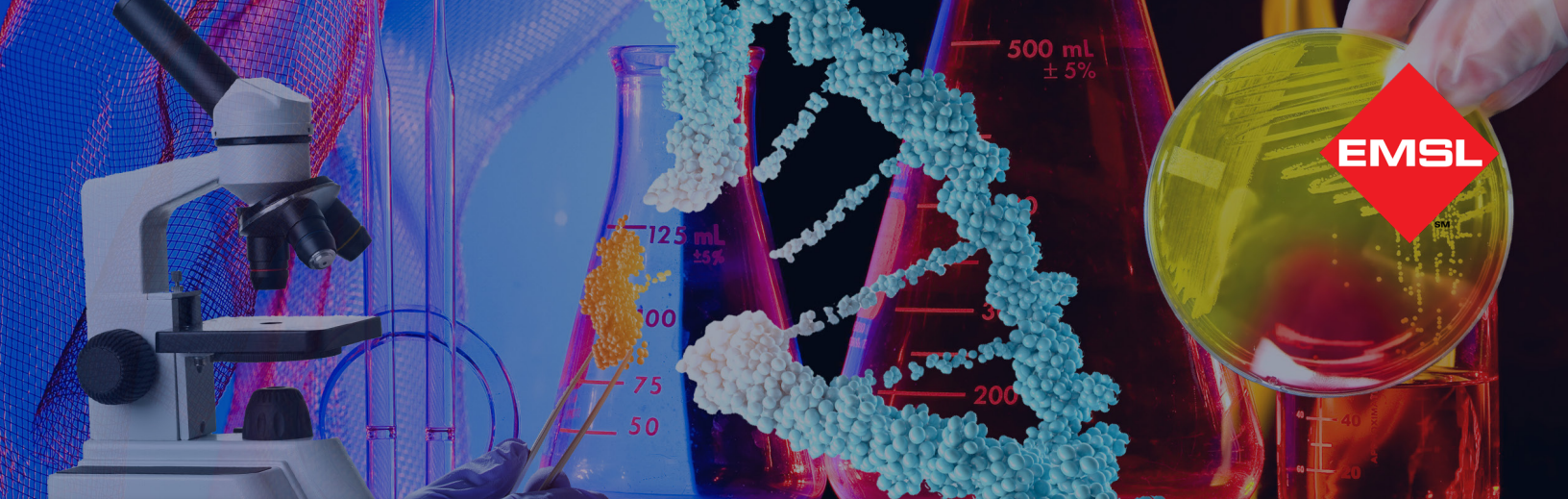


FUNGAL GLOSSARY

Absidia

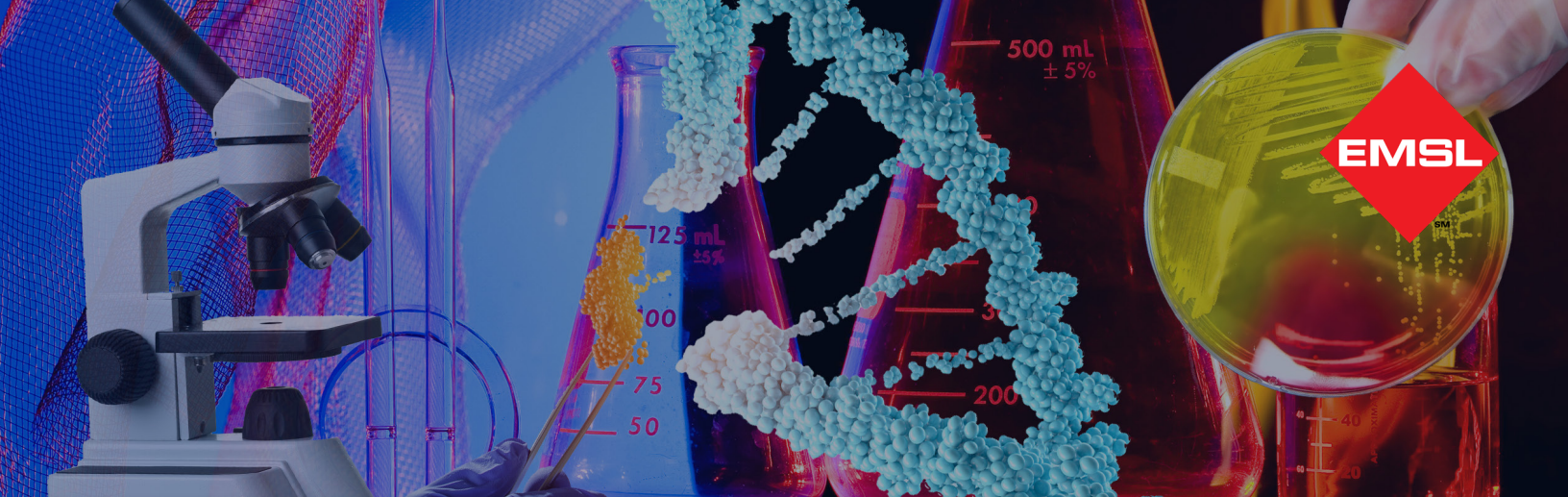
| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Soil◆ Decaying vegetation |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Often found in stored grains◆ Other foods |
| Water Activity | <ul style="list-style-type: none">◆ Unknown |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Air/wind |
| Allergenic Potential | <ul style="list-style-type: none">◆ Recognized as an allergen |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ In immunocompromised patients pulmonary invasions, the meninges (brain or spinal chord), and kidney infections can result from <i>Absidia</i> exposure◆ <i>Absidia</i> may also cause zygomycosis in immunocompromised patients (AIDS) |
| Industrial Uses | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |
| Other Comments | <ul style="list-style-type: none">◆ <i>Absidia</i> often causes food spoilage |
| References | <ul style="list-style-type: none">◆ Mohammed S, Sahoo TP, Jayshree RS, Bapsy PP, Hema S. Sino-oral zygomycosis due to <i>Absidia</i> corymbifera in a patient with acute leukemia. 2004. Med. Mycol. 42(5): 475-478. |



FUNGAL GLOSSARY

Acremonium

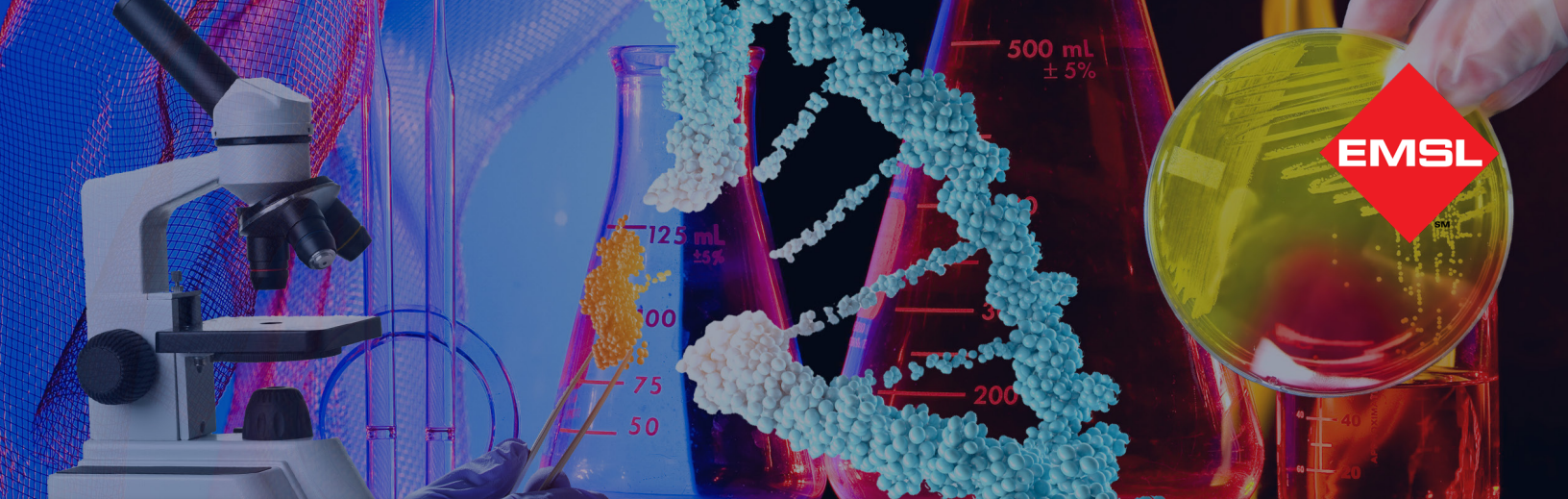
| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Found in decaying or dead plant materials◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Food◆ Commonly encountered in wet, cellulose-based building materials |
| Water Activity | <ul style="list-style-type: none">◆ Grows well indoors when there is high water content (>0.90 Aw) |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Insect/water droplet◆ Older spores can be dislodged by wind |
| Allergenic Potential | <ul style="list-style-type: none">◆ Type I (hay fever, asthma)◆ Type III (hypersensitivity pneumonitis) |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Known to cause hyalohyphomycosis, keratitis, mycetoma, and onychomycosis◆ Also known to cause infections in immunodeficient patients◆ Causes infections in persons with wound injuries |
| Industrial Uses | <ul style="list-style-type: none">◆ Cephalosporins |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Trichothecene mycotoxins |
| Other Comments | <ul style="list-style-type: none">◆ There are 100 known species |



FUNGAL GLOSSARY

Agrocybe

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Bark mulch◆ Wood chips◆ Iceplant◆ Grass |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Water Activity | <ul style="list-style-type: none">◆ Unknown |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Wind |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Industrial Uses | <ul style="list-style-type: none">◆ <i>Agrocybe aegerita</i> is a delicious edible mushroom cultivated commercially as “Louisiana Roman Mushroom” |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |
| Other Comments | <ul style="list-style-type: none">◆ Thought to cause white rot◆ No <i>Agrocybe</i> species should be considered edible since they are hard to identify, and could be confused with several poisonous mushrooms |



FUNGAL GLOSSARY

Alternaria

Natural Habitat

- ◆ Common saprobe and pathogen of plants. Typically found on plant tissue, decaying wood, and foods.
- ◆ Soil
- ◆ Air outdoors

Suitable Substrates in the Indoor Environment

- ◆ Indoors near condensation (window frames, showers)
- ◆ House dust (in carpets, and air)
- ◆ Also colonizes building supplies, computer disks, cosmetics, leather, optical instruments, paper, sewage, stone monuments, textiles, wood pulp, and jet fuel

Water Activity

- ◆ $A_w = 0.85-0.88$

Mode of Dissemination

- ◆ Wind

Allergenic Potential

- ◆ Type I allergies (hay fever, asthma)
- ◆ Type III (hypersensitivity pneumonitis)

Potential Opportunist or Pathogen

- ◆ Phaeohyphomycosis {causing cystic granulomas in the skin and subcutaneous tissue}
- ◆ In immunocompetent patients, *Alternaria* colonizes the paranasal sinuses, leading to chronic hypertrophic sinusitis

Industrial Uses

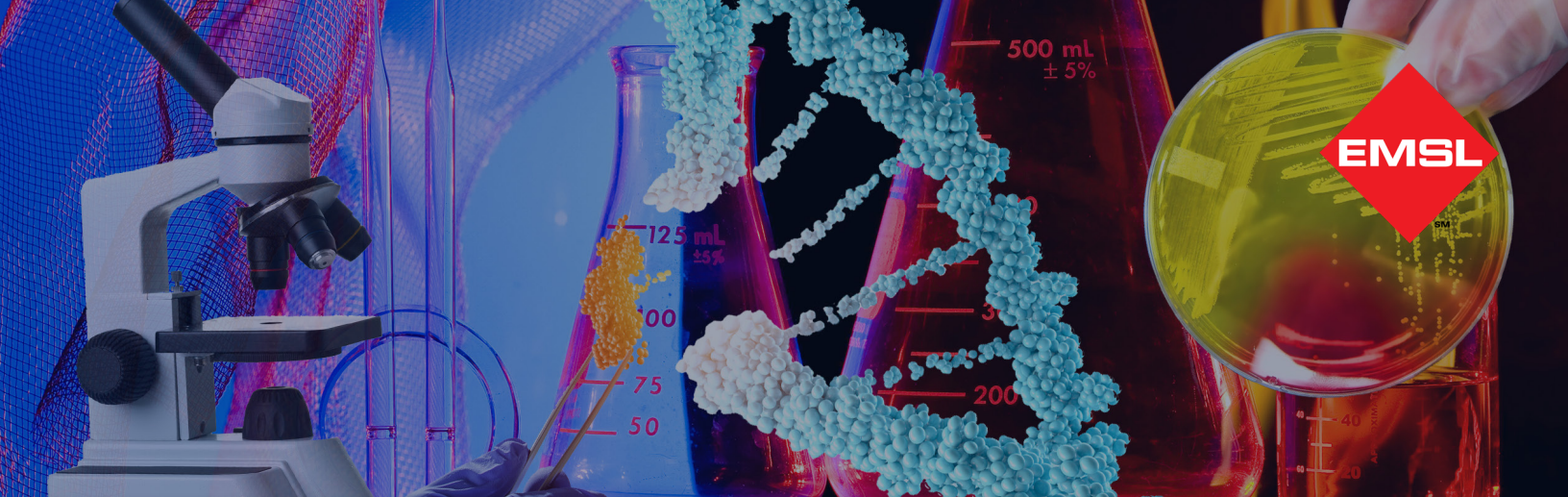
- ◆ Biocontrol of weed plants
- ◆ Biocontrol fungal plant pathogens

Potential Toxins Produced

- ◆ Alternariol (AOH)
- ◆ Alternariol monomethylether (AME)
- ◆ Tenuazonic acid (TeA)
- ◆ Altenuene (ALT)
- ◆ Altertoxins (ATX)

Other Comments

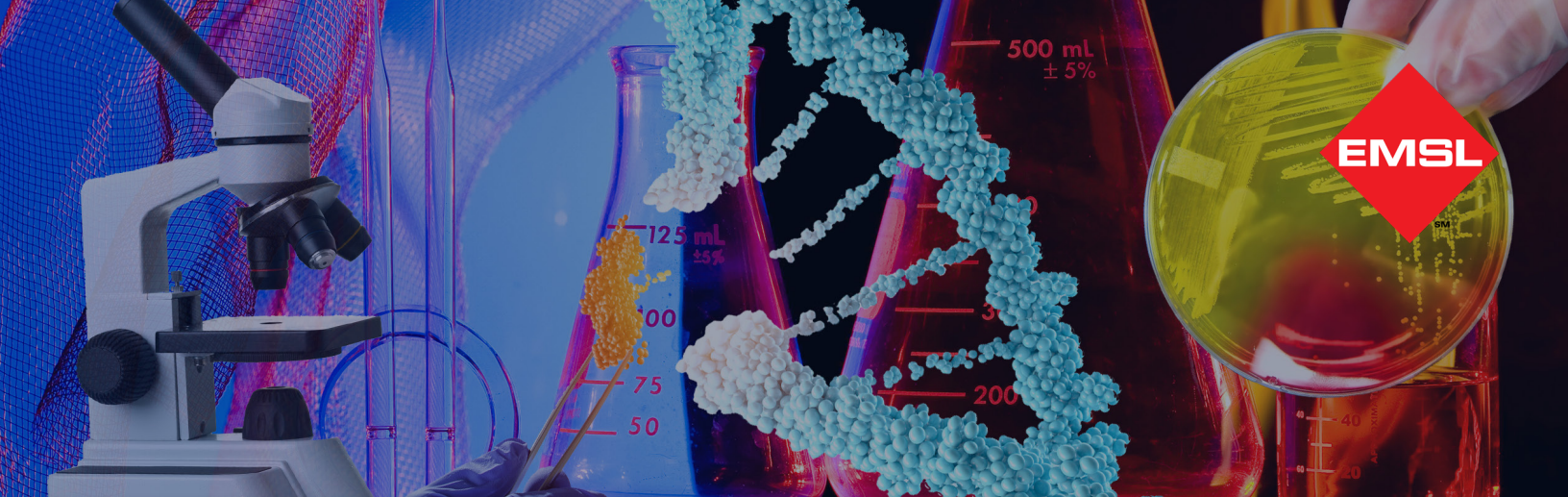
- ◆ *Alternaria* spores are one of the most common and potent indoor and outdoor airborne allergens. Additionally, *Alternaria* sensitization has been determined to be one of the most important factors in the onset of childhood asthma. Synergy with *Cladosporium* or *Ulocladium* may increase the severity of symptoms



FUNGAL GLOSSARY

Amphobotrys

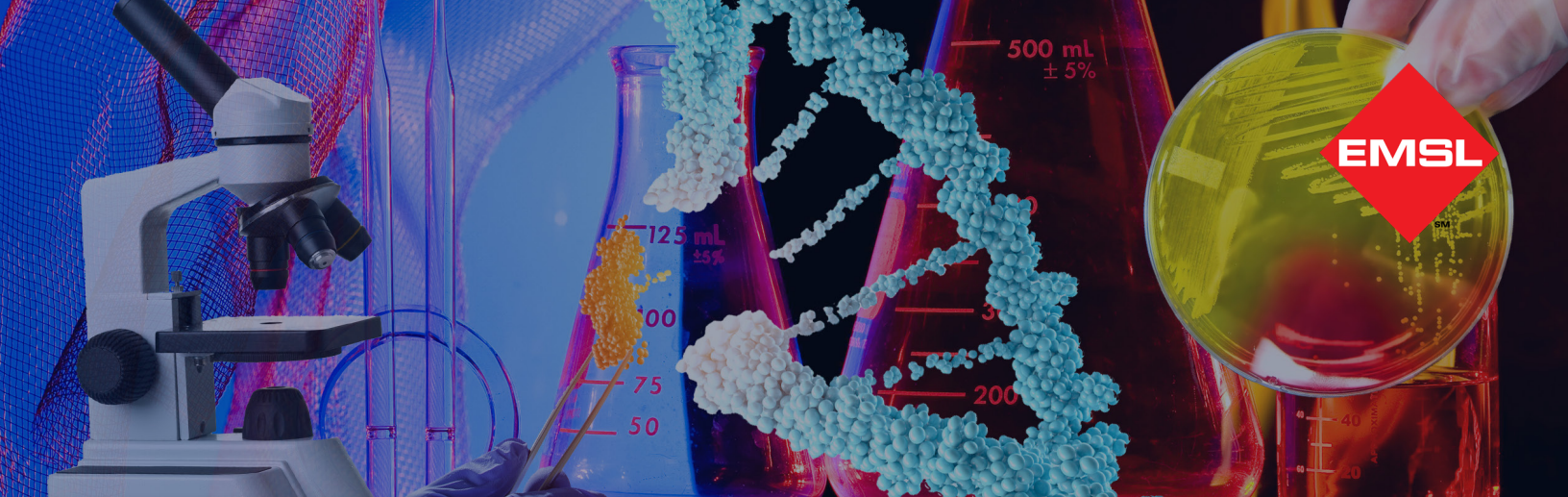
| | |
|---|---|
| Natural Habitat | ◆ Causal agent of flower blight and stem rot on Poinsettia plants |
| Suitable Substrates in the Indoor Environment | ◆ Poinsettia |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Industrial Uses | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |



FUNGAL GLOSSARY

Aphanocladium

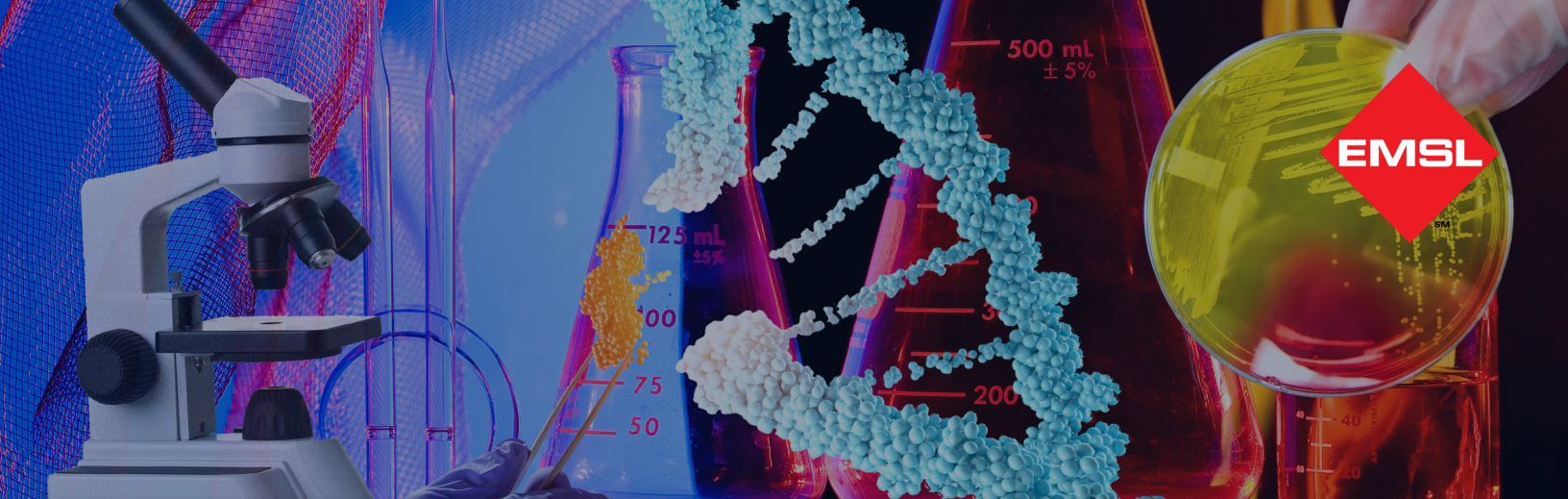
| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ <i>A. album</i> parasitizes <i>Puccinia graminis</i> (Wheat Rust)◆ Cereal based poultry feed◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Edible mushrooms |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Wind |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Industrial Uses | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |
| Other Comments | <ul style="list-style-type: none">◆ Can cause crop loss in mushroom growing crop houses with high humidity |



FUNGAL GLOSSARY

Arthrinium

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Decaying plant material◆ Soil |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Cellulose containing materials |
| Water Activity | <ul style="list-style-type: none">◆ Unknown |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Wind |
| Allergenic Potential | <ul style="list-style-type: none">◆ <i>Arthrinium sphaerospermum</i> is recognized as an allergen |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Not known as a pathogen |
| Industrial Uses | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ 3-nitropropionic acid (NPA)◆ Terpestacin |
| References | <ul style="list-style-type: none">◆ Xingjie L, Xueyun L, Wenjuan H. 1992. Studies on the epidemiology and etiology of moldy sugarcane poisoning in China. <i>Biomed Environ Sci.</i> 5 (2): 161-177.◆ Ming L. 1995. Moldy sugarcane poisoning--a case report with a brief review. <i>J Toxicol Clin Toxicol.</i> 33(4): 363-367.◆ Oka M, Iimura S, Tenmyo O, Sawada Y, Sugawara M, Ohkusa N, Yamamoto H, Kawano K, Hu SL, Fukagawa Y. 1993. Terpestacin, a new syncytium formation inhibitor from <i>Arthrinium</i> sp. <i>J Antibiot (Tokyo).</i> 46(3):367-373. |



FUNGAL GLOSSARY

Arthrospore formers

Natural Habitat

- ◆ Many Basidiomycetes form arthrospores during their mycelial stage. *Geotrichum* and *Oidiodendron* are typical ascomycete arthrospore formers. Arthrospores are formed by microfungi, and yeast-like fungi. Please refer to individual descriptions of these fungi for more information.

Suitable Substrates in the Indoor Environment

- ◆ Paper
- ◆ Soil
- ◆ Textiles

Potential Opportunist or Pathogen

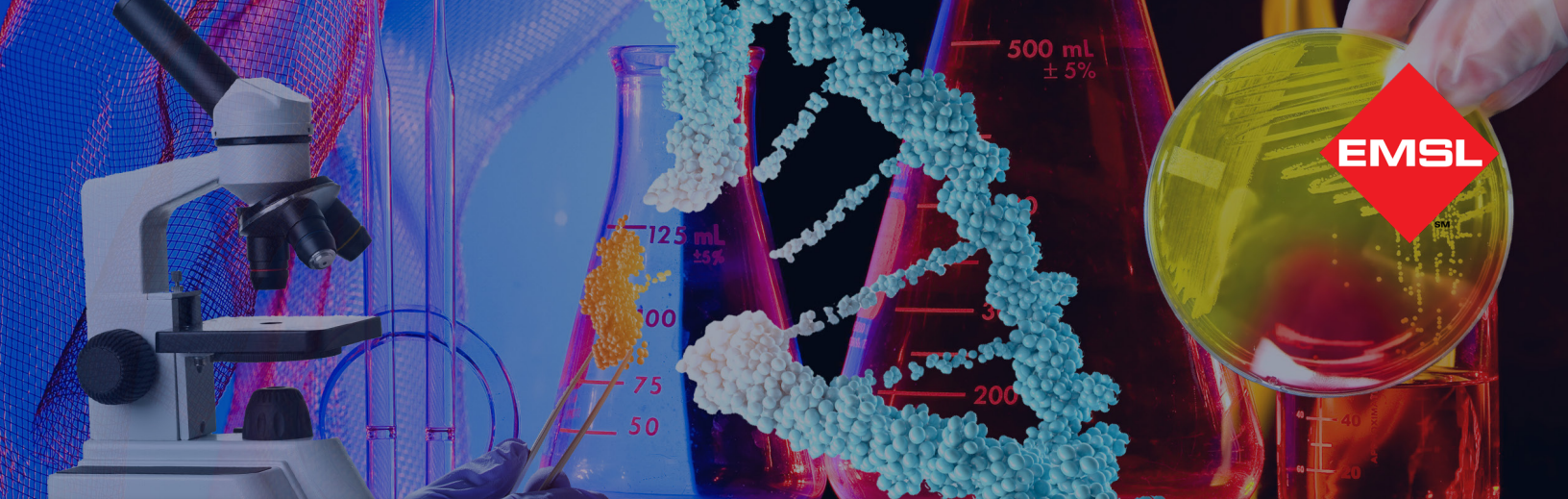
- ◆ Depends on genera and species

Potential Toxins Produced

- ◆ Depends on genera and species

Additional Comments

- ◆ Arthrospores are disarticulated cells of a formerly vegetative filament that function as spores.



FUNGAL GLOSSARY

Arthrobotrys

Natural Habitat

- ◆ Decaying plant debris
- ◆ Dung
- ◆ Moss
- ◆ Soils

Suitable Substrates in the Indoor Environment

- ◆ Unknown

Allergenic Potential

- ◆ Unknown

Potential Opportunist or Pathogen

- ◆ Unknown

Industrial Uses

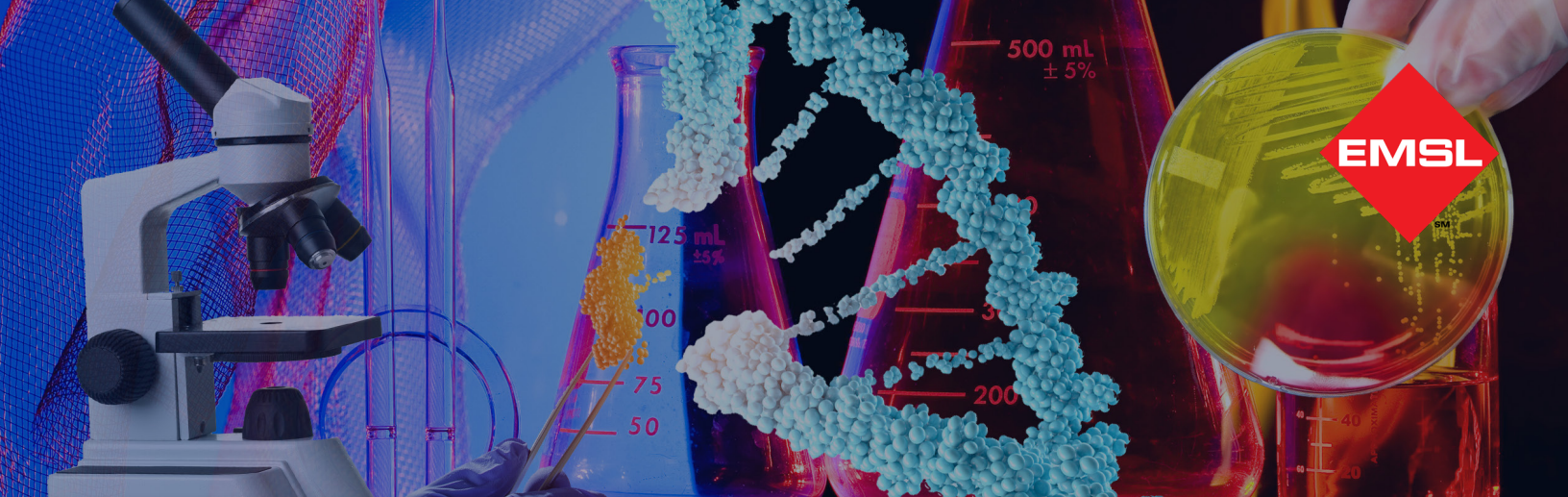
- ◆ Biological control agent against plant pathogenic nematodes

Potential Toxins Produced

- ◆ Unknown

Additional Comments

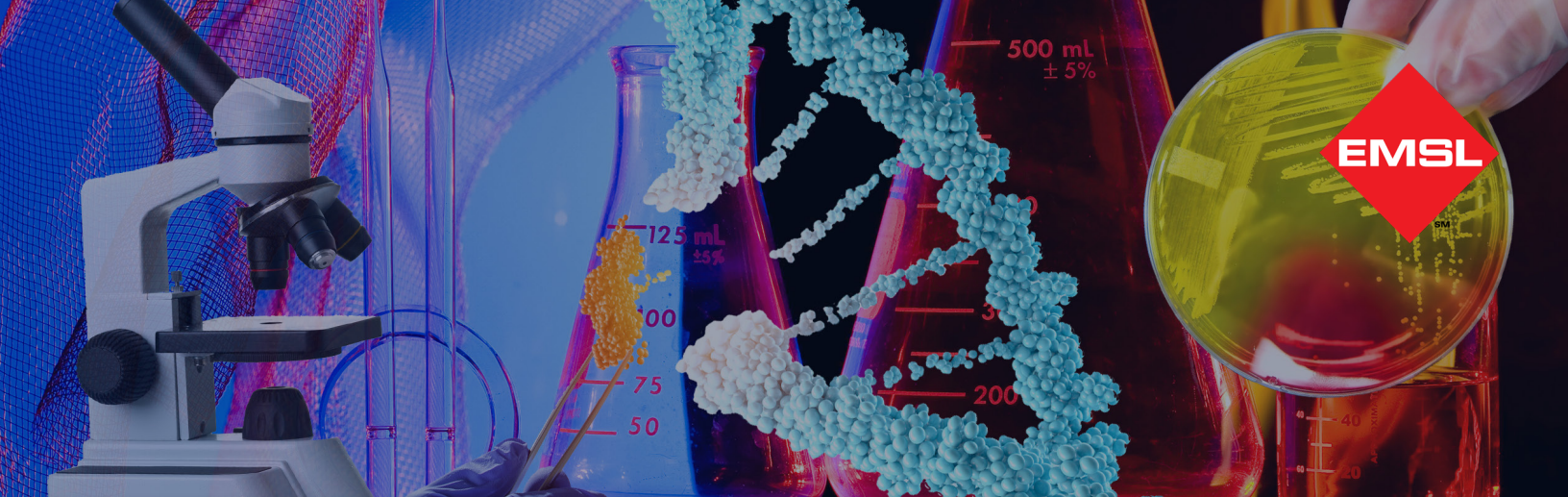
- ◆ Predacious fungi: Captures nematodes in a network of sticky and constricting rings.



FUNGAL GLOSSARY

Ascospores

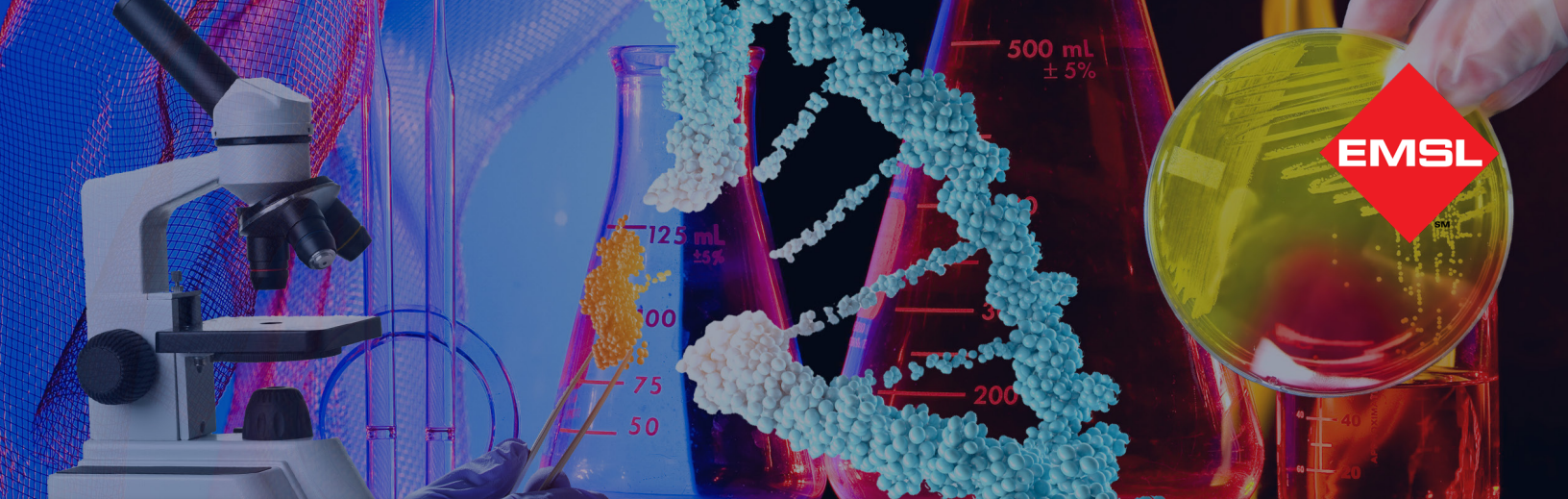
| | |
|---|--|
| Natural Habitat | ◆ Everywhere in nature |
| Suitable Substrates in the Indoor Environment | ◆ Depends on genus and species |
| Water Activity | ◆ Depends on genus and species |
| Mode of Dissemination | ◆ Forcible ejection or passive release and dissemination by wind or insects |
| Allergenic Potential | ◆ Depends on genus and species |
| Potential Opportunist or Pathogen | ◆ Depends on genus and species |
| Industrial Uses | ◆ Depends on genus and species |
| Potential Toxins Produced | ◆ Depends on genus and species |
| Other Comments | ◆ Ascospores are the result of sexual reproduction and produced in a saclike structure called an ascus. All ascospores belong to members of the Phylum Ascomycota, which encompasses a plethora of genera worldwide. |



FUNGAL GLOSSARY

Ascotricha

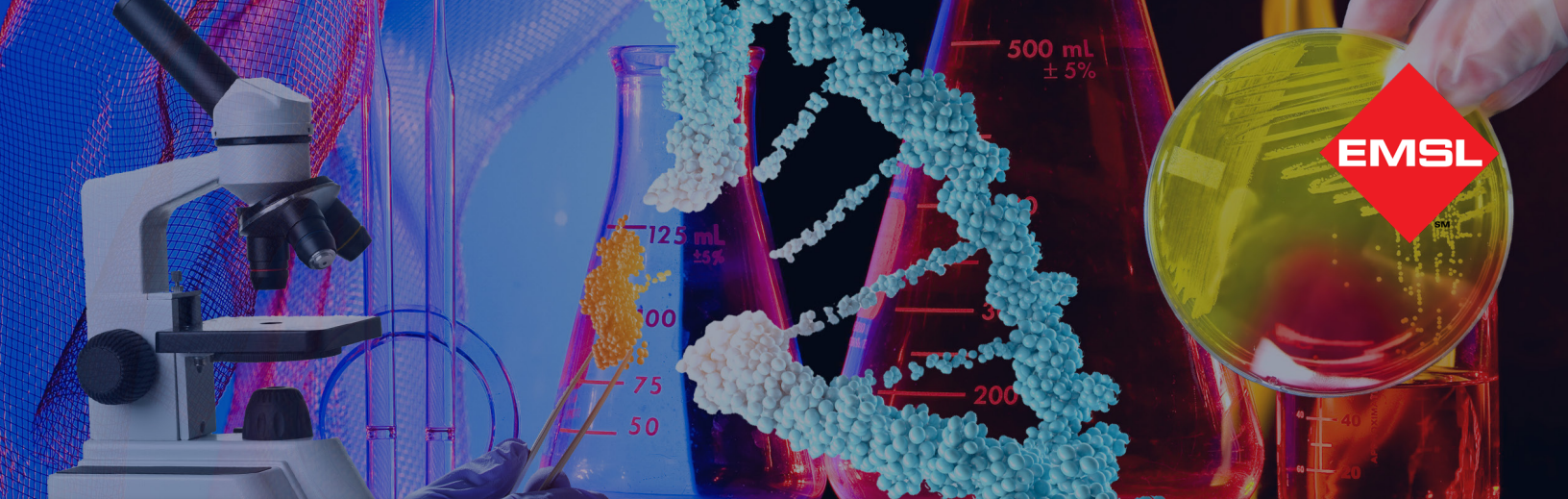
| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Decaying timber◆ Soil |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Wet sheetrock◆ Straw◆ Wood |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Industrial Uses | <ul style="list-style-type: none">◆ <i>A. amphitricha</i> produces the antifungal ascosteroside |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Anamorphic/asexual state of <i>Dicyma</i> (see <i>Dicyma</i>) |



FUNGAL GLOSSARY

Aspergillus

| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none"> ◆ Soil ◆ Plant debris |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none"> ◆ Grows on a wide range of substrates indoors ◆ Prevalent in water damaged buildings |
| Water Activity | <ul style="list-style-type: none"> ◆ Aw=0.75-0.94 |
| Mode of Dissemination | <ul style="list-style-type: none"> ◆ Wind |
| Allergenic Potential | <ul style="list-style-type: none"> ◆ Allergic bronchopulmonary aspergillosis (ABPA) which is common in asthmatic and cystic fibrosis patients ◆ <i>Aspergillus sinusitis</i> ◆ Invasive aspergillosis in immunocompromised patients |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none"> ◆ Aspergilloma and chronic pulmonary aspergillosis in people with lung disease |
| Industrial Uses | <ul style="list-style-type: none"> ◆ <i>A. sojae</i> is used for fermented food and beverages in Asia ◆ <i>A. oryzae</i> is used in soy sauce production ◆ <i>A. terreus</i> produces mevinoлин which is able reduce blood cholesterol ◆ <i>A. niger</i> produces enzymes used to make some breads and beers and is also used in plastic decomposition ◆ <i>A. niger</i> and <i>A. ochraceus</i> are used in cortisone production |
| Potential Toxins Produced | <ul style="list-style-type: none"> ◆ 3-Nitropropionic acid, 5-<i>metoxysterematocystin</i>, Aflatoxin B1, B2, Aflatoxin G1, G2, Aflatoxin M1, M2, Aflatoxin P1, Aflatoxin Q1, <i>Aflatoxins</i>, Aflatrem (alkaloid), Aflatrem (indole alkaloid), <i>Aflavinin</i>, Ascalidol, Aspergillic acid, Aspergillomarasmin, Aspertoxin, Asteltoxin, Austamid, Austdiol, Austins, Austocystins, Avenaciolide, Brevianamide A, Candidulin, Citreoviridin,, Citrinin, ClavatoI, Cyclopiazonic acid, Cyclopiazonic acid, Cytochalasin E, Emodin, Fumagillin, Fumigaclavine A, Fumigatin, Fumitremorgens, Fumitremorgin A, Gliotoxin, Griseofulvin, Helvolic acid, Kojic acid, Kotanin, Malformins, Naphtopyrones, Neoaspergillic acid, Nidulin, Nidulotoxin, Nigragillin, Ochtratoxin A, Ochtratoxin B, Ochtratoxin C, Ochtratoxins β, Ochtratoxins a, Ochtratoxins (A,B,C,a, β.), Orlandin, Oryzacidin, Paspaline, Patulin, Penicillic acid, Phthioic acid, Secalonic acid A, B, D and F, Sphingofungins, Spinulosin, Sterigmatocystin, Terphenyllin, Terredional, Terreic acid, Terrein, Terretonin, Terretonin, Territrem A, Tryptoquivalines, Verruculogen, Versicolorin A, Viomellein, Viriditoxin, Xanthocillin, Xanthomegnin, β-nitropropionic acid |
| Other Comments | <ul style="list-style-type: none"> ◆ It is the second most common opportunistic pathogen following <i>Candida</i> |



FUNGAL GLOSSARY

Aureobasidium

Natural Habitat

- ◆ Soils
- ◆ Plant leaf and stem tissue
- ◆ Wood
- ◆ Fresh Water
- ◆ Plant Debris

Suitable Substrates in the Indoor Environment

- ◆ Damp areas including kitchens, bathrooms, grout, and shower curtains
- ◆ Painted interior surfaces and textiles
- ◆ Skin and nails of people

Water Activity

- ◆ Grows well where moisture accumulates (88.5 RH on woodchip wallpaper)

Mode of Dissemination

- ◆ Water droplets, rain
- ◆ Wind when spores become dry

Allergenic Potential

- ◆ Type I (asthma and hay fever)
- ◆ Type III (hypersensitivity)
- ◆ Skin irritant causing dermatitis

