



Anne Marie Quinn  
Montana Molecular

# Biotech is Growing in Montana

- More than 50 companies across the state
- Creating new high paying jobs for Montana university grads
- Producing knowledge based, clean industry
- Developing therapies to diagnose and treat disease

# Made in Montana



## New Treatments for Disease

- Glaxo Smith Kline - Hamilton, MT
  - HPV vaccine to prevent cervical cancer
- Bacterin - Belgrade, MT
  - Antibacterial coatings for surgical implant devices
- Ateris - Missoula, MT
  - New drug development to treat neurologic disease
- Ligocyte - Bozeman, MT
  - Norovirus vaccine
- Sinapsis Pharma - Missoula, MT
  - Potential new treatment for stroke

Many diseases still lack safe and effective treatments



How can we invent better ways to find new drugs?

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# Can living cells tell us more about how drugs work?

QuickTime™ and a  
MPEG-4 Video decompressor  
are needed to see this picture.



## The Nobel Prize in Chemistry 2008

"for the discovery and development of the green fluorescent protein, GFP"

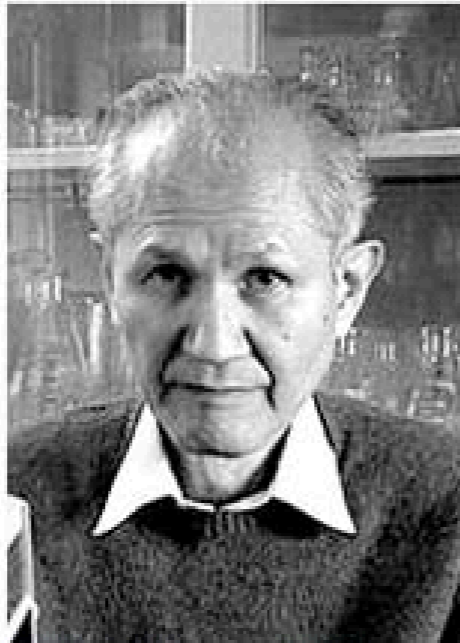


Photo: J. Henriksson/SCANPIX

**Osamu Shimomura**

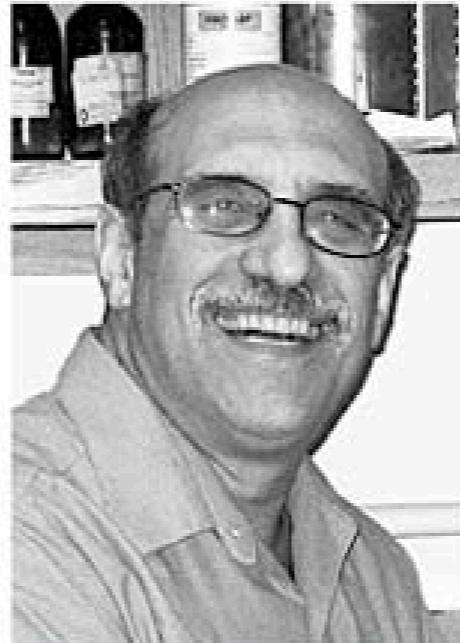


Photo: J. Henriksson/SCANPIX

**Martin Chalfie**



Photo: UCSD

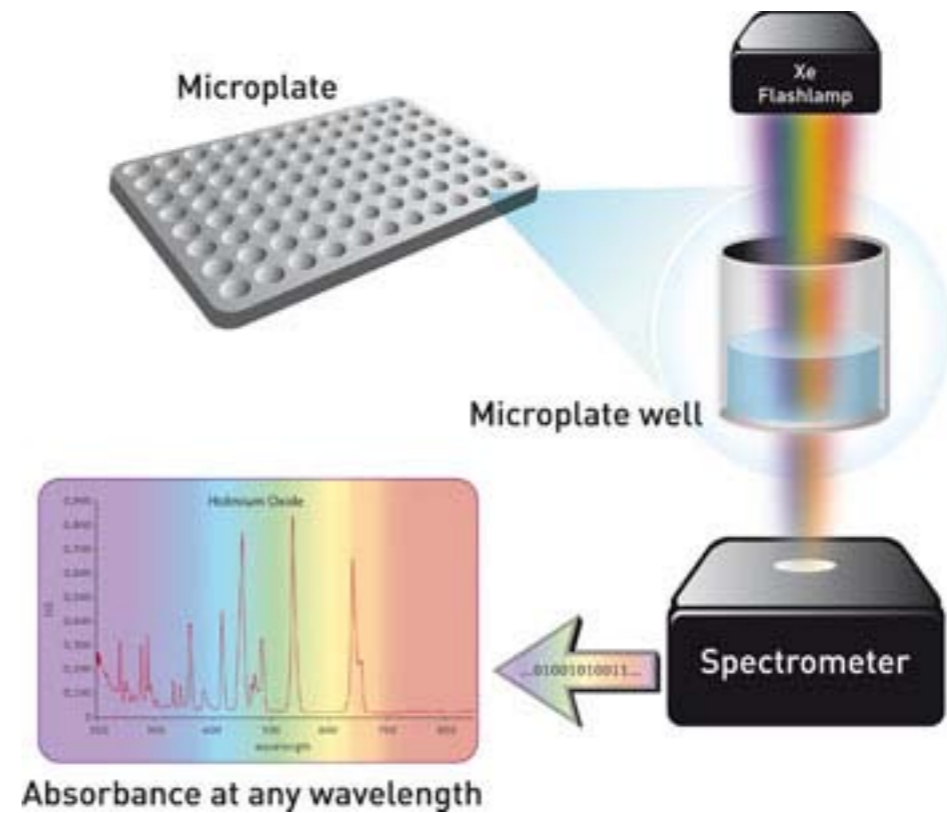
**Roger Y. Tsien**

# The Green Fluorescent Protein

# Montana Molecular and Fluorescence Innovation Alliance

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QuickTime™ and a YUV420 codec decompressor are needed to see this picture.



How long does it take?

Is it toxic?

Is the drug specific?

Possible interactions?

Microplate reader tests millions of potential drugs in living cells

## How does Montana Biotech Grow?



- ☑ Health Care Reform Bill with the Therapeutic Discovery Tax Credit for Qualifying Biomedical Research.
- ☑ I6 Challenge: innovation competition led by the U.S. Department of Commerce to six winning teams.
- ☑ Small Business Innovation Research (SBIR) and Small Technology Transfer Research (STTR) funding
- ☑ Forming partnerships and alliances

