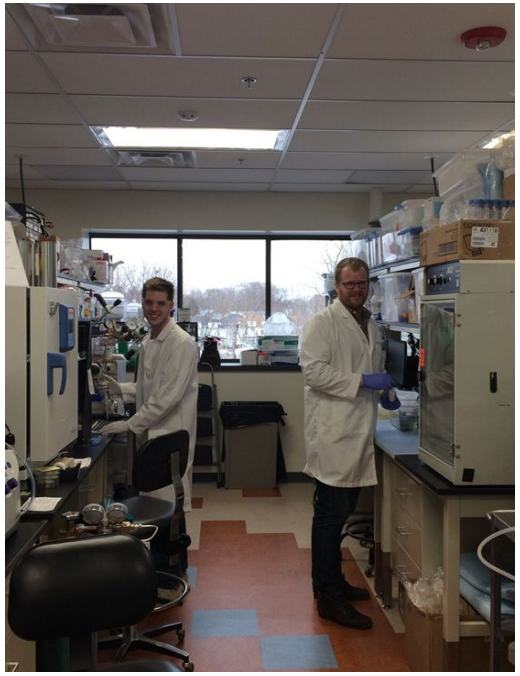


New Facilities - Big Improvement

Colorful!

Lots of Natural Light



Great Community Space

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Failure Fuels Success – Eventually, maybe…

The Saga of Blood Substitutes or Hemoglobin Based Oxygen Carriers (HBOCs)

The Need – a blood-type free, shelf-stable, *safe* and effective alternative to blood for rapid resuscitation from traumatic hemorrhagic shock

Many attempts:

- First paper published on synthetic red cells in 1957
- I started work on the problem at the Naval Research Lab in DC in 1982
- Collaborated with Northfield Labs in Chicago in 1983 (went public)
- Baxter Healthcare in Chicago started a program in 1983
  - Bought Somatogen - genetically engineered HBOC (went public)
- Biopure started up in Cambridge in 1984 (went public)
- Abbott Labs got into it in 1986 – and out in 1987
- Hemosol started in Toronto in 1990 (went public)
- Sangart in 1992 (went public)
- Etc., etc.

History cont'd

Many Failures:

- All the startups that went public got into clinical trials – and never got a product approved for human use in the US.
- All of the products met the requirements in preclincal studies.
- All of them failed to meet the FDA requirements in the clinic.
- Baxter had a catastrophic failure in its 2nd Phase III clinical trial in 1997 and the division was dissolved in 1998.
- Collectively the field lost $2-3Billion.
- I worked for the Naval Research Lab, Abbott Labs, Baxter Healthcare, (including Somatogen), Hemosol and Biopure. Gave up in 2005.

What's New?

- In 2016, I got a call from a former colleague (Naval Research Lab and Biopure), looking for lab space in our incubator.

For an HBOC startup.

(Some ideas just won't die.)

- VirTech Bio is now in preclinical studies – looking good!
- The team has people from Baxter, Hemosol, Biopure and Sangart – all former competitors who were once very sure that their own product was the best.
- We have all lost our arrogance. As has everyone else in the field.
- And we have all want to see a product come out of our decades of work.
- Biggest lessons:

Don't believe your own hype

Question your assumptions