Potential Opportunist or Pathogen

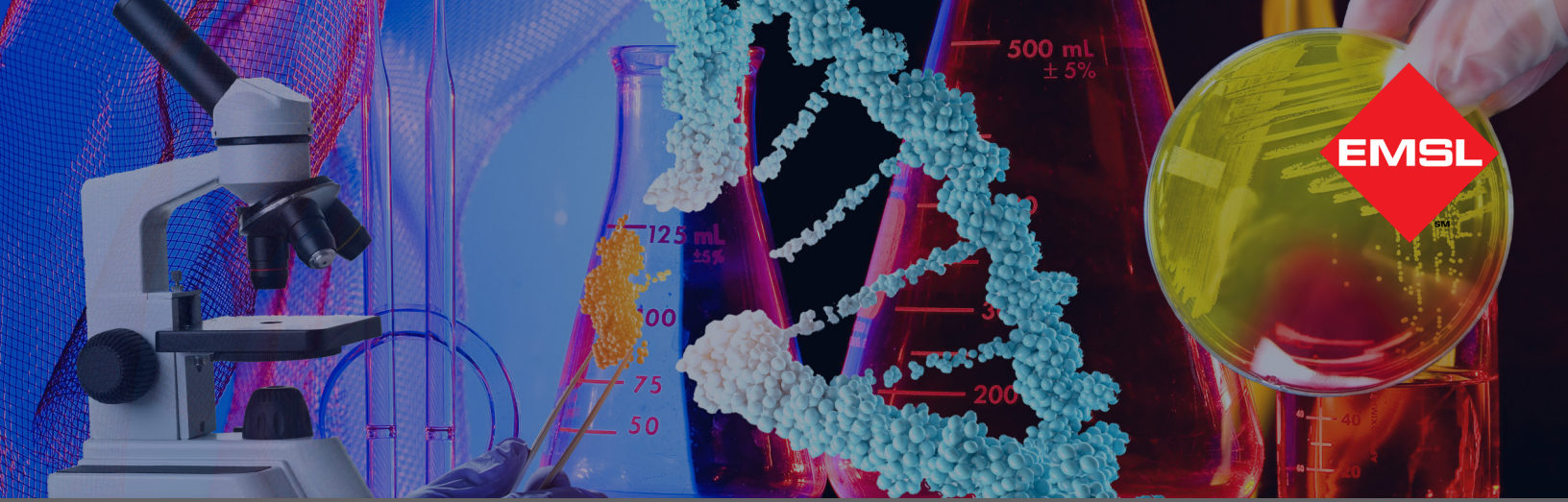
- ◆ Keratomycosis
- ◆ Phaeophycomycosis
- ◆ Pulmonary mycosis with sepsis

Industrial Uses

- ◆ *A. pullulans* produces pullulan which is used for packaging food and drugs

Potential Toxins Produced

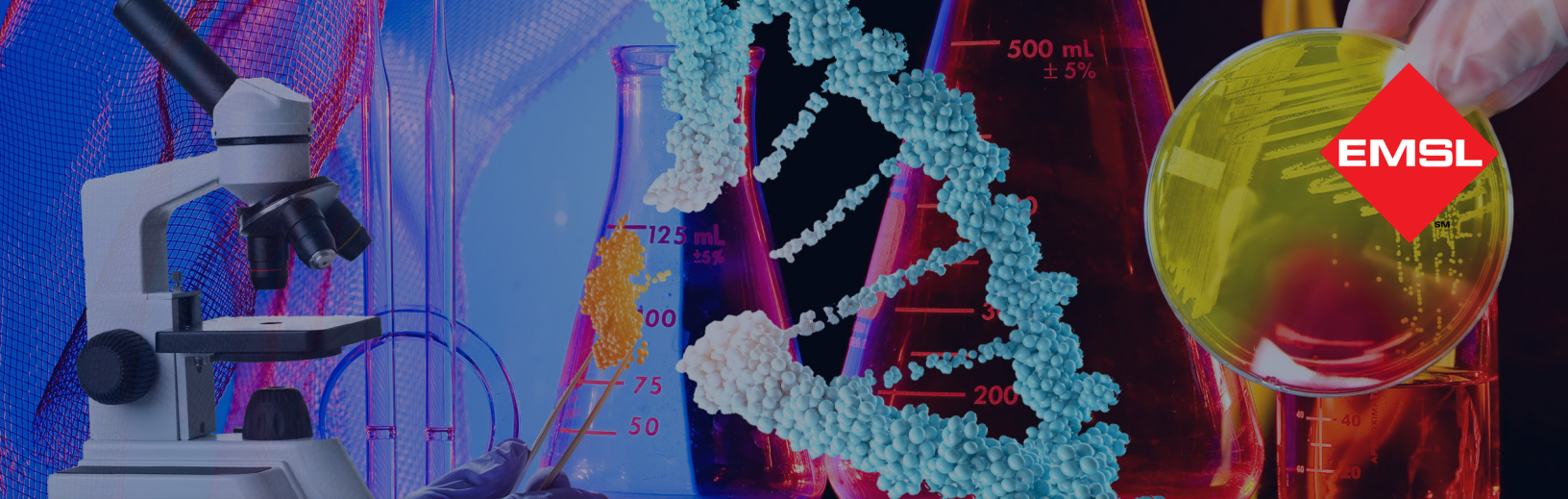
- ◆ Unknown



FUNGAL GLOSSARY

Bactrodesmium

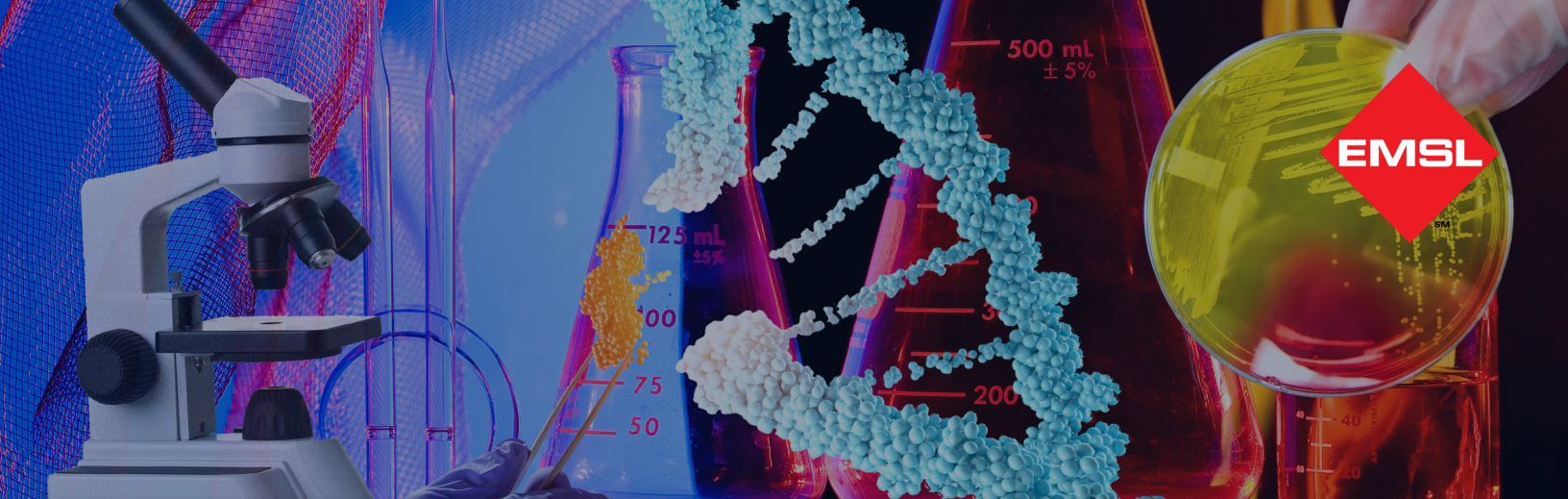
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| Natural Habitat | ◆ Tree Bark |
| Suitable Substrates in the Indoor Environment | ◆ Unknown |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |



FUNGAL GLOSSARY

Basidiospore

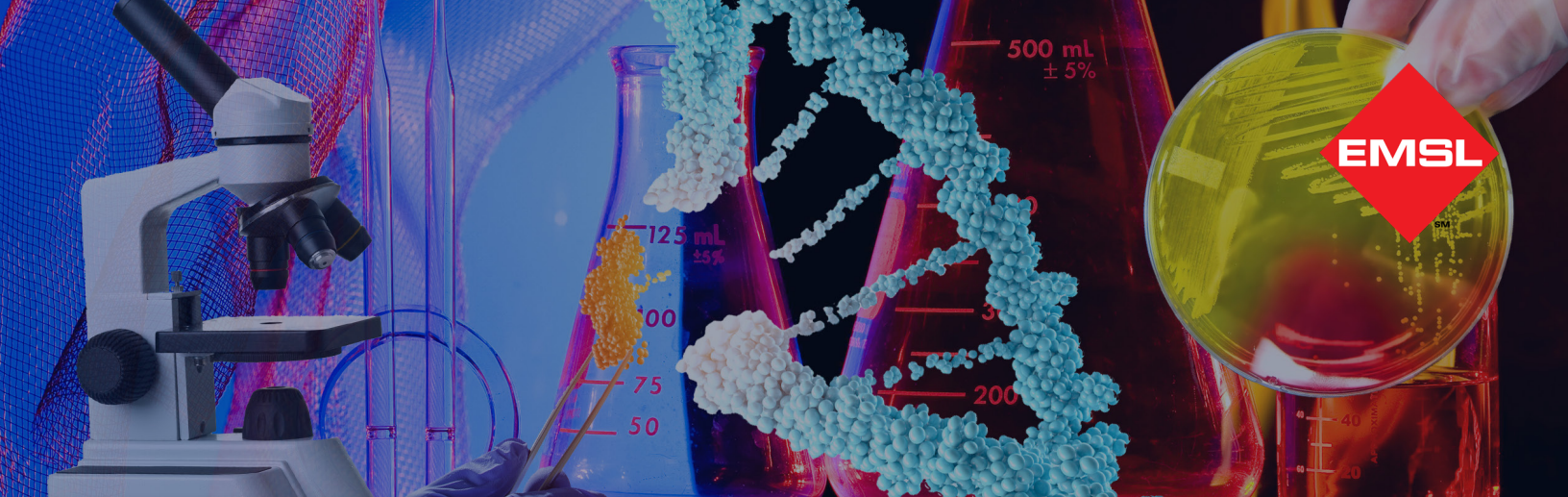
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|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Forest floors◆ Lawns◆ Plants (saprobes or pathogens depending on genus) |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Depends on genus◆ Wood products |
| Water Activity | <ul style="list-style-type: none">◆ Unknown |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Forcible ejection◆ Wind currents |
| Allergenic Potential | <ul style="list-style-type: none">◆ Type I allergies (hay fever, asthma)◆ Type III (hypersensitivity pneumonitis) |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Depends on genus |
| Industrial Uses | <ul style="list-style-type: none">◆ Edible mushrooms are used in the food industry |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Amanitins◆ monomethyl-hydrazine◆ muscarine◆ ibotenic acid◆ psilocybin |
| Other Comments | <ul style="list-style-type: none">◆ Basidiospores are the result of sexual reproduction and formed on a structure called the basidium. Basidiospores belong to the members of the Phylum Basidiomycota, which includes mushrooms, shelf fungi, rusts, and smuts |



FUNGAL GLOSSARY

Beauveria

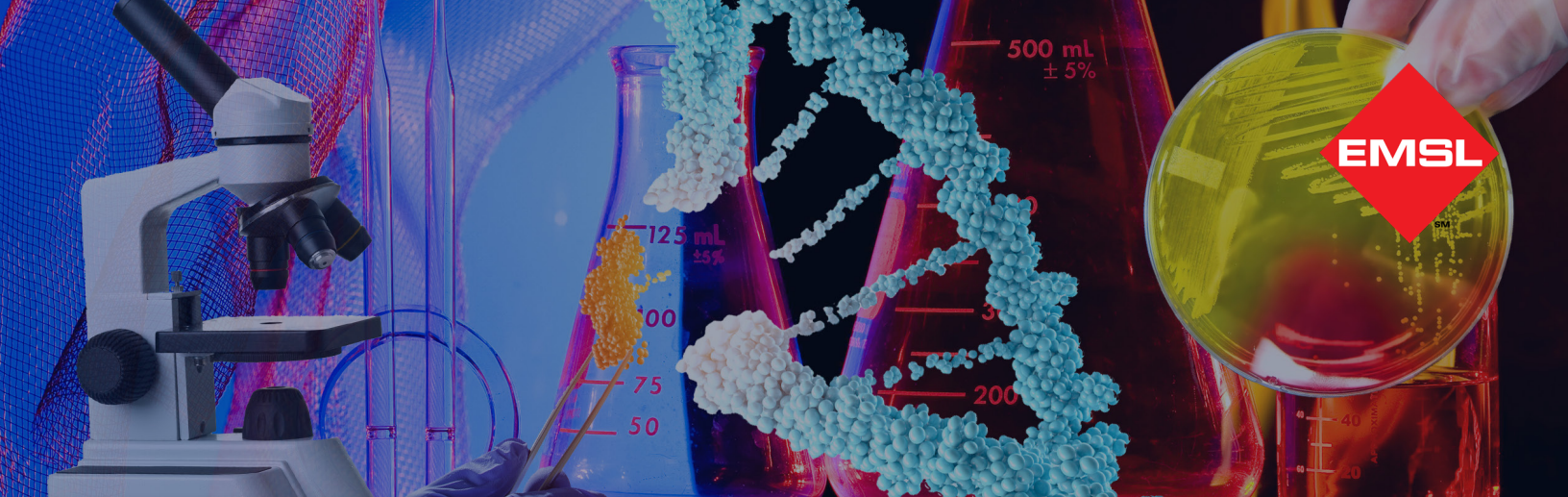
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|---|---|
| Natural Habitat | ◆ Entomopathogen that lives in soil and detritus before colonizing an insect host |
| Suitable Substrates in the Indoor Environment | ◆ Insects |
| Water Activity | ◆ Unknown |
| Mode of Dissemination | ◆ Wind |
| Allergenic Potential | ◆ Type I (asthma and hay fever) |
| Potential Opportunist or Pathogen | ◆ Hyalohyphomycosis |
| Industrial Uses | ◆ Biocontrol agent of insects |
| Potential Toxins Produced | ◆ Unknown |



FUNGAL GLOSSARY

Beltrania

- | | |
|---|--|
| Natural Habitat | ◆ Leaf litter of tropical plants Also found in temperate regions on natural flora e.g. it was found on a PAAA nature hike in San Diego last year, therefore “Widespread” |
| Suitable Substrates in the Indoor Environment | ◆ Houseplants |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |



FUNGAL GLOSSARY

Bipolaris

Natural Habitat

- ◆ Plant saprophyte
- ◆ Plant pathogen of many plants, causing leaf rot, crown rot, and root rot on warm season turf grasses.

Suitable Substrates in the Indoor Environment

- ◆ House plants
- ◆ Indoor building materials

Water Activity

- ◆ Unknown

Mode of Dissemination

- ◆ Wind

Allergenic Potential

- ◆ Allergic and chronic invasive sinusitis

Potential Opportunist or Pathogen

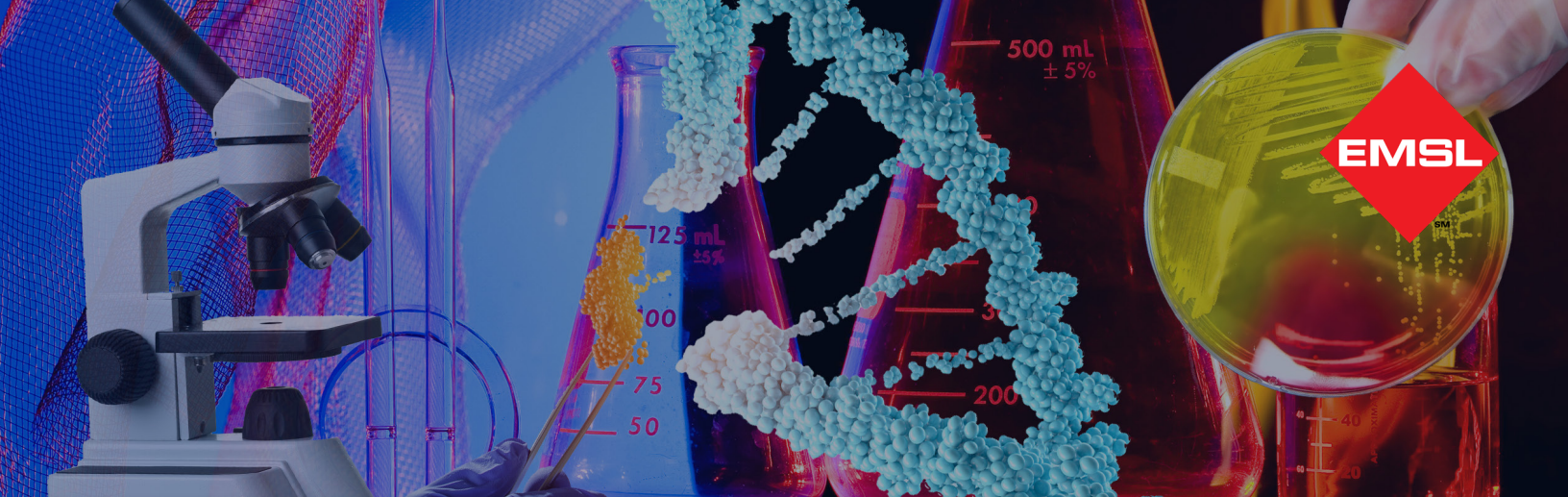
- ◆ *B. australiensis*, *B. hawaiiensis* and *B. spicifera* have been shown to cause:
 - ◆ cerebral and disseminated infections
 - ◆ peritonitis in patients on continuous ambulatory peritoneal dialysis (CAPD)
 - ◆ mycotic keratitis
 - ◆ subcutaneous phaeohyphomycosis (in both normal and immunocompromised people)
 - ◆ sinusitis

Industrial Uses

- ◆ Unknown

Potential Toxins Produced

- ◆ Sterigmatocystin



FUNGAL GLOSSARY

Botryodiplodia theobromae

Natural Habitat

- ◆ Plant pathogen causing many tropical fruit diseases including mango twig blight and mango stem rot

Suitable Substrates in the Indoor Environment

- ◆ Unknown

Allergenic Potential

- ◆ Unknown

Potential Opportunist or Pathogen

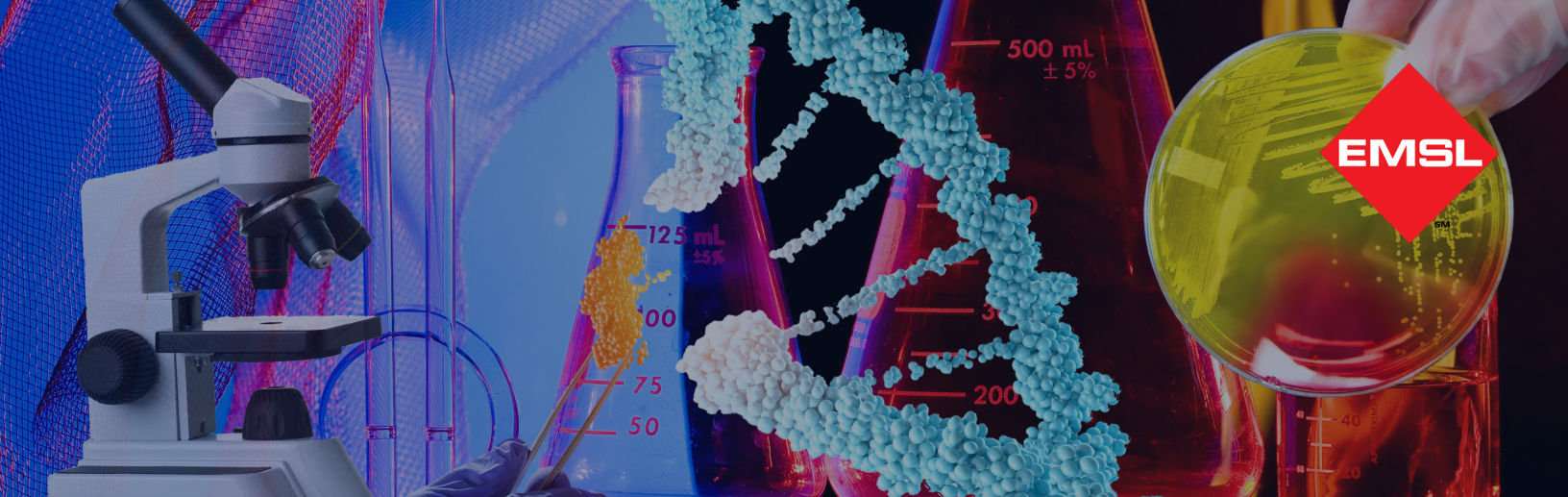
- ◆ Corneal Ulcer
- ◆ Keratitis
- ◆ Onychomycosis
- ◆ Phaeohyphomycosis

Potential Toxins Produced

- ◆ Unknown

Other Comments

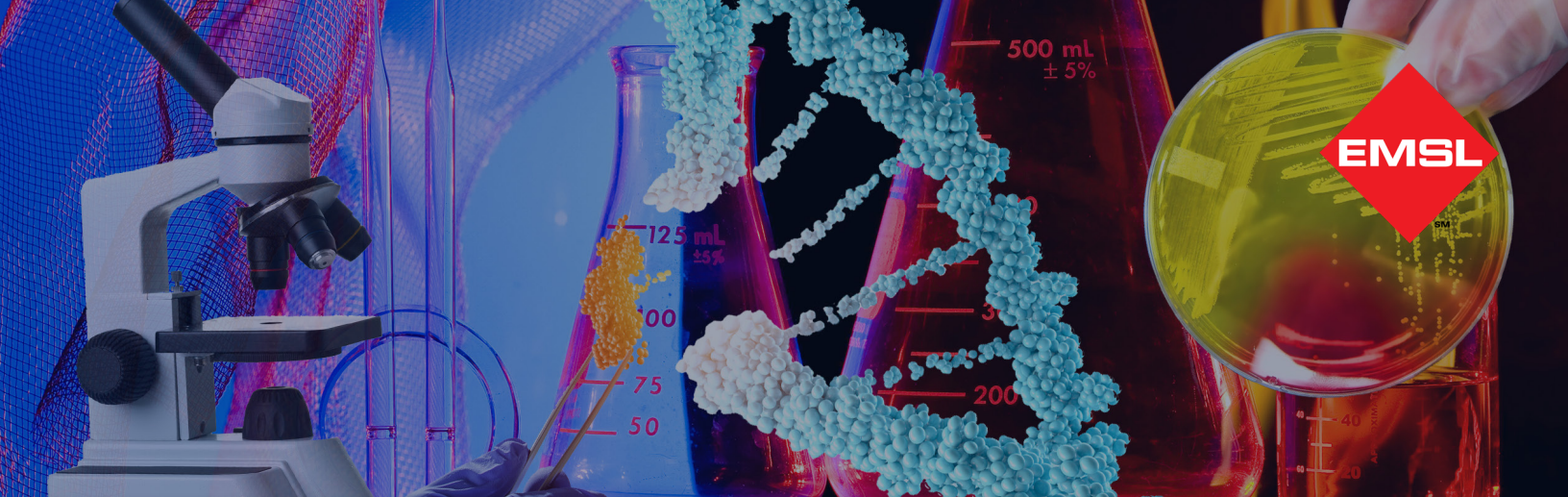
- ◆ Synonym of *Lasiodiplodia theobromae*



FUNGAL GLOSSARY

Botrytis

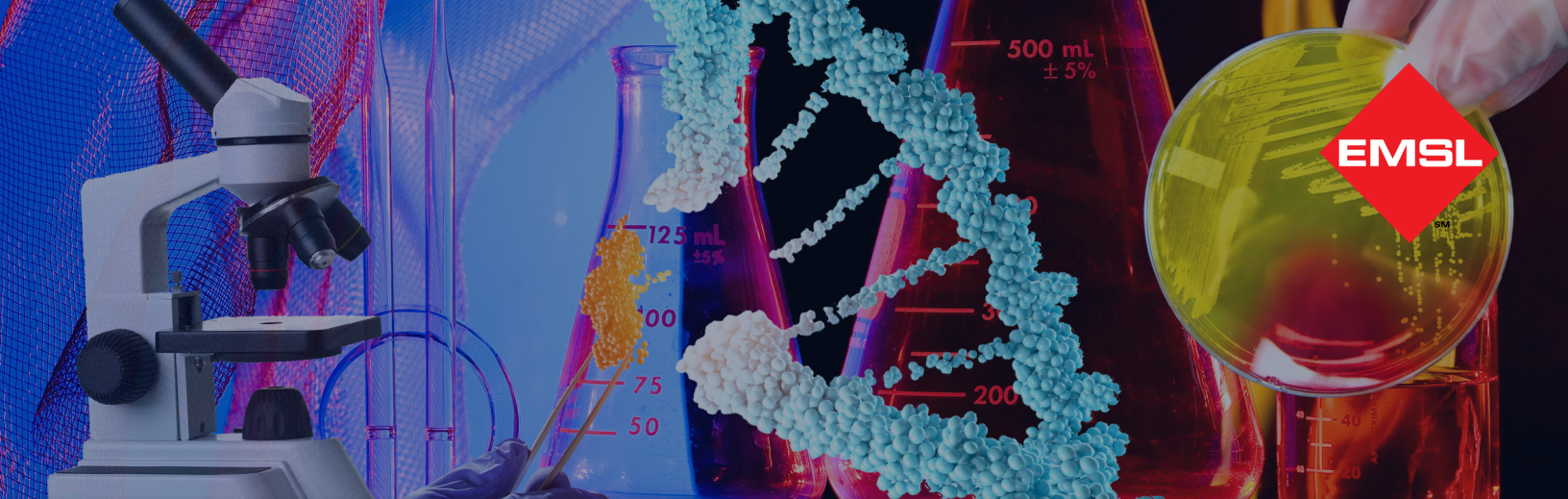
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| Natural Habitat | ◆ Plant pathogen responsible for causing gray mold (<i>B. cinerea</i>) on grapes, strawberries, raspberries, blackberries, low bush blueberries, lettuce, cabbage, and onions |
| Suitable Substrates in the Indoor Environment | ◆ Houseplants ◆ Fruits ◆ Vegetables |
| Water Activity | ◆ Aw 0.93-0.95 |
| Mode of Dissemination | ◆ Wind ◆ Rain |
| Allergenic Potential | ◆ Type I allergies (hay fever, asthma) ◆ Type III (hypersensitivity pneumonitis) |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Industrial Uses | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |



FUNGAL GLOSSARY

Calcarisporium

| | |
|---|--|
| Natural Habitat | ◆ Endophyte of stargrass (<i>Cynodon dactylon</i>) |
| Suitable Substrates in the Indoor Environment | ◆ Unknown |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Industrial Uses | ◆ Can be used as an anti-fungal agent in animal feed |
| Potential Toxins Produced | ◆ 15-azahomosterols |



FUNGAL GLOSSARY

Candida

Natural Habitat

- ◆ Normal inhabitant of the skin, mouth, and vagina
- ◆ Leaves
- ◆ Flowers
- ◆ Soil
- ◆ Water

Suitable Substrates in the Indoor Environment

- ◆ Unknown

Water Activity

- ◆ Unknown

Mode of Dissemination

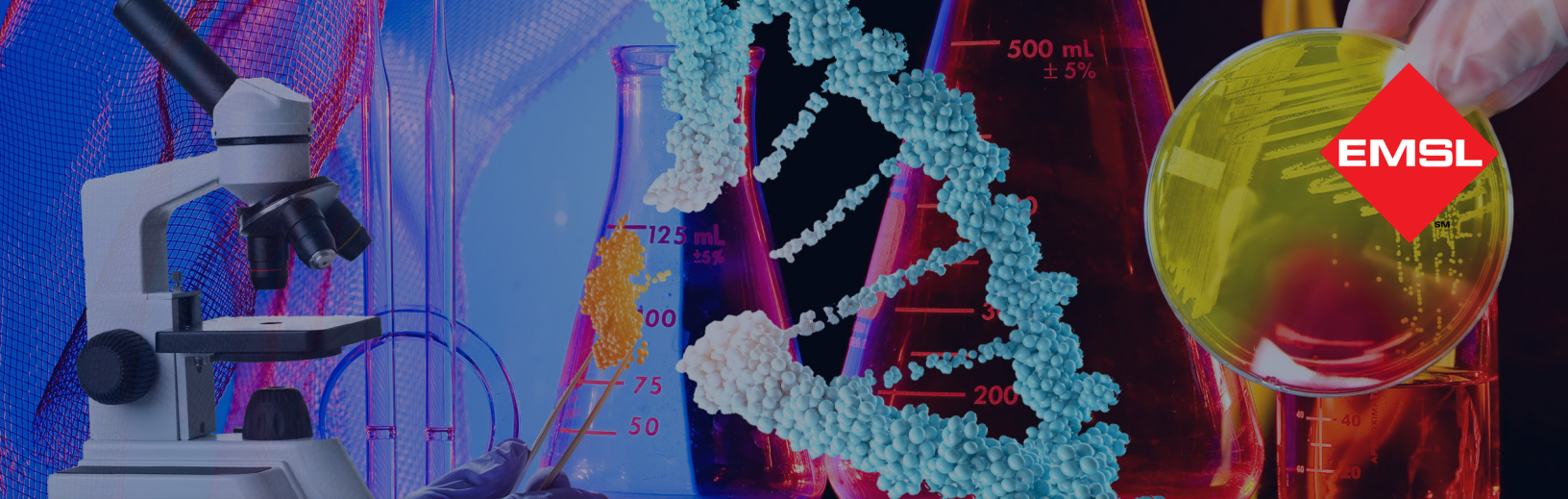
- ◆ Can be passed from newborns from their mothers
- ◆ It is also sometimes passed from catheters or prosthetic devices to patients

Allergenic Potential

- ◆ *Candida* has been reported as an allergen

Potential Opportunist or Pathogen

- ◆ Candidiasis (infections caused by *Candida* spp.), typically occurs in people with some predisposing factor such as pregnancy, disease (diabetes, AIDS, cancer)
- ◆ Occurs often in patients taking drugs such as oral contraceptives and antibiotics



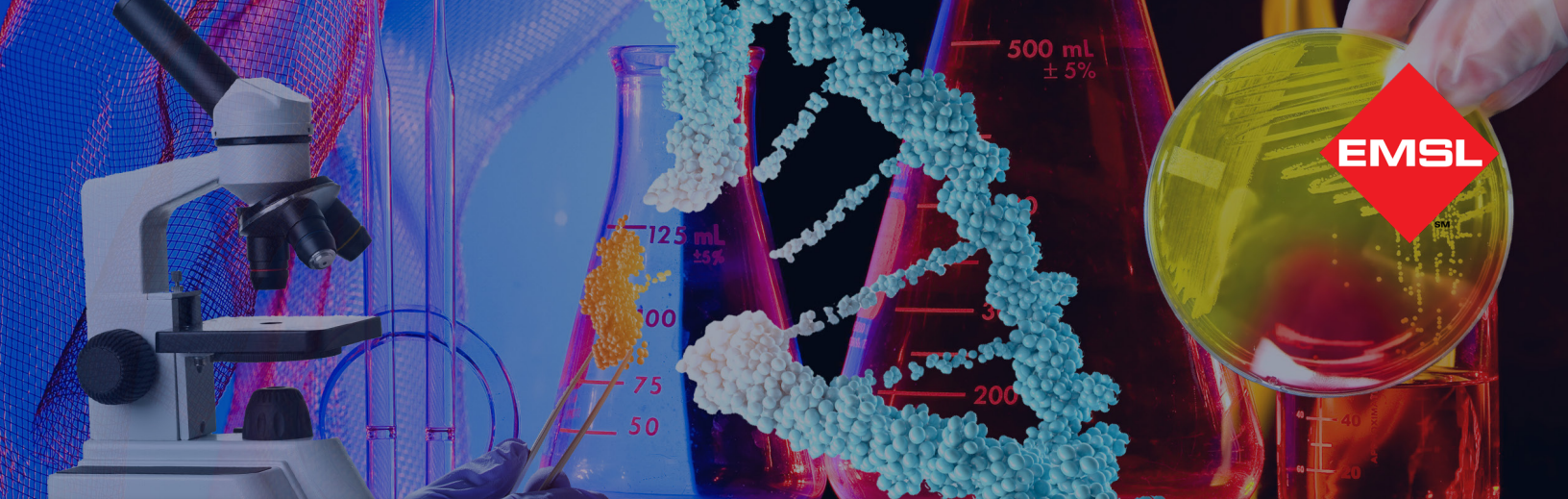
FUNGAL GLOSSARY

Cephaloascus

| | |
|---|------------------------------------|
| Natural Habitat | ◆ Ambrosia beetle tunnels on trees |
| Suitable Substrates in the Indoor Environment | ◆ Unknown |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |

Ceratocystis

| | |
|---|--|
| Natural Habitat | ◆ Plant pathogen causing wilt disease on cacao, Ficus, mango, and oak and causes cankers on a variety of plants. |
| Suitable Substrates in the Indoor Environment | ◆ Wood (lumber) Lumberyard fungi |
| Mode of Dissemination | ◆ Insects ◆ Water splash |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |



FUNGAL GLOSSARY

Chaetomium

Natural Habitat

- ◆ Dung
- ◆ Seeds
- ◆ Soil
- ◆ Straw

Suitable Substrates in the Indoor Environment

- ◆ Paper
- ◆ Sheetrock
- ◆ Wallpaper

Water Activity

- ◆ Aw=0.84-0.89

Mode of Dissemination

- ◆ Wind
- ◆ Insects
- ◆ Water splash

Allergenic Potential

- ◆ Type I (asthma and hay fever)

Potential Opportunist or Pathogen

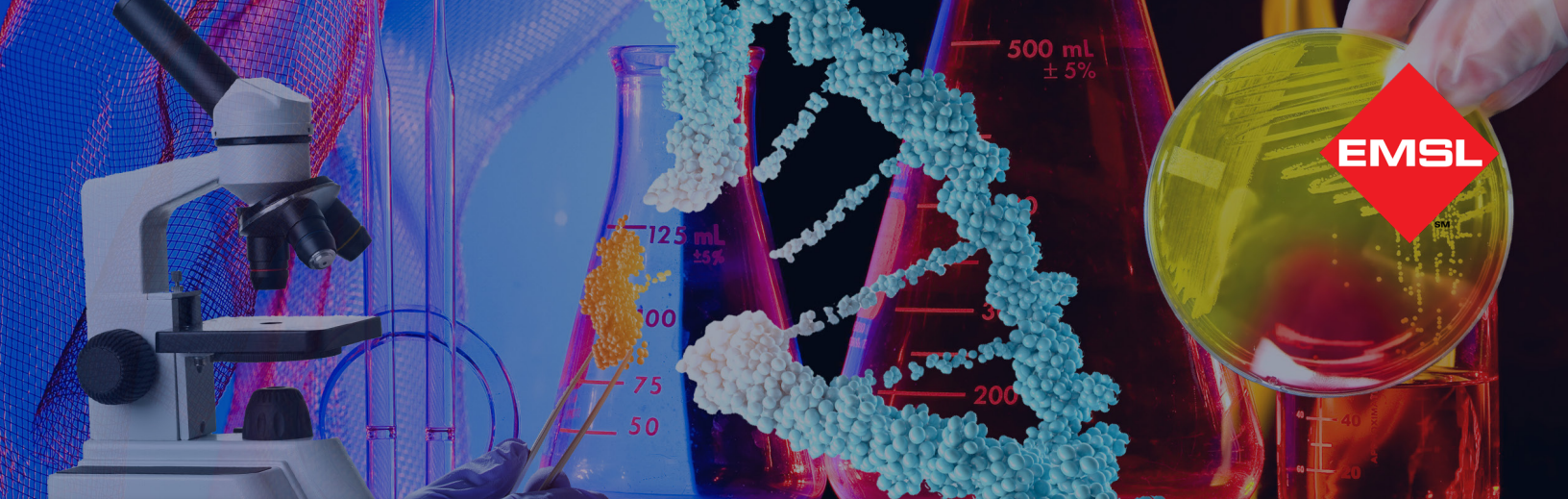
- ◆ Onychomycosis
- ◆ *C. perucidum* recognized as a new agent of cerebral phaeohyphomycosis

Industrial Use

- ◆ Cellulase production
- ◆ Textile testing

Potential Toxins Produced

- ◆ Chaetomin
- ◆ Chaetoglobosins A,B,D and F are produced by *Chaetomium globosum*
- ◆ Sterigmatocystin is produced by rare species



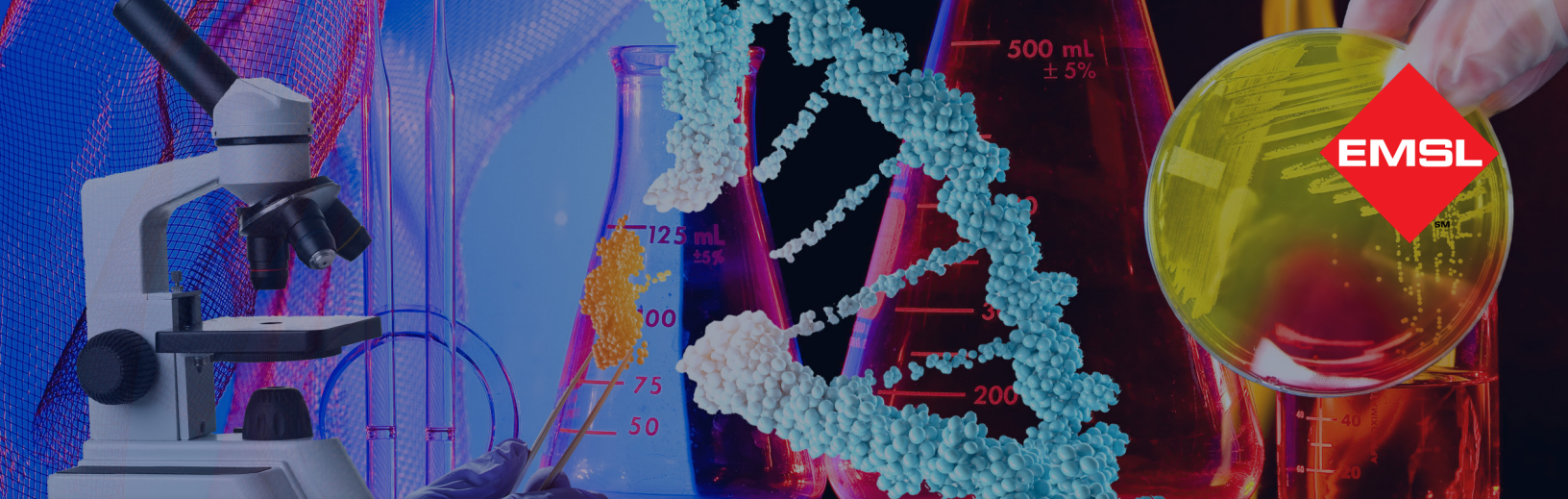
FUNGAL GLOSSARY

Choanephora

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Causal agent of soft rot on a variety of vegetable crops (especially cucurbits)◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Rotting vegetables |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Insects◆ Water Splash◆ Wind |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |

Chromelosporium

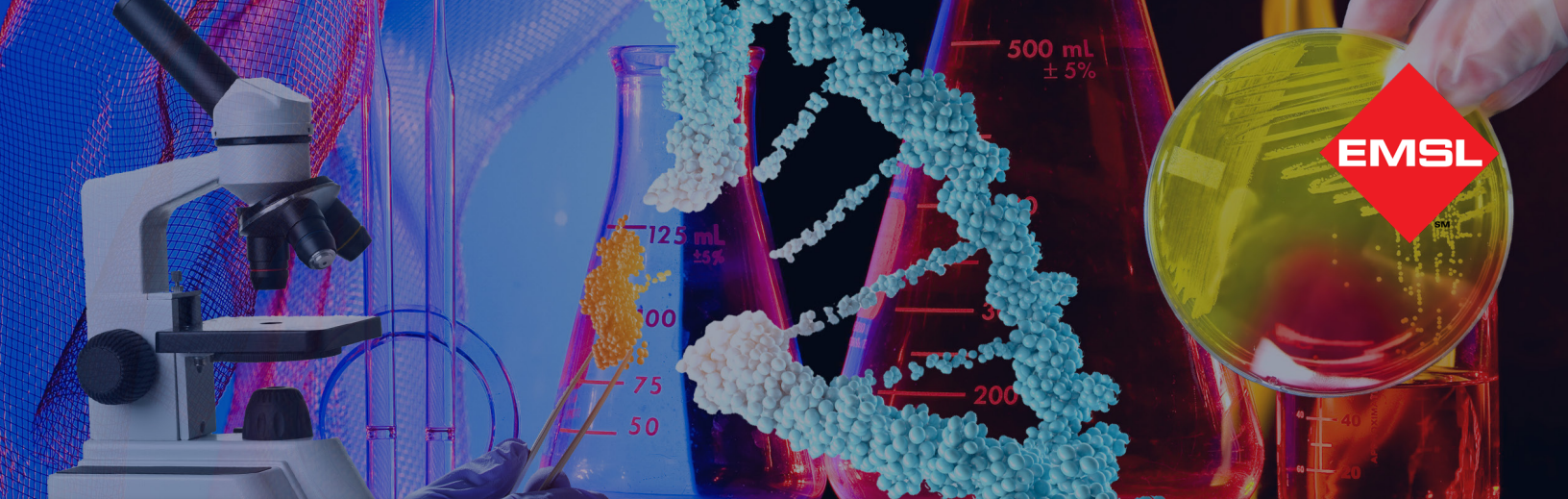
| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Soil or vermiculite from house plants◆ Damp wood |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |



FUNGAL GLOSSARY

Chrysonilia

| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Fruit◆ Soil |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Bread◆ Fruit◆ Coffee grounds |
| Water Activity | <ul style="list-style-type: none">◆ Unknown |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Air currents |
| Allergenic Potential | <ul style="list-style-type: none">◆ Found to induce asthma in loggers |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Industrial Uses | <ul style="list-style-type: none">◆ Related to (mitosporic state) <i>Neurospora</i>, a genetic model organism |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |
| Other Comments | <ul style="list-style-type: none">◆ Commonly referred to as red bread mold |
| References | <ul style="list-style-type: none">◆ Tarlo SM, Wai Y, Dolovich J, and Summerbell R. 1996. Occupational Asthma induced by <i>Chrysonilia sitophila</i> in the logging industry. J. Allergy Clin Immunol. 97(6): 1409-1413. |



