Lancing Strip for Self-Monitoring of Blood Glucose
Self-Monitoring of Blood Glucose

• Approximately 1.5 million Americans are diagnosed with diabetes each year leading to a total of 30.3 million Americans (9.4% of the population) living with diabetes\(^1\)

• Frequency of monitoring glucose differs from patient to patient, but typically ranges from 4-7 tests per day\(^1\)

• In 2017, the global blood glucose test strips market was approximately $11 billion\(^2\)

Traditional blood-sampling devices can be costly and may cause infection

• Traditional self-monitoring of blood glucose requires a blood-sampling device loaded with a lancet to prick the user’s finger.

• Ideally, lancets should be used only once, but several factors described below discourage patients from switching the lancet which increases the risk of infection and exposure to blood-borne viruses:
  – Lancet cost
  – Accidental finger stick when changing the lancet
  – Lancets are a biohazard and special care must be take when discarding
University of Virginia researchers developed a new disposable blood glucose strip that incorporates both the lancet and test strip in one device.

The lancet and user’s blood sample are secured within the test strip and can be disposed of like a regular glucose strip without posing a biohazard threat.
Lancing Strip

- Minimizes risk of infection and transmission of blood-borne pathogens
  - Limits lancet use to single use
  - Self-contains lancet and blood sample

- Less burdensome on the user and encourages users to test blood glucose more regularly
  - Does not require a separate blood-sampling device and lancets
  - Can be disposed of into the regular trash

- Alleviates pain associated with finger pricking
  - The raised bed is made of a rubber-like material with raised points to “confuse” the sensory nerves
Intellectual Property

• UVA TechID: VERESHCHETIN-SLIDE (2015-114)
  – Title: Test strip device and related methods thereof
  – US patent application no. 15/192,468 filed June 24, 2016 (allowed)