

REFERENCES

Ahearn DG. Medical Mycology: The pathogenic fungi and the pathogenic actinomycetes. J.A.M.A. 1988; 260(12): 1794.

Ajello L, Cheng S-L. Sexual Reproduction in *Histoplasma capsulatum*. Mycologia. 1967; 59(4): 689–97.

Bauwens L, Swinne D, Vroey C, Meurichy W. Isolation of *Cryptococcus neoformans* van *neoformans* in the Aviaries of the Antwerp Zoological Gardens/Isolation von *Cryptococcus neoformans* van *neoformans* im Vogelhaus des Antwerpener Zoos. Mycoses. 1986; 29(7): 291–4.

Benham RW. Cryptococci: Their Identification by Morphology and by Serology. J. Infect. Dis. 1935; 57(3): 255–74.

Benham RW. Cryptococcosis and blastomycosis. Ann. N. Y. Acad. Sci. 1950; 50(10): 1299–314.

Bialek R, Ibricevic A, Fothergill A, Begerow D. Small subunit ribosomal DNA sequence shows *Paracoccidioides brasiliensis* closely related to *Blastomyces dermatitidis*. J Clin Microbiol. 2000; 38(9): 3190–3.

Bialek R, Fischer J, Feucht A, Najvar LK, Dietz K, Knobloch J, et al. Diagnosis and monitoring of murine histoplasmosis by a nested PCR assay. J. Clin. Microbiol. 2001; 39(4): 1506–9.

Bialek R, Ernst F, Dietz K, Najvar LK, Knobloch J, Graybill JR, et al. Comparison of staining methods and a nested PCR assay to detect *Histoplasma capsulatum* in tissue sections. Am. J. Clin. Pathol. 2002a; 117(4): 597–603.

Bialek R, Feucht A, Aepinus C, Just-Nubling G, Robertson VJ, Knobloch J, et al. Evaluation of two nested PCR assays for detection of *Histoplasma capsulatum* DNA in human tissue. J. Clin. Microbiol. 2002b; 40(5): 1644–7.

Bialek R, Weiss M, Bekure-Nemariam K, Najvar LK, Alberdi MB, Graybill JR, et al. Detection of *Cryptococcus neoformans* DNA in tissue samples by nested and real-time PCR assays. Clin. Diagn. Lab. Immunol. 2002c; 9(2): 461–9.

Buschke A. Über eine durch Coccidien Hervergerufene Krankheit des menschen Dtsch. Med Wochenschr. 1895; 21: 14

Busse O. Über parasitäre zelleinschlußse und ihre zuchtung. Zentralbl. Bakteriol. 1894; 16: 175-80.

Cain JC, Devins EJ, Downing JE. An unusual pulmonary disease. Arch. Intern. Med. 1947; 79(6): 626–41.

Casadevall A, Perfect JR. *Cryptococcus neoformans*. ASM Press. 1998.

Chakrabarti A, Jatana M, Kumar P, Chatha L, Kaushal A, Padhye AA. Isolation of *Cryptococcus neoformans* var. *gattii* from *Eucalyptus camaldulensis* in India. J. Clin. Microbiol. 1997 ;35(12): 3340–2.

Chen SC, Currie BJ, Campbell HM, Fisher DA, Pfeiffer TJ, Ellis DH, et al. *Cryptococcus neoformans* var. *gattii* infection in northern Australia: existence of an environmental source other than known host eucalypts. Trans. R. Soc. Trop. Med. Hyg. 1997; 91(5): 547–50.

Darling ST. A protozoan general infection producing pseudo-tubercles in the lungs and focal necrosis in the liver, spleen, and lymph nodes. J. Am. Med. Assoc., 1906; 46: 1283-1285.

DeMonbreun WA. The cultivation and cultural characteristics of darling's *Histoplasma capsulatum*. Am. J. Trop. Med. Hyg. 1934;14(1): 93-125

Denton JF, Di Salvo AF. The prevalence of *Cryptococcus neoformans* in various natural habitats. Sabouraudia. 1968; 6(3): 213–7.

Dodd K, Tompkins EH. A Case of histoplasmosis of darling in an infant. Am. J. Trop. Med. 1934 ; 14 (1):127–137.

