Microbiology (Bio 206) #36: More Skin Infections

Terms you should know:
- Koplik spots
- Secondary infections
- Teratogen

Measles virus
- Description: Enveloped RNA virus, related to mumps virus
- Diseases: Measles
- Virulence factors: Rapid spread from upper respiratory system to blood
- Treatment: None; preventable by vaccine
- Reservoir and spread: Human pathogen; spread by respiratory droplets
  Although very sensitive to drying, highly contagious (90% infection rate)
  Still nearly 1,000,000 cases worldwide each year

Rubella virus
- Description: Enveloped, single-stranded RNA virus
- Diseases: Rubella (German measles), congenital rubella syndrome
- Virulence factors: Ability to cross placenta
- Treatment: None; preventable by vaccine
- Reservoir and spread: Human pathogen; spread by respiratory route
  Crosses placenta; highly teratogenic to fetus in first three months

Smallpox virus
- Description: Extinct.

Dermatophytes
- Description: Group of related fungi
- Diseases: “Ringworm:” superficial infections including tinea pedis (athletes’ foot),
  tinea capitis (scalp ringworm), tinea cruris (jock itch), tinea unguinum
  (nails) and tinea corporis (other body regions).
- Treatment: Topical antifungal drugs like miconazole.
- Reservoir and spread: Spread by spores, which can persist for years

Onchocerca volvulus
- Description: Parasitic roundworm
- Diseases: Onchocerciasis (“river blindness”) due to migration of larvae to eyes
- Treatment: Drugs and surgery to remove adult worms
  Microfilariae killed by ivermectin (Mectizan®); also used prophylactically
- Reservoir and spread: Larvae spread by bite of black flies; millions of larvae produced in about
  a year from original bite