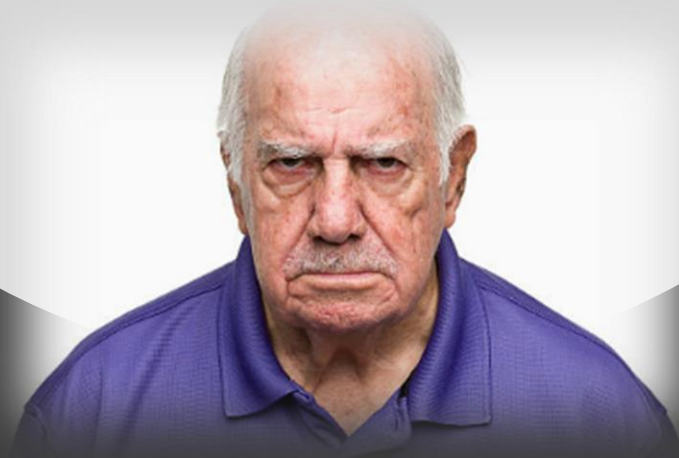




Diagnostocs of Onychomycosis



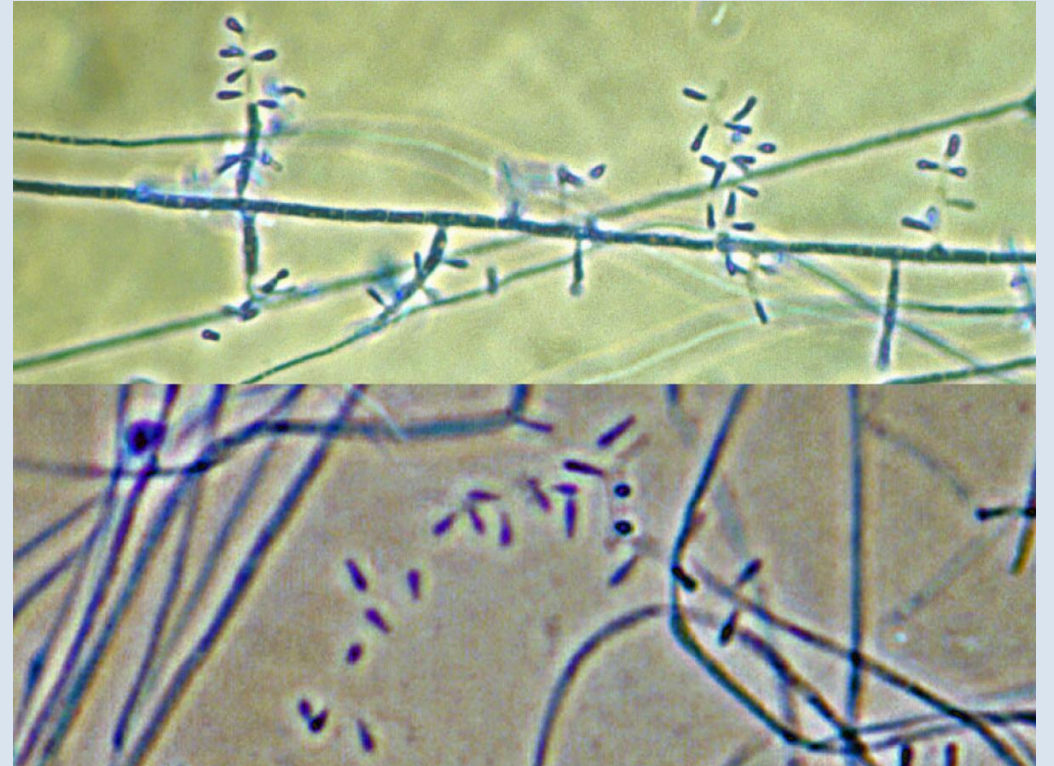
ONYCHOMYCOSIS



- An infection of the nail caused by a fungus (yeast, mould, or both)
- Also known as Tinea Unguium
- 90% of the toenail infections and 50-75% of the fingernail infections are caused by dermatophytes
- The other agents are non-dermatophytic fungi: Candida and hyaline/dematiaaceous saprophytic moulds