Dubois A, Janssens PG, Brutsaert P, Vanbreuseghem R. A case of African histoplasmosis; with a mycological note on *Histoplasma duboisii* n.sp. Ann. Soc. Belg. Med. Trop. 1952; 32(6): 569–84.

Duncan JT. Tropical African histoplasmosis. Trans. R. Soc. Trop. Med. Hyg. 1958; 52: 468-474.

Edwards LB, Acquaviva FA, Livesay VT, Cross FW, Palmer CE. An atlas of sensitivity to tuberculin, PPD-B, and histoplasmin in the United States. Am. Rev. Respir. Dis. 1969; 99(4): 1–132.

Elias Costa MR, Da Silva Lacaz C, Kawasaki M, De Camargo ZP. Conventional versus molecular diagnostic tests. Med. Mycol. 2000; 38(1): 139–45.

Ellis DH, Pfeiffer TJ. Natural habitat of *Cryptococcus neoformans* var. *gattii*. J Clin Microbiol. 1990; 28(7): 1642–4.

Emmons CW. Isolation of *Histoplasma capsulatum* from soil. Public Health Rep. 1949; 64(28): 892–6.

Emmons CW. Isolation of *Histoplasma capsulatum* from soil in Washington, D.C. Public Health Rep. 1961; 76(7): 591–5.

Goodwin RA Jr, Shapiro JL, Thurman GH, Thurman SS, Des Prez RM. Disseminated histoplasmosis: clinical and pathologic correlations. Medicine (Baltimore). 1980; 59(1): 1–33.

Guedes HL de M, Guimarães AJ, Muniz M de M, Pizzini CV, Hamilton AJ, Peralta JM, et al. PCR assay for identification of *Histoplasma capsulatum* based on the nucleotide sequence of the M antigen. J. Clin. Microbiol. 2003; 41(2): 535–9.

Gugnani HC, Muotoe-Okafor F. African histoplasmosis: a review. Rev Iberoam Microl. 1997; 14(4): 155–9.

Guimarães AJ, Nosanchuk JD, Zancopé-Oliveira RM. Diagnosis of histoplasmosis. *Braz. J. Microbiol.* 2006; 37(1): 1–13.

Gustin PN, Kelley DC. A survey of zoo aviaries for the presence of *Histoplasma capsulatum* and *Cryptococcus neoformans*. *Mycopathologia*. 1971; 45: 93–101.

Hansemann D V. U^U ber eine bisher nicht beobachtete Gehirner Krankung durch Hefen. *Verh. Dtsch. Ges. Pathol.* 1905; 9: 21–24.

Hasenclever HF, Emmons CW. The prevalence and mouse virulence of *Cryptococcus neoformans* strains isolated from urban areas. *Am. J. Epidemiol.* 1963; 78(2): 227–31.

Hill JO, Harmsen AG. Intrapulmonary growth and dissemination of an avirulent strain of *Cryptococcus neoformans* in mice depleted of CD4+ or CD8+ T cells. *J Exp Med.* 1991; 173(3): 755–8.

Howard DH. Some factors which affect the initiation of growth of *Cryptococcus neoformans*. *J Bacteriol.* 1961; 82(3): 430–5.

Howard DH. The morphogenesis of the parasitic forms of dimorphic fungi. *Mycopathologia*. 1962; 18: 127–39.

Hubálek Z. Distribution of *Cryptococcus neoformans* in a pigeon habitat. *Folia Parasitol.* 1975;22(1):73–9.

Ishaq CM, Bulmer GS, Felton FG. An evaluation of various environmental factors affecting the propagation of *Cryptococcus neoformans*. Mycopathologia. 1968; 35: 81–90.

Jones TF, Swinger GL, Craig AS, McNeil MM, Kaufman L, Schaffner W. Acute pulmonary histoplasmosis in bridge workers: a persistent problem. Am. J. Med. 1999; 106(4): 480–2.

Joseph Wheat L. Current diagnosis of histoplasmosis. Trends Microbiol. 2003; 11(10): 488–94.