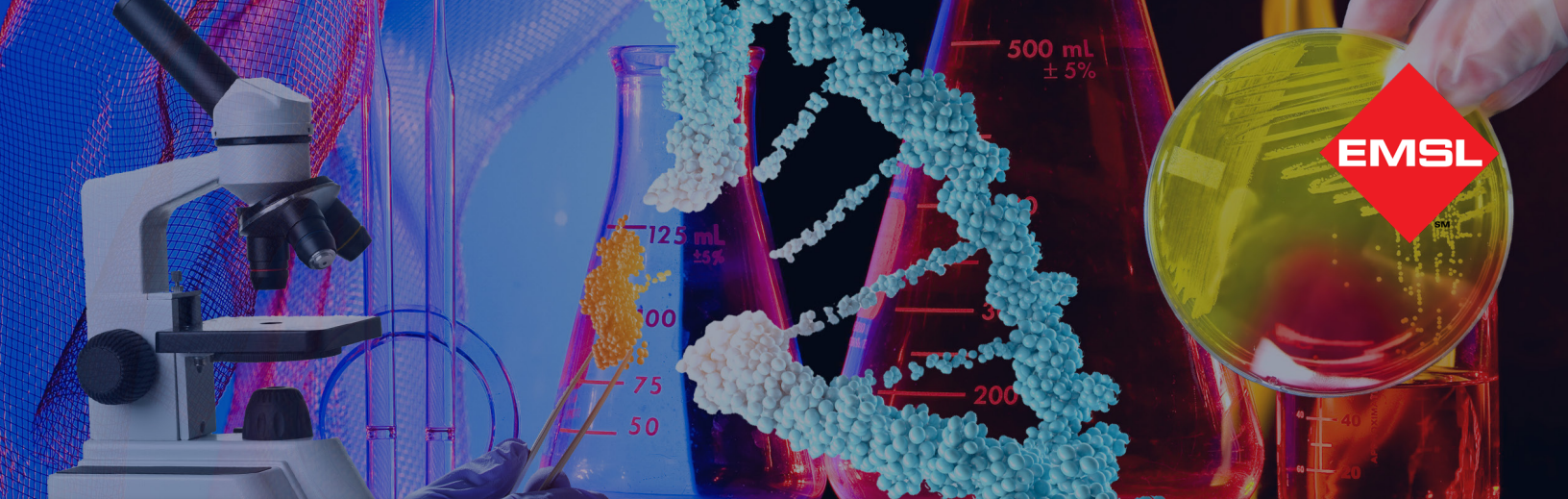
FUNGAL GLOSSARY

Chrysosporium

| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Plant materials◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ In immunocompromised patients it can cause:<ul style="list-style-type: none">◆ Skin infections◆ Onychomycosis◆ Systemic infection◆ Osteomyelitis◆ Endocarditis |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ TMC-69 (Anti-tumor antibiotic) |

Circinella

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Dung◆ Soil |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |



FUNGAL GLOSSARY

Cladosporium

Natural Habitat

- ◆ Dead plant matter
- ◆ Straw
- ◆ Soil
- ◆ Woody Plants

Suitable Substrates in the Indoor Environment

- ◆ Fiberglass duct liner
- ◆ Paint
- ◆ Textiles
- ◆ Found in high concentration in water-damaged building materials

Water Activity

- ◆ Aw 0.84-0.88

Mode of Dissemination

- ◆ Air

Allergenic Potential

- ◆ Type I (asthma and hay fever)

Potential Opportunist or Pathogen

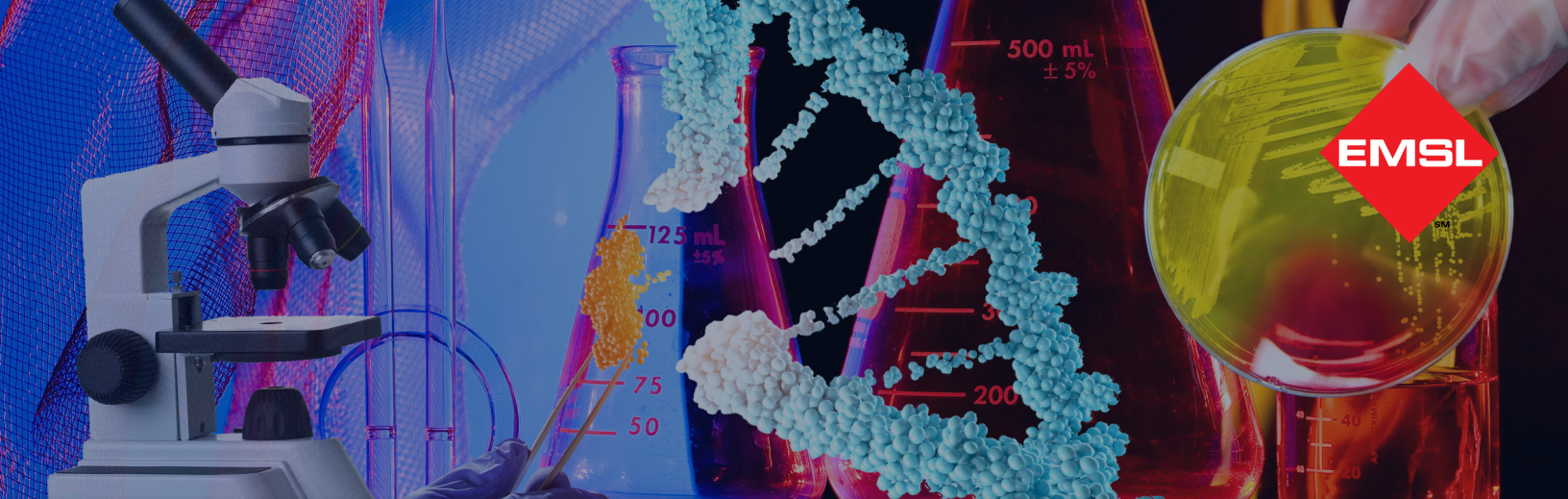
- ◆ Edema
- ◆ keratitis
- ◆ onychomycosis
- ◆ pulmonary infections
- ◆ sinusitis

Industrial Uses

- ◆ Produces 10 antigens

Potential Toxins Produced

- ◆ Cladosporin
- ◆ Emodin



FUNGAL GLOSSARY

Coelomycetes

Natural Habitat

- ◆ Plants (acting as saprophyte and pathogen)
- ◆ Other fungi
- ◆ Lichens

Suitable Substrates in the Indoor Environment

- ◆ Ceiling Tiles
- ◆ Floor Tiles

Mode of Dissemination

- ◆ Insects
- ◆ Water Splash
- ◆ Wind

Allergenic Potential

- ◆ Type I (hay fever, asthma)

Potential Opportunist or Pathogen

- ◆ Genera dependant

Industrial Uses

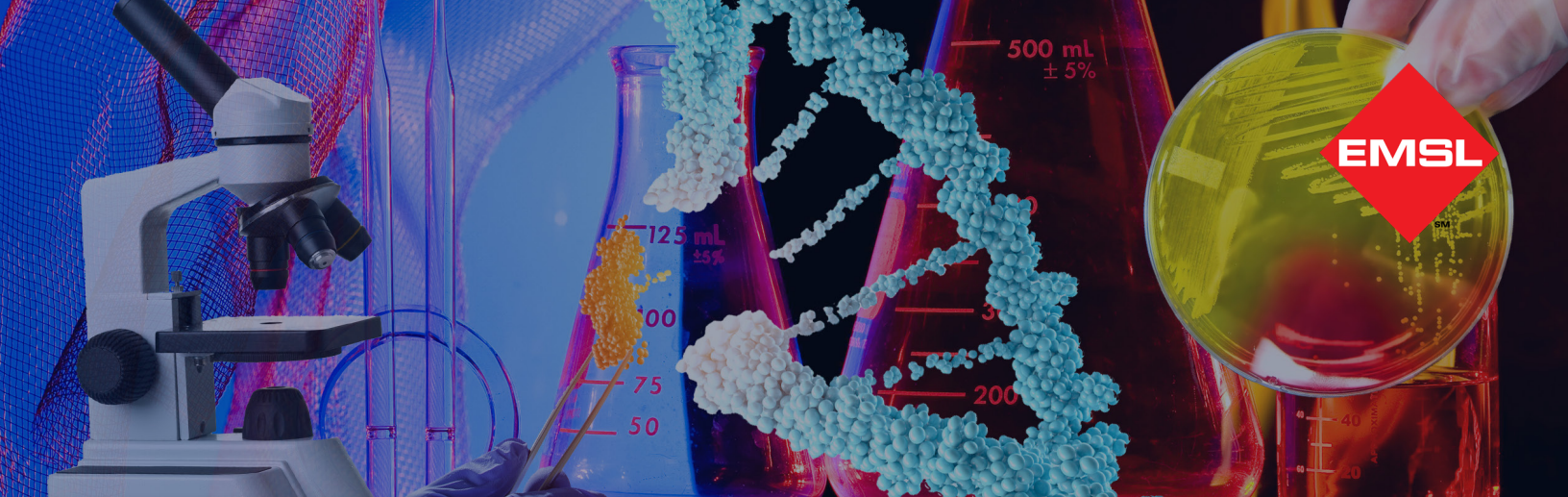
- ◆ Unknown

Potential Toxins Produced

- ◆ Unknown

Additional Comments

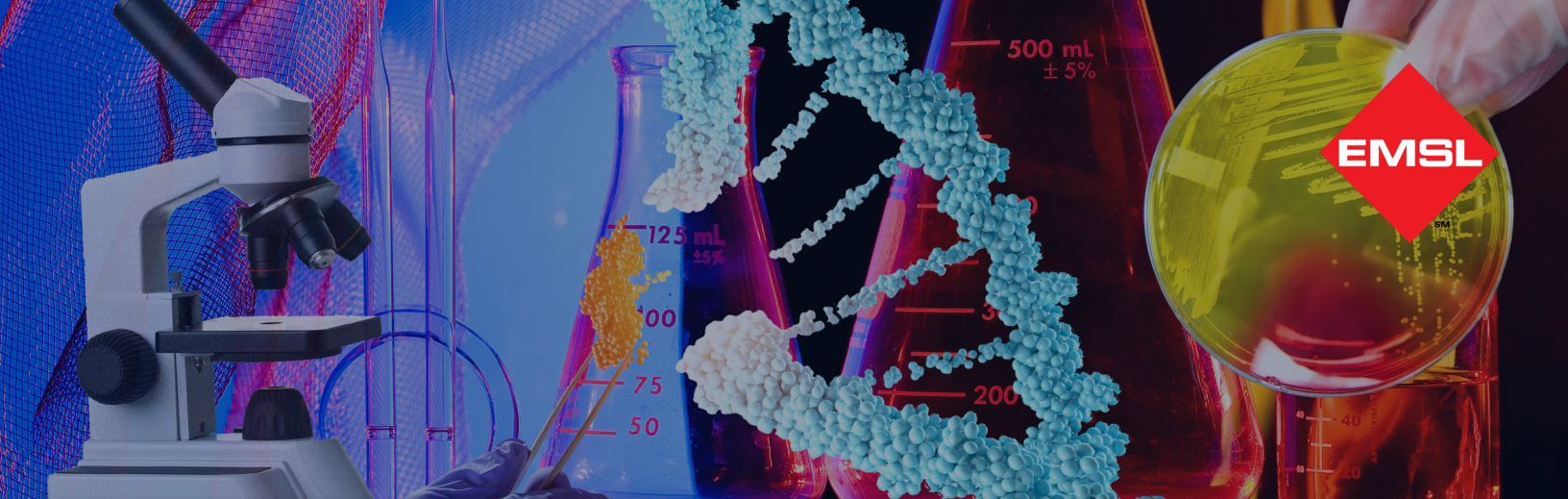
- ◆ These are asexual fungi that form conidia in pycnidia or acervuli (asexual fruiting structures). Examples of Coelomycete fungi include *Phoma* and *Pestalotia*



FUNGAL GLOSSARY

Coprinus

| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Wood◆ Dung◆ Leaf litter◆ Soil |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Water Activity | <ul style="list-style-type: none">◆ Unknown |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Wind |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Industrial Uses | <ul style="list-style-type: none">◆ Popular experimental organism in genetic research |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Coprine |



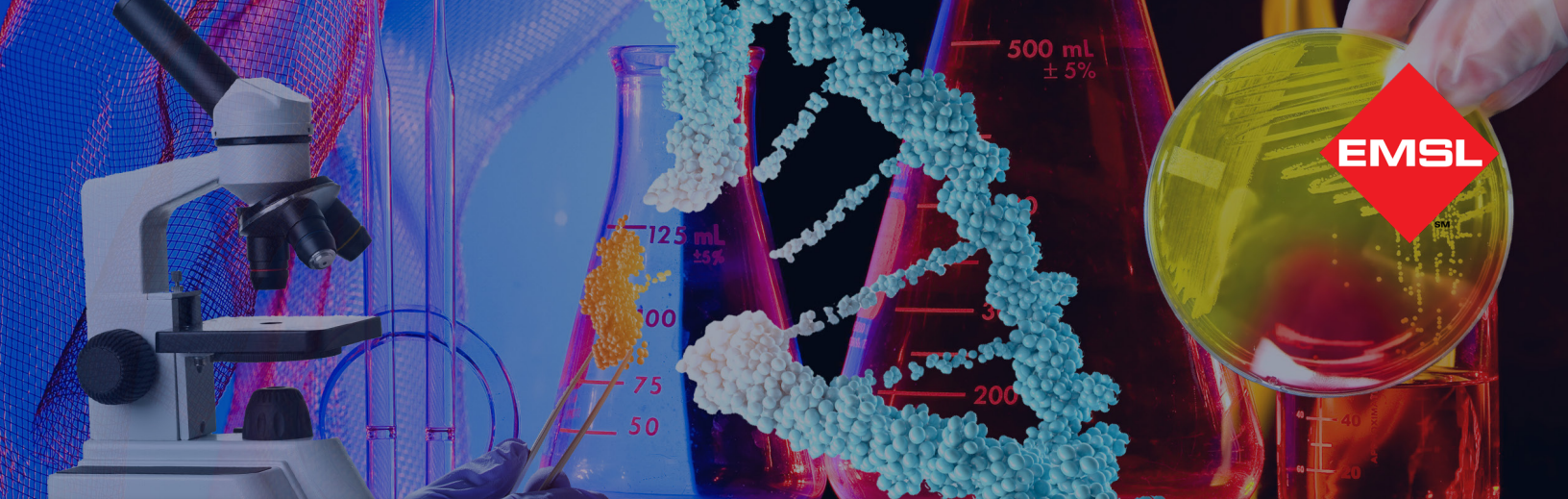
FUNGAL GLOSSARY

Cryptococcus

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Soil contaminated with pigeon droppings or chicken droppings◆ Decaying wood and slime fluxes |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Water Activity | <ul style="list-style-type: none">◆ Unknown |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Air (wind) |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ <i>Cryptococcus neoformans</i> causes cryptococcosis (also known as meningoencephalitis) in immunocompromised people◆ The disease also occurs in cancer patients undergoing chemotherapy |
| Industrial Uses | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |

Cunninghamella

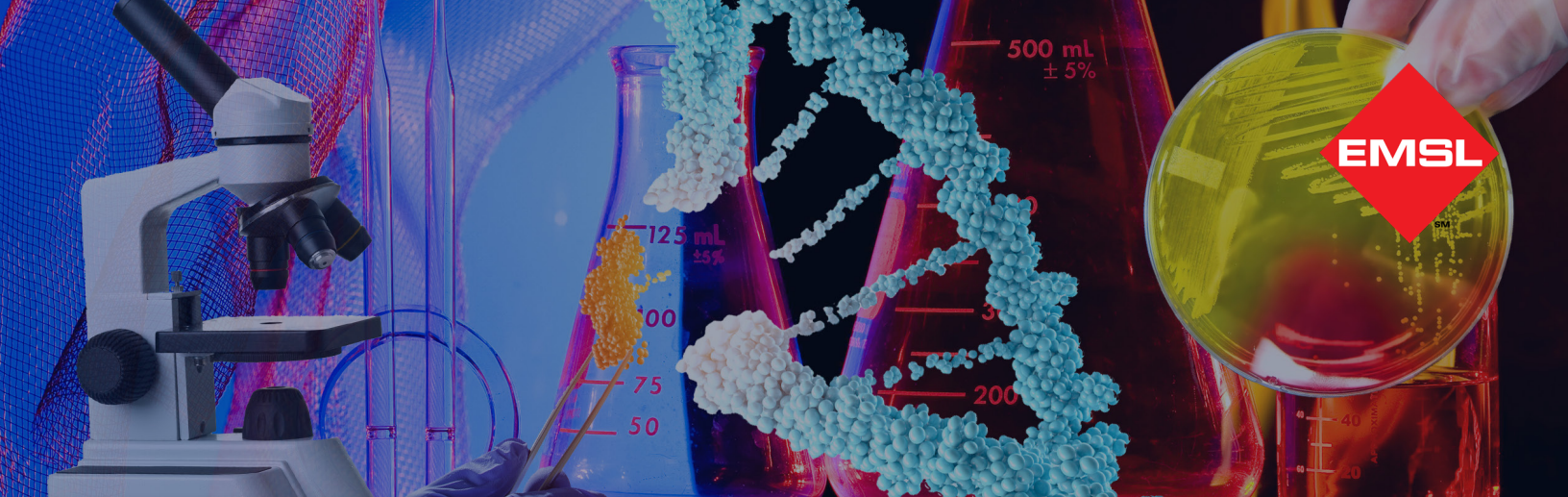
| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Soil |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Cheese◆ Brazil Nuts |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ <i>Cunninghamella bertholletiae</i> is known to cause rhinocerebral, pulmonary, cutaneoarticular, and disseminated forms of zygomycosis in immunocompromised or trauma patients. |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |



FUNGAL GLOSSARY

Curvularia

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Plant saprobe and pathogen to cereal plants◆ Soil |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Paper◆ Wood products |
| Water Activity | <ul style="list-style-type: none">◆ Unknown |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Wind |
| Allergenic Potential | <ul style="list-style-type: none">◆ Type I (asthma and hay fever)◆ A relatively common cause of allergic fungal sinusitis |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ In immunocompromised patients:<ul style="list-style-type: none">◆ cerebral abscess◆ endocarditis◆ mycetoma◆ ocular keratitis◆ onychomycosis◆ pneumonia◆ sinusitis |
| Industrial Uses | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Cytochalasin B |
| Other Comments | <ul style="list-style-type: none">◆ All <i>Curvularia</i> species are genetically <i>Bipolaris</i> |



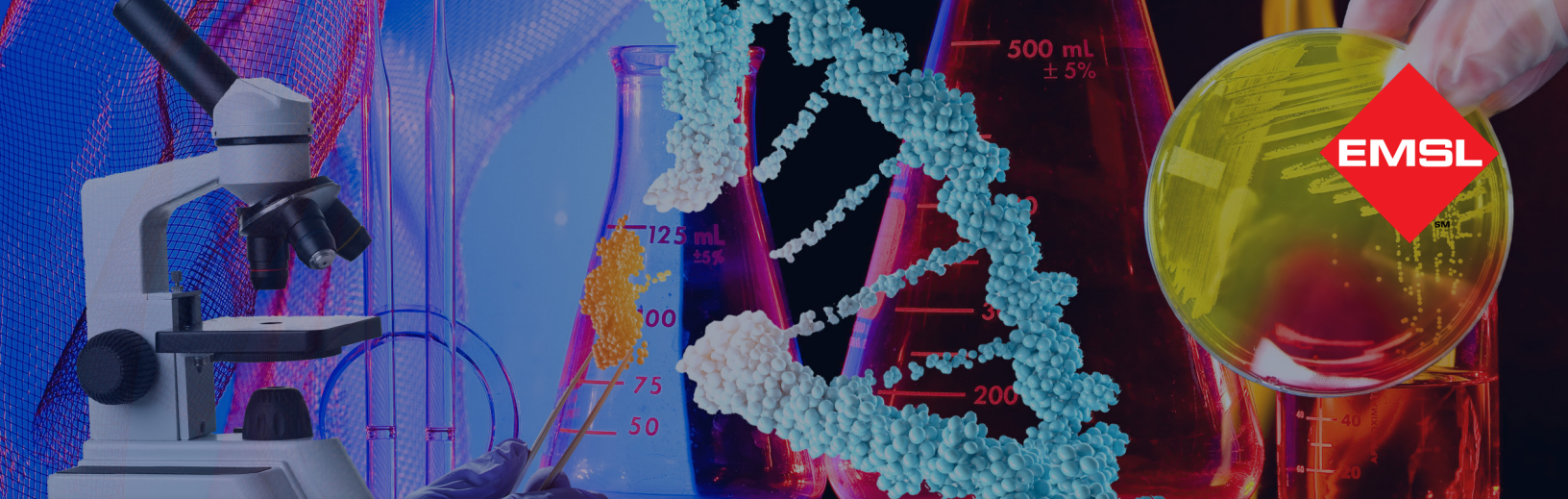
FUNGAL GLOSSARY

Dactylaria

| | |
|-----------------------------------|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Bamboo◆ Decaying plant matter◆ Nematodes◆ Soils |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Phaeohyphomycosis |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |

Dicyma

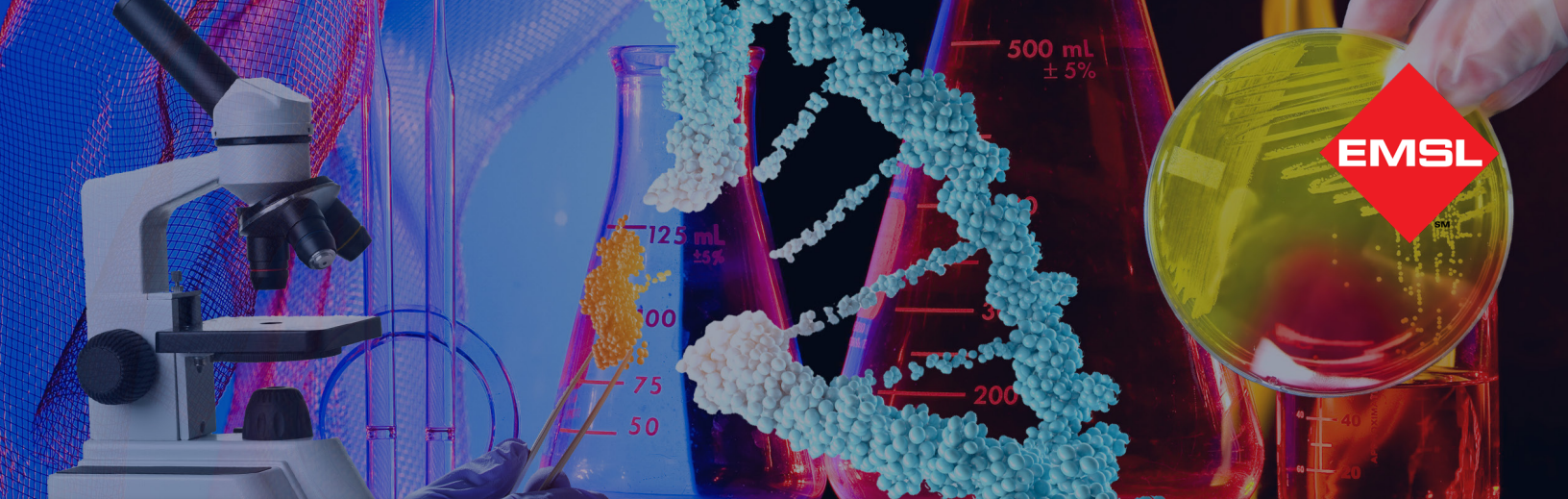
| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Plant materials |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Cardboard◆ Wallboard◆ Wood |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ The teleomorph of <i>Dicyma ampullifera</i> (<i>Ascotricha chartarum</i>) is associated with maxillary sinusitis |
| Industrial Uses | <ul style="list-style-type: none">◆ Biocontrol for <i>Cercosporidium peronatum</i> leaf spot on peanuts |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Ergot alkaloid |



FUNGAL GLOSSARY

Doratomyces

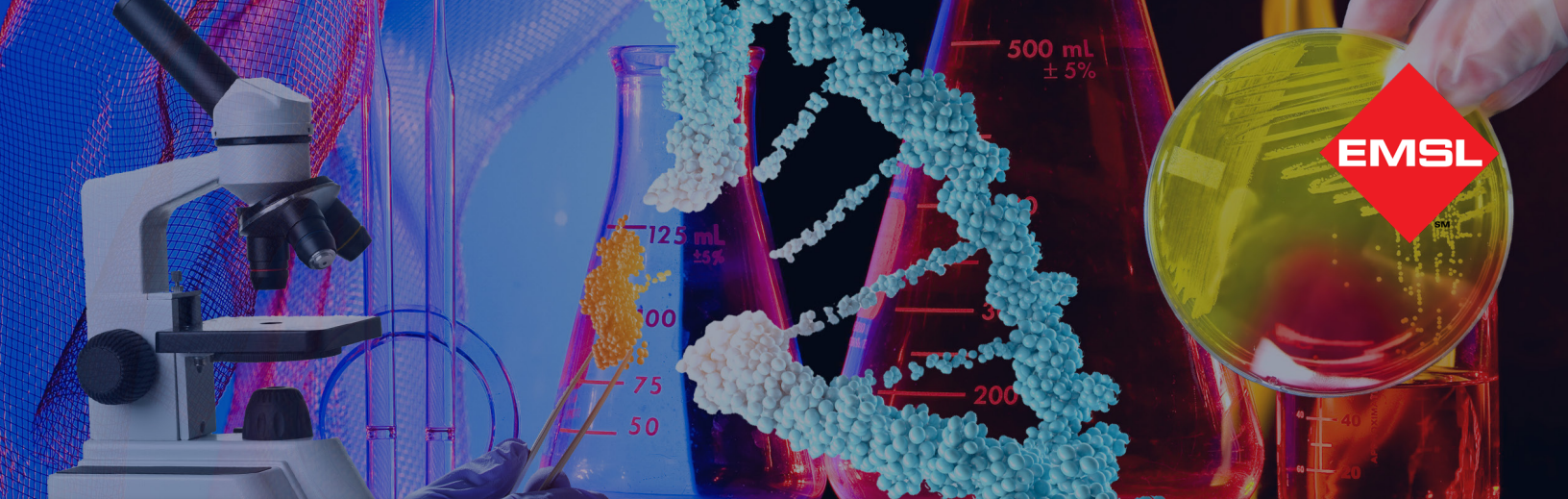
| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Decaying plant matter◆ Dung◆ Seeds◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |



FUNGAL GLOSSARY

Dreschlera

| | |
|---|---|
| Natural Habitat | ◆ Plant pathogen causing leaf spot, crown rot, and root rot of various turf grass species |
| Suitable Substrates in the Indoor Environment | ◆ Unknown |
| Water Activity | ◆ Most destructive during rainy weather |
| Mode of Dissemination | ◆ Air currents ◆ Dead grass clippings ◆ Feet ◆ Lawn mowers ◆ Splashing water |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Rare occurrences causing corneal infections in eyes |
| Industrial Uses | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |



FUNGAL GLOSSARY

Emericella

Natural Habitat

- ◆ Plant material
- ◆ Seeds
- ◆ Soil

Suitable Substrates in the Indoor Environment

- ◆ Building materials
- ◆ Dust
- ◆ Food

Water Activity

- ◆ Unknown

Mode of Dissemination

- ◆ Wind

Allergenic Potential

- ◆ Type I (asthma and hay fever)

Potential Opportunist or Pathogen

- ◆ Onychomycosis

Potential Toxins Produced

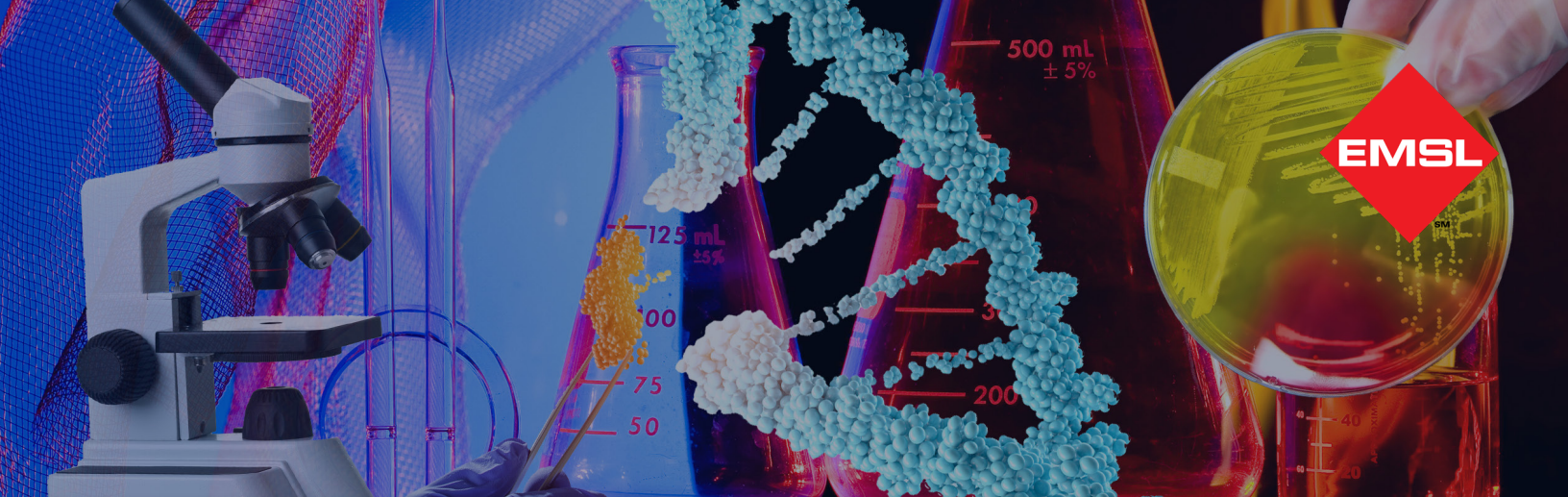
- ◆ Asperthecin
- ◆ Asperugin
- ◆ Aspergiline
- ◆ Corycepin
- ◆ Echinocandin B
- ◆ Emerin
- ◆ Emericellin
- ◆ Nidurufin
- ◆ Sterigmatocystin
- ◆ Penicillin
- ◆ Pentostatin

Other Comments

- ◆ Genetically related to (meiosporic state) some *Aspergillus* species

References

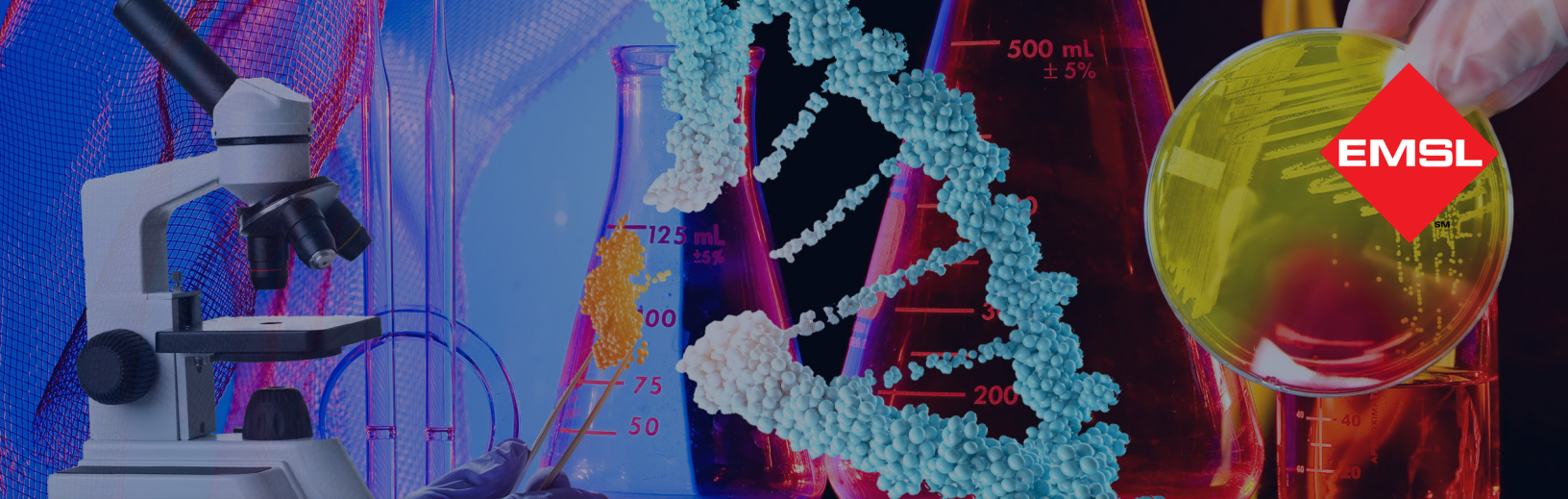
- ◆ Gugnani, H.C., Vijayan, V.K., Tyagi P., Sharma, S., Stchigel, A.M., and Guarro, J. 2004. Onychomycosis due to *Emericella quadrilineata*. J. Clin Microbiol. 42 (2): 914–916



FUNGAL GLOSSARY

Emericellopsis

| | |
|---|--|
| Natural Habitat | ◆ Soils |
| Suitable Substrates in the Indoor Environment | ◆ Unknown |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Industrial Uses | ◆ Emerimicins II, III and IV are antibiotics produced by <i>Emericellopsis microspora</i> |
| Potential Toxins Produced | ◆ <i>E. minimum</i> (formerly <i>Cephalosporium acremonium</i>) produces Cephalosporin C. |
| Other Comments | ◆ Teleomorph of <i>Acremonium</i> spp. |



FUNGAL GLOSSARY

Engyodontium

Natural Habitat

- ◆ Plant Debris
- ◆ Soils

Suitable Substrates in the Indoor Environment

- ◆ Building materials
- ◆ Jute
- ◆ Paper
- ◆ Textiles

Allergenic Potential

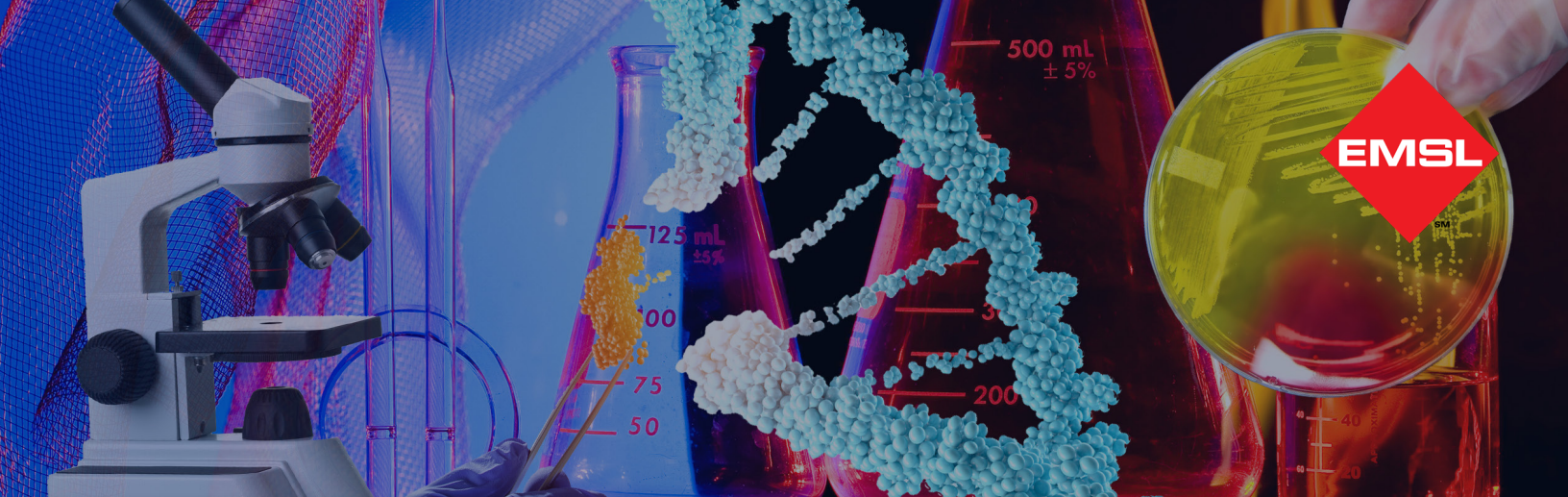
- ◆ Unknown

Potential Opportunist or Pathogen

- ◆ *Engyodontium album* causes:
 - ◆ Brain abscess
 - ◆ Keratitis
 - ◆ Native valve endocarditis

Potential Toxins Produced

- ◆ Unknown



FUNGAL GLOSSARY

Epicoccum

Natural Habitat

- ◆ Plant debris
- ◆ Soil

Suitable Substrates in the Indoor Environment

- ◆ Paper
- ◆ Textiles

Water Activity

- ◆ Aw=0.86-0.90

Mode of Dissemination

- ◆ Wind

Allergenic Potential

- ◆ Type I (asthma and hay fever)

Potential Opportunist or Pathogen

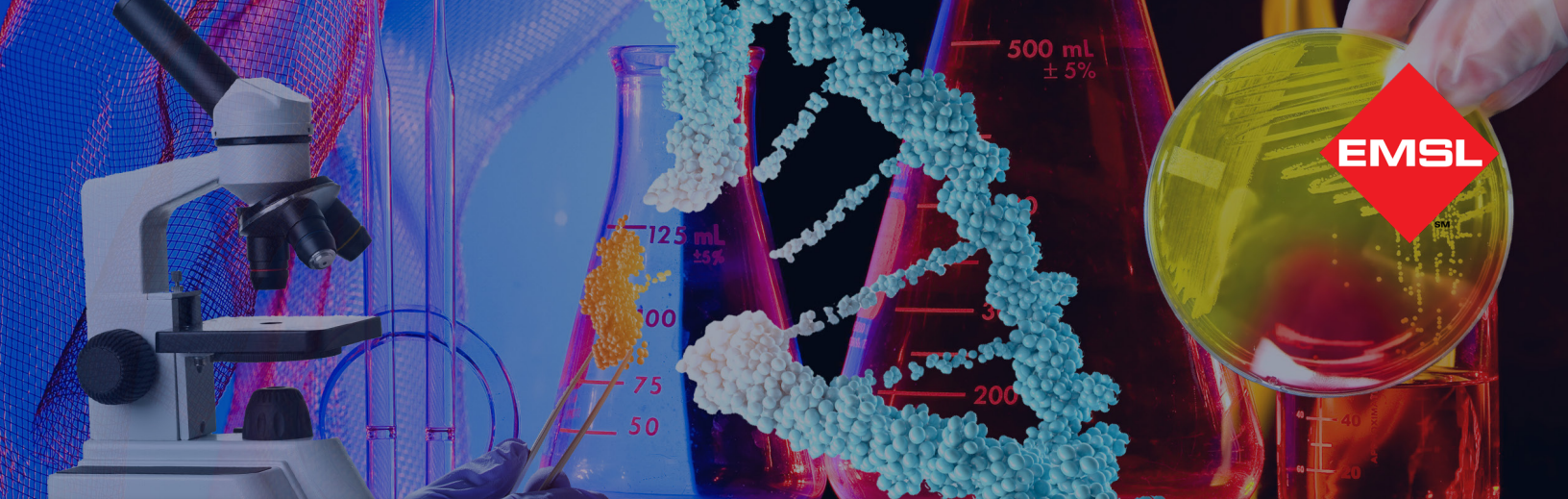
- ◆ Unknown

Industrial Uses

- ◆ Unknown

Potential Toxins Produced

- ◆ Epicorazine A&B
- ◆ Flavipin
- ◆ Indole-3-acetonitrile



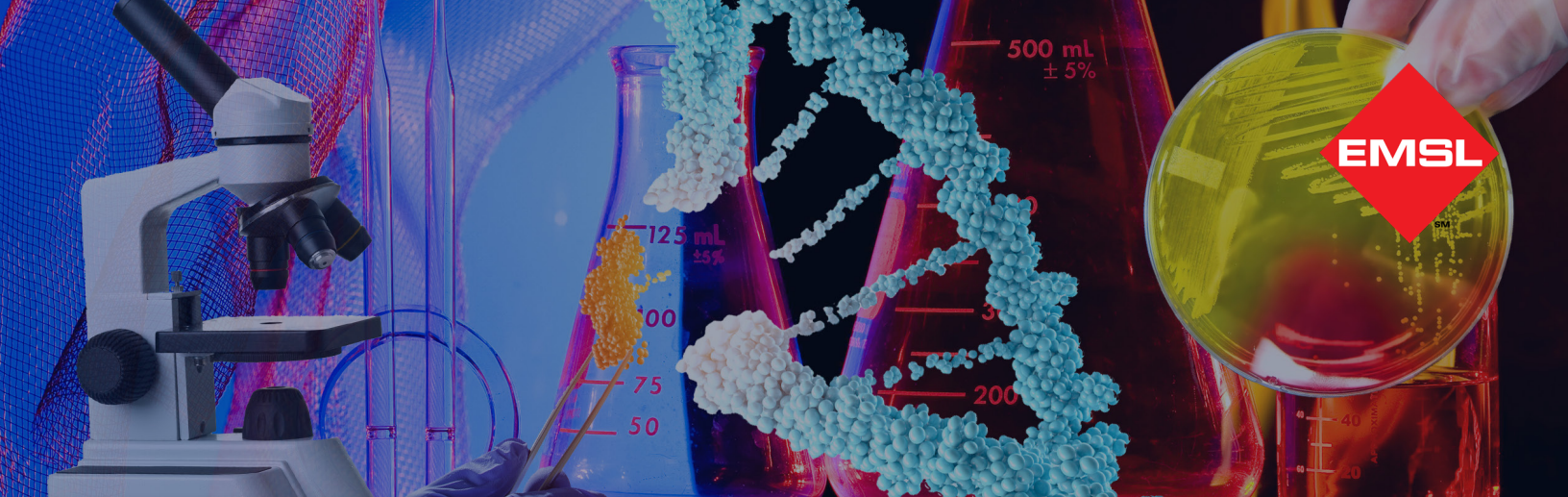
FUNGAL GLOSSARY

Erysiphe

| | |
|---|---|
| Natural Habitat | ◆ Plant pathogen that cause “powdery mildew” on many plants. Is an obligate parasite that grows on leaves, stems, flowers, and fruits |
| Suitable Substrates in the Indoor Environment | ◆ Indoor plants |
| Water Activity | ◆ Some species can germinate in 0% humidity |
| Mode of Dissemination | ◆ Wind |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Industrial Uses | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |
| Other Comments | ◆ Genetically related to (meiosporic state) <i>Oidium</i> |