ONYCHOMYCOSIS

- The most common etiological agent among dermatophytes is *Trichophyton rubrum*, followed by *Trichophyton mentagrophytes* CX, *Trichophyton tonsurans*, *Epidermophyton floccosum* and *Trichophyton violaceum* respectively

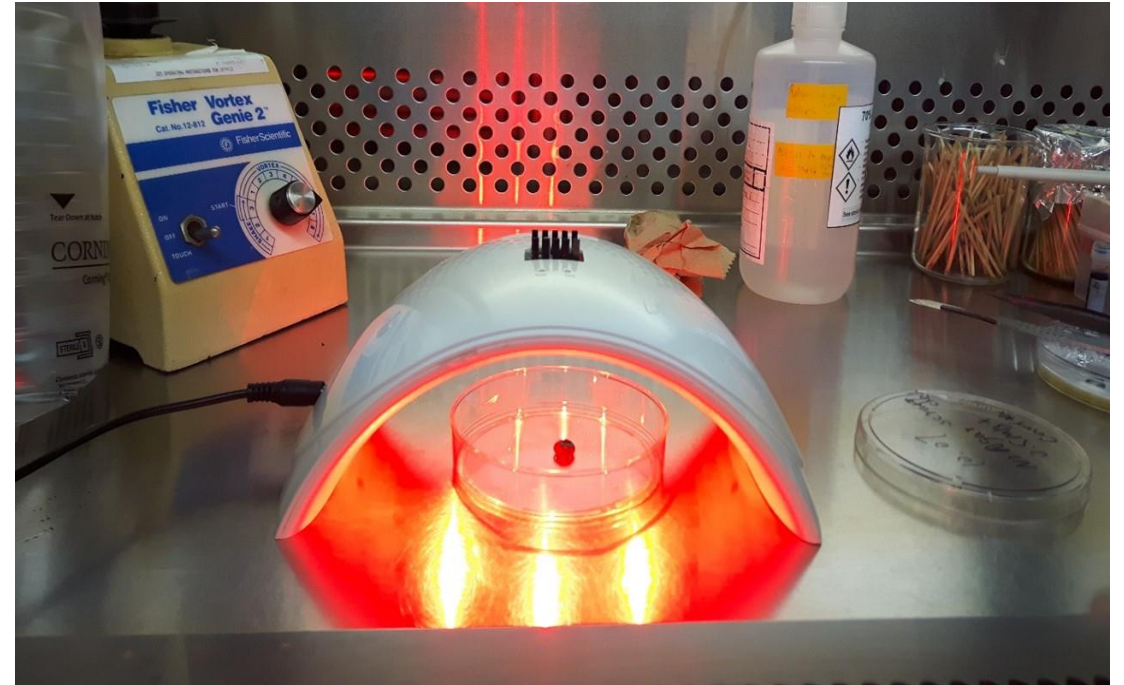


ONYCHOMYCOSIS

- Gold standard- KOH microscopy and culture results
- only 50% of dystrophic nails have a fungal etiology



