**Microbiology (Bio 206) #32:**
**Viral and Fungal STDs**

**Herpes simplex virus (HSV)**
Description: Enveloped DNA viruses
Diseases: Cold sores (mostly HSV-1), genital herpes (mostly HSV-2)
Virulence factors: Enter nerves and persist in latent state with periodic recurrences
Treatment: No cure; acyclovir reduces frequency and severity of recurrences
Prevention by safer sex practices, but condoms only partially protective
Reservoir and spread: Human virus only; spread by sexual intercourse and other close contact

**Human papilloma virus (HPV)**
Description: Naked DNA virus
Diseases: Genital warts, greatly increased risk of cervical cancer
Treatment: Warts removed by freezing or chemical treatment; no cure for virus
Prevention by safer sex practices
Pap smear screening for early signs of cervical cancer
Reservoir and spread: Human reservoir; sexual transmission (strains specific for genital tissue)

**Candida albicans**
Description: Yeast
Diseases: Vaginal yeast infections (opportunistic member of normal flora)
Occur mostly when vaginal flora is disrupted and *Candida* takes over
Treatment: Azole drugs (e.g. Monistat)
Reservoir and spread: Infection is usually from one’s own normal flora

**Trichomonas**
Description: Protist parasite
Diseases: Vaginal infections, often asymptomatic
Treatment: Azole drugs
Reservoir and spread: Sexually transmitted

**Staphylococcus aureus**
Description: Gram-positive cocci in clusters
Diseases: Toxic shock syndrome
Virulence factors: TSS toxin (causes systemic inflammation and shock)
Treatment: Antibiotics if caught early; life support when shock begins
Prevention by frequent change of tampons and testing of brands
Reservoir and spread: Opportunistic member of normal vaginal flora; long wearing of tampons gives growth environment and access to blood