Eurotium

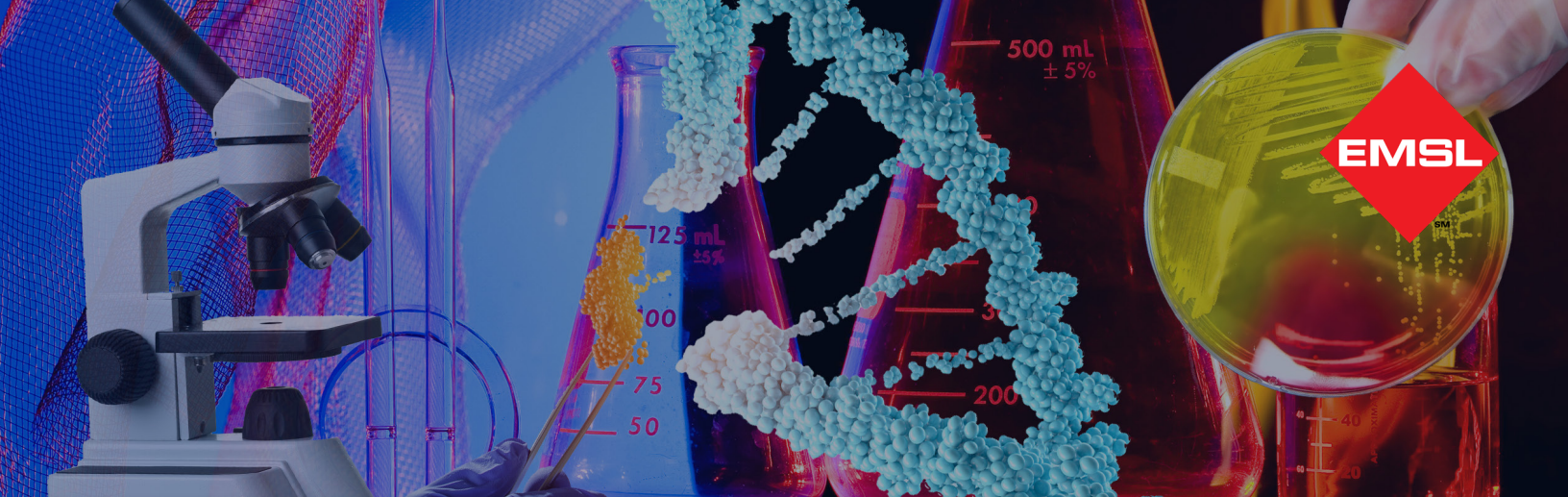
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|---|--|
| Natural Habitat | ◆ See <i>Aspergillus</i> |
| Suitable Substrates in the Indoor Environment | ◆ Furniture ◆ Walls ◆ One of several teleomorphs of <i>Aspergillus</i> |



FUNGAL GLOSSARY

Exophiala

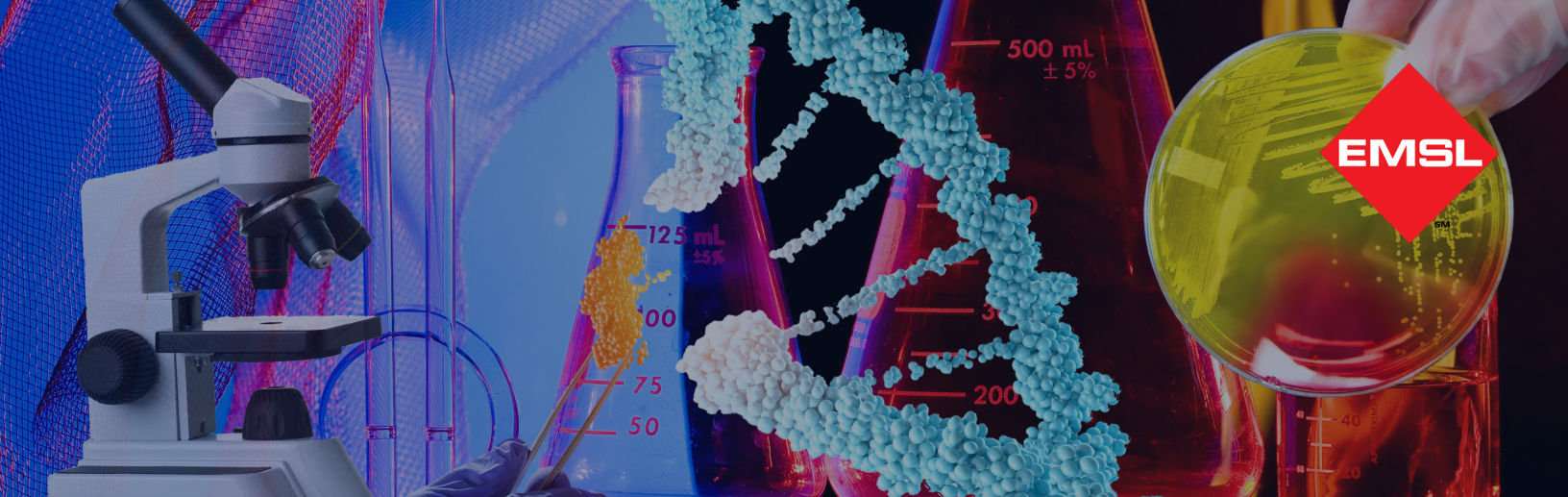
| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Soil◆ Water◆ Saprobe of plants◆ Decaying Wood |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Water Activity | <ul style="list-style-type: none">◆ Unknown |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Water Splash |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Mycetomas◆ Endocarditis◆ Subcutaneous lesions◆ Subcutaneous cysts◆ Phaeohiphomycosis |
| Industrial Uses | <ul style="list-style-type: none">◆ Potential Antibiotic |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Exophilin A |
| Other Comments | <ul style="list-style-type: none">◆ Known as one of the black yeasts |
| References | <ul style="list-style-type: none">◆ Doshida J, Hasegawa H, Onuki H, Shimidzu N. 1996. Exophilin A, a new antibiotic from a marine microorganism <i>Exophiala pisciphila</i>. J Antibiot (Tokyo). 49(11):1105-1109 |



FUNGAL GLOSSARY

Exserohilum

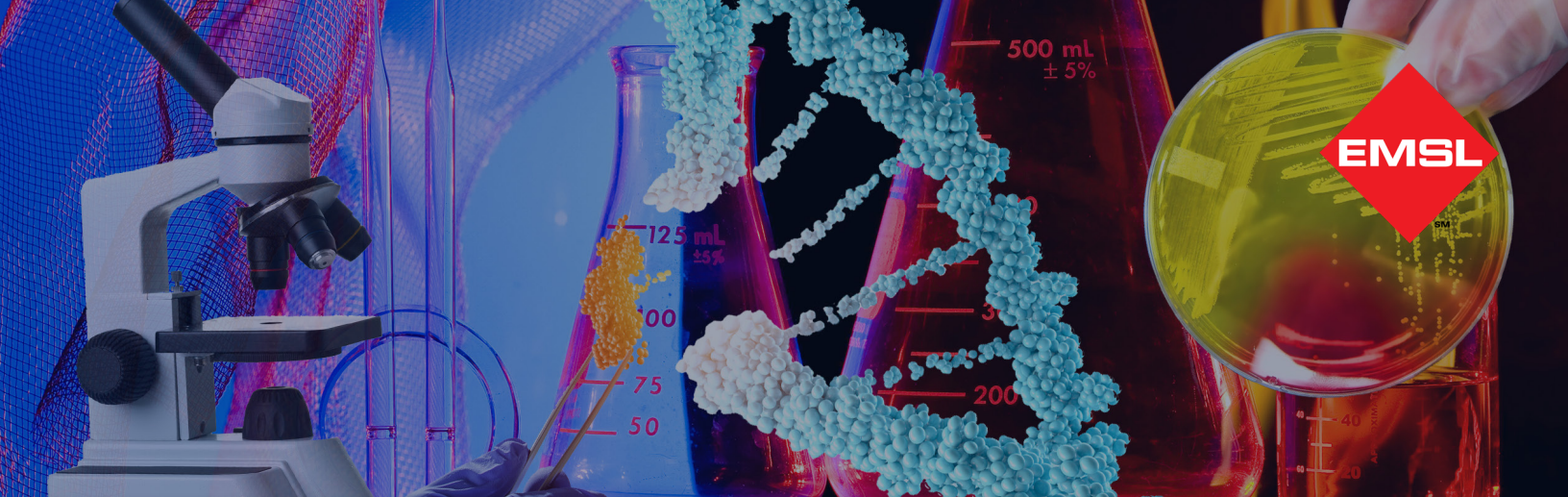
| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Pathogen to Grasses, causes root rot of corn◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Indoor building materials |
| Water Activity | <ul style="list-style-type: none">◆ Unknown |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Wind |
| Allergenic Potential | <ul style="list-style-type: none">◆ Causes allergic sinusitis |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Endocarditis◆ Mycotic keratitis◆ Subcutaneous phaeohyphomycosis◆ Osteomyelitis and sinusitis in both normal and immunocompromised patients |
| Industrial Uses | <ul style="list-style-type: none">◆ Potential biocontrol of weeds |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Monocerin◆ Phytotoxin |
| References | <ul style="list-style-type: none">◆ Zhang, W., and Watson, A.K. 2000. Isolation and partial characterization of phytotoxins produced by <i>Exserohilum monoceras</i>, a potential bioherbicide for control of <i>Echinochloa</i> species. Proceedings of the X International Symposium on Biological Control of weeds 4-14 July 1999, Montana State University, Boseman, Monatana USA. Neal R. Spencer [ed.] pp.125-130 |



FUNGAL GLOSSARY

Fusariella

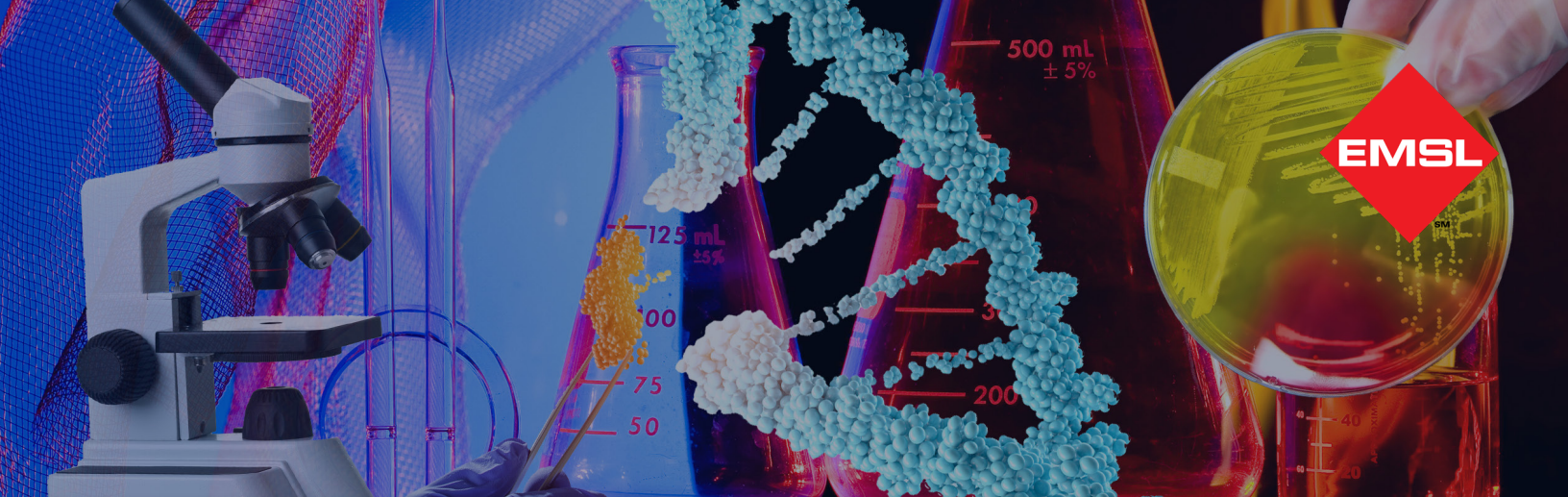
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| Natural Habitat | ◆ Plant matter ◆ Leaf litter |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |



FUNGAL GLOSSARY

Fusarium

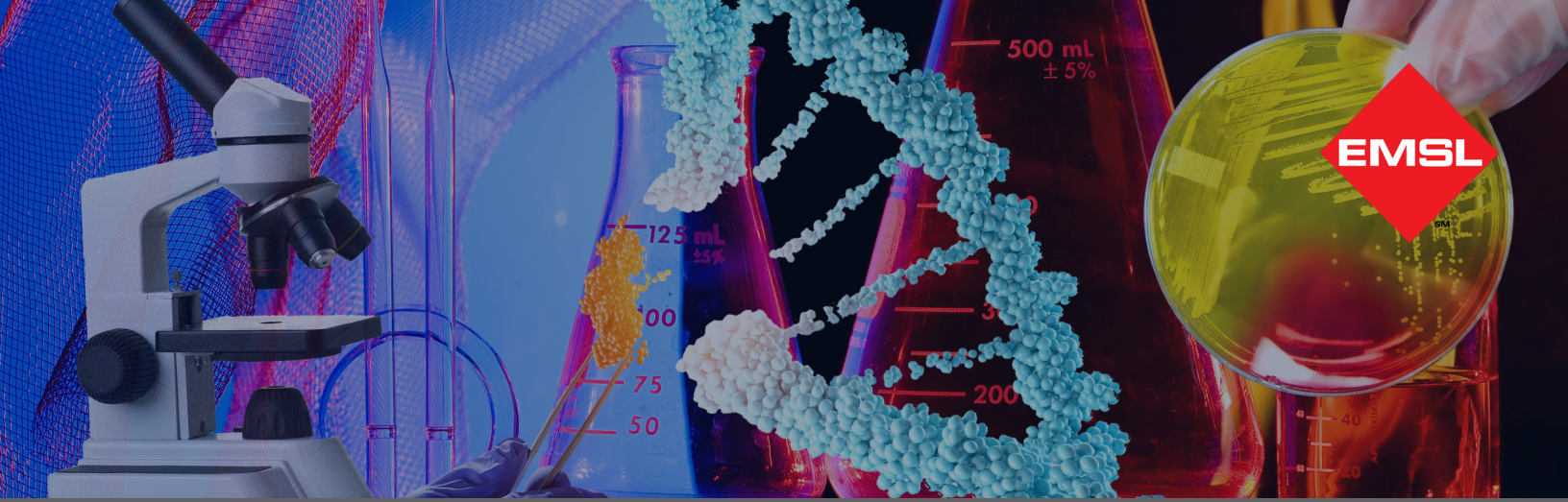
| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none"> ◆ Soil ◆ Plant pathogen causing root rot, stem rot, and wilt of many ornamental and crop plants. |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none"> ◆ Often found in humidifiers ◆ Wet, cellulose-based building materials |
| Water Activity | <ul style="list-style-type: none"> ◆ Aw=0.86-0.91 |
| Mode of Dissemination | <ul style="list-style-type: none"> ◆ Insects ◆ Water droplets, rain ◆ Wind when spores become dry |
| Allergenic Potential | <ul style="list-style-type: none"> ◆ Type I allergies (hay fever, asthma) |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none"> ◆ Esophageal cancer is believed to happen after consumption of <i>F. moniliforme</i> infected corn ◆ Keratitis ◆ Endophthalmitis ◆ Onychomycosis ◆ Cutaneous infections ◆ Mycetoma ◆ Sinusitis ◆ Pulmonary infections ◆ Endocarditis ◆ Peritonitis ◆ Central venous catheter infections ◆ Septic arthritis ◆ Neurological disease in horses after consumption of <i>F. moniliforme</i> infected corn ◆ Respiratory disease in pigs after consumption of <i>F. moniliforme</i> infected corn |
| Industrial Uses | <ul style="list-style-type: none"> ◆ Biological Weapon |
| Potential Toxins Produced | <ul style="list-style-type: none"> ◆ Trichothecenes ◆ Zearalenone ◆ Fumonisin |
| Other Comments | <ul style="list-style-type: none"> ◆ Major plant pathogen |
| References | <ul style="list-style-type: none"> ◆ <i>Atlas of Moulds in Europe causing respiratory Allergy</i>, Foundation for Allergy Research in Europe, Edited by Knud Wilken-Jensen and Suzanne Gravesen, ASK Publishing, Denmark, 1984 |



FUNGAL GLOSSARY

Ganoderma

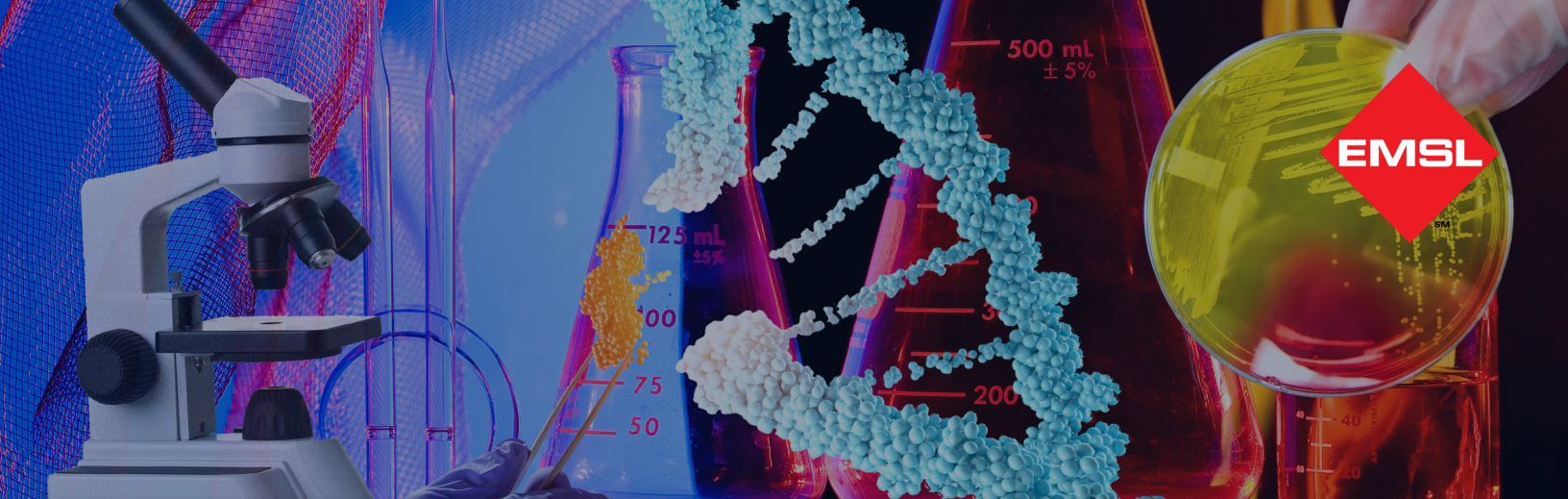
| | |
|---|---|
| Natural Habitat | ◆ Grows on conifers and hardwoods worldwide, causing white rot, root rot, and stem rot |
| Suitable Substrates in the Indoor Environment | ◆ Unknown |
| Water Activity | ◆ Unknown |
| Mode of Dissemination | ◆ Wind |
| Allergenic Potential | ◆ <i>Ganoderma species</i> are known to cause allergies in people on a worldwide scale |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Industrial Uses | ◆ Biopulping of wood for the paper industry ◆ Potential medicinal use due to: 1. Inhibition of Ras dependent cell transformation, 2. antifibrotic activity, 3. immunomodulating activity, 4. free-radicle scavenging |
| Potential Toxins Produced | ◆ Unknown |
| Other Comments | ◆ Used in traditional Chinese medicine as an herbal supplement ◆ It is also known as a “shelf fungus” because the fruiting body forms a stalk-less shelf on the sides of trees and logs ◆ It is sometimes called “artists conk” because when you scratch the white pores of the fruiting body, the white rubs away and exposes the brown hyphae underneath. Thus, pictures can be produced on the fruiting body |
| References | ◆ References: Craig, R.L., Levetin, E. 2000. Multi-year study of <i>Ganoderma</i> aerobiology. <i>Aerobiologia</i> 16: 75-81. ◆ http://www.pfc.forestry.ca/diseases/CTD/Group/Heart/heart6_e.html |



FUNGAL GLOSSARY

Geomyces

| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Dung◆ Soil |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Causes superficial infection of skin and nails |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |



FUNGAL GLOSSARY

Geotrichum

Natural Habitat

- ◆ Normal flora in humans
- ◆ Soil
- ◆ Plants
- ◆ Water

Suitable Substrates in the Indoor Environment

- ◆ Foods such as fruits and grains
- ◆ Milk and other dairy products
- ◆ Paper
- ◆ Textiles

Water Activity

- ◆ Aw=0.90

Mode of Dissemination

- ◆ Air currents

Allergenic Potential

- ◆ Unknown

Potential Opportunist or Pathogen

- ◆ *Geotrichum* causes diseases known as geotrichosis:
 - ◆ Intestinal tract
 - ◆ alimentary and cutaneous infections
 - ◆ bronchial and pulmonary infections
 - ◆ oral
 - ◆ vaginal

Industrial Uses

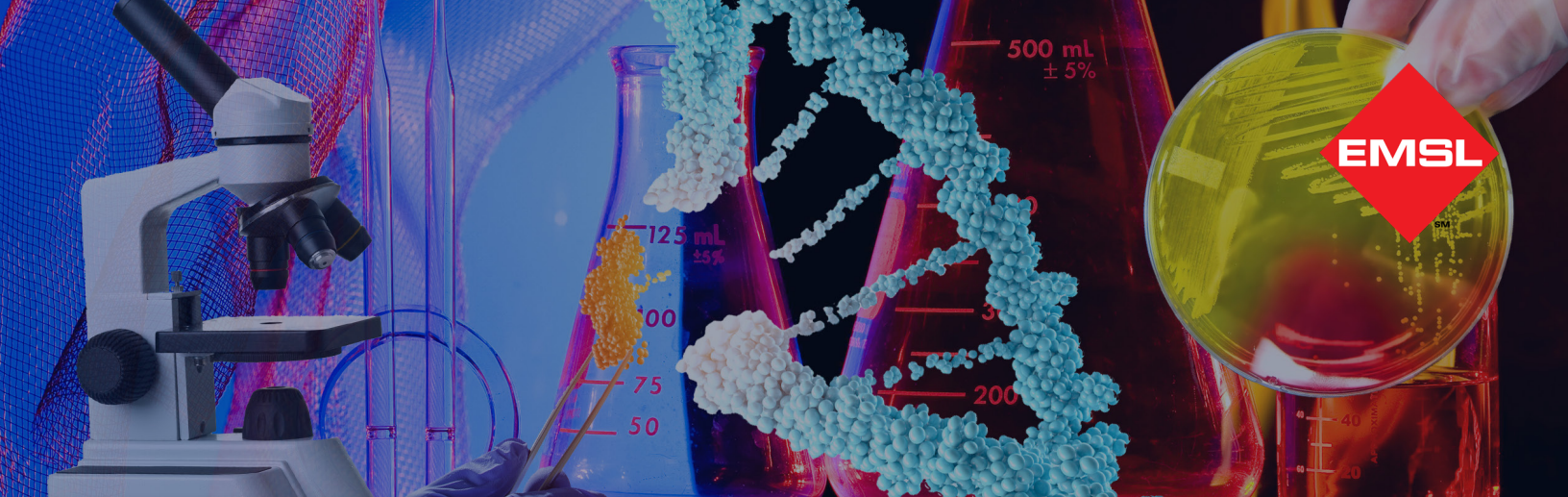
- ◆ Unknown

Potential Toxins Produced

- ◆ Unknown

References

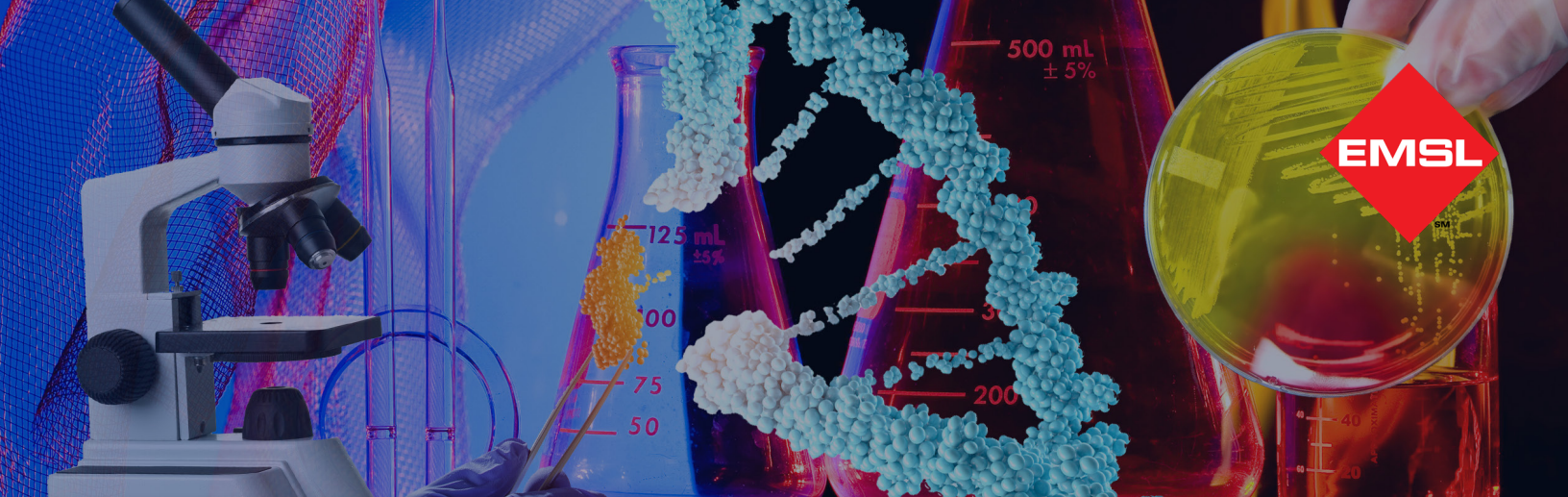
- ◆ *Mould Allergy*, Yousef Al-Doory and Joanne F. Domson, Lea and Febiger, Philadelphia, 1984. 287 p



FUNGAL GLOSSARY

Gliocladium

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Soil◆ Decaying plant tissue |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Water Activity | <ul style="list-style-type: none">◆ Unknown |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Water droplets◆ Insects |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Industrial Uses | <ul style="list-style-type: none">◆ <i>Gliocladium virens</i> GL-21 is used as a biological control against plant pathogenic fungi |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Gliotoxin is a metabolite of <i>Gliocladium deliquescens</i> |
| References | <ul style="list-style-type: none">◆ http://www.epa.gov/pesticides/biopesticides/ingredients/factsheets/factsheet_129000.htm |



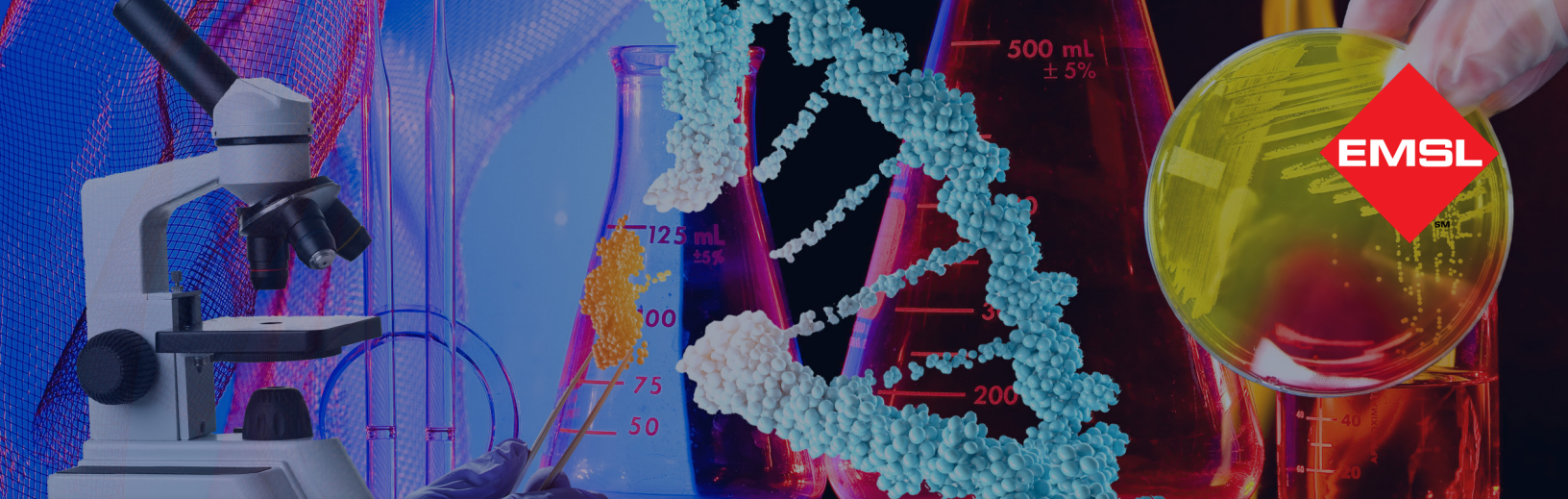
FUNGAL GLOSSARY

Gliomastix

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Causes rot on potatoes◆ Plant litter◆ Soil◆ Wood |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Textiles◆ Water damaged areas |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |
| Other Comments | <ul style="list-style-type: none">◆ <i>G. macrocylindrica</i> is a mycoparasite of <i>Beltrania rhombica</i> |

Gonatobotrys

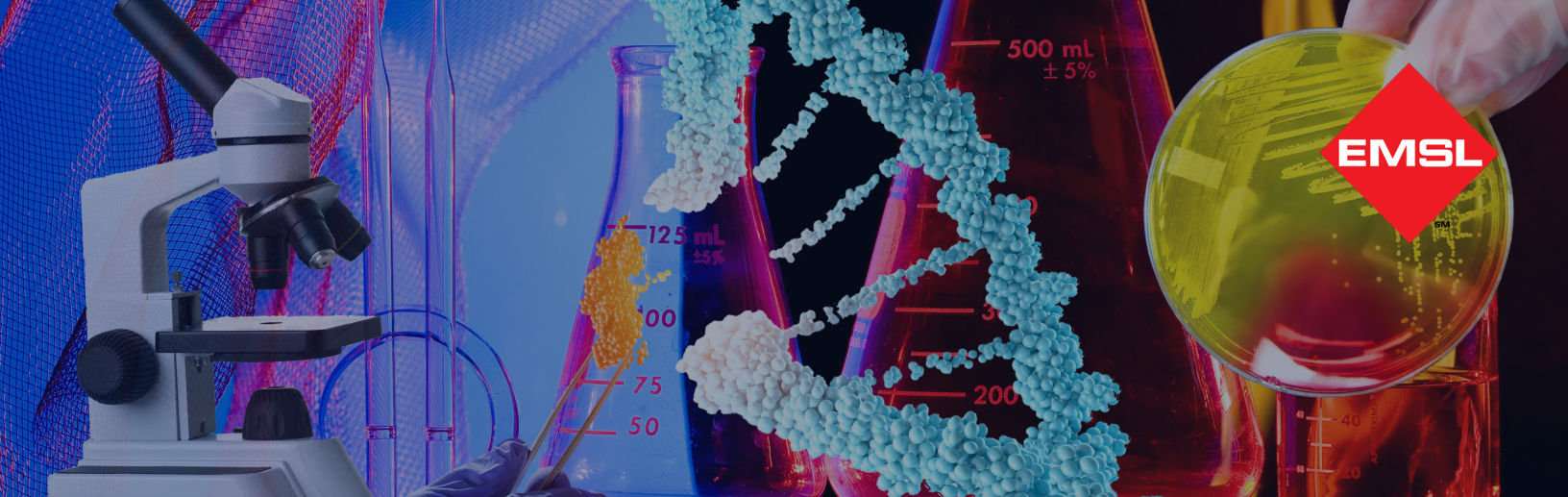
| | |
|-----------------------------------|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Decaying plant matter (fungicolous) |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |



FUNGAL GLOSSARY

Gonatobotryum

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Mycoparasite of Ophiostoma and Certatosystis (fungicolous)◆ Rotting wood◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Structural lumber |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Insects |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Industrial Uses | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |



FUNGAL GLOSSARY

Graphium

Natural Habitat

- ◆ Dung
- ◆ Seeds
- ◆ Soils
- ◆ Woody plant tissue

Suitable Substrates in the Indoor Environment

- ◆ Unknown

Water Activity

- ◆ Unknown

Mode of Dissemination

- ◆ Beetles when mitosporic state of *Ophiostoma ulmi*

Allergenic Potential

- ◆ Unknown

Potential Opportunist or Pathogen

- ◆ Unknown

Industrial Uses

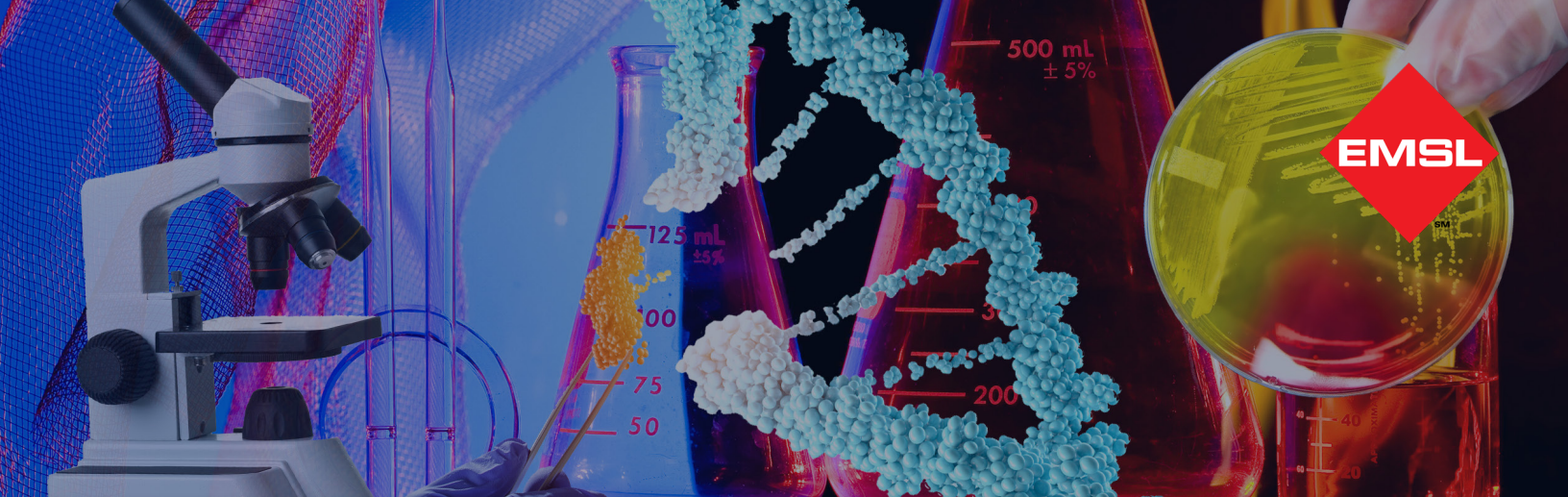
- ◆ GR135402, a compound with antifungal activity against *Candida albicans* and *Cryptococcus neoformans*, has been isolated from a fermentation broth of *Graphium putredinis*

Potential Toxins Produced

- ◆ Unknown

Other Comments

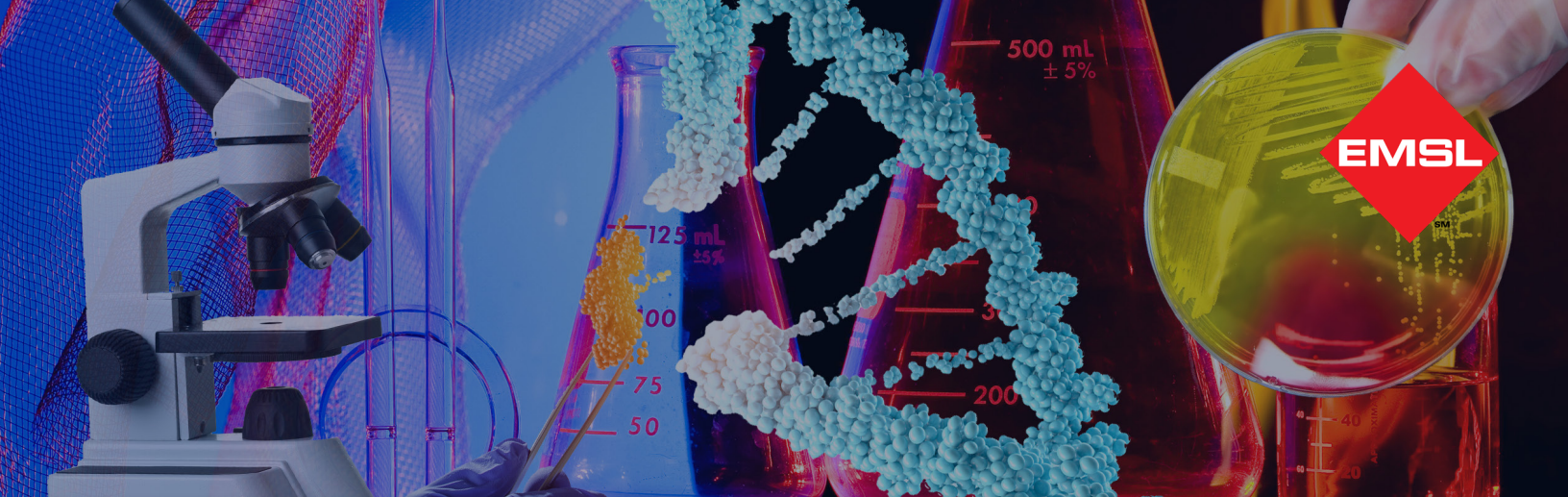
- ◆ There have not been any reports of human infections with *Graphium* species, however, it is a mitosporic state of *Pseudoallescheria boydii* which causes subcutaneous mycoses in man



FUNGAL GLOSSARY

Helminthosporium

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Pathogen of turfgrass causing crown rot and leaf spot diseases◆ Pathogen of maize causing Northern leaf blight◆ Pathogen of potatoes causing silver scurf disease |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Water Activity | <ul style="list-style-type: none">◆ Unknown |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Water splash◆ Foot traffic◆ Lawn mowers◆ Grass Clippings |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Industrial Uses | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Helminthosporoside◆ Helminthosporal |
| Other Comments | <ul style="list-style-type: none">◆ This name is no longer in use. The genus <i>Helminthosporium</i> is now <i>Bipolaris</i> |
| References | <ul style="list-style-type: none">◆ Steiner GW, Strobel GA. 1971. J Biol Chem. 246(13):4350-4357◆ Sommereyns G, Closset JL. 1977. Arch Int Physiol Biochim. 85(2):431-433 |



FUNGAL GLOSSARY

Hyalodendron

Natural Habitat

- ◆ Soils

Suitable Substrates in the Indoor Environment

- ◆ Unknown

Allergenic Potential

- ◆ Unknown

Potential Opportunist or Pathogen

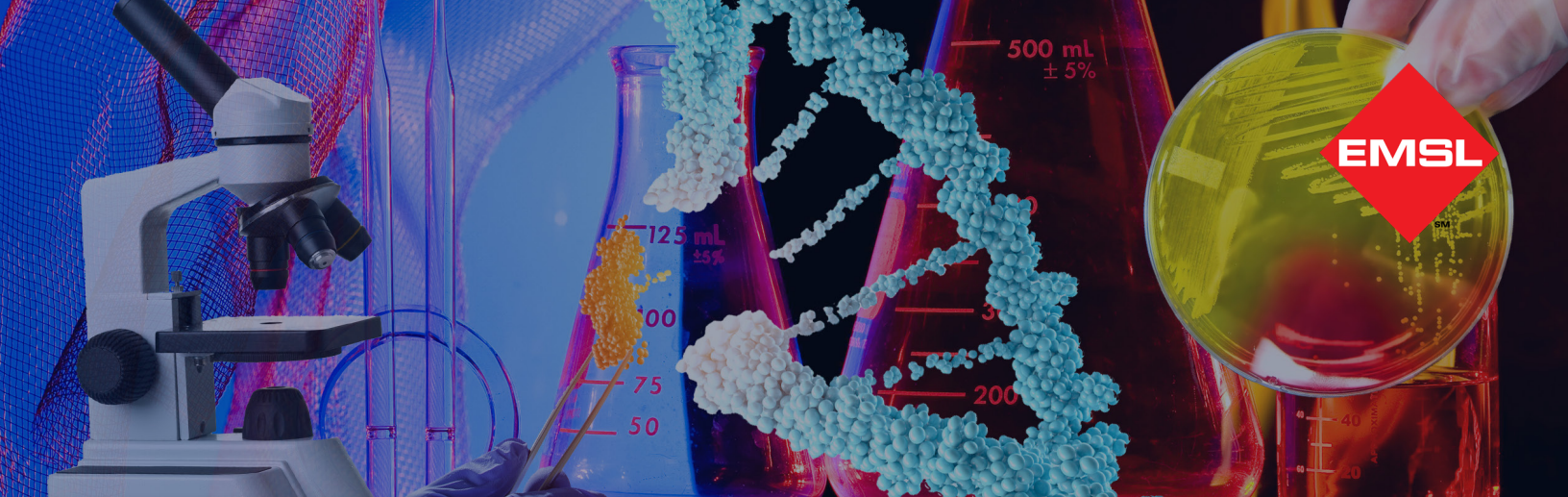
- ◆ Unknown

Industrial Uses

- ◆ Hyalodendrin is an antibiotic produced by *Hyalodendron*
- ◆ Hyalodendrosides A and B are anti-fungal products