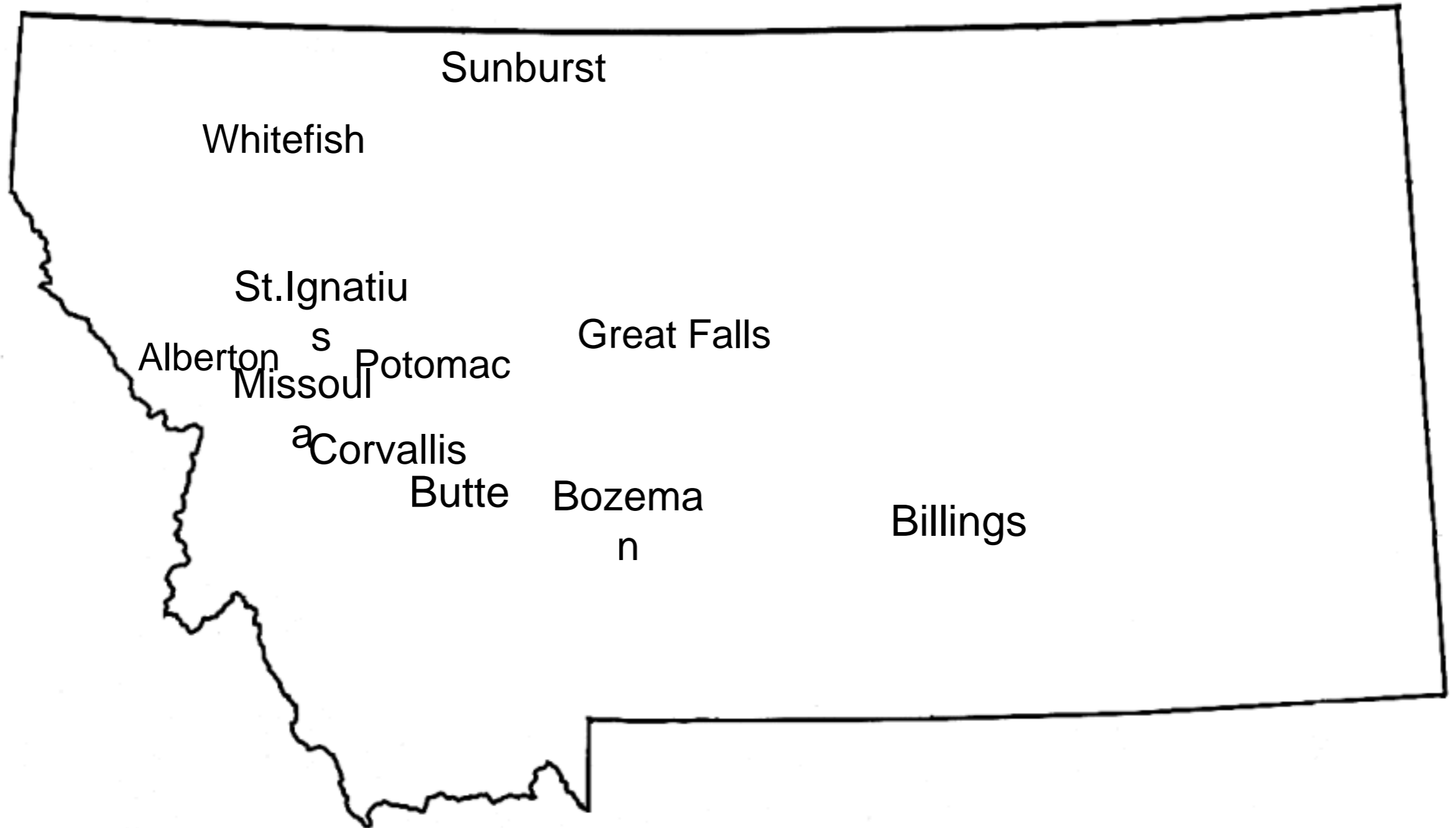


# SBIR is the engine that drives new innovation

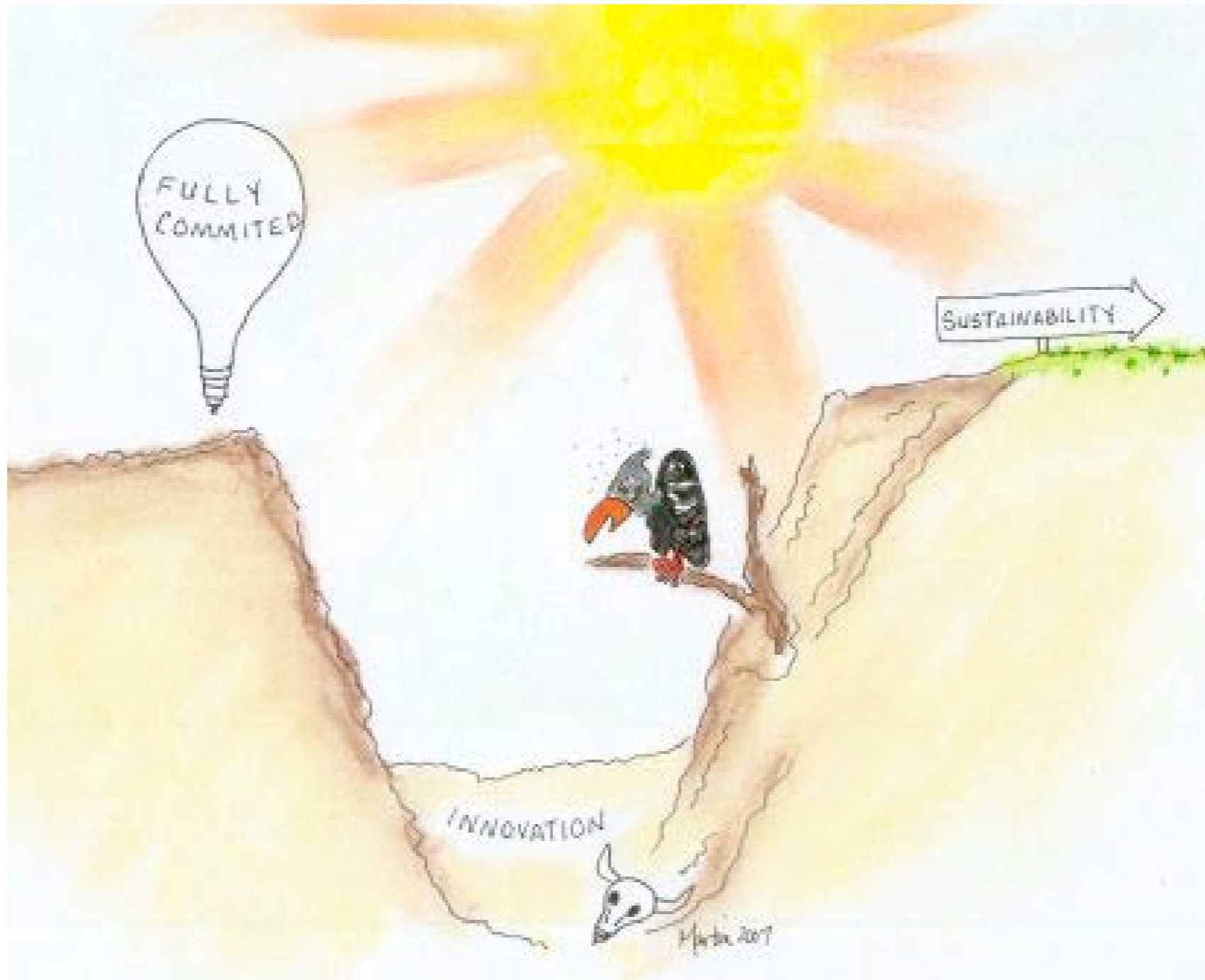


- Federal /STTR funding is vital: NIH, NSF, DOD, USDA...
- Highly competitive - about 25% of applications are funded.
- Provides seed capital to attract private investment
- \$18M in new awards to Montana companies since 2008
- Can be used only for research and development expenses

# SBIR/STTR provides seed capital for new industries



Recently funded projects: electronics, energy, defense, agriculture, photonics biotech, communication



The bad news: Valley of Death

Sustainability = Getting Technologies to Market =  
Investment



Many States Provide Matching Funds for SBIR



# 2009 Montana Legislature: HB 572

- Montana Bioscience Alliance initiative
- Matches SBIR up to \$100K
- Any technology sector is eligible
- Passed with overwhelming bipartisan support
- To help companies commercialize new technologies.

# Thanks!



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