

## **HyD Detectors (in place of PMT2 and PMT4)**

**When to use HyD Detectors?** If your sample is very dim, you may want to use HyD detector to collect your signal.

**Do not use high laser with HyD detector:** use as low laser as possible (1%-max 20%)

**PMT 2 and PMT 4 are now replaced by HyD detectors which provides:**

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

### **ADJUSTING THE PARAMETERS FOR HyD's**

**Gain adjustment: can go from 0-500**

Increase "Smart gain" until just a few single blue dots appear (saturated pixels=value 255).

**Offset adjustment:**

Sets automatically in HyD

**Leica HyD has 3 modes of collection:**

- 1) **Standard mode (most commonly used)**
- 2) **BrightR (rarely used, non-linear gain applied to structure, non-quantitative)**
- 3) **Photon Counting Mode (good for quantitative imaging; works best with dim sample)**

**For more information you can also check this website on HyD.**

[http://www.leica-microsystems.com/fileadmin/downloads/Leica%20HyD/Brochures/Leica%20HyD-Brochure\\_EN.pdf](http://www.leica-microsystems.com/fileadmin/downloads/Leica%20HyD/Brochures/Leica%20HyD-Brochure_EN.pdf)

**If you need help in making your instrumental parameter settings on Confocal, contact [pcic@cornell.edu](mailto:pcic@cornell.edu)**