Potential Toxins Produced

- ◆ Triterpenoid glycoside, hyalodendroside A (1)
- ◆ Triterpenoid glycoside, hyalodendroside B (2)



FUNGAL GLOSSARY

Leptosphaeria

Natural Habitat

- ◆ Pathogen of brassica plants
- ◆ Pathogen of oilseed rape
- ◆ Pathogen of wheat
- ◆ Dead plant materials
- ◆ Soils

Suitable Substrates in the Indoor Environment

- ◆ Unknown

Water Activity

- ◆ Unknown

Mode of Dissemination

- ◆ Seed borne transmission

Allergenic Potential

- ◆ Type I
- ◆ Type II

Potential Opportunist or Pathogen

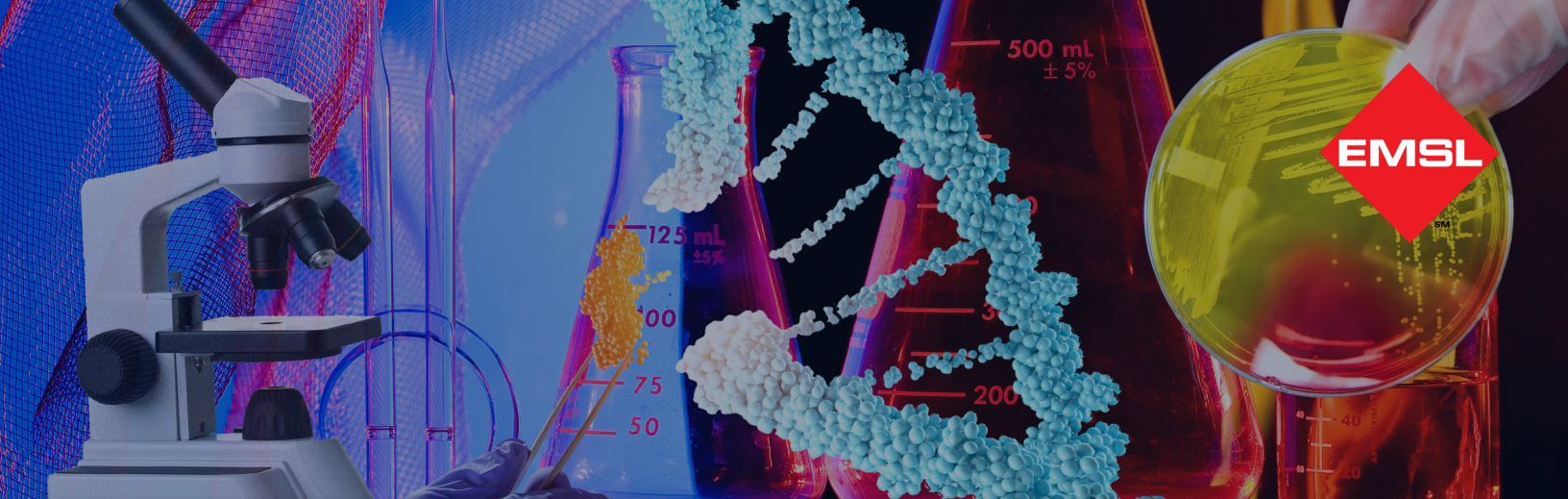
- ◆ Mycetoma
- ◆ Phaeohyphomycosis

Industrial Uses

- ◆ Unknown

Potential Toxins Produced

- ◆ Unknown



FUNGAL GLOSSARY

Memnoniella

Natural Habitat

- ◆ Plant materials
- ◆ Soils

Suitable Substrates in the Indoor Environment

- ◆ Paper
- ◆ Sheetrock
- ◆ Wood

Mode of Dissemination

- ◆ Wind

Allergenic Potential

- ◆ Unknown

Potential Opportunist or Pathogen

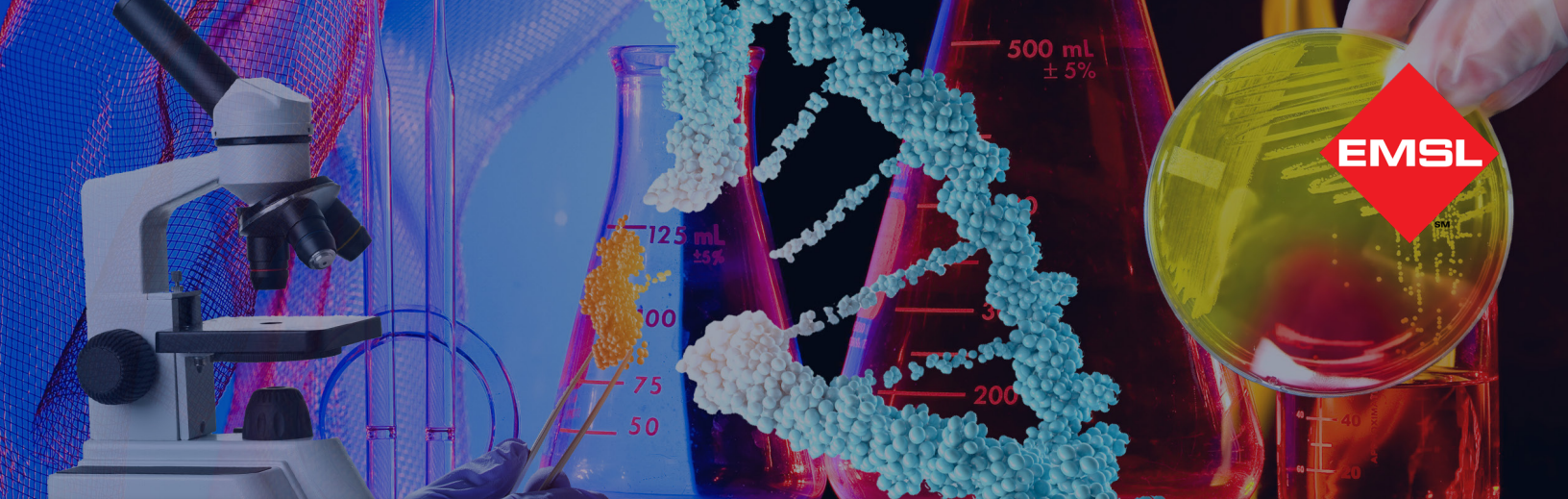
- ◆ Unknown

Potential Toxins Produced

- ◆ Dechlorogriseofulvin
- ◆ Epidechlorogriseofulvin
- ◆ Griseofulvins
- ◆ Memnopeptide A
- ◆ Trichodermol
- ◆ Trichoder

Other Comments

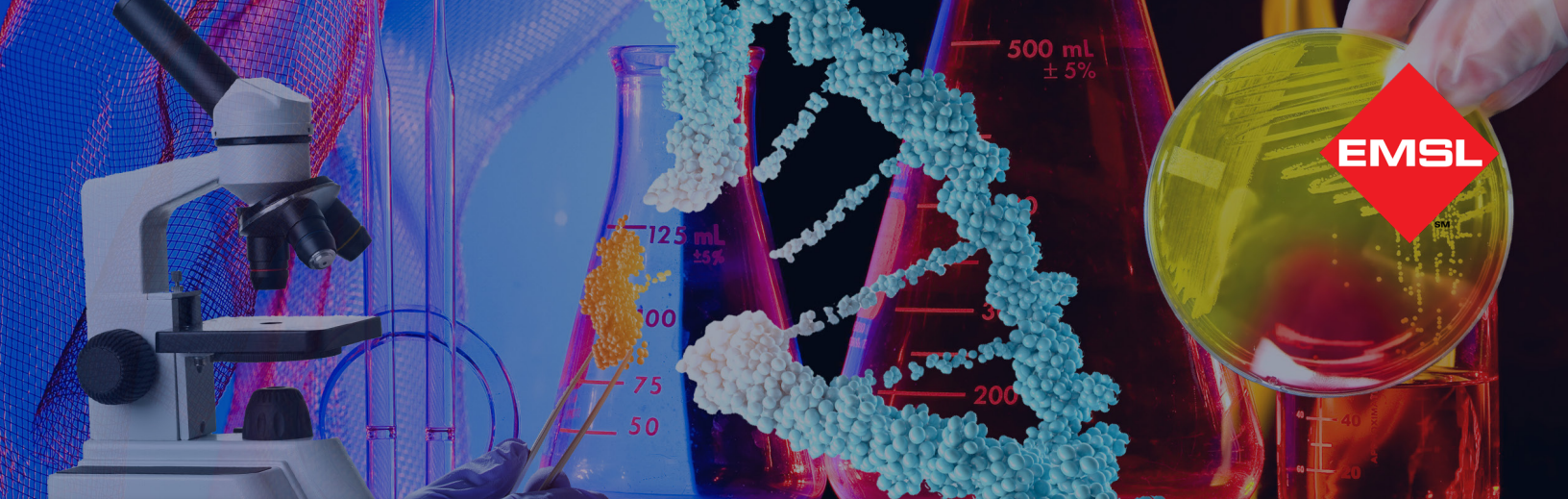
- ◆ Griseofulvin used an anti-dermatophyte drug and is commercially available. DNA evidence demonstrated that all *Memnoniella* fungi are *Stachybotrys*.



FUNGAL GLOSSARY

Microascus

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Soil◆ Soybeans◆ Sunflower seeds |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Drywall◆ Wood |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Brain abscess in immunocompromised patients◆ Cutaneous lesions◆ Mycetomas◆ Onychomycosis |
| Industrial Uses | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |
| Other Comments | <ul style="list-style-type: none">◆ <i>Microascus</i> is the sexual state (teleomorph) of <i>Scopulariopsis</i> |



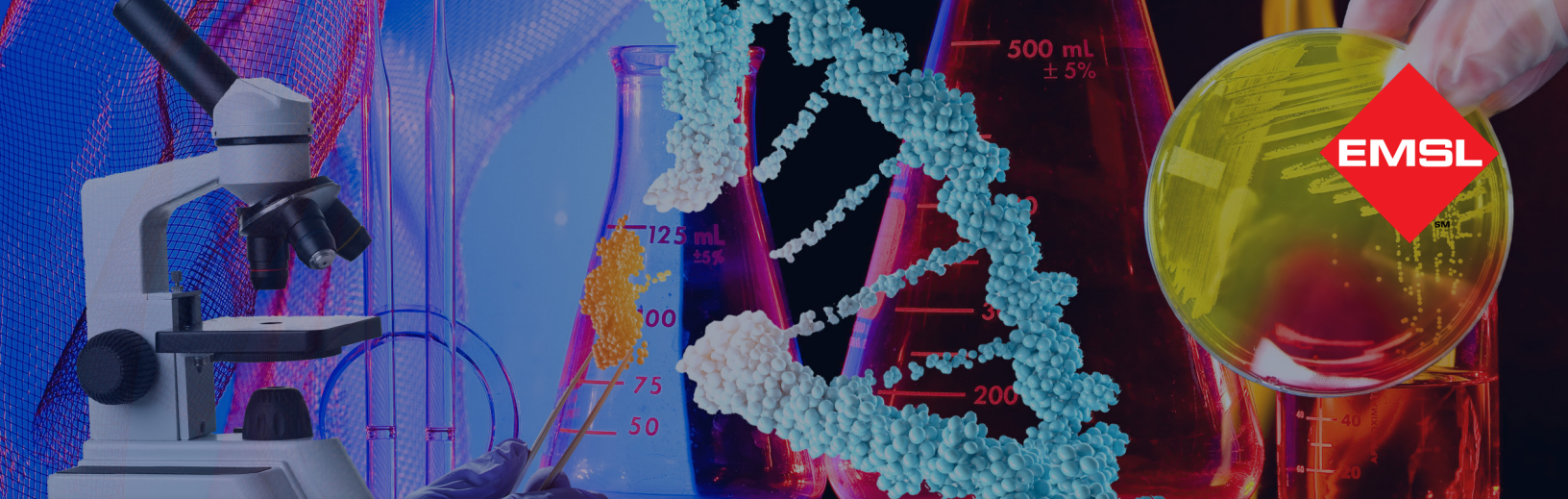
FUNGAL GLOSSARY

Micstromaro

| | |
|---|--|
| Natural Habitat | ◆ Plant pathogen on hickory and walnut trees causing downy leafspot. |
| Suitable Substrates in the Indoor Environment | ◆ Unknown |
| Mode of Dissemination | ◆ Water splash ◆ Wind |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Industrial Uses | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |

Monilia

| | |
|-----------------|--|
| Natural Habitat | ◆ This is an obsolete name. Most <i>Monilia</i> are now referred to as <i>Candida</i> (please see description) |
|-----------------|--|



FUNGAL GLOSSARY

Micstromaro

Natural Habitat

- ◆ Dung
- ◆ Seeds
- ◆ Soil
- ◆ Sugar cane

Suitable Substrates in the Indoor Environment

- ◆ Unknown

Mode of Dissemination

- ◆ Water splash

Allergenic Potential

- ◆ Unknown

Potential Opportunist or Pathogen

- ◆ Unknown at this time

Industrial Uses

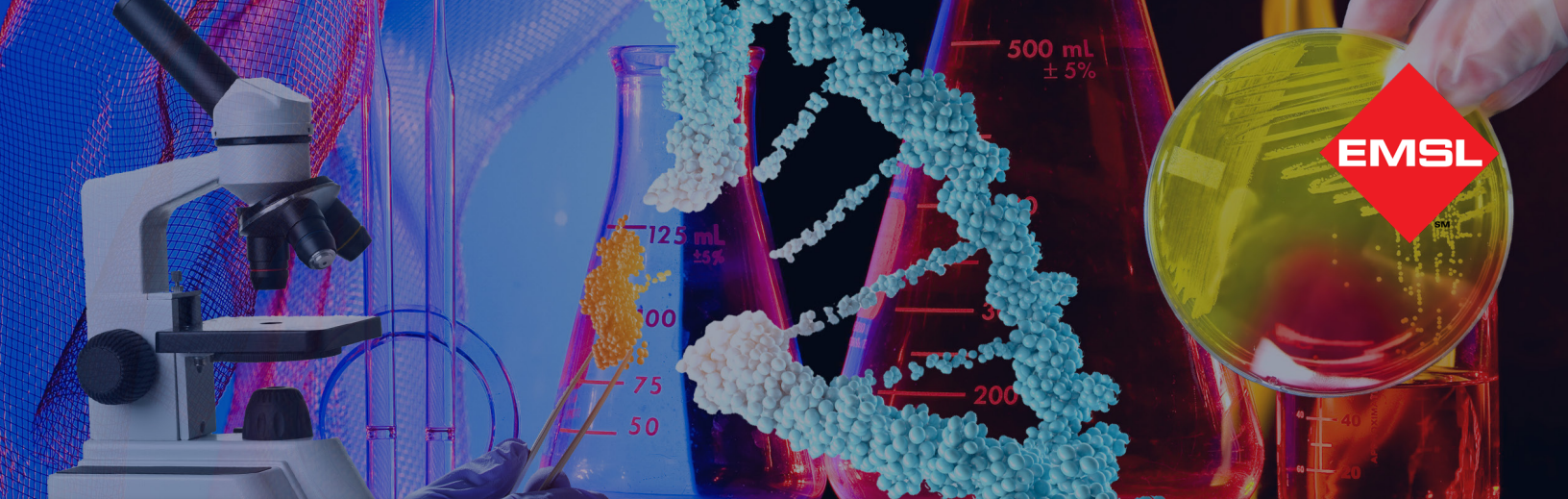
- ◆ Unknown

Potential Toxins Produced

- ◆ Unknown

Other Comments

- ◆ *M. wolfii* is an important casual agent of bovine mycotic abortion, pneumonia and systemic mycosis



FUNGAL GLOSSARY

Mucor

Natural Habitat

- ◆ Decaying fruits and vegetables
- ◆ Dung
- ◆ Plants
- ◆ Soils

Suitable Substrates in the Indoor Environment

- ◆ Fruit
- ◆ Leftover foods
- ◆ Building Materials
- ◆ Carpet Dust

Water Activity

- ◆ Aw=0.90-0.94

Mode of Dissemination

- ◆ Water Splash
- ◆ Wind disseminated

Allergenic Potential

- ◆ Type I (hay fever, asthma)
- ◆ Type III (hypersensitivity)

Potential Opportunist or Pathogen

- ◆ Zygomycosis in immunocompromised patients

Industrial Uses

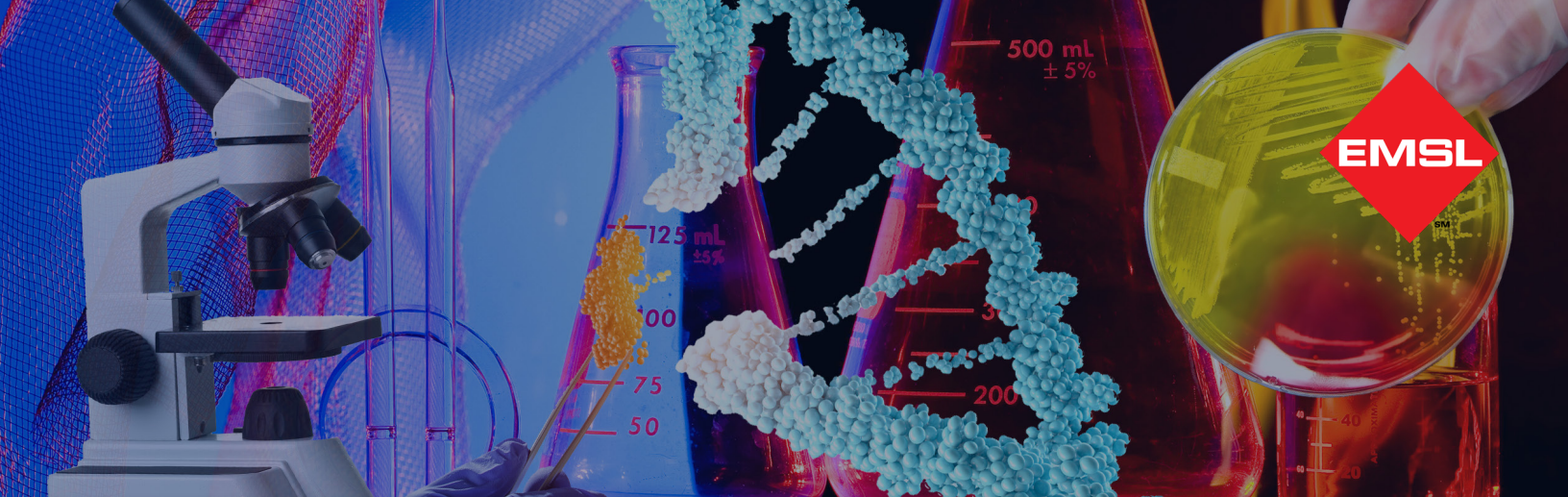
- ◆ Proteases from *M. pusillus* and *M. mehei* are used in cheese fermentation

Potential Toxins Produced

- ◆ Unknown

Other Comments

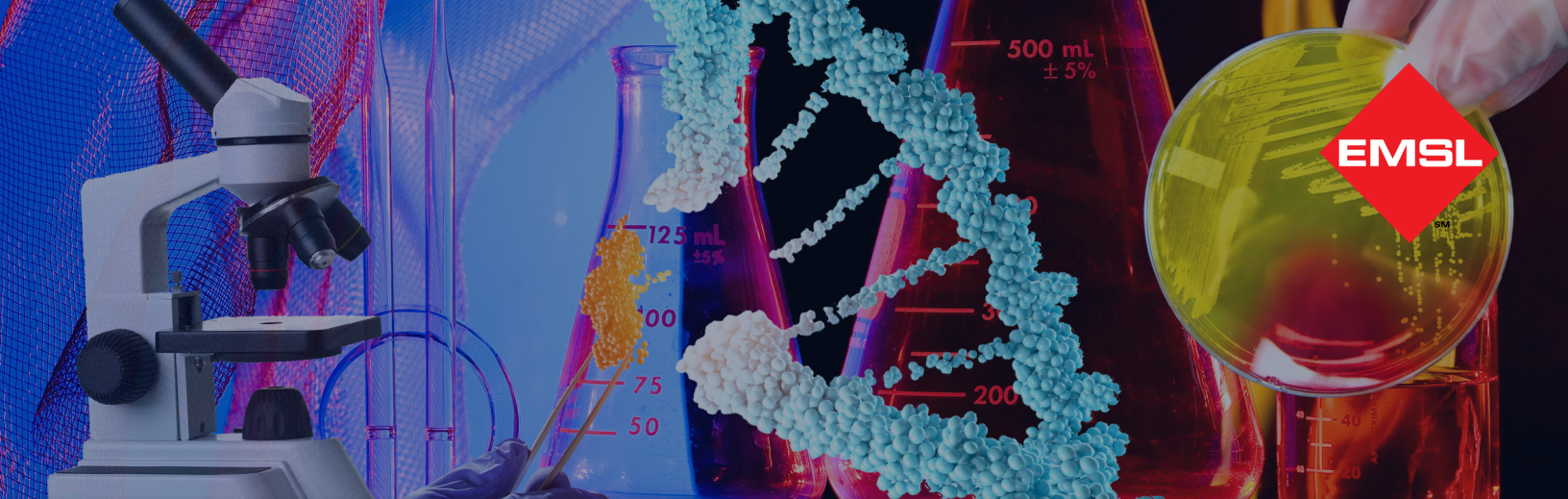
- ◆ Produces zygomycete sporangiospores



FUNGAL GLOSSARY

Mycotypha

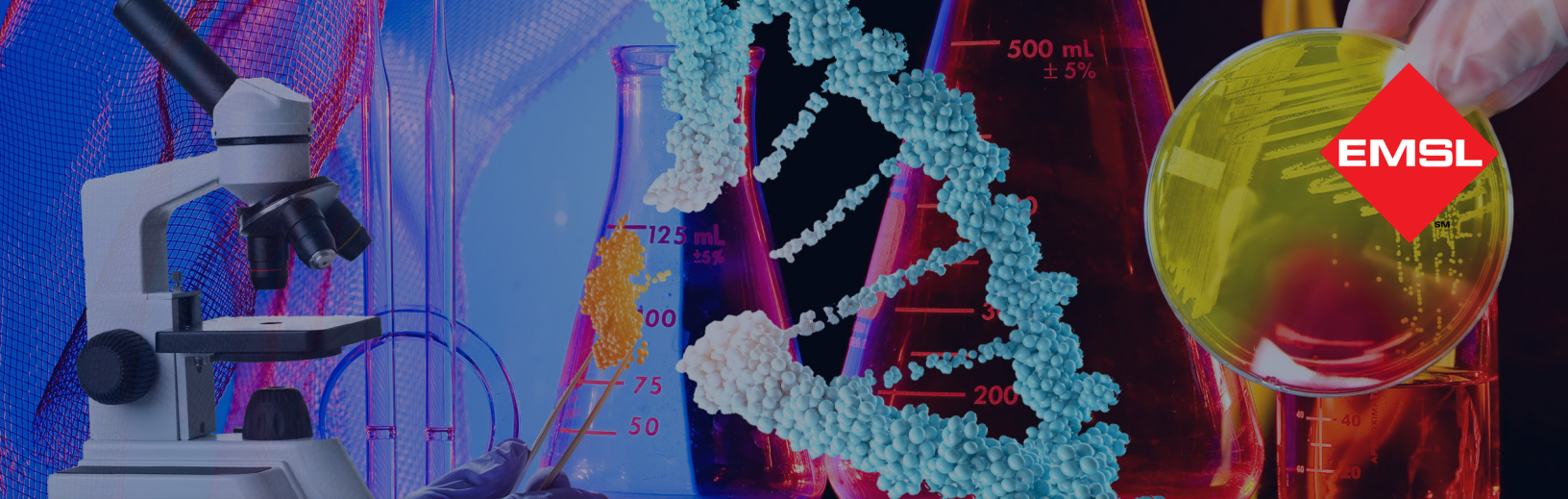
| | |
|---|-----------|
| Natural Habitat | ◆ Soils |
| Suitable Substrates in the Indoor Environment | ◆ Unknown |
| Mode of Dissemination | ◆ Wind |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Industrial Uses | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |



FUNGAL GLOSSARY

Myrothecium

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Dead agaric mushrooms◆ Grasses◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Rarely found indoors |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Insects◆ Water splash |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Trichothecene mycotoxins |



FUNGAL GLOSSARY

Myxomycetes

Natural Habitat

- ◆ Decaying logs
- ◆ Dead leaves
- ◆ Dung
- ◆ Lawns
- ◆ Mulched flower beds

Suitable Substrates in the Indoor Environment

- ◆ Rotting lumber

Water Activity

- ◆ Unknown

Mode of Dissemination

- ◆ Insects
- ◆ Water
- ◆ Wind

Allergenic Potential

- ◆ Type I

Potential Opportunist or Pathogen

- ◆ Unknown

Industrial Uses

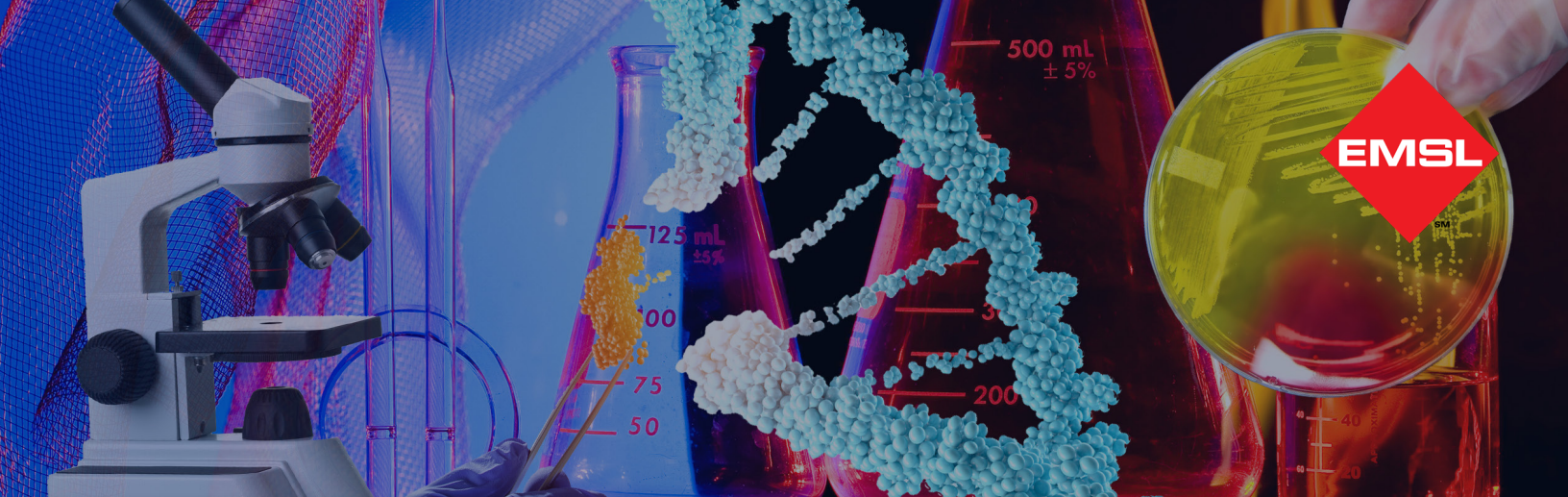
- ◆ Unknown

Potential Toxins Produced

- ◆ Unknown

Other Comments

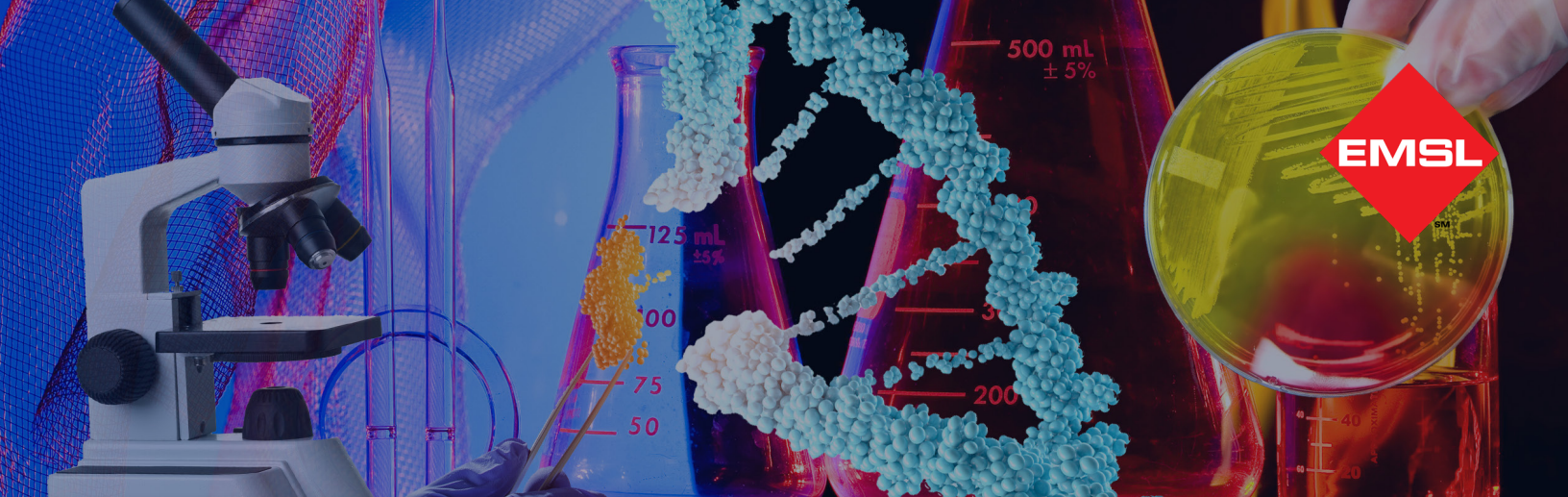
- ◆ Young sporophores of one genera (*Enteridium lycoperdon*) are fried and eaten in Mexico, and the dish is called caca de luna
- ◆ Myxomycetes are not members of the Kingdom Fungi. This is due to morphological differences and DNA evidence



FUNGAL GLOSSARY

Myxotrichum

| | |
|---|--|
| Natural Habitat | ◆ Soils |
| Suitable Substrates in the Indoor Environment | ◆ Decomposing carpets ◆ Paper ◆ Wet drywall |
| Mode of Dissemination | ◆ Wind |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Industrial Uses | ◆ Unknown |
| Potential Toxins Produced | ◆ <i>Myxotrichum stipitatum</i> produces: ◆ Clavatoic acid ◆ Myxostiolide ◆ Myxostiol |
| Other Comments | ◆ The toxins produced by <i>M. stipitatum</i> are all plant growth regulators |



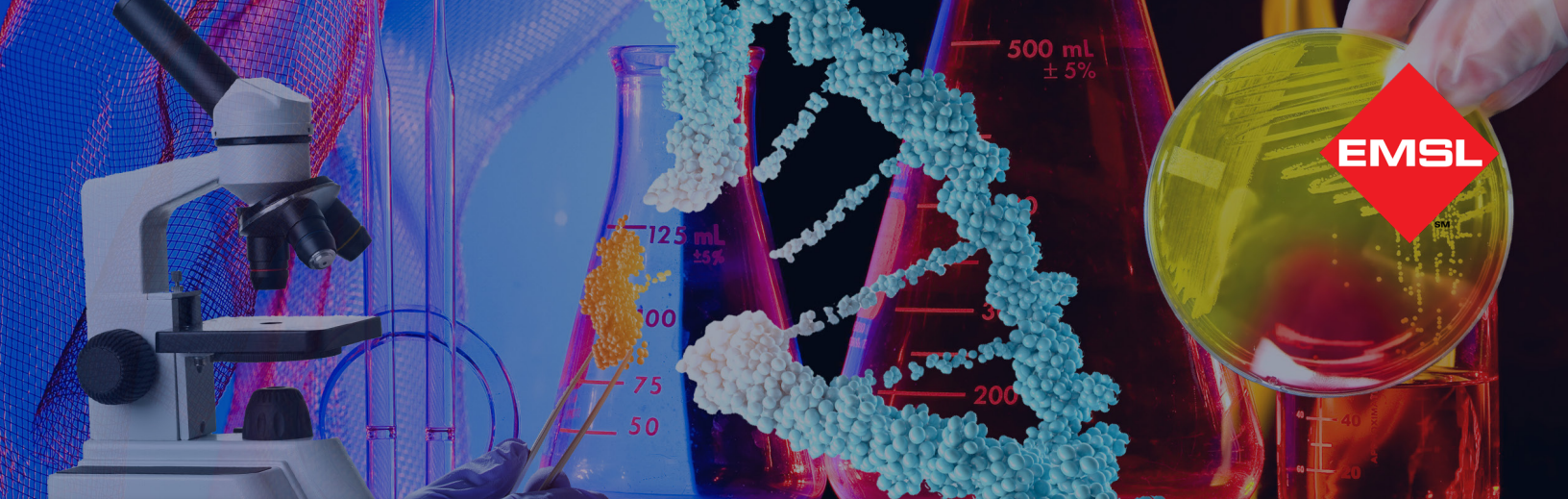
FUNGAL GLOSSARY

Neosartorya

| | |
|---|---|
| Natural Habitat | ◆ Fruits |
| Suitable Substrates in the Indoor Environment | ◆ Fruits ◆ Heat processed fruit products |
| Allergenic Potential | ◆ Similar to <i>Aspergillus</i> spp. |
| Potential Opportunist or Pathogen | ◆ Mycotic keratitis ◆ <i>N. pseudofischeri</i> is known to cause Osteomyelitis |
| Potential Toxins Produced | ◆ Azaspirene |
| Other Comments | ◆ <i>Neosartorya</i> is a teleomorphic (sexual) state of <i>Aspergillus</i> . There are multiple teleomorphs for <i>Aspergillus</i> . |

Nigrospora

| | |
|---|--|
| Natural Habitat | ◆ Common on live or dead grass ◆ Seeds ◆ Soil |
| Suitable Substrates in the Indoor Environment | ◆ Unknown |
| Mode of Dissemination | ◆ Forcibly ejected |
| Allergenic Potential | ◆ Type I allergies (hay fever, asthma) |
| Potential Opportunist or Pathogen | ◆ Keratitis ◆ Skin lesions |
| Industrial Uses | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown metabolite reported with some toxic properties |



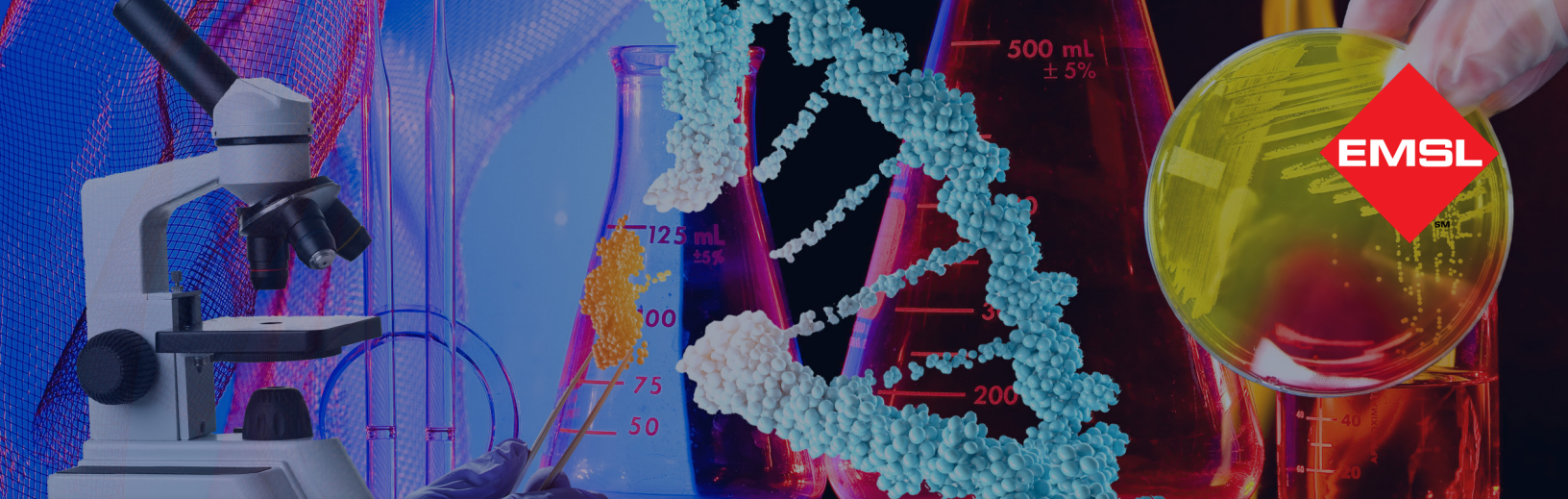
FUNGAL GLOSSARY

Nodulisporium

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Endophytic in some trees causing wood rot disease◆ Dead stems of trees◆ Herbaceous plants◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Allergenic Potential | <ul style="list-style-type: none">◆ Allergic sinusitis |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Cerebral phaeohyphomycosis |
| Industrial Uses | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Nodulisporic acid (a indole terpene) |
| Other Comments | <ul style="list-style-type: none">◆ Nodulisporic acid has insecticidal properties and could potentially be used as an insecticide |

Ochroconis

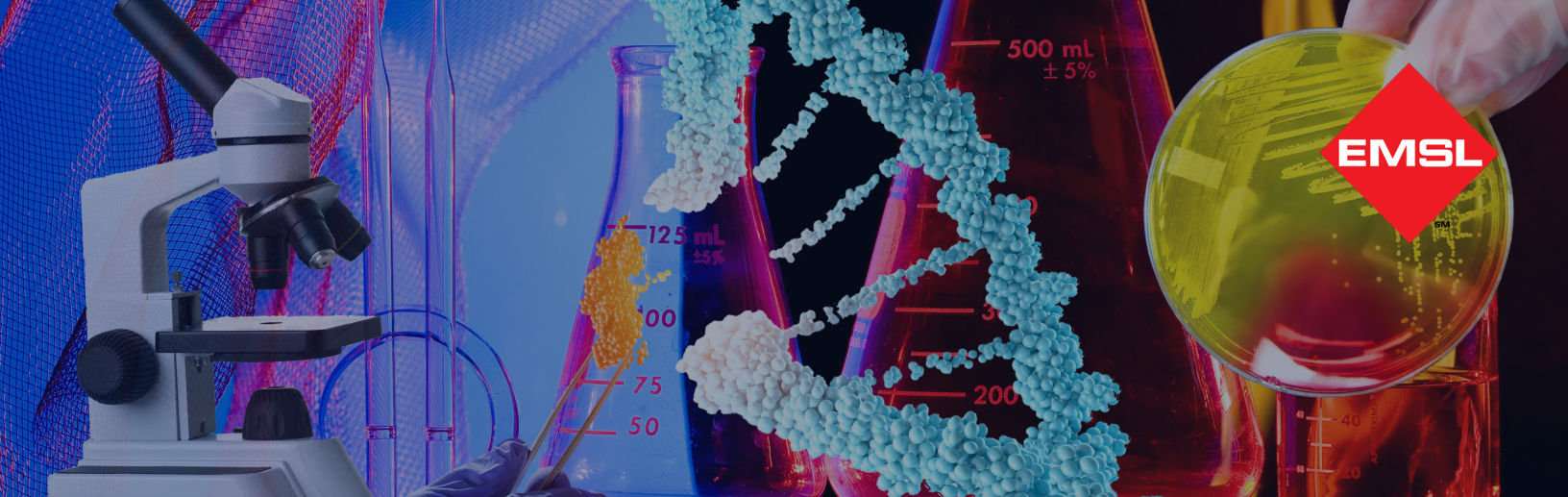
| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Decaying plant matter◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Causes systemic infections◆ Causes lung abscesses |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |



FUNGAL GLOSSARY

Oedocephalum

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Dung◆ Soils◆ Wood |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Wood structures |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Wind |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |
| Other Comments | <ul style="list-style-type: none">◆ Contaminant of edible mushroom cultures. Asexual state of <i>Peziza</i> |