ToeFx fight against Fungus



50% ONYCHOMYCOSIS

Nails disorders

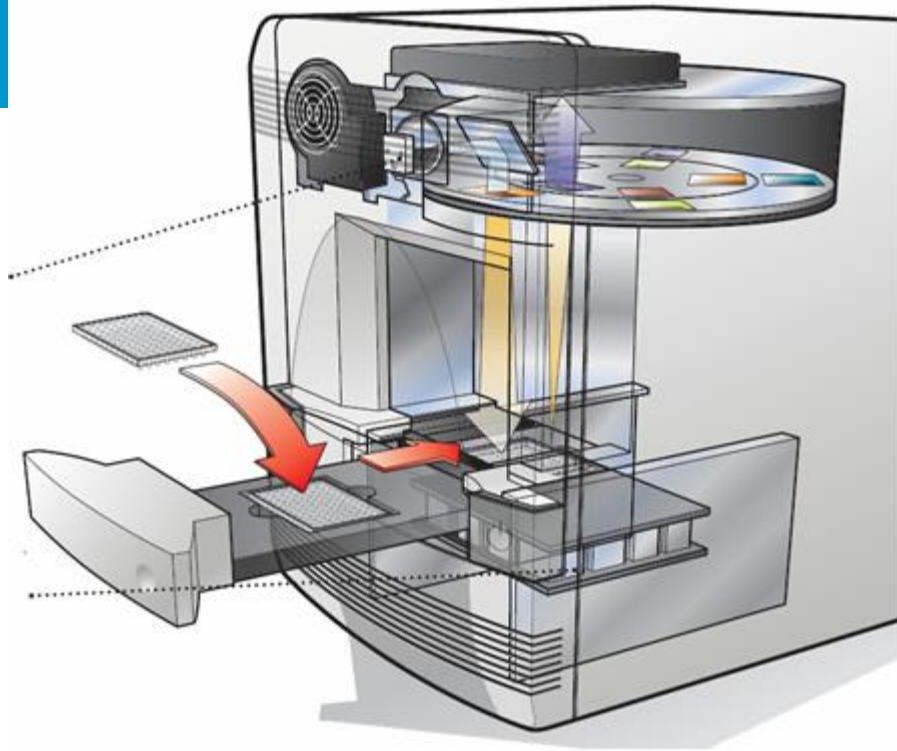
- 1-Absent part : anonychia congenita
- 2-Pitting : Psoriasis
- 3-Cuticle invasion : lichen planus
- 4-Dark brown pigmentation,ridging :monilia
- 5-Distal onycholysis : Tinea
- 6-Spoon nails : Iron deficiency
- 7-Discoloured nails with inverted edges :
Ectodermal dysplasia
- 8-Clubbing : toxins-malignancy-hypoxia
- 9-Short and overcut nails(biting) : anxiety
- 10-Splinter haemorrhage: infective endocarditis
- 11-yellow nail :
lymphoedema- bronchiectasis –lymphoma
- 12-Half and half : hepatic cirrhosis
- 13-Ridging : Rheumatoid arthritis
- 14-Longitudinal Brown Lines:
Addison's disease-Breast cancer-Melanoma
- 15-White nails : anemia
- 16-Red nail: polycythemia- systemic lupus
- 17-Horizontal white and pink bands:
Nephrotic syndrome
- 18-Brittle Nail: detergents and water- hypothyrodism



