Leica HyD (PMT2): Provides

- Large Dynamic range
- Improved cell viability
- High speed Imaging
- Single photon counting
- Low dark noise
- Exquisite contrast

**3 modes of collection**

**Standard Mode (most commonly used):** biggest advantage is gives extremely low background
- Relatively quantitative
- Can do automatic or manual scaling
- Quantum efficiency much higher (compared to normal PMT)
- Works best with extremely weak sample.

**BrightR:** brightness reinforced for highly dynamic samples.
- Amplifies dim structures more than bright ones (produces a structure, which is otherwise too dim)
- Nonlinear Gain
- Non-quantitative

**Photon Counting Mode:**
- Good for quantitative imaging
- Good for extremely low signal (not good for bright sample).