Kauffman CA. Clinical mycology: Histoplasmosis. Oxford University Press, New York, NY. 2003; 285–298

Kauffman CA. Histoplasmosis: a Clinical and Laboratory Update. Clin. Microbiol. Rev. 2007; 20(1): 115–32.

Knox KS and Hage CA. Histoplasmosis. Proc Am Thorac Soc. 2010; 7: 169-172.

Keerativasee S, Takarn P, Sanwong K, Tharavichitkul P, Sriburee P. Isolation of

cryptococcus neoformans from avian droppings in Chiang Mai from December 2005 to may 2006. Chiang Mai Medical Journal. 2008; 47(4): 149-154.

Klite PD, Diercks FH. *Histoplasma capsulatum* in fecal contents and organs of bats in the canal zone. Am. J. Trop. Med. Hyg. 1965; 14: 433–9.

Klotz SA, Penn RL, George RB. Antigen detection in the diagnosis of fungal respiratory infections. *Semin Respir Infect.* 1986; 1(1): 16–21.

Kohl K-H, Hof H, Schrettenbrunner A, Seeliger HPR, Kwon-Chung KJ. *Cryptococcus neoformans* var *gattii* in EUROPE. *The Lancet.* 1985; 325: 1515.

Kuroki M, Phichaichumpon C, Yasuoka A, Chiranairadul P, Chosa T, Sirinirund P, et al. Environmental isolation of *Cryptococcus neoformans* from an endemic region of HIV associated cryptococcosis in Thailand. *Yeast.* 2004; 21(10): 809–12.

Kwon-Chung KJ. Studies on *Emmonsiella capsulata*. I. Heterothallism and development of the ascocarp. *Mycologia.* 1973; 65(1): 109–21.

Kwon-Chung KJ, Weeks RJ, Larsh HW. Studies on *Emmonsiella capsulata* (*Histoplasma capsulatum*): II. Distribution of the two mating types in 13 endemic states of the united states. *Am. J. Epidemiol.* 1974; 99(1): 44–9.

Kwon-Chung KJ. A New Genus, *Filobasidiella*, the Perfect State of *Cryptococcus neoformans*. *Mycologia.* 1975; 67(6): 1197–200.

Kwon-Chung KJ. Morphogenesis of *Filobasidiella neoformans*, the sexual state of *Cryptococcus neoformans*. *Mycologia.* 1976; 68(4): 821–33.

Kwon-Chung KJ, Bartlett MS, Wheat LJ. Distribution of the two mating types among *Histoplasma capsulatum* isolates obtained from an urban histoplasmosis outbreak. *Sabouraudia.* 1984a; 22(2): 155–7.

Kwon-Chung KJ, Bennett JE. High prevalence of *Cryptococcus neoformans* var. *gattii* in tropical and subtropical regions. Zentralbl Bakteriol Mikrobiol Hyg A. 1984b; 257(2): 213–8.

Kwon-Chung KJ, Tewari RP. Determination of viability of *Histoplasma capsulatum* yeast cells grown in vitro: comparison between dye and colony count methods. J. Med. Vet. Mycol. 1987; 25(2): 107–14.

Kwon-Chung KJ, Bennet JE. Histopasmosis (Darling disease, reticuloendothelial cytomycosis, Ohio Valley disease). In: Kwon-Chung KJ, Bennet JE. Medical Mycology. Lea & Febinger, Pennsylvania, USA. 1992: 464-513.

Kwon -Chung KJ, Boekhout T, Fell JW, Diaz M (2002). Proposal to conserve the name *Cryptococcus gatti* against *C. honduri-anus* and *C. bacillisporus* (Basidiomycoto, Hymenomycetes, Tremellomycetiidae) Taxon. 2002; 51: 804–806

Laskowski MC, Smulian AG. Insertional mutagenesis enables cleistothelial formation in a non-mating strain of *Histoplasma capsulatum*. BMC Microbiol. 2010; 10: 49.

Littman ML, Borok R. Relation of the pigeon to cryptococciosis: natural carrier state, heat resistance and survival of *Cryptococcus neoformans*. Mycopathol Mycol Appl. 1968; 35(3): 329–45.

Loomis WD. Overcoming problems of phenolics and quinones in the isolation of plant enzymes and organelles. Meth. Enzymol. 1974; 31(Pt A): 528–44.