FUNGAL GLOSSARY

Oidiodendron

Natural Habitat

- ◆ Leaf litter
- ◆ Peat
- ◆ Wood
- ◆ Soils

Suitable Substrates in the Indoor Environment

- ◆ Paper
- ◆ Textiles

Allergenic Potential

- ◆ Unknown

Potential Opportunist or Pathogen

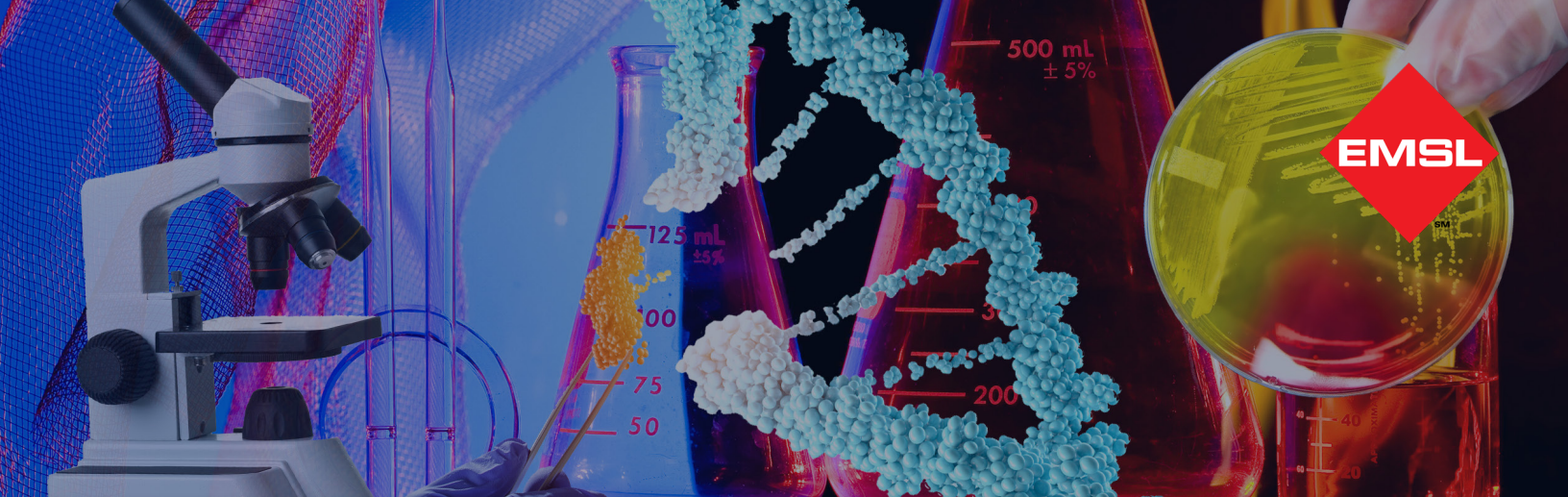
- ◆ Unknown

Potential Toxins Produced

- ◆ Unknown

Other Comments

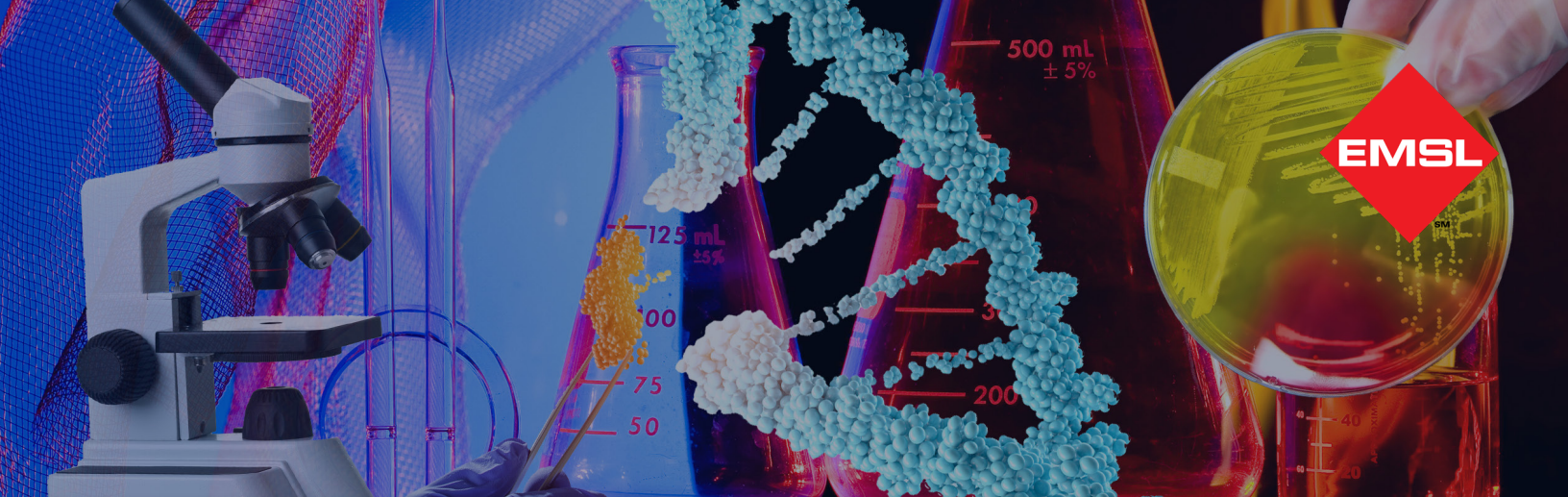
- ◆ Forms mycorrhizae on Ericaceae



FUNGAL GLOSSARY

Oidium

| | |
|---|--|
| Natural Habitat | ◆ It is an obligate parasite on many plant varieties causing powdery mildew disease. |
| Suitable Substrates in the Indoor Environment | ◆ Houseplants |
| Mode of Dissemination | ◆ Wind |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |
| Other Comments | ◆ Asexual state of <i>Erysiphe</i> |



FUNGAL GLOSSARY

Paecilomyces

Natural Habitat

- ◆ Decaying plant matter
- ◆ Insects
- ◆ Soils

Suitable Substrates in the Indoor Environment

- ◆ Optical Lenses
- ◆ Leather
- ◆ Paper
- ◆ PVC
- ◆ Jute Fibers
- ◆ Tobacco

Water Activity

- ◆ Aw=0.79

Mode of Dissemination

- ◆ Wind

Allergenic Potential

- ◆ Type I (hay fever, asthma)
- ◆ Type III (hypersensitivity)

Potential Opportunist or Pathogen

- ◆ *P. variotii* causes paecilomycosis (symptoms include keratitis, cellulitis, and alveolitis).
- ◆ Corneal ulcers, keratitis, and endophthalmitis can occur after extended contact lens use or eye surgery due to *Paecilomyces* infection

Industrial Uses

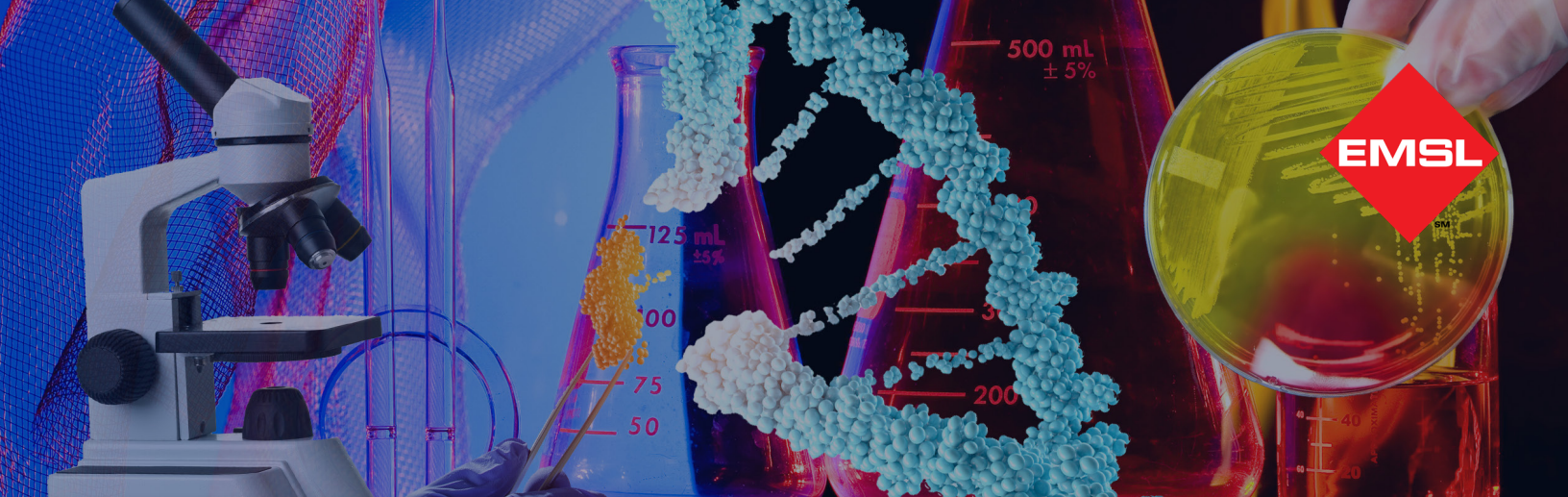
- ◆ *Paecilomyces fumosoroseus* is currently marketed as a biocontrol insecticide

Potential Toxins Produced

- ◆ Byssochlamic acid
- ◆ Ferrirubin
- ◆ Fusigen
- ◆ Indole-3-acetic acid
- ◆ Paecilotoxins
- ◆ Patulin.variotin
- ◆ Viriditoxin

Other Comments

- ◆ *P. crustaceus* and *P. variotii* can grow well at temperatures as high as 50°C



FUNGAL GLOSSARY

Penicillium

Natural Habitat

- ◆ Soil
- ◆ Seed
- ◆ Cereal crops

Suitable Substrates in the Indoor Environment

- ◆ Foods (blue mold on cereals, fruits, vegetables, dried foods)
- ◆ House dust
- ◆ Fabrics
- ◆ Leather
- ◆ Wallpaper
- ◆ Wallpaper glue

Water Activity

- ◆ Aw=0.78-0.86

Mode of Dissemination

- ◆ Wind
- ◆ Insects

Allergenic Potential

- ◆ Type I (hay fever, asthma)
- ◆ Type III (hypersensitivity)

Potential Opportunist or Pathogen

- ◆ Penicilliosis

Industrial Uses

- ◆ *P. chrysogenum* for the antibiotic penicillin
- ◆ *P. griseofulvum* for the antibiotic griseofulvin
- ◆ *P. roquefortii* for Roquefort cheese
- ◆ *P. camemberti* for Camembert cheese
- ◆ Brie, Gorgonzola, and Danish Blue cheese are also the products of *Penicillium*
- ◆ Used to cure ham and salami
- ◆ Production of organic acids such as fumaric, oxalic, gluconic, and gallic

Potential Toxins Produced

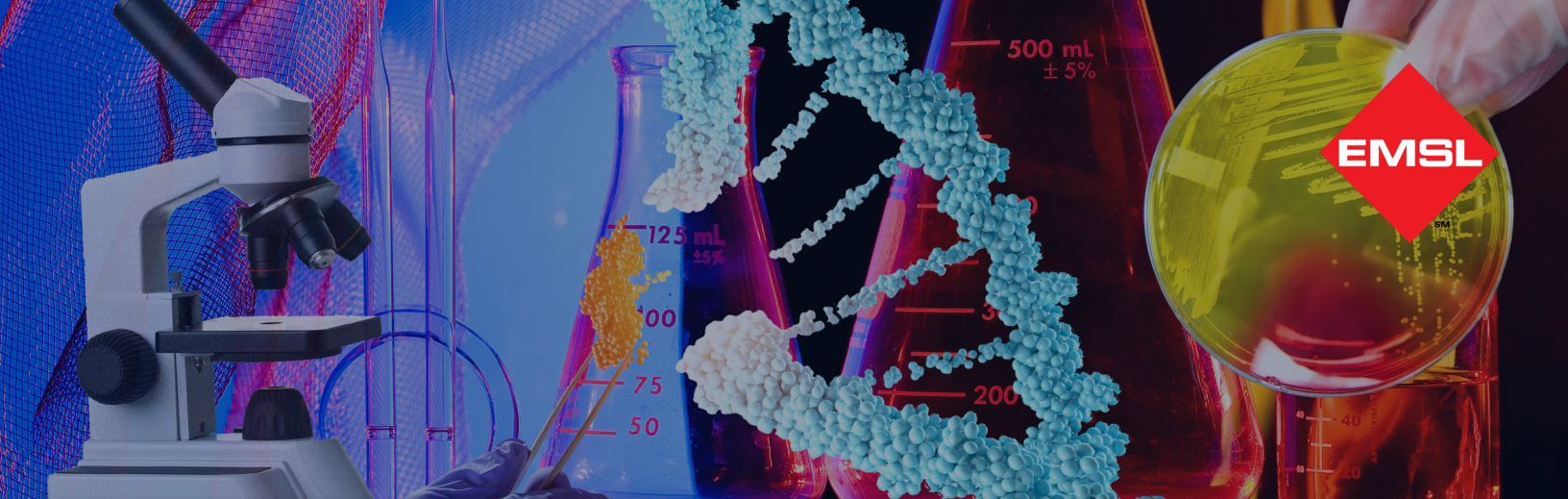
- | | | |
|----------------------|---------------------|--------------------|
| ◆ Citrinin | ◆ Mycophenolic acid | ◆ Secalonic acid D |
| ◆ Citreoviridin | ◆ Paxilline | ◆ Verruculogen |
| ◆ Cyclopiazonic acid | ◆ Penitrem A | ◆ Verrucosidin |
| ◆ Fumitremorgen B | ◆ Penicillic acid | ◆ Viomellein |
| ◆ Griseofulvin | ◆ Ochratoxins | ◆ Viridicatumtoxin |
| ◆ Janthitrems | ◆ Roquefortine C | ◆ Xanthomegnin |

Other Comments

- ◆ *Penicillium* is one of the most common genera of fungi

References

- ◆ Alexopoulos, C.J., Mims, C.W., Blackwell, M. 1996. John Wiley and Sons



FUNGAL GLOSSARY

Periconia

Natural Habitat

- ◆ Grasses
- ◆ Sedges
- ◆ Rushes
- ◆ Dead herbaceous plant material
- ◆ Soils

Suitable Substrates in the Indoor Environment

- ◆ Unknown

Mode of Dissemination

- ◆ Wind

Allergenic Potential

- ◆ Unknown

Potential Opportunist or Pathogen

- ◆ Unknown

Industrial Uses

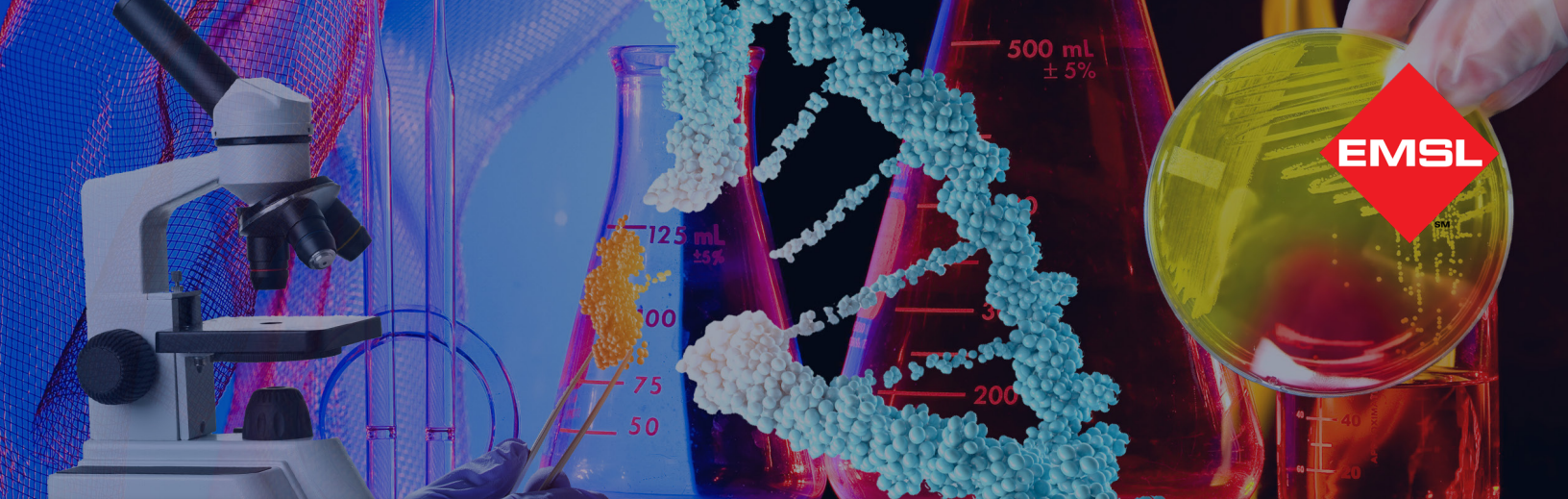
- ◆ Unknown

Potential Toxins Produced

- ◆ *Periconia circinata* produces Periconin A and Periconin B (both are biologically inactive)
- ◆ *P. circinata* also produces Peritoxins A and B

References

- ◆ V Macko, M B Stimmel, T J Wolpert, L D Dunkle, W Acklin, R Banteli, B Jaun, and D Arigoni. 1992. Structure of the host-specific toxins produced by the fungal pathogen *Periconia circinata*. Proc Natl Acad Sci U S A. 89(20): 9574–9578



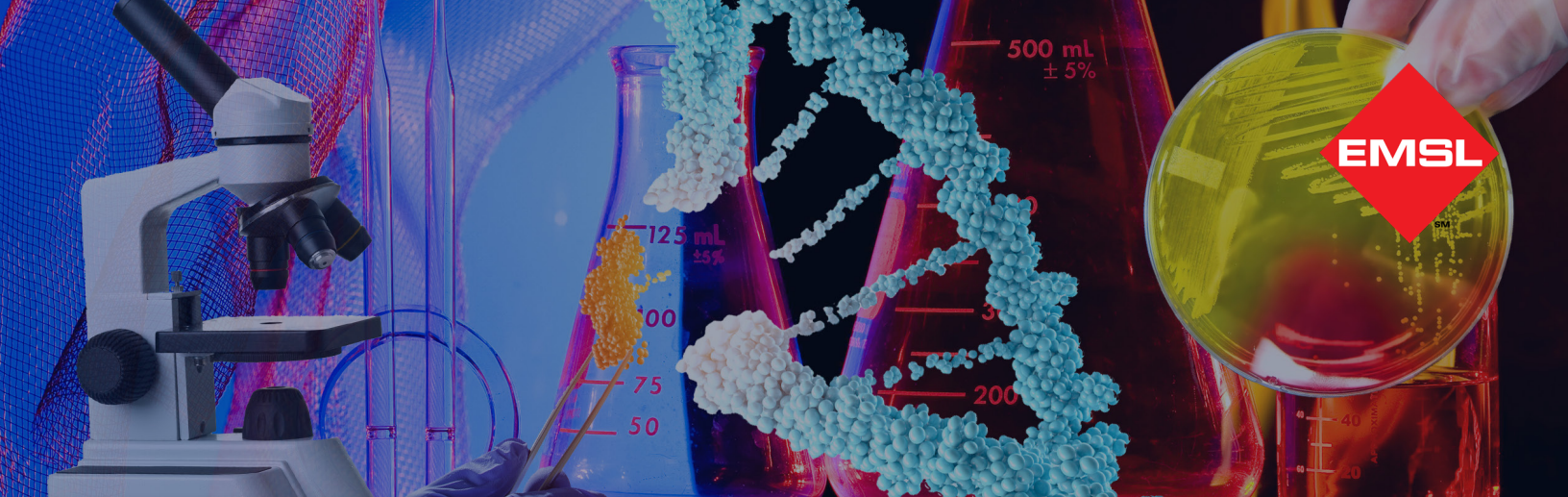
FUNGAL GLOSSARY

Peronospora

| | |
|---|---|
| Natural Habitat | ◆ Obligate pathogen causing Downy Mildew on many types of plants. May be seen on outdoor samples. |
| Suitable Substrates in the Indoor Environment | ◆ Houseplants |
| Mode of Dissemination | ◆ Wind |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Industrial Uses | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |

Peziza

| | |
|---|---|
| Natural Habitat | ◆ Plant litter ◆ Rotting wood ◆ Damp Soil |
| Suitable Substrates in the Indoor Environment | ◆ Often found in basements and in wet carpets |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown. Asexual state of <i>Oedocephalum/Chromelosporium</i> |



FUNGAL GLOSSARY

Phialocephala

Natural Habitat

- ◆ Bark from many types of trees
- ◆ Orchids
- ◆ Wood
- ◆ Soils

Suitable Substrates in the Indoor Environment

- ◆ Unknown

Allergenic Potential

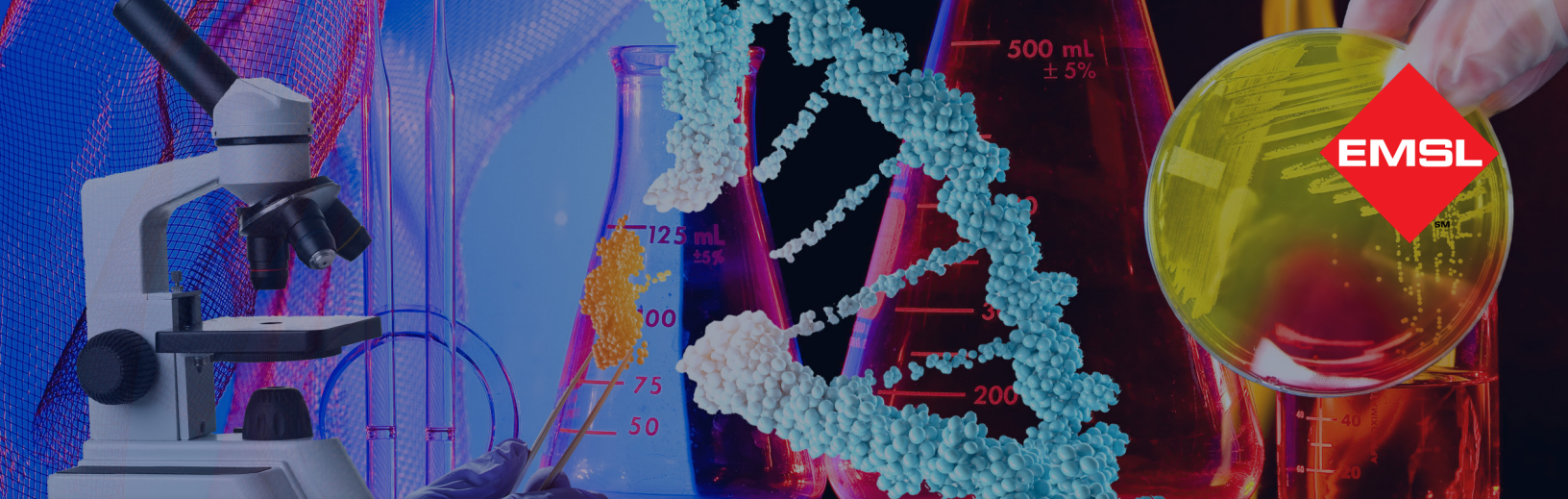
- ◆ Unknown

Potential Opportunist or Pathogen

- ◆ Unknown

Potential Toxins Produced

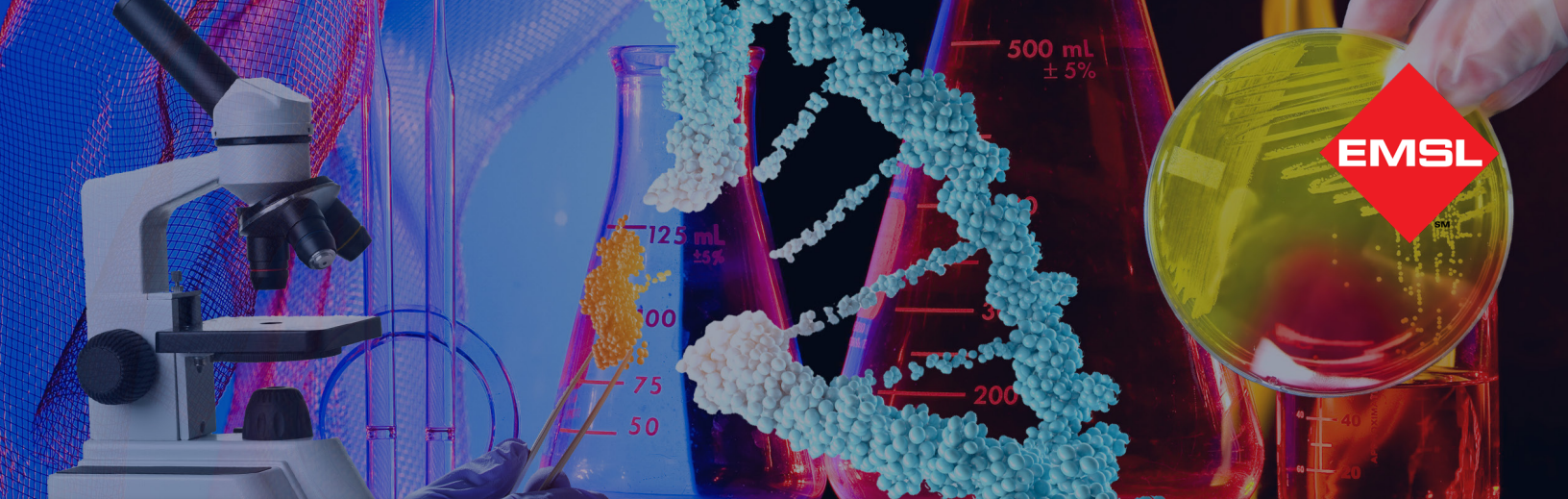
- ◆ Unknown



FUNGAL GLOSSARY

Phialophora

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Dung◆ Soil◆ Plant tissue◆ Water◆ Wood |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Infected plant debris |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Chromoblastomycosis in temperate to sub-tropical climates |
| Industrial Uses | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |



FUNGAL GLOSSARY

Phoma

Natural Habitat

- ◆ Cucurbits (causing foliar disease)
- ◆ Conifers (resulting in blight)
- ◆ Soils

Suitable Substrates in the Indoor Environment

- ◆ Butter
- ◆ Ceiling tiles
- ◆ Cement
- ◆ Floor tiles
- ◆ Paint
- ◆ Rice
- ◆ Rubber
- ◆ Wood

Mode of Dissemination

- ◆ Splash when wet
- ◆ Insect and wind when dry

Allergenic Potential

- ◆ Type I (hay fever, asthma)
- ◆ Type III (hypersensitivity)

Potential Opportunist or Pathogen

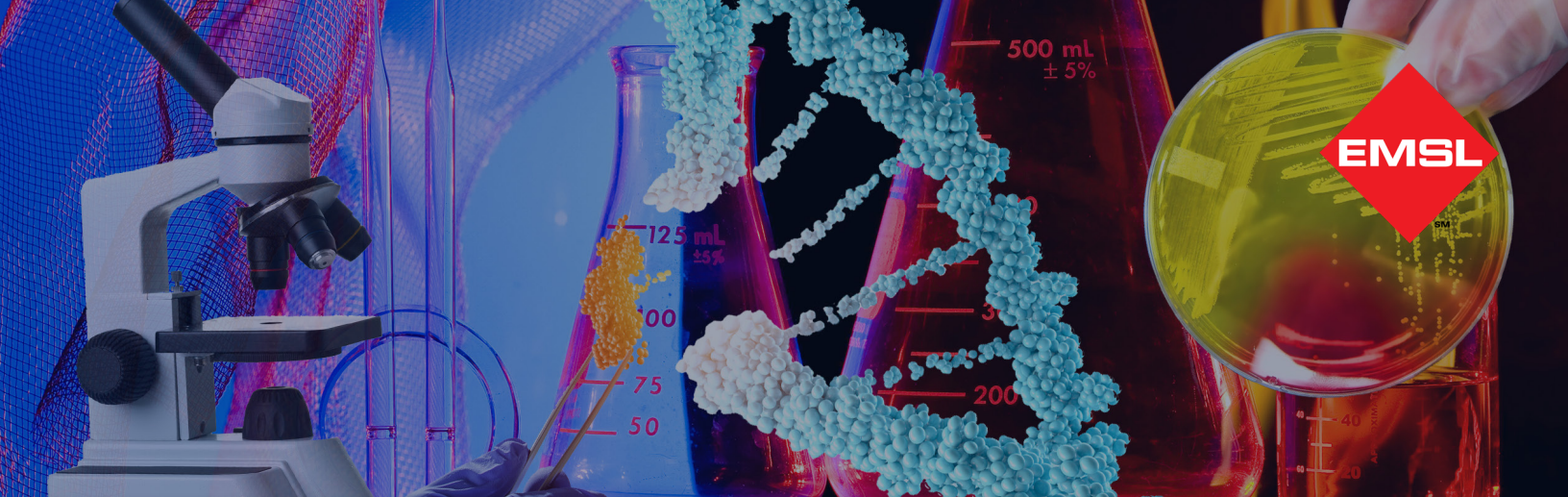
- ◆ Phaeohyphomycosis in immunocompromised patients

Industrial Uses

- ◆ Unknown

Potential Toxins Produced

- ◆ Unknown



FUNGAL GLOSSARY

Pithomyces

Natural Habitat

- ◆ Leaf litter
- ◆ Soils
- ◆ Tree bark

Suitable Substrates in the Indoor Environment

- ◆ Paper

Water Activity

- ◆ Requires high moisture level for spore germination

Mode of Dissemination

- ◆ Wind

Allergenic Potential

- ◆ Unknown

Potential Opportunist or Pathogen

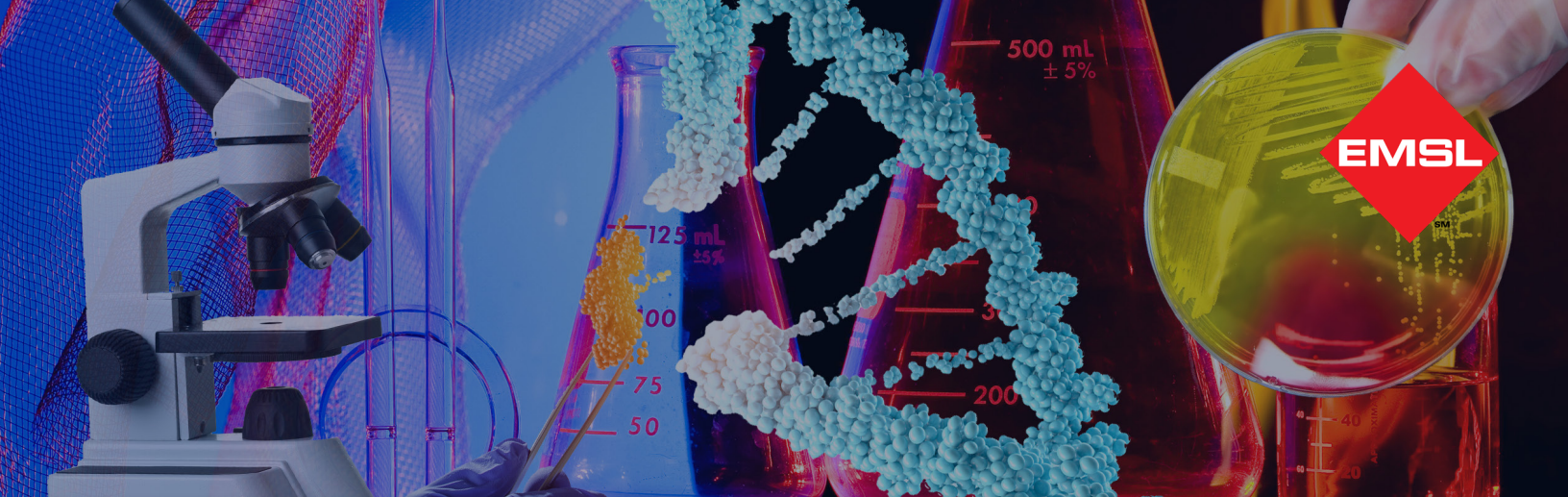
- ◆ Etiologic agent in immunocompromised patients

Industrial Uses

- ◆ Unknown

Potential Toxins Produced

- ◆ Cyclodepsipeptides
- ◆ Sporidesmin
- ◆ Sporidesmolides



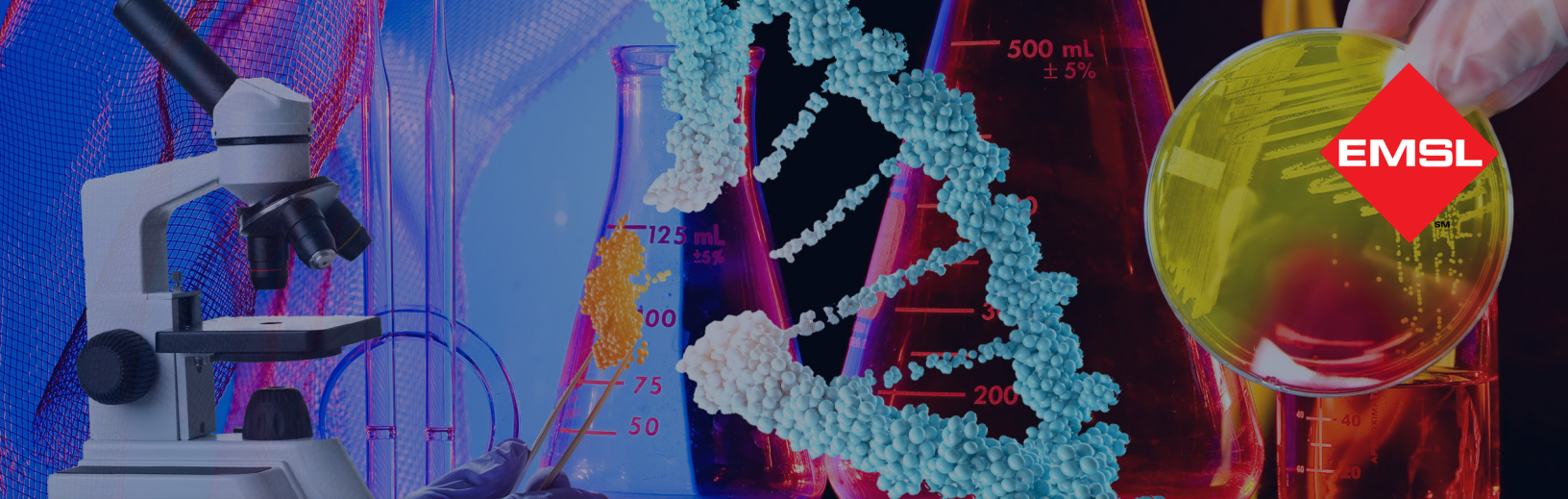
FUNGAL GLOSSARY

Polythrincium

| | |
|---|--|
| Natural Habitat | ◆ Leaves |
| Suitable Substrates in the Indoor Environment | ◆ Unknown |
| Allergenic Potential | ◆ Allergenic potential in this genus is not well understood, and is currently being studied. |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |

Poria

| | |
|---|--|
| Natural Habitat | ◆ Wood |
| Suitable Substrates in the Indoor Environment | ◆ Decays structural timber in buildings |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |
| Other Comments | ◆ Red Poria (<i>P. cocos</i>) is used in traditional Chinese medicine. Resupinate Polyporaceae |



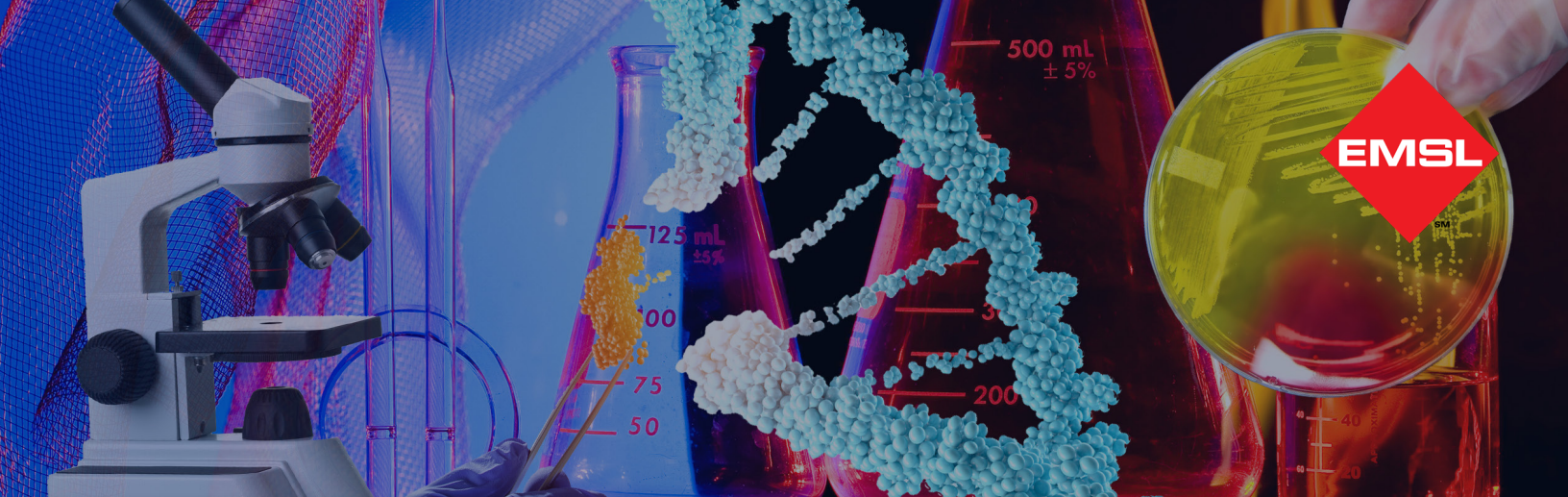
FUNGAL GLOSSARY

Pyrenochaeta

| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Plant pathogen to a variety of plants including tomatoes and some cucurbits.◆ Plant debris◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Water splash |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ <i>Pyrenochaeta romeroi</i> has been associated with mycetoma◆ <i>Pyrenochaeta unguis-hominis</i> infects nails |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |

Rhinocladiella

| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Decaying wood◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Wood |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Wind |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Chromoblastomycosis◆ Fungemia |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |



FUNGAL GLOSSARY

Rhizopus

Natural Habitat

- ◆ Dung
- ◆ Fruits- causing rhizopus rot on stone fruits and strawberries
- ◆ Soils
- ◆ Vegetables

Suitable Substrates in the Indoor Environment

- ◆ Stored fruits and vegetables

Water Activity

- ◆ Aw=0.93

Mode of Dissemination

- ◆ Wind

Allergenic Potential

- ◆ Type I (hay fever, asthma)
- ◆ Type III (hypersensitivity)

Potential Opportunist or Pathogen

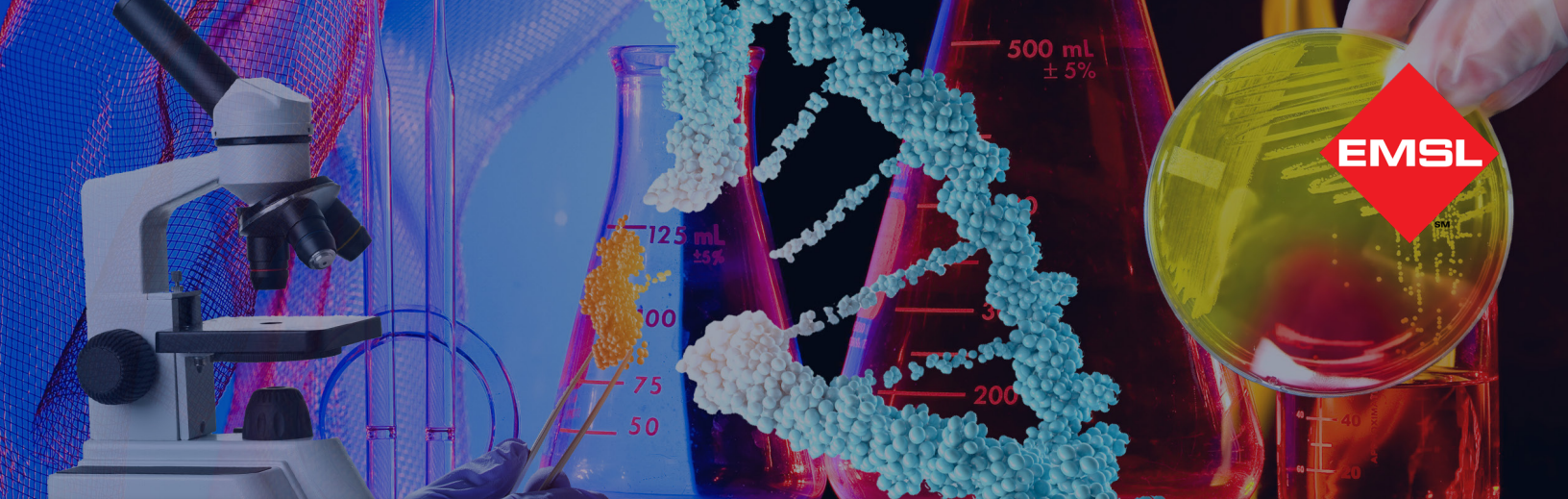
- ◆ Causal agent of zygomycosis in immunocompromised, malnourished or severely burned people

Industrial Uses

- ◆ Used to ferment rice into miso
- ◆ Used to ferment soybeans to tempeh and sufu

Potential Toxins Produced

- ◆ *Rhizopus oryzae* produces agroclavine (an ergot alkaloid toxic to mammals)



FUNGAL GLOSSARY

Rhodotorula

Natural Habitat

- ◆ Air
- ◆ Dairy products
- ◆ Fruit juice
- ◆ Soil
- ◆ Water

Suitable Substrates in the Indoor Environment

- ◆ Carpeting
- ◆ Cooling coils
- ◆ Humidifiers
- ◆ Water tanks

Allergenic Potential

- ◆ Reported to be allergenic

Potential Opportunist or Pathogen

- ◆ Meningitis, endocarditis, Ventriculitis, Peritonitis, Endophthalmitis, Central venous catheter-infections, Fungemia, and Sepsis have been reported in immunocompromised patients
- ◆ *Rhodotorula rubra* is a common airborne contaminant of skin, lungs, urine and feces