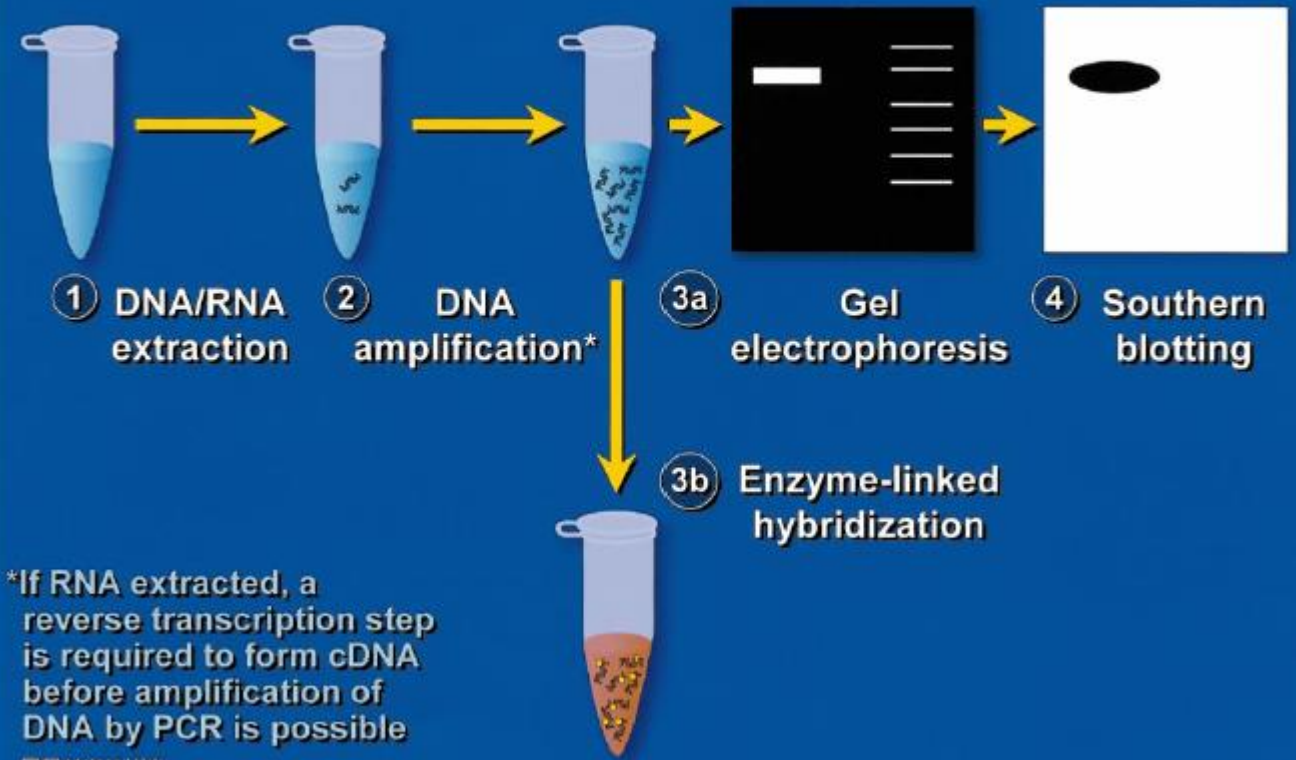
ONYCHOMYCOSIS- ADEQUATE SPECIMEN



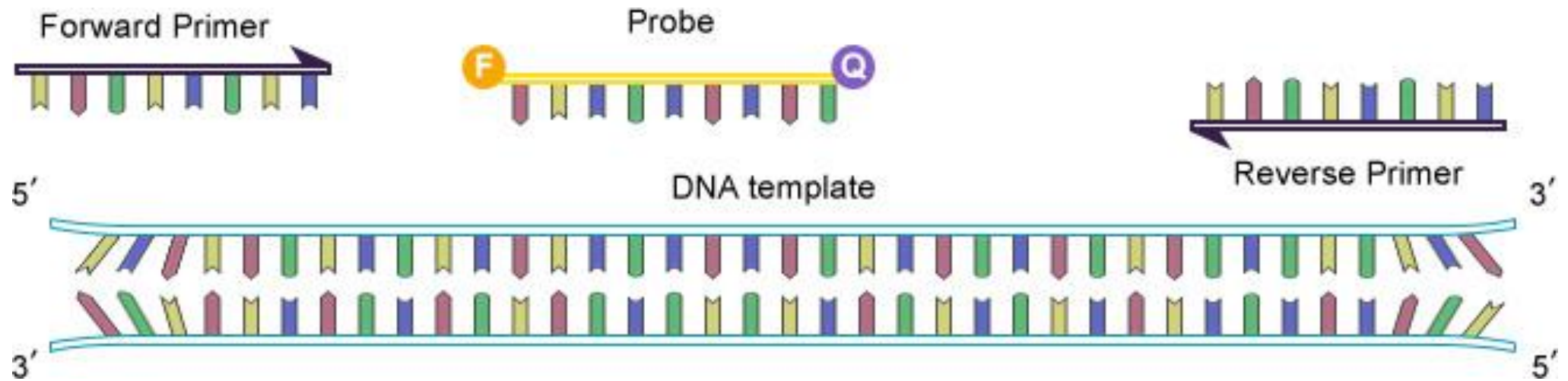
qPCR



Conventional PCR-Based Testing Formats



qPCR



Machine Learning