López-Martínez R, Castañón-Olivares LR. Isolation of *Cryptococcus neoformans* var. *neoformans* from bird droppings, fruits and vegetables in Mexico City. *Mycopathologia*. 1995; 129(1): 25–8.

Lyon GM, Bravo AV, Espino A, Lindsley MD, Gutierrez RE, Rodriguez I, et al. Histoplasmosis associated with exploring a bat-inhabited cave in Costa Rica, 1998–1999. *Am. J. Trop. Med. Hyg.* 2004; 70(4): 438–42.

Martagon-Villamil J, Shrestha N, Sholtis M, Isada CM, Hall GS, Bryne T, et al.

Identification of *Histoplasma capsulatum* from Culture Extracts by Real-Time PCR. *J. Clin. Microbiol.* 2003; 41(3): 1295–8.

Martinez LR, Garcia-Rivera J, Casadevall A. *Cryptococcus neoformans* var. *neoformans* (Serotype D) Strains Are More Susceptible to Heat than *C. neoformans* var. *grubii* (Serotype A) Strains. *J. Clin. Microbiol.* 2001; 39(9): 3365–7.

McDonough ES, Ajello L, Ausherman RJ, Balows A, McClellan JT, Brinkman S. Human pathogenic fungi recovered from soil in an area endemic for North American blastomycosis. *Am. J. Epidemiol.* 1961; 73(1): 75–83.

McGinnis MR, Katz B. *Ajellomyces* and its synonym *Emmonsiella*. *Mycotaxon*. 1979; 8: 157–164.

Mitchell TG, Freedman EZ, White TJ, Taylor JW. Unique oligonucleotide primers in PCR for identification of *Cryptococcus neoformans*. *J. Clin. Microbiol.* 1994; 32(1): 253–5.

- Mylonakis E, Ausubel FM, Perfect JR, Heitman J, Calderwood SB. Killing of *Caenorhabditis elegans* by *Cryptococcus neoformans* as a model of yeast pathogenesis. Proc. Natl. Acad. Sci. U.S.A. 2002; 99(24): 15675–80.
- Newman SL. Cell-mediated immunity to *Histoplasma capsulatum*. Semin Respir Infect. 2001; 16(2): 102–8.
- Pappas PG, Perfect JR, Cloud GA, Larsen RA, Pankey GA, Lancaster DJ, et al. Cryptococcosis in human immunodeficiency virus-negative patients in the era of effective azole therapy. Clin. Infect. Dis. 2001; 33(5): 690–9.
- Perfect JR, Casadevall A. Cryptococcosis. Infect. Dis. Clin. North Am. 2002; 16(4): 837–74.
- Perfect JR. *Cryptococcus neoformans*: A sugar-coated killer with designer genes. FEMS Immunol Med Microbiol. 2005; 45(3): 395–404.
- Perfect JR, Cox GM. Topley and Wilson's Microbiology and Microbial Infections: Cryptococcosis. John Wiley & Sons. 2010
- Pfeiffer TJ, Ellis DH. Additional eucalyptus hosts for *Cryptococcus neoformans* var. *gattii*. In: Abstracts of the 13th Congress of the International Society for Human and Animal Mycology (ISHAM), Parma, Italy: Jun 8-13, 1997. Parma: University of Parma, 1997: Abstract P111.

Persing DH, Smith TF, Tenover FC, White TJ editor. Diagnostic molecular microbiology: principles and applications, American Society for Microbiology, Washington, D.C. 1993; p. 1–641.

Picardi JL, Kauffman CA, Schwarz J, Phair JP. Detection of precipitating antibodies to *Histoplasma capsulatum* by counterimmunoelectrophoresis. Am. Rev. Respir. Dis. 1976; 114(1): 171–6.

Randhawa HS. Occurrence of histoplasmosis in Asia. Mycopathologia. 1970; 41: 75–89.

Rappelli P, Are R, Casu G, Fiori PL, Cappuccinelli P, Aceti A. Development of a nested PCR for detection of *Cryptococcus neoformans* in cerebrospinal fluid. J. Clin. Microbiol. 1998; 36(11): 3438–40.