Industrial Uses

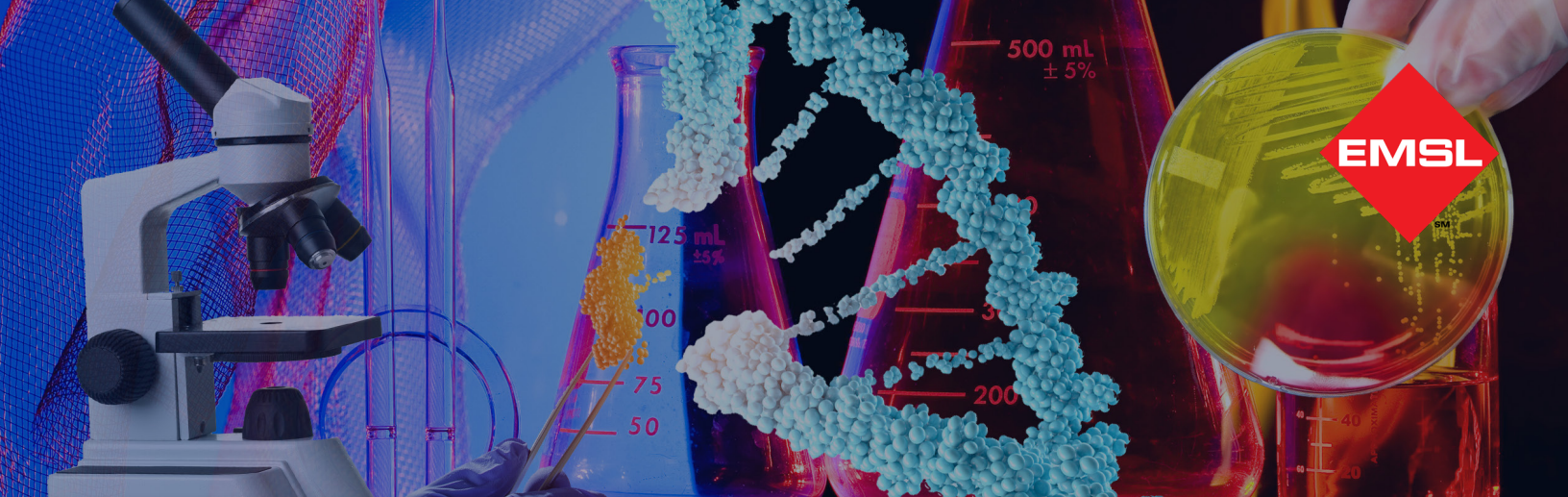
- ◆ Mannan produced by *Rhodotorula* is useful for serological diagnosis for leptospirosis (a bacterial disease)
- ◆ Carotenoid production for the food industry

Potential Toxins Produced

- ◆ Unknown

References

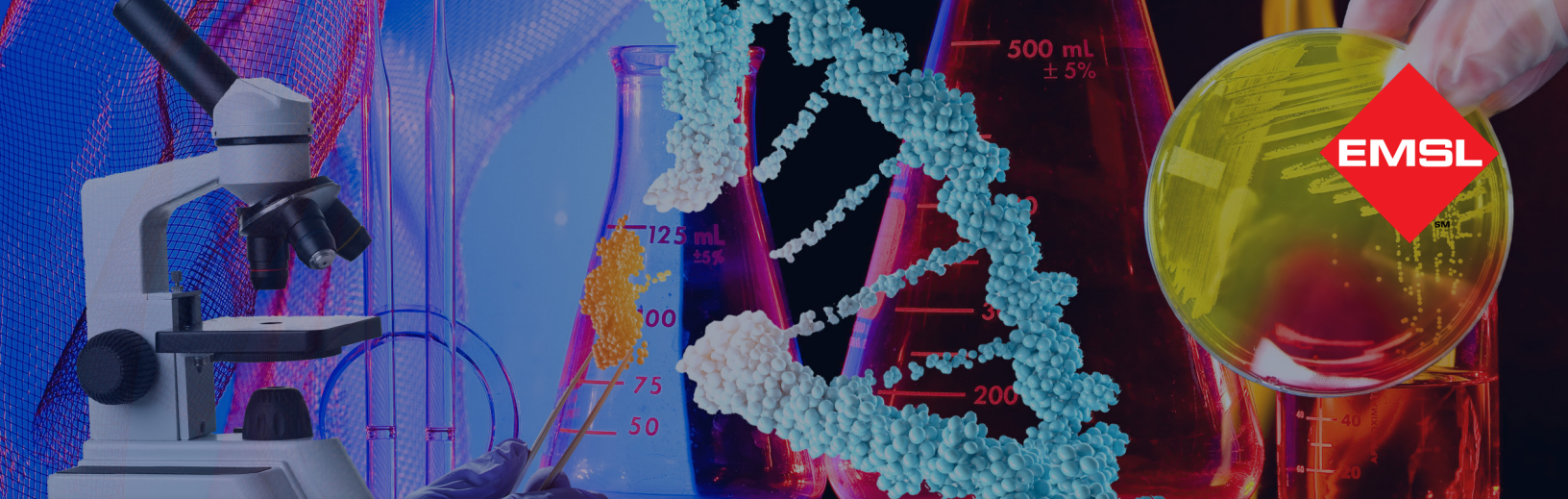
- ◆ Matsuo K., Isogai, E., Araki, Y. 2000. Utilization of Exocellular Mannan from *Rhodotorula glutinis* as an Immunoreactive Antigen in Diagnosis of Leptospirosis. *Journal of Clinical Microbiology*. 38(10): 3750-3754



FUNGAL GLOSSARY

Rusts

| | |
|---|---|
| Natural Habitat | ◆ Rusts are parasitic to many types of plants |
| Suitable Substrates in the Indoor Environment | ◆ Unknown- rust fungi require a living plant host for growth |
| Mode of Dissemination | ◆ Wind ◆ Forcible Ejection |
| Allergenic Potential | ◆ Type I. (hay fever, asthma) |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Industrial Uses | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |
| Other Comments | ◆ There are 5000 known species of rusts belonging to at least 150 different genera ◆ Rusts are the cause of great economic losses on many cultivated plants ◆ Ancient Romans believed the god Robigus was responsible for rust disease on crops and attempted to ward off rust disease by celebrating Robigus in an annual festival |
| References | ◆ Alexopoulos, C.J., Mims, C.W., Blackwell, M. 1996. John Wiley and Sons |



FUNGAL GLOSSARY

Scedosporium

Natural Habitat

- ◆ Decaying plant matter
- ◆ Dung
- ◆ Soil

Suitable Substrates in the Indoor Environment

- ◆ Unknown

Allergenic Potential

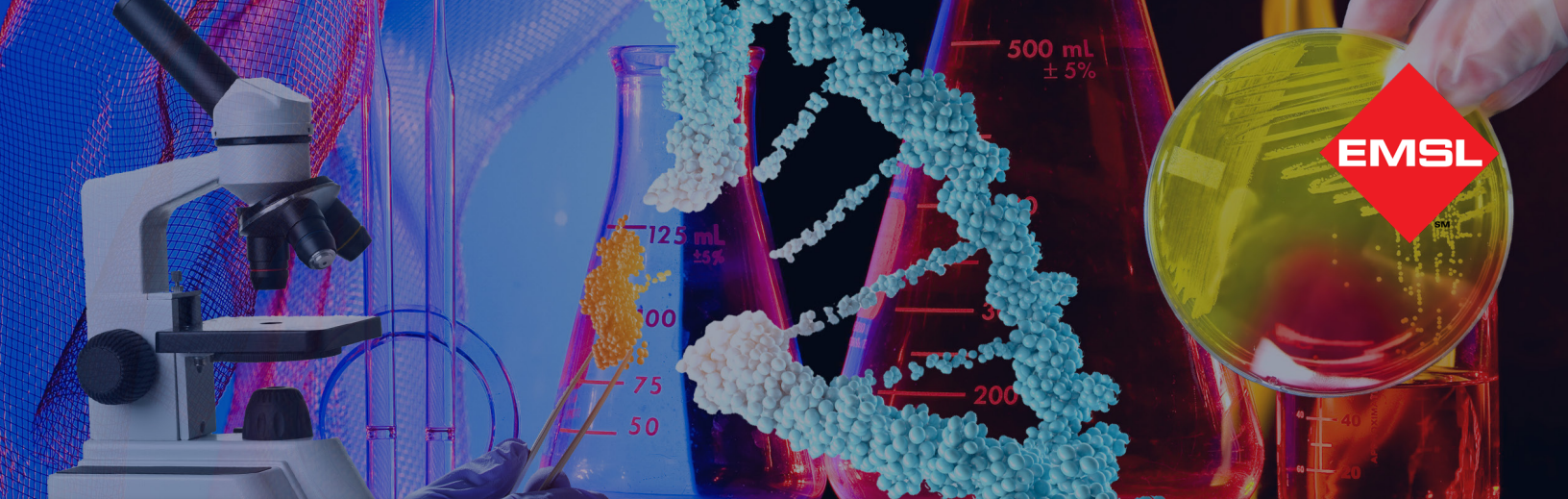
- ◆ Unknown

Potential Opportunist or Pathogen

- ◆ Subcutaneous infections
- ◆ Osteomyelitis
- ◆ *S. prolificans* causes phaeohyphomycosis

Potential Toxins Produced

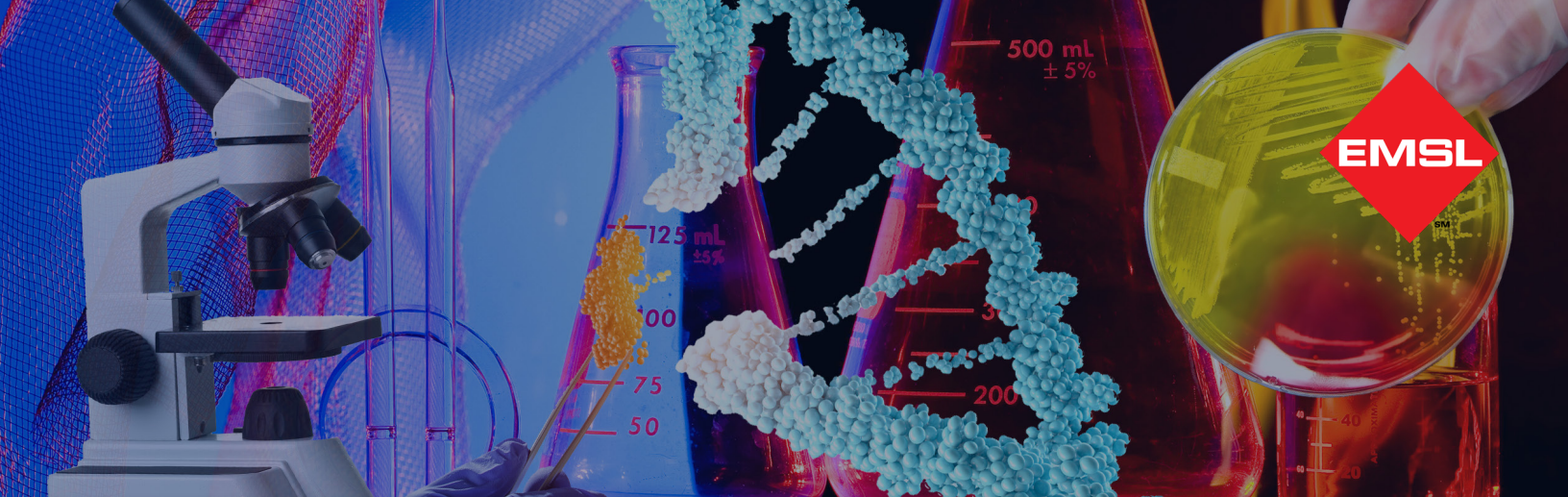
- ◆ Unknown



FUNGAL GLOSSARY

Schizophyllum commune

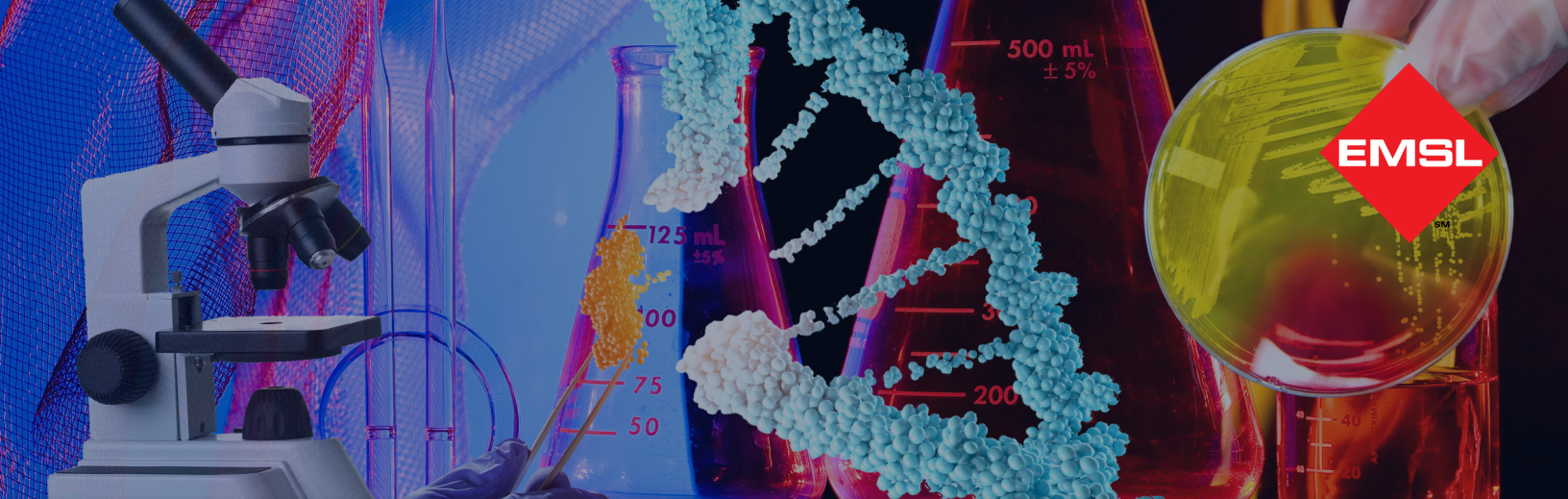
| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Decaying deciduous trees◆ Logs◆ Stumps |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Plaster◆ Wood |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Wind |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Chronic lung disease◆ Meningitis◆ Onychomycosis |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |
| Other Comments | <ul style="list-style-type: none">◆ This fungus goes dormant in dry weather and revives itself when it rains. It can remain dormant for as many as 50 years and will unroll their gills and release spores when moistened. |



FUNGAL GLOSSARY

Scolecobasidium

| | |
|---|--|
| Natural Habitat | ◆ Soils |
| Suitable Substrates in the Indoor Environment | ◆ Unknown |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Industrial Uses | ◆ <i>Scolecobasidium constrictum</i> is a biocontrol agent of clover cyst nematode |
| Potential Toxins Produced | ◆ Unknown |
| Other Comments | ◆ <i>Scolecobasidium humicola</i> , causes phaeohyphomycosis in fish, and cutaneous lesions in tortoises |



FUNGAL GLOSSARY

Scopulariopsis

Natural Habitat

- ◆ Soil

Suitable Substrates in the Indoor Environment

- ◆ Dairy products
- ◆ Fruit
- ◆ Grain
- ◆ Meat
- ◆ Paper
- ◆ Wood

Mode of Dissemination

- ◆ Wind

Allergenic Potential

- ◆ Type III (hypersensitivity)

Potential Opportunist or Pathogen

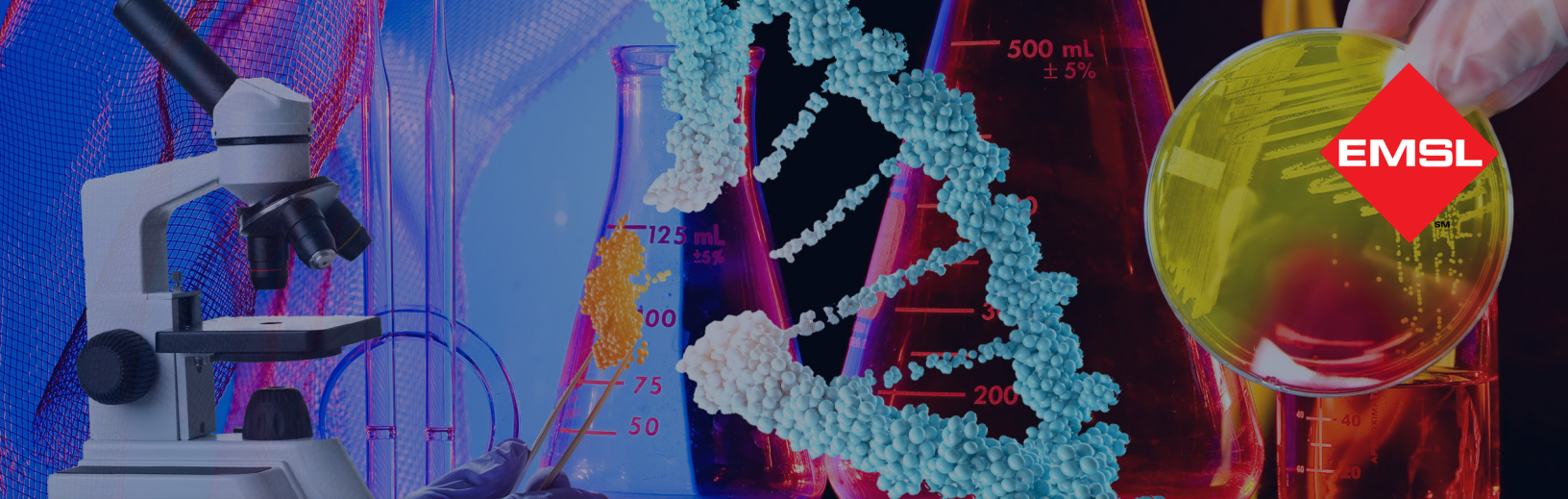
- ◆ Onychomycosis in toe nails
- ◆ Skin lesions
- ◆ Mycetoma
- ◆ Keratitis
- ◆ Endophthalmitis, invasive sinusitis, pulmonary infections, endocarditis, and brain abscess typically only afflict immunocompromised patients.

Industrial Uses

- ◆ Unknown

Potential Toxins Produced

- ◆ *Scopulariopsis brevicaulis* produces arsine gas from arsenate dyes found in wallpaper covered with Paris Green



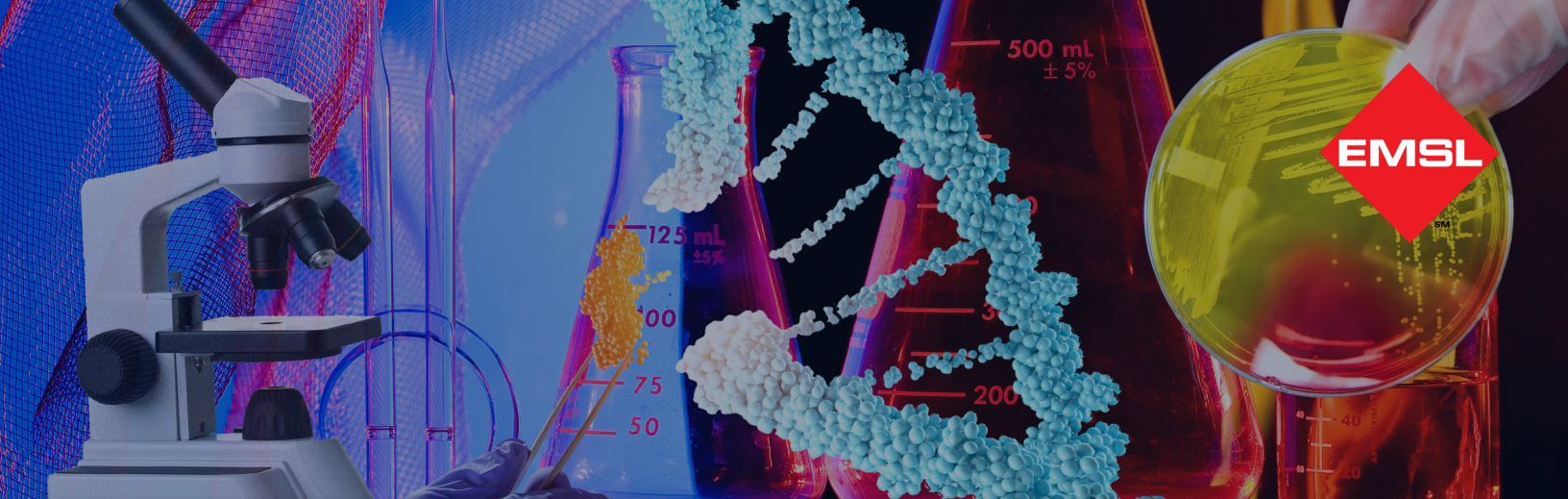
FUNGAL GLOSSARY

Sepedonium

| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Mycoparasitic on Agaric and Bolete mushrooms◆ Plant tissue◆ Soil |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Wind |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ <i>S. ampullosporum</i> produces Ampullosporin A |

Septonema

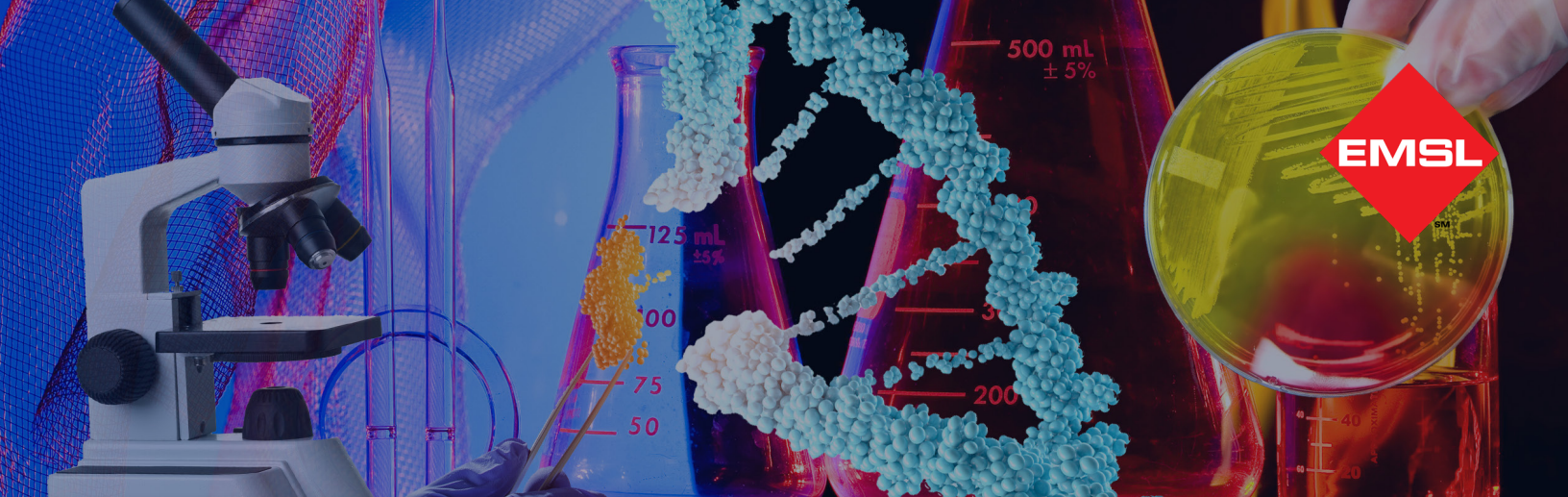
| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Tree bark◆ Mycoparasite of various other fungi |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |



FUNGAL GLOSSARY

Serpula lacrymans

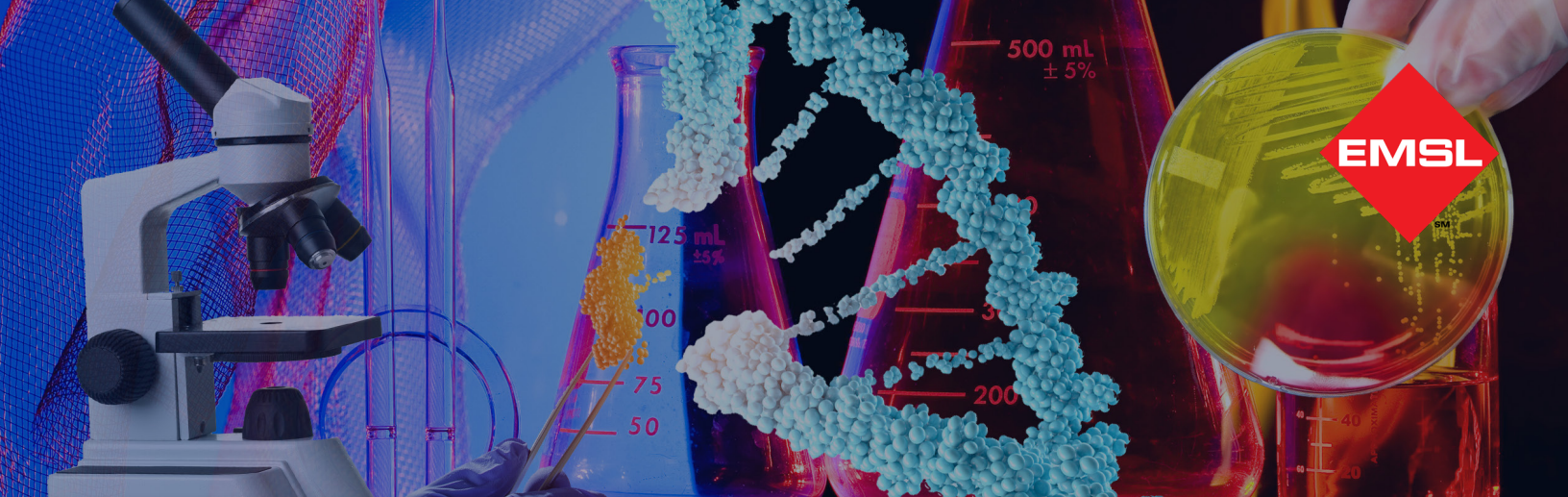
| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Trees, causing dry rot of many types◆ Syn. <i>Merulius lacrymans</i> |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Lumber structures |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Wind |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Industrial Uses | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |



FUNGAL GLOSSARY

Smuts

| | |
|---|---|
| Natural Habitat | ◆ Pathogens of cereals crops, corn, grasses, onion, and sorghum |
| Suitable Substrates in the Indoor Environment | ◆ Unknown- smut fungi require a living plant host for growth |
| Mode of Dissemination | ◆ Wind ◆ Rain ◆ Shoes ◆ Mowers |
| Allergenic Potential | ◆ Type I. (hay fever, asthma) |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Industrial Uses | ◆ Galls of <i>Ustilago maydis</i> are considered a delicacy and are known in Mexico as “Huitlacoche” and in the U.S.A. as “maize mushroom”, “Mexican truffles” or “caviar azteca” |
| Potential Toxins Produced | ◆ Unknown |
| Other Comments | ◆ Smut fungi belong to the order Ustilaginales and there are about 4000 known species |



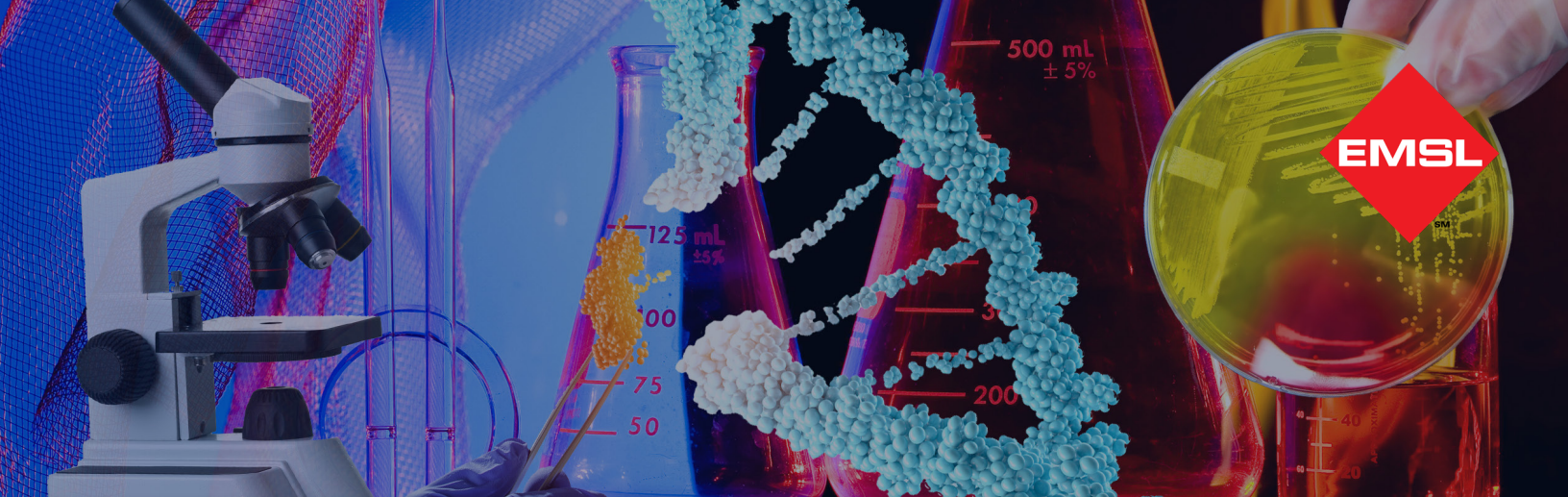
FUNGAL GLOSSARY

Sordaria

| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Dung◆ Seeds◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Forcible ejection◆ Wind |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Industrial Uses | <ul style="list-style-type: none">◆ Commonly used in genetic studies |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |

Spadicoides

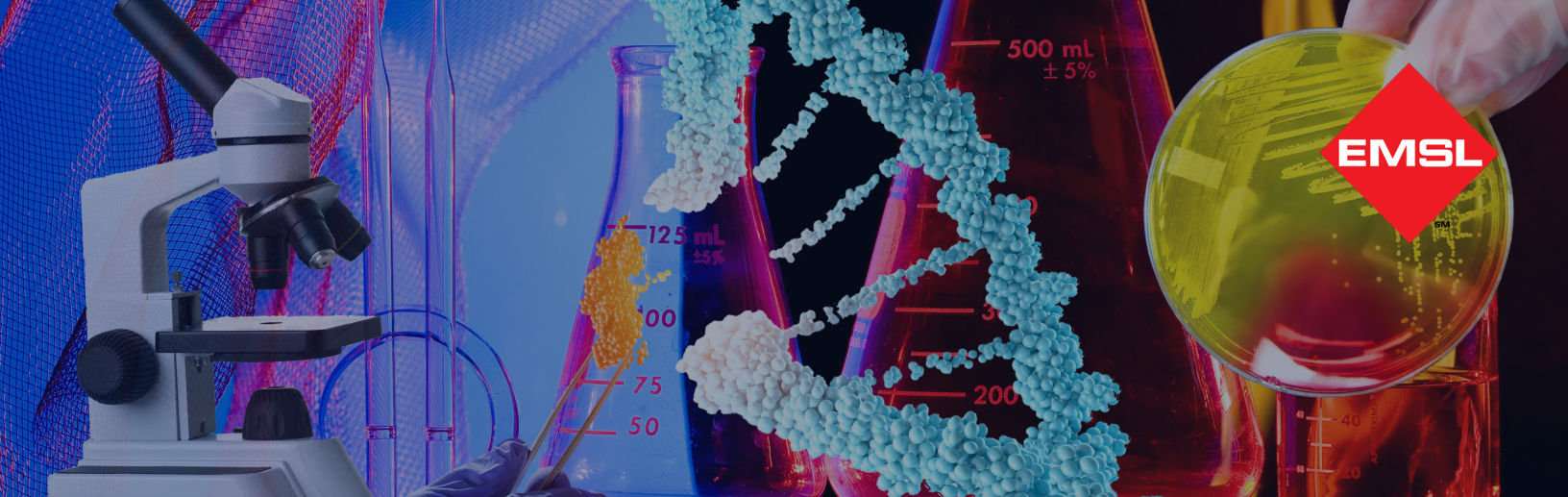
| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Bark of a variety of trees◆ Dead wood |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |



FUNGAL GLOSSARY

Spegazzinia

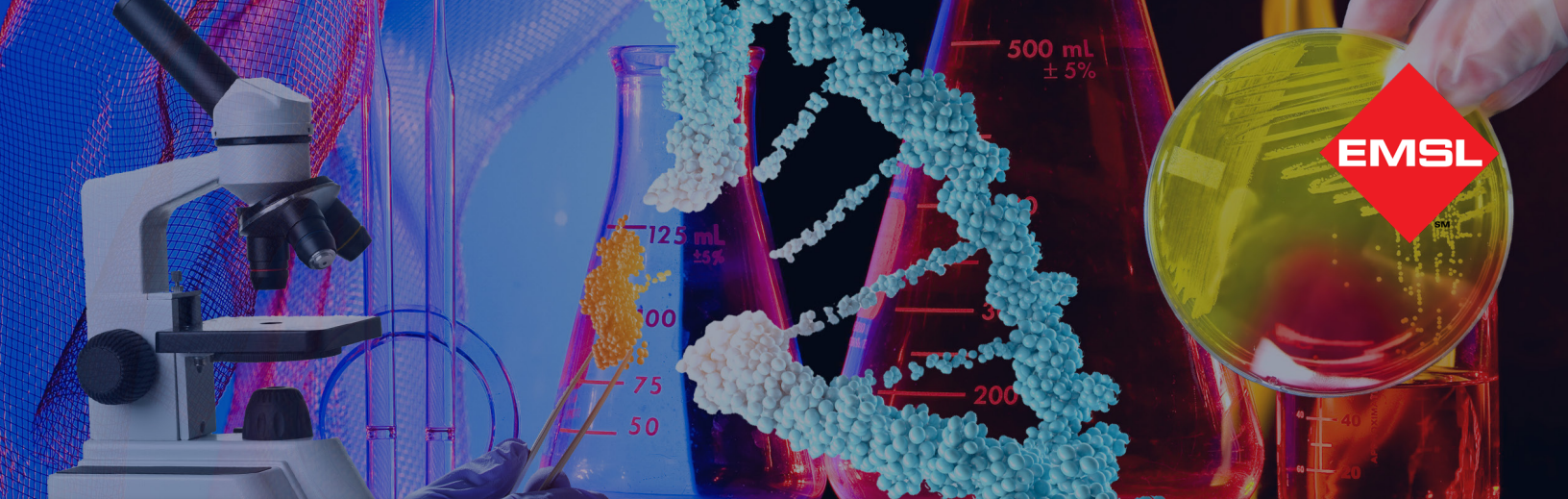
| | |
|---|---------------------|
| Natural Habitat | ◆ Plants ◆ Soils |
| Suitable Substrates in the Indoor Environment | ◆ Unknown |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Industrial Uses | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |



FUNGAL GLOSSARY

Sporobolomyces

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Diseased plant tissue◆ Leaves◆ Rotting Fruit◆ Soil |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Humidifiers◆ Drain pans◆ Water tanks |
| Water Activity | <ul style="list-style-type: none">◆ Requires extremely high humidity for growth |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Forcible Ejection |
| Allergenic Potential | <ul style="list-style-type: none">◆ Type I (hay fever, asthma)◆ Type III (hypersensitivity) |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Dermatitis |
| Industrial Uses | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |
| Other Comments | <ul style="list-style-type: none">◆ Can be differentiated from <i>Rhodotorula</i> in that ballistoconidia form a mirror-image on an inverted agar plate |



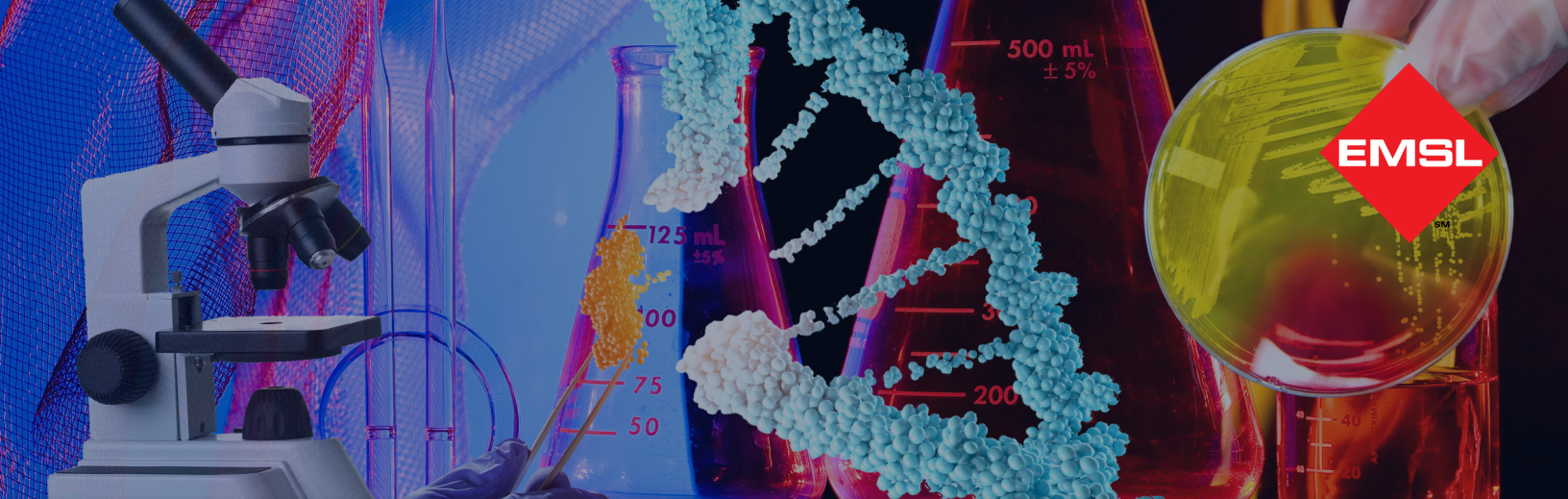
FUNGAL GLOSSARY

Sporormiella

| | |
|---|-------------------------|
| Natural Habitat | ◆ Dung |
| Suitable Substrates in the Indoor Environment | ◆ Fiberglass insulation |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |

Sporothrix

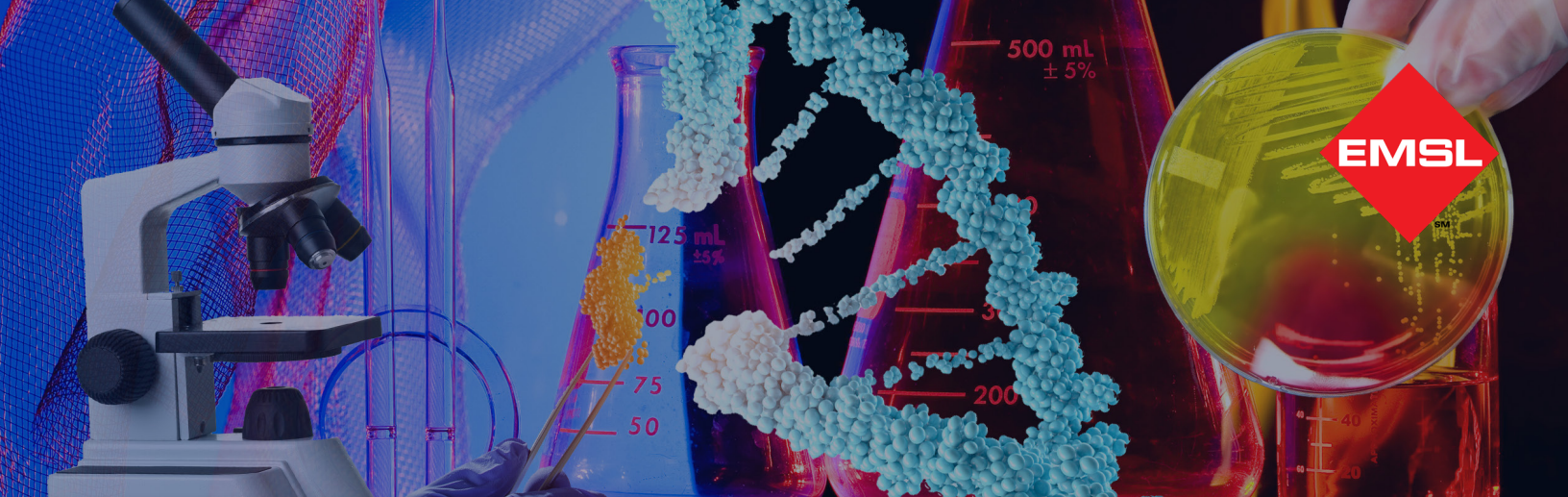
| | |
|---|--|
| Natural Habitat | ◆ Plant matter ◆ Soils |
| Suitable Substrates in the Indoor Environment | ◆ Unknown |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ <i>S. schenckii</i> causes cutaneous infections, ocular mycosis, and sporotrichosis in immunocompromised patients. |
| Potential Toxins Produced | ◆ Unknown |



FUNGAL GLOSSARY

Sporotrichum

| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Decaying wood◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ <i>S. pruinosum</i> has been isolated from the respiratory secretions of some patients |
| Industrial Uses | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |



FUNGAL GLOSSARY

Stachybotrys

Natural Habitat

- ◆ Decaying plant materials
- ◆ Soil

Suitable Substrates in the Indoor Environment

- ◆ Water damaged building materials such as: ceiling tiles, gypsum board, insulation backing, sheet rock, and wall paper
- ◆ Paper
- ◆ Textiles

Water Activity

- ◆ Aw=0.94

Mode of Dissemination

- ◆ Insects
- ◆ Water
- ◆ Wind

Allergenic Potential

- ◆ Type I (hay fever, asthma)

