

## Concentrating Pipette Filter Selection

InnovaPrep offers two types of microfiltration Concentrating Pipette Tips (CPTs) and will soon offer at least one type of ultrafiltration membrane filter. Ultrafiltration CPTs will be for concentration of DNA, RNA, viruses and potentially proteins. We will be evaluating a few options for ultrafiltration membranes and hope to offer these before 2013.

Microfiltration should in general be used for particles with a smallest dimension of nominally 0.3  $\mu\text{m}$  or greater. The primary particle type being concentrated with Microfiltration CPTs is bacteria.

### Microfiltration CPTs now available:

- **0.1  $\mu\text{m}$  Polyethersulfone (PES) part # CC08001.** These membranes are produced by phase-inversion process and have a wider pore size distribution, so a smaller pore size is used to ensure efficient capture and concentration of smaller bacteria. Because PES membranes have an asymmetric pore structure with a very thin skin layer they tend to perform well with food and beverage samples, pharmaceutical suspensions and other samples that contain protein, polysaccharides, polyphenols, tannins and other materials that tend to begin fouling the internal pore structure of membranes.
- **0.4  $\mu\text{m}$  Polycarbonate Track Etch (PCTE) part #CC08000.** These are initially much faster than the PES, but in many instances will foul more quickly than the PES. The PCTE contains uniform, cylindrical pores produced through a unique etching process and thus allow for use of a larger pore size. When users develop a protocol for their sample types they should start with PCTE for environmental, biodefense and water applications, and with PES for food, beverage, pharmaceutical, and similar applications.