Reid TM, Schafer MP. Direct detection of *Histoplasma capsulatum* in soil suspensions by two-stage PCR. Mol. Cell. Probes. 1999; 13(4): 269–73.

Sathapatayavongs B, Batteiger BE, Wheat J, Slama TG, Wass JL. Clinical and laboratory features of disseminated histoplasmosis during two large urban outbreaks. Medicine (Baltimore). 1983; 62(5): 263–70.

Sato Y, Osabe S, Kuno H, Kaji M, Oizumi K. Rapid diagnosis of cryptococcal meningitis by microscopic examination of centrifuged cerebrospinal fluid sediment. J. Neurol. Sci. 1999; 164(1): 72–5.

Schwarz J. Global epidemiology and distribution of histoplasmosis: Histoplasmosis. New York, NY: Praeger Publishers. 1981; 87.

Sorrell TC. *Cryptococcus neoformans* variety *gattii*. Med. Mycol. 2001; 39(2): 155–68.

Sriburee P, Khayhan S, Khamwan C, Panjaisee S, Tharavichitkul P. Serotype and PCR-fingerprints of Clinical and Environmental isolates of *Cryptococcus neoformans* in Chiang Mai, Thailand. Mycopathologia. 2004; 158: 25–31.

Steenbergen JN, Shuman HA, Casadevall A. *Cryptococcus neoformans* interactions with amoebae suggest an explanation for its virulence and intracellular pathogenic strategy in macrophages. Proc Natl Acad Sci U S A. 2001; 98(26): 15245–50.

Steenbergen JN, Nosanchuk JD, Malliaris SD, Casadevall A. *Cryptococcus neoformans* virulence is enhanced after growth in the genetically malleable host *Dictyostelium discoideum*. Infect. Immun. 2003; 71(9): 4862–72.

Stoddard JL, Cutler EC. Torula Infection in Man. Rockefeller Institute for Medical Research. Monograph. 1916; 6: 1-98.

Swinne D. *Cryptococcus neoformans* and the epidemiology of cryptococcosis. Ann Soc Belg Med Trop. 1979; 59(3): 285–99.

Tanner DC, Weinstein MP, Fedorciw B, Joho KL, Thorpe JJ, Reller L. Comparison of commercial kits for detection of cryptococcal antigen. J. Clin. Microbiol. 1994; 32(7): 1680–4.

Taylor RL, Duangmani C, Charoenvit Y. The geographic distribution of histoplasmin sensitivity in Thailand. Am. J. Trop. Med. Hyg. 1968; 17(4): 579–83.

Taylor RL, Duangmani C. Occurrence of *Cryptococcus neoformans* in Thailand. American Journal of Epidemiology. 1968; 87(2): 318–22.

Tharavich P, Kanjanasthitip, and Panasampol K. Occurrence of *Cryptococcus neoformans* in dove excreta. Chiang Mai Medical Bulletin. 1973; 12: 91-97.

Tsai YL, Olson BH. Detection of low numbers of bacterial cells in soils and sediments by polymerase chain reaction. Appl Environ Microbiol. 1992; 58(2): 754–7.

Tsai YL, Olson BH. Rapid method for separation of bacterial DNA from humic substances in sediments for polymerase chain reaction. Appl Environ Microbiol. 1992; 58(7): 2292–5.

Viviani MA, Tortorano AM, Ajello L. *Cryptococcus*. In: Anaissie EJ, McGinnis MR,

Pfaller MA, eds. Clinical mycology. Philadelphia: Churchill Livingstone. 2003: 240–259

Waldman RJ, England AC, Tauxe R, Kline T, Weeks RJ, Ajello L, et al. A winter outbreak of acute histoplasmosis in northern Michigan. Am. J. Epidemiol. 1983; 117(1): 68–75.

Walter JE, Yee RB. Factors that determine the growth of *Cryptococcus neoformans* in avian excreta. Am. J. Epidemiol. 1968; 88(3): 445–50.

Warkentien T, Crum-Cianflone NF. An Update on Cryptococcosis Among HIV-Infected Persons. *Int J STD AIDS.* 2010; 21(10): 679–84

Wheat LJ, Slama TG, Eitzen HE, Kohler RB, French ML, Biesecker JL. A large urban outbreak of histoplasmosis: clinical features. *Ann. Intern. Med.* 1981; 94(3) :331–7.