Potential Opportunist or Pathogen

- ◆ Unknown

Industrial Uses

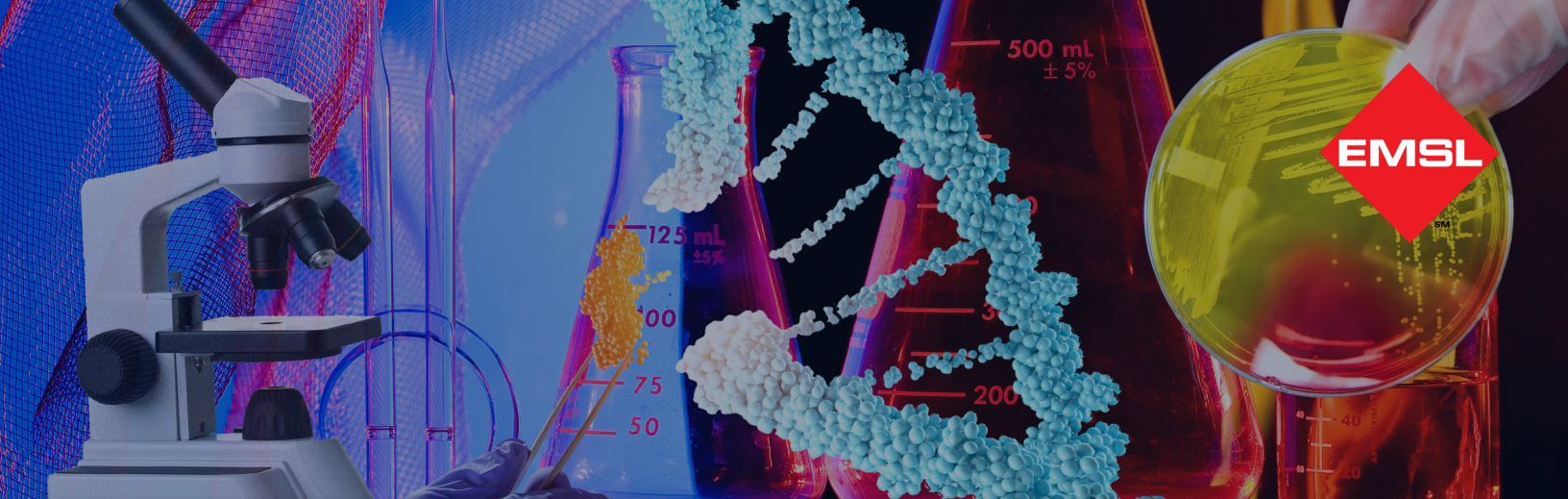
- ◆ Unknown

Potential Toxins Produced

- ◆ Cyclosporins
- ◆ Macrocyclic trichothecenes: roridin E, satratoxin F, G & H, sporidesmin G, trichoverrol, verrucarins J
- ◆ Stachybotryolactone

Other Comments

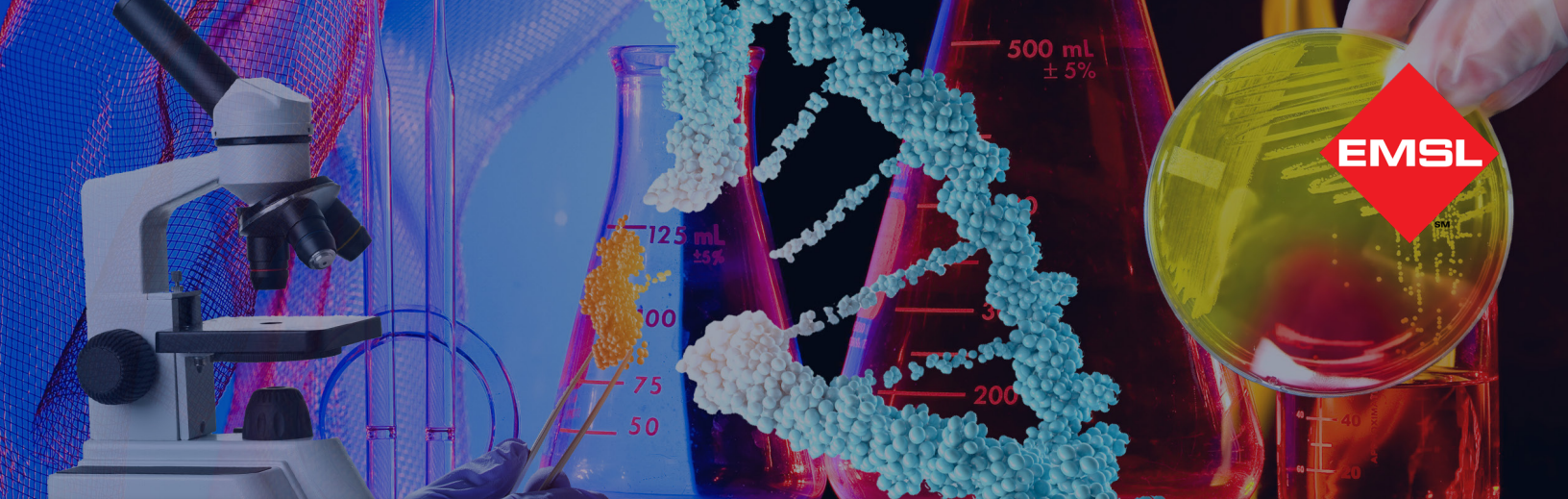
- ◆ *Stachybotrys* may play a role in the development of sick building syndrome. The presence of this fungus can be significant due to its ability to produce mycotoxins. Exposure to the toxins can occur through inhalation, ingestion, or skin exposure



FUNGAL GLOSSARY

Stemphylium

| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Dead plant material◆ Spinach (causing a leaf spot disease)◆ Wood |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Paper |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Wind |
| Allergenic Potential | <ul style="list-style-type: none">◆ Type I (hay fever, asthma) |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ May cause phaeohyphomycosis |
| Industrial Uses | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Stemphol |



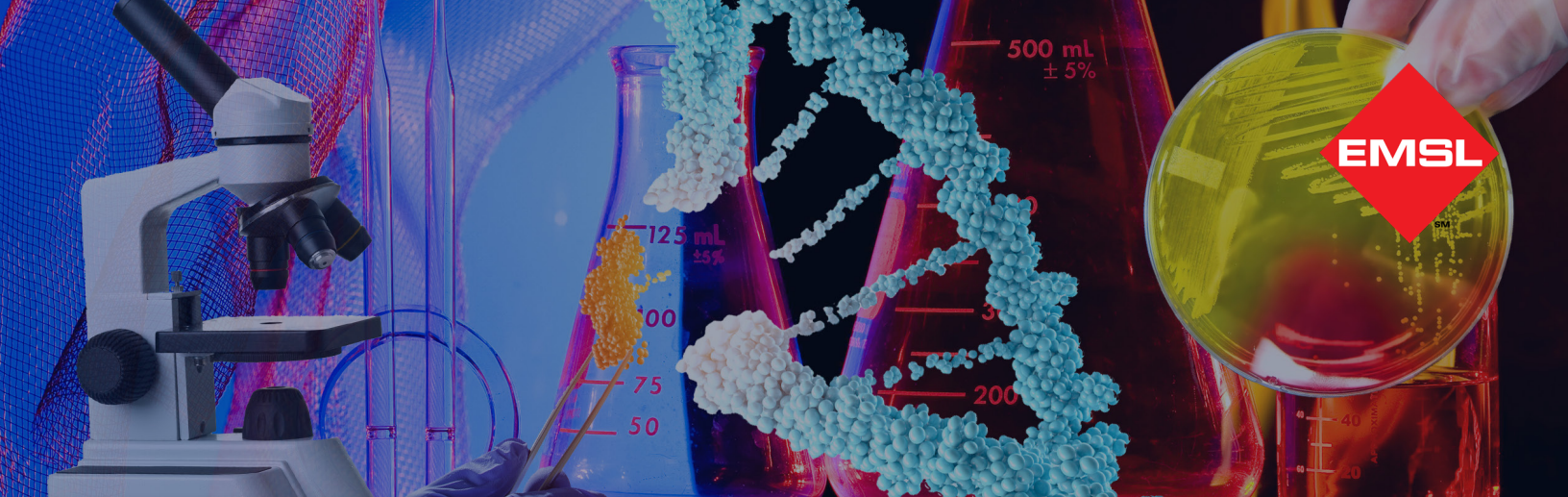
FUNGAL GLOSSARY

Stephanosporium

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Bark◆ Soil◆ Wood |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Paper◆ Soil◆ Textiles |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Wind |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |

Syncephalastrum

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Dung◆ Soil |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |



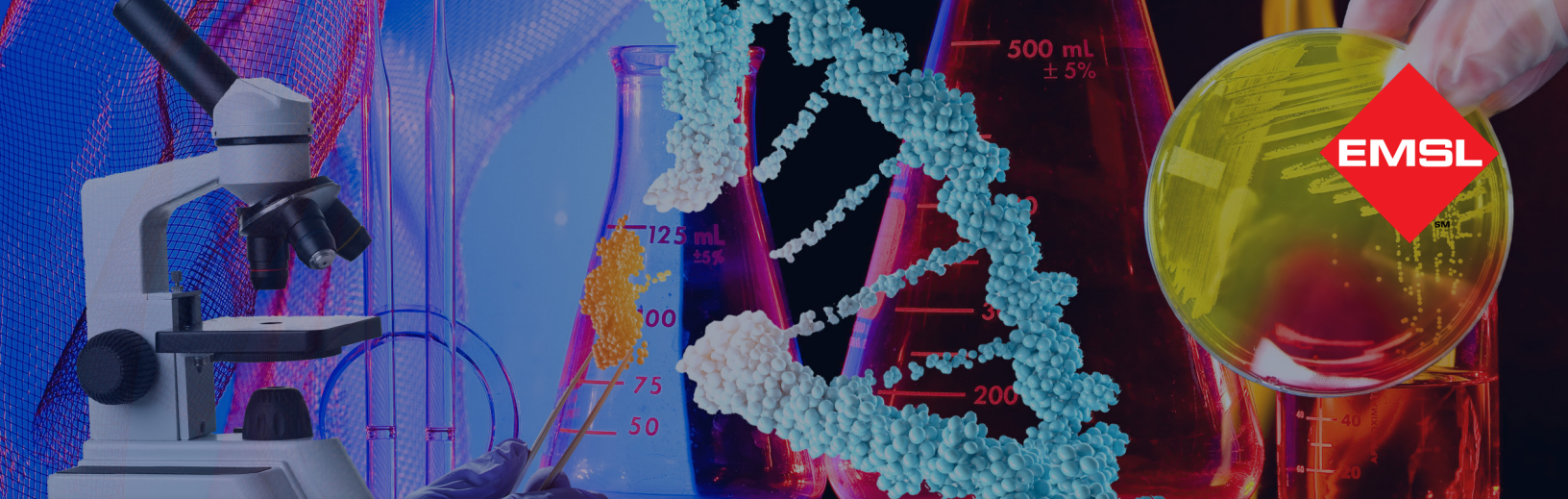
FUNGAL GLOSSARY

Taeniolella

| | |
|---|--------------------------|
| Natural Habitat | ◆ Leaves ◆ Wood |
| Suitable Substrates in the Indoor Environment | ◆ House Plants ◆ Wood |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Unknown |
| Potential Toxins Produced | ◆ Unknown |

Tetraploa

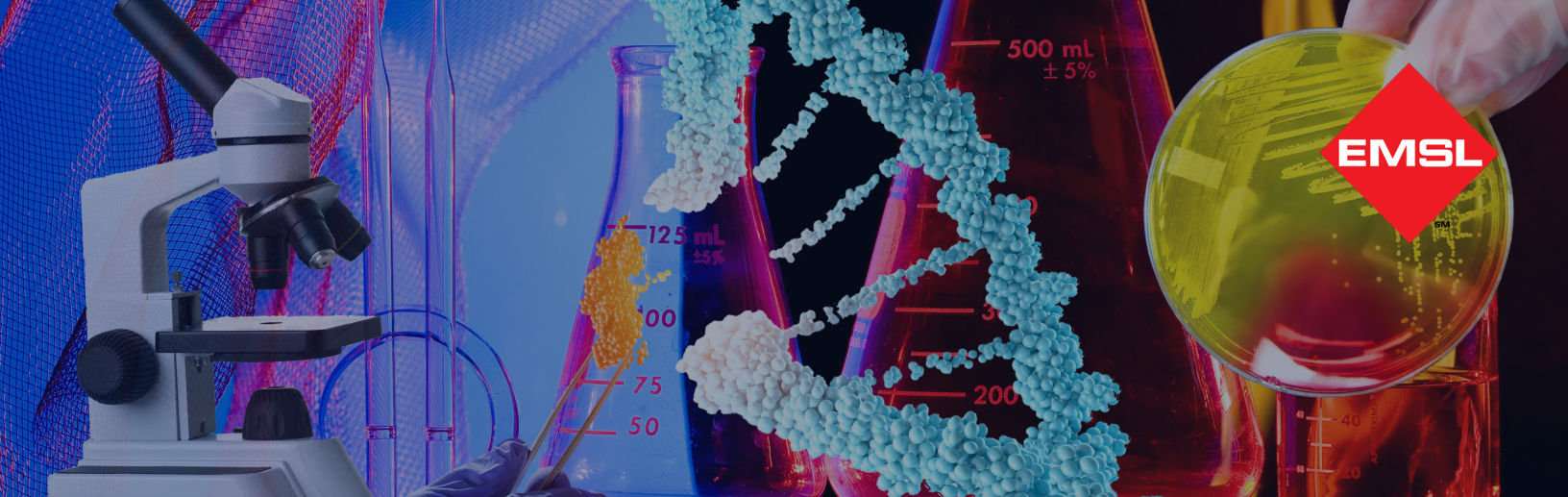
| | |
|---|------------------|
| Natural Habitat | ◆ Various plants |
| Suitable Substrates in the Indoor Environment | ◆ Unknown |
| Allergenic Potential | ◆ Unknown |
| Potential Opportunist or Pathogen | ◆ Keratitis |
| Potential Toxins Produced | ◆ Unknown |



FUNGAL GLOSSARY

Thysanophora

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Decaying plant matter◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Unknown |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |



FUNGAL GLOSSARY

Torula

Natural Habitat

- ◆ Leaves
- ◆ Plant roots
- ◆ Plant litter
- ◆ Soil
- ◆ Wood

Suitable Substrates in the Indoor Environment

- ◆ Baskets
- ◆ Paper
- ◆ Wicker Furniture
- ◆ Wood

Mode of Dissemination

- ◆ Wind

Allergenic Potential

- ◆ Type I (hay fever, asthma)

Potential Opportunist or Pathogen

- ◆ Unknown

Industrial Uses

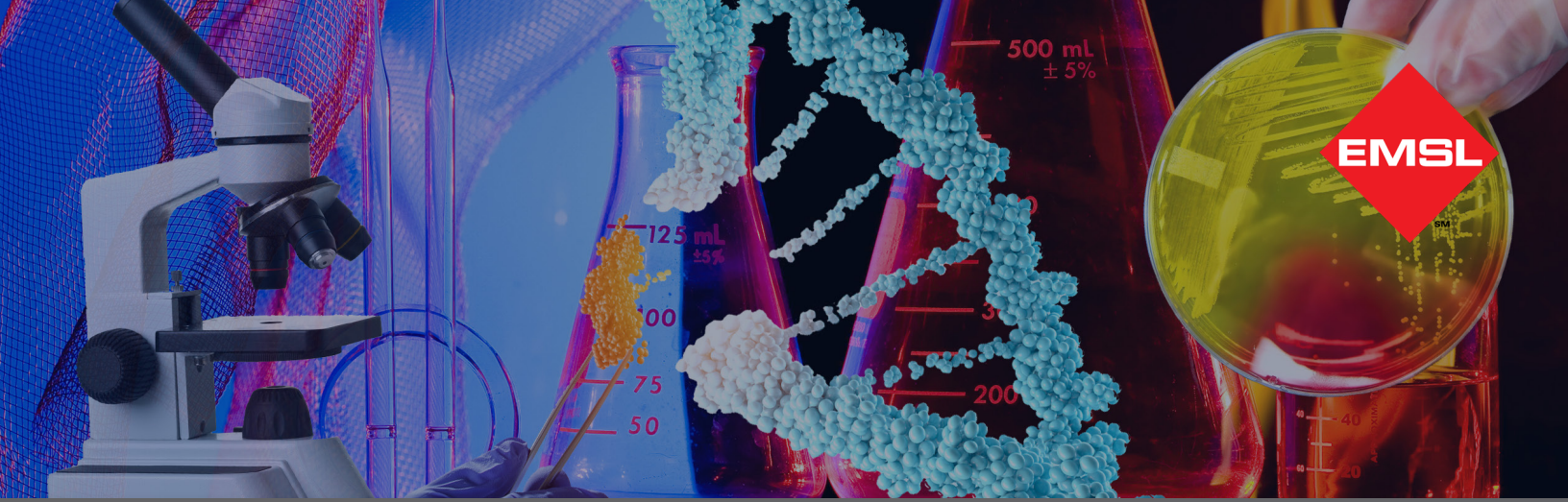
- ◆ Unknown

Potential Toxins Produced

- ◆ Unknown

Other Comments

- ◆ Some species cause stains in hardwoods



FUNGAL GLOSSARY

Trichocladium

Natural Habitat

- ◆ Pine needles
- ◆ Soils
- ◆ Wood

Suitable Substrates in the Indoor Environment

- ◆ Wood materials

Allergenic Potential

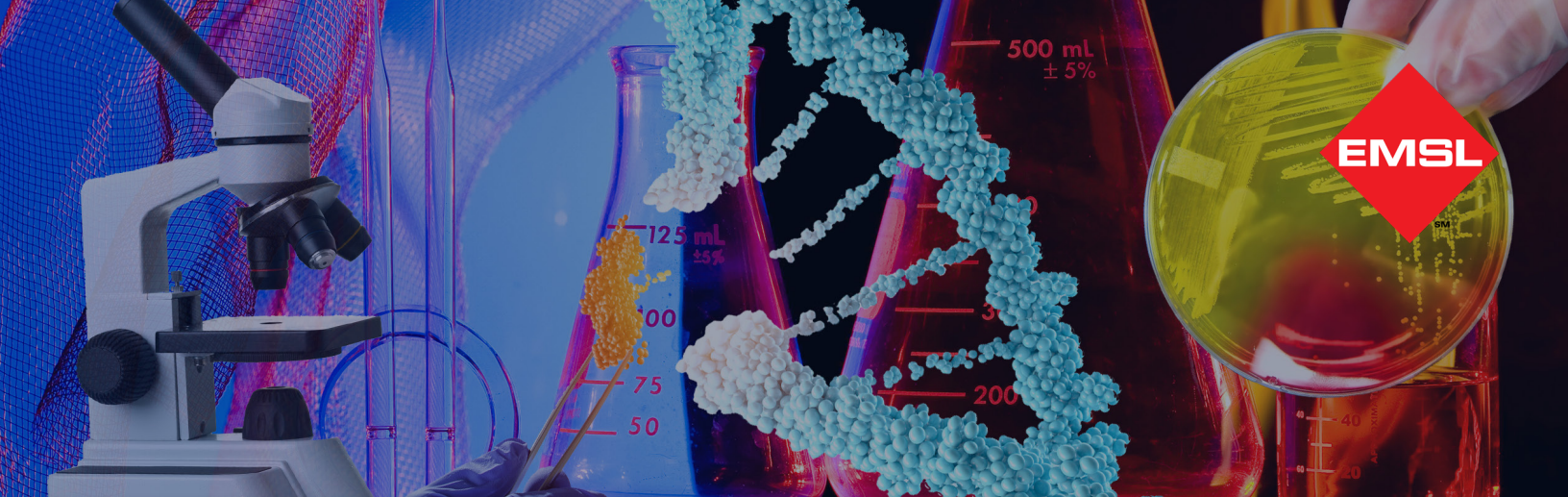
- ◆ Unknown

Potential Opportunist or Pathogen

- ◆ Keratitis

Potential Toxins Produced

- ◆ Unknown



FUNGAL GLOSSARY

Trichoderma

Natural Habitat

- ◆ Decaying wood
- ◆ Dead leaves
- ◆ Soil

Suitable Substrates in the Indoor Environment

- ◆ Paper
- ◆ Textiles
- ◆ Wood (wet)

Mode of Dissemination

- ◆ Insects
- ◆ Water splash
- ◆ Wind

Allergenic Potential

- ◆ Type I allergies (hay fever, asthma)
- ◆ Type III (hypersensitivity)

Potential Opportunist or Pathogen

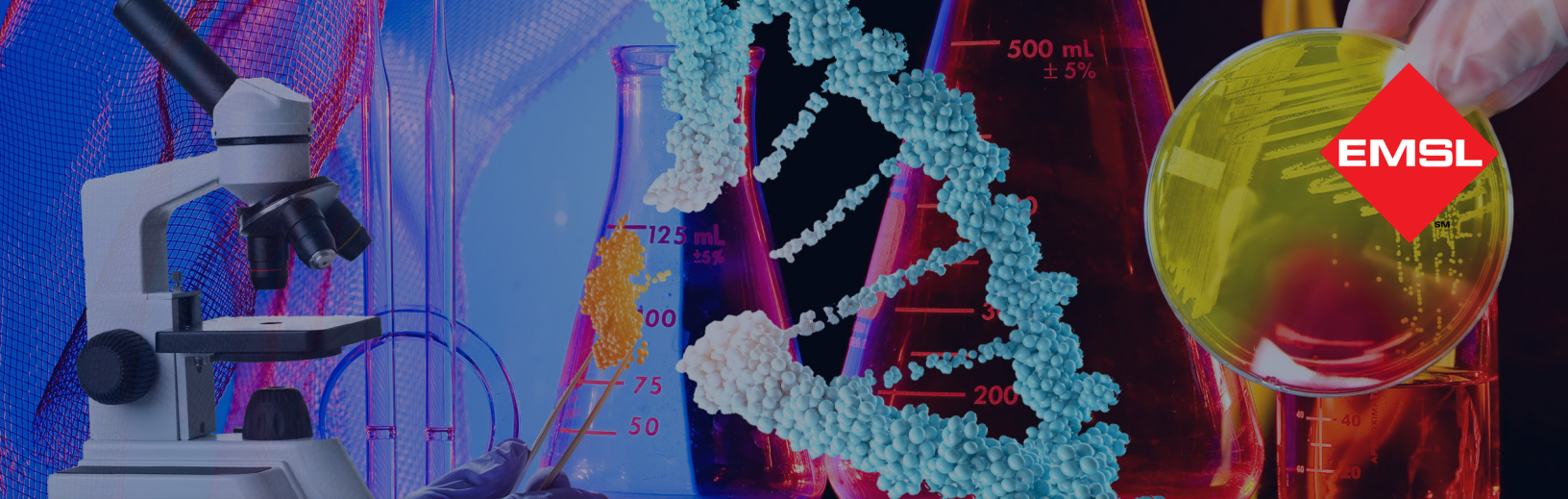
- ◆ Has occasionally been associated with disease in immunocompromised individuals

Industrial Uses

- ◆ Biocontrol agent against a variety of plant pathogens
- ◆ Biproducts of *T. viride* is used to make beer and wine

Potential Toxins Produced

- ◆ Gliotoxin
- ◆ Isocyanides
- ◆ Trichothecene
- ◆ Trichodermin
- ◆ T-2 toxin



FUNGAL GLOSSARY

Trichosporon

Natural Habitat

- ◆ Compost piles
- ◆ Normal flora of mouth, skin and nails of humans
- ◆ Soils
- ◆ Water

Suitable Substrates in the Indoor Environment

- ◆ Unknown

Allergenic Potential

- ◆ Unknown

Potential Opportunist or Pathogen

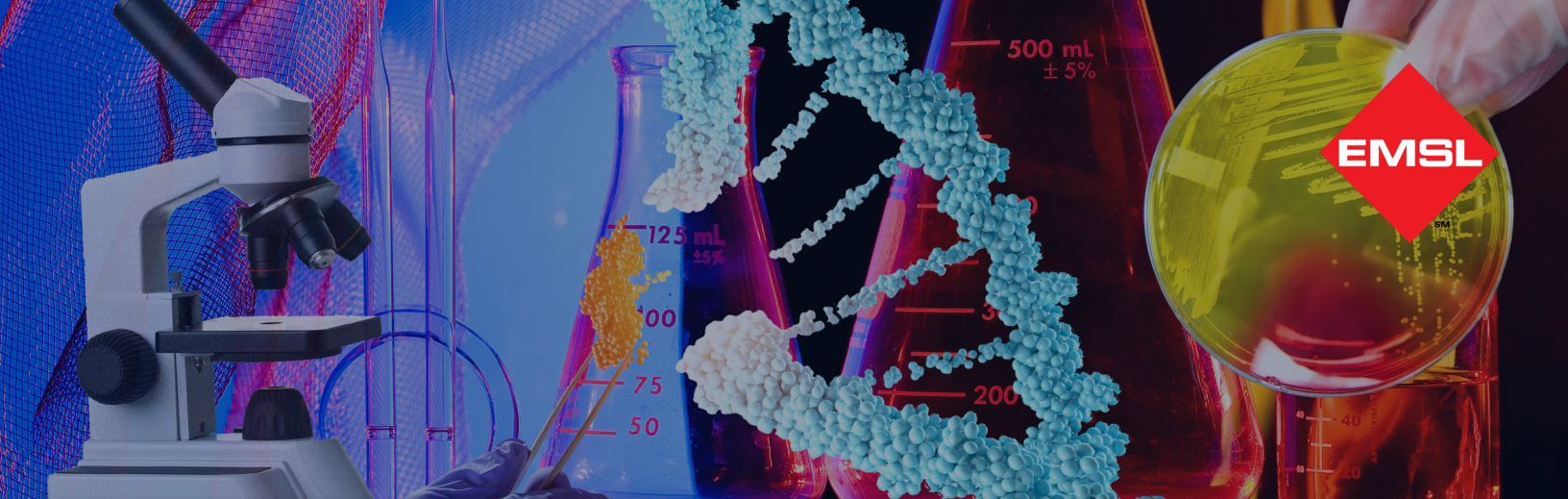
- ◆ Fungemia in immunocompromised patients
- ◆ Invasive trichosporonosis
- ◆ Superficial infections
- ◆ White piedra

Industrial Uses

- ◆ Unknown

Potential Toxins Produced

- ◆ Unknown



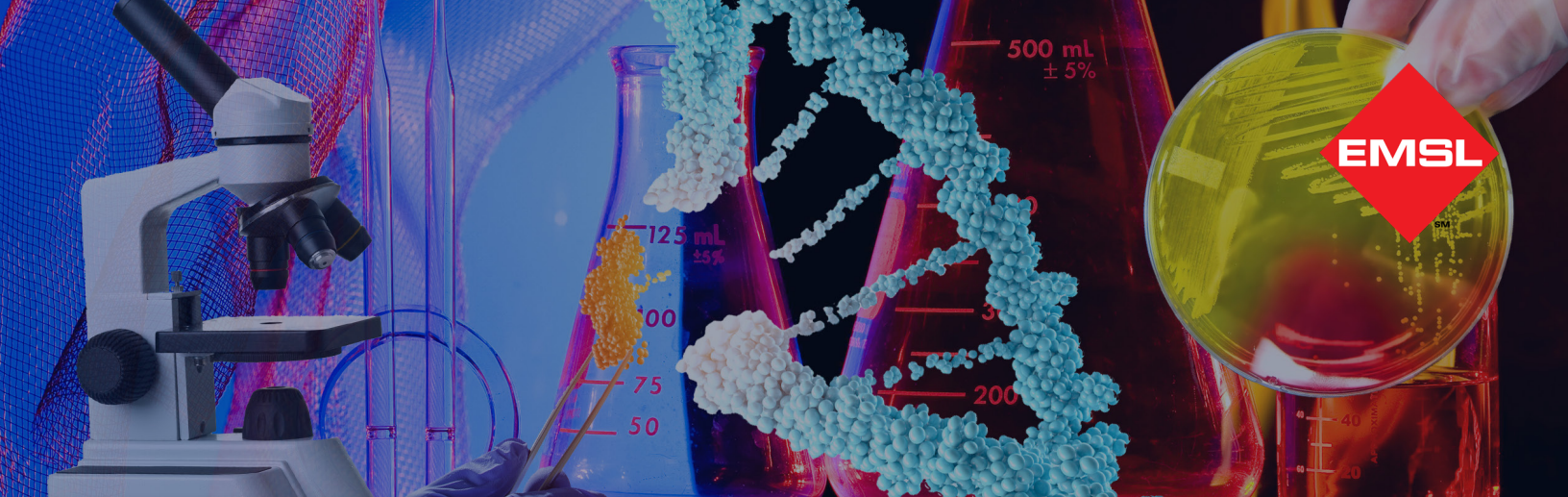
FUNGAL GLOSSARY

Trichothecium

| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Corn seeds◆ Decaying plant matter◆ Plant roots◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Food products (flour products, hazelnuts) |
| Water Activity | <ul style="list-style-type: none">◆ Aw=0.90 |
| Allergenic Potential | <ul style="list-style-type: none">◆ Reported to be allergenic |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Unknown |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Trichothecene mycotoxins |

Tritirachium

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Decaying plant matter◆ Insects◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Jute◆ Paper◆ Textiles |
| Allergenic Potential | <ul style="list-style-type: none">◆ Reported to be allergenic |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Corneal ulcers |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |



FUNGAL GLOSSARY

Ulocladium

Natural Habitat

- ◆ Soil
- ◆ Plant materials
- ◆ Soil, dung, paint, grasses, fibers, wood, decaying plant material, paper, and textiles

Suitable Substrates in the Indoor Environment

- ◆ Gypsum board
- ◆ Jute
- ◆ Paper
- ◆ Rotten wood
- ◆ Textiles Wood

Water Activity

- ◆ Aw=0.89

Mode of Dissemination

- ◆ Wind

Allergenic Potential

- ◆ Type I (hay fever, asthma)

Potential Opportunist or Pathogen

- ◆ Unknown

Industrial Uses

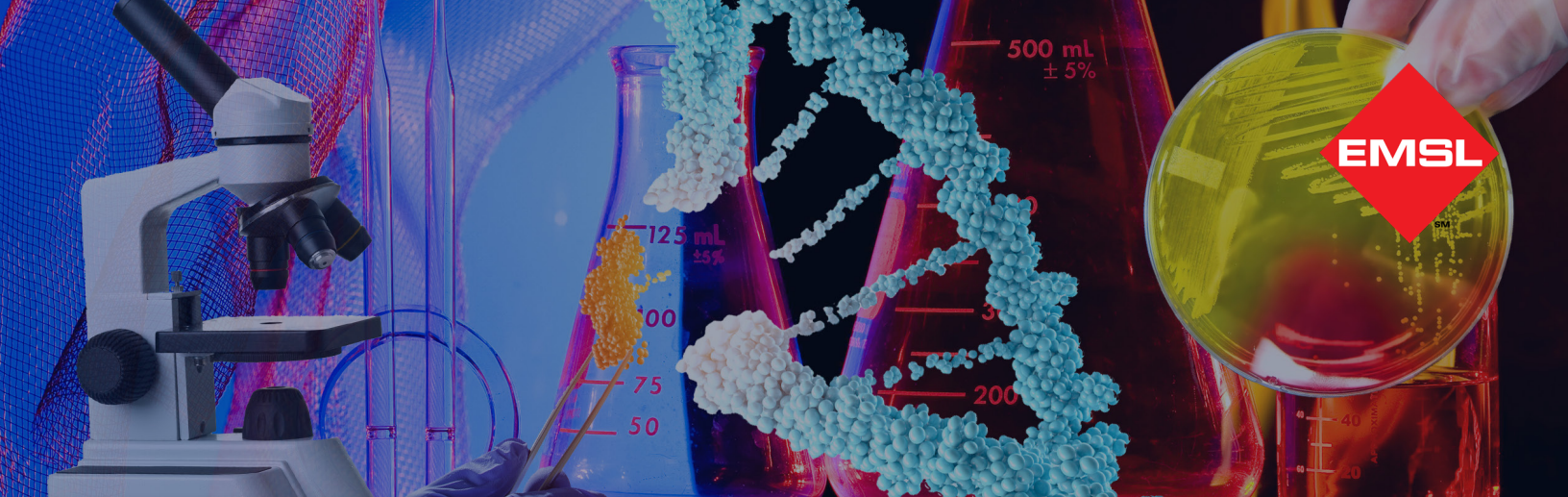
- ◆ Unknown

Potential Toxins Produced

- ◆ Unknown

Other Comments

- ◆ *Alternaria* sensitive allergy sufferers have a multiplied reaction when *Ulocladium* and *Alternaria* are present together



FUNGAL GLOSSARY

Ustilago

Natural Habitat

- ◆ Cereal crops
- ◆ Grasses
- ◆ Mycoparasite of some other fungi
- ◆ These spores are often seen in outdoor samples.

Suitable Substrates in the Indoor Environment

- ◆ Unknown

Allergenic Potential

- ◆ Type I (hay fever, asthma)

Potential Opportunist or Pathogen

- ◆ Unknown

Industrial Uses

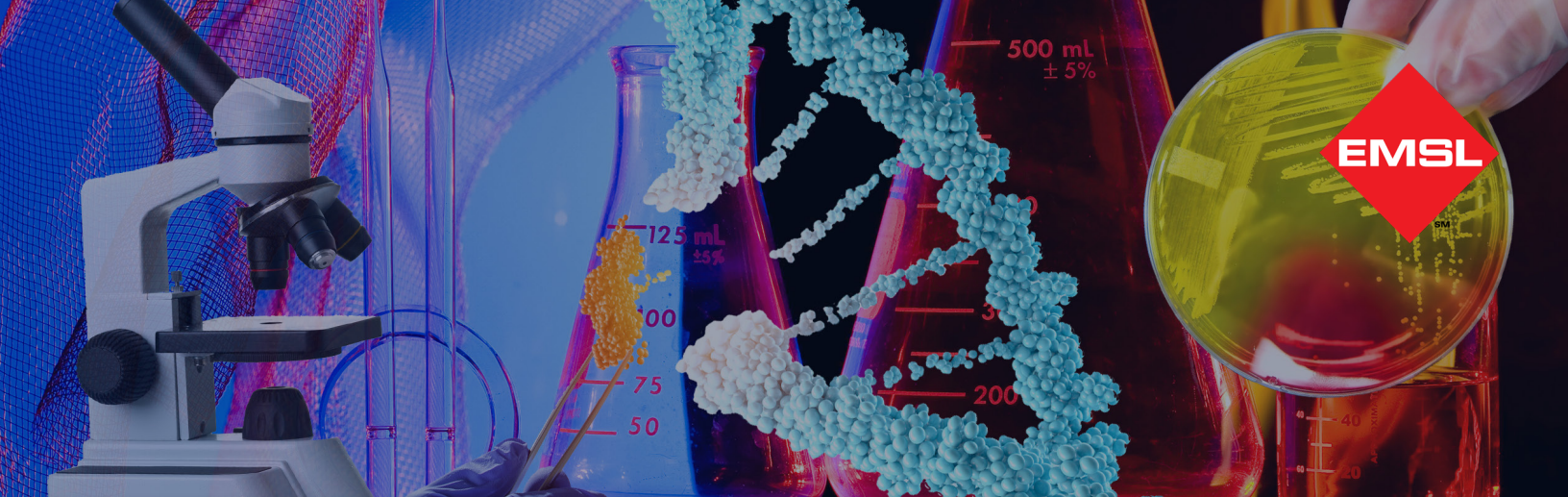
- ◆ Unknown

Potential Toxins Produced

- ◆ Unknown

Other Comments

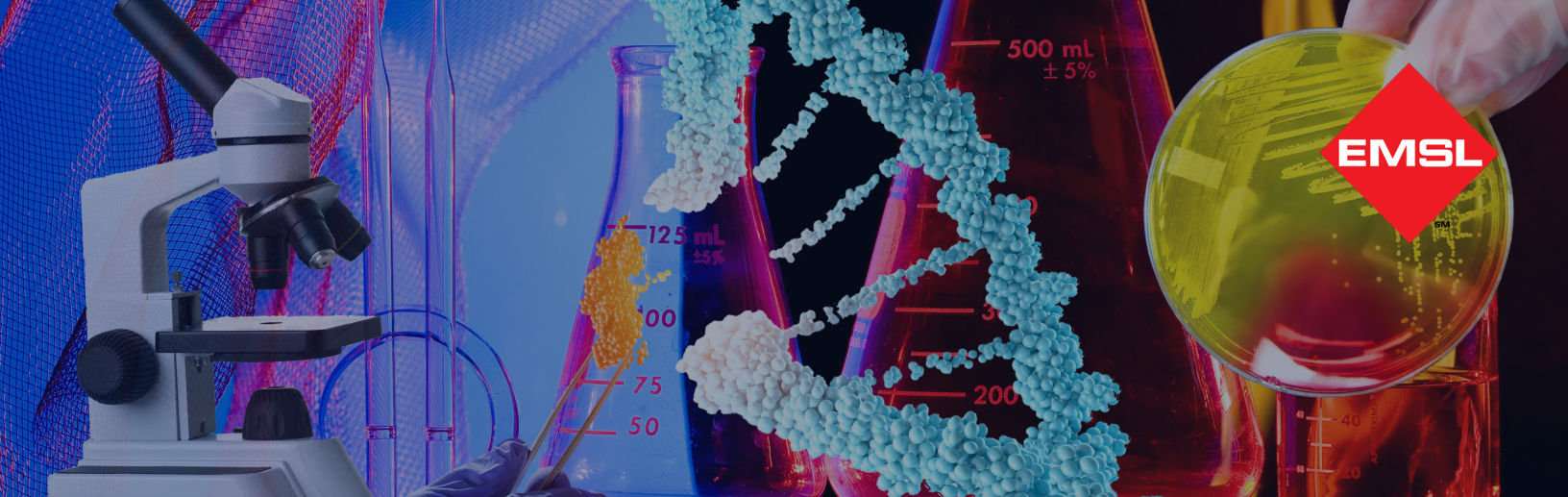
- ◆ *Ustilago spp.* are smut fungi



FUNGAL GLOSSARY

Verticillium

| | |
|---|--|
| Natural Habitat | <ul style="list-style-type: none">◆ Root pathogenic fungi that cause vascular wilt and other diseases on a variety of plants◆ Entomopathogenic◆ Mycopathogenic◆ Soils |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Paper◆ Textiles◆ Wool |
| Allergenic Potential | <ul style="list-style-type: none">◆ Unknown |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Keratitis |
| Industrial Uses | <ul style="list-style-type: none">◆ Produces an antibiotic◆ Produces an antifungal substance |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Unknown |
| Other Comments | <ul style="list-style-type: none">◆ <i>Verticillium</i> is a major plant disease agent |



FUNGAL GLOSSARY

Wallemia

Natural Habitat

- ◆ Hay
- ◆ Soil

Suitable Substrates in the Indoor Environment

- ◆ Jam
- ◆ Salted Fish
- ◆ Mattresses
- ◆ Textiles
- ◆ Wood in crawl spaces

Water Activity

- ◆ Considered xerophillic
- ◆ Aw=0.69-0.75

Mode of Dissemination

- ◆ Wind

Allergenic Potential

- ◆ Type I (hay fever, asthma)

Potential Opportunist or Pathogen

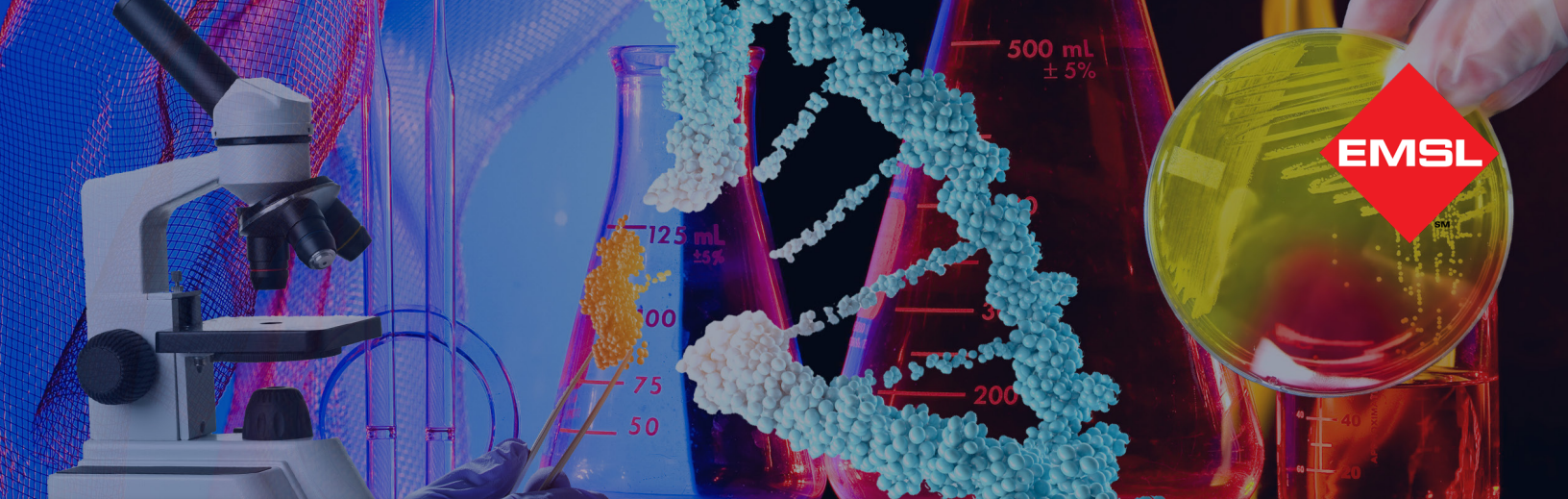
- ◆ Unknown

Industrial Uses

- ◆ Unknown

Potential Toxins Produced

- ◆ Tryptophol
- ◆ UCA 1064-beta
- ◆ Walleminol



FUNGAL GLOSSARY

Zygomycetes

| | |
|---|---|
| Natural Habitat | <ul style="list-style-type: none">◆ Decaying plant matter◆ Decaying animal matter |
| Suitable Substrates in the Indoor Environment | <ul style="list-style-type: none">◆ Fruits◆ Vegetables |
| Water Activity | <ul style="list-style-type: none">◆ Aw=0.90-0.95 |
| Mode of Dissemination | <ul style="list-style-type: none">◆ Water splash◆ Wind |
| Allergenic Potential | <ul style="list-style-type: none">◆ Type I (hay fever, asthma)◆ Type III (hypersensitivity) |
| Potential Opportunist or Pathogen | <ul style="list-style-type: none">◆ Some Zygomycetes can cause zygomycosis in immunocompromised patients. Zygomycosis can occur in the lungs, nasal sinus, brain, eye, skin, and mucous membranes. |
| Industrial Uses | <ul style="list-style-type: none">◆ Depends on genus |
| Potential Toxins Produced | <ul style="list-style-type: none">◆ Depends on genus |
| Other Comments | <ul style="list-style-type: none">◆ The Zygomycetes represent a class of fungi that includes the genera <i>Rhizopus</i>, <i>Rhizomucor</i>, <i>Mucor</i>, and <i>Absidia</i>◆ Many are extremely fast growing and can inhibit other fungi when competing for food or space |