Integrated Bio-Fluorescence Sensor

- **Goal:** Utilize Novel Optoelectronics to Develop Integrated Optical Biosensors
- **Design of Monolithically Integrated Laser, Photodetector, and Filter**
  - Inexpensive, portable, parallel architecture
- **Fabricated First Generation of PIN Photodetectors**
  - Extremely low dark current $\approx 1 \text{nA/cm}^2$
  - High quantum efficiency $\approx 1$

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**NNUN Site:** Stanford University  
http://www.stanford.edu/~ethrush/bioproject.htm