Title: Guide for Accurate Placement of Electrocardiogram (ECG) Lead Placement

Invention: This invention is a sliding measurement device that identifies the 4th intercostal space for reliable ECG lead placement through the sternal notch and xiphoid process.

Background: Electrocardiography allows medical professionals to record the electrical activity of a patient’s heart through the use of accurate electrode (lead) placement. Placing leads is difficult, with the challenge increasing in obese patients. Palpation is commonly used to identify the intercostal spaces, however, a chance of error still remains, especially in obese patients. This invention, regardless of patient height and weight, is able to identify the 4th intercostal space for the purpose of placing the V1 lead.

Applications:

- Diagnostic medical devices
- ECG teaching tool
- Solution to identifying 4th intercostal space reliably

Advantages:

- Provides a solution for reliably identifying the 4th intercostal space
- Simple to use
- Does not require palpation techniques

Contact: Lisa Lin
Licensing Manager
lisal@tla.arizona.edu
(520) 626-6969

The University of Arizona, Tucson, Arizona
(520) 626-6969

**Inventors**

Trina Hughes  
Sr. Research Specialist, Sarver Heart Center

Frank Marcus  
Professor Emeritus, Medicine