Wheat J, French ML, Kohler RB, Zimmerman SE, Smith WR, Norton JA, et al. The diagnostic laboratory tests for histoplasmosis: analysis of experience in a large urban outbreak. *Ann. Intern. Med.* 1982; 97(5): 680–5.

Wheat LJ, Wass J, Norton J, Kohler RB, French ML. Cavitary histoplasmosis occurring during two large urban outbreaks. Analysis of clinical, epidemiologic, roentgenographic, and laboratory features. *Medicine (Baltimore).* 1984; 63(4): 201–9.

Wheat LJ, Kohler RB, Tewari RP. Diagnosis of disseminated histoplasmosis by detection of *Histoplasma capsulatum* antigen in serum and urine specimens. *N. Engl. J. Med.* 1986a; 314(2): 83–8.

Wheat J, French ML, Kamel S, Tewari RP. Evaluation of cross-reactions in *Histoplasma capsulatum* serologic tests. *J Clin Microbiol.* 1986b; 23(3): 493–9.

Wheat LJ, Kohler RB, Tewari RP, Garten M, French ML. Significance of Histoplasma antigen in the cerebrospinal fluid of patients with meningitis. *Arch. Intern. Med.* 1989; 149(2): 302–4.

Wheat LJ, Connolly-Stringfield PA, Baker RL, Curfman MF, Eads ME, Israel KS, et al.

Disseminated histoplasmosis in the acquired immune deficiency syndrome: clinical findings, diagnosis and treatment, and review of the literature. Medicine (Baltimore). 1990; 69(6): 361–74.

Wheat LJ, Connolly-Stringfield P, Blair R, Connolly K, Garringer T, Katz BP.

Histoplasmosis relapse in patients with AIDS: detection using *Histoplasma capsulatum* variety *capsulatum* antigen levels. Ann. Intern. Med. 1991; 115(12): 936–41.

Wheat LJ, Connolly-Stringfield P, Blair R, Connolly K, Garringer T, Katz BP, et al.

Effect of successful treatment with amphotericin B on *Histoplasma capsulatum* variety *capsulatum* polysaccharide antigen levels in patients with AIDS and histoplasmosis. Am. J. Med. 1992a; 92(2): 153–60.

Wheat LJ, Connolly-Stringfield P, Williams B, Connolly K, Blair R, Bartlett M, et al.

Diagnosis of histoplasmosis in patients with the acquired immunodeficiency syndrome by detection of *Histoplasma capsulatum* polysaccharide antigen in bronchoalveolar lavage fluid. Am. Rev. Respir. Dis. 1992b; 145(6): 1421–4.

Wheat J. Histoplasmosis. Experience during outbreaks in Indianapolis and review of the literature. Medicine (Baltimore). 1997; 76(5): 339–54.

Wheat J, Wheat H, Connolly P, Kleiman M, Supparatpinyo K, Nelson K, et al. Cross-Reactivity in *Histoplasma capsulatum* Variety capsulatum Antigen Assays of Urine Samples from Patients with Endemic Mycoses. Clinical Infectious Diseases. 1997; 24(6): 1169–71.

Wheat LJ. Laboratory diagnosis of histoplasmosis: update 2000. Semin Respir Infect. 2001; 16(2): 131–40.

Widjojoatmodjo MN, Fluit AC, Torensma R, Verdonk GP, Verhoef J. The magnetic immuno polymerase chain reaction assay for direct detection of salmonellae in fecal samples. J Clin Microbiol. 1992; 30(12): 3195–9.

Woods JP. Knocking on the right door and making a comfortable home: *Histoplasma capsulatum* intracellular pathogenesis. Curr. Opin. Microbiol. 2003; 6(4): 327–31.

Zeidberg LD, Ajello L, Dillon A, Runyon LC. Isolation of *Histoplasma capsulatum* from Soil. Am J Public Health Nations Health. 1952; 42(8): 930–5.

Role of the adherence-promoting receptors, CR3, LFA-1, and p150,95, in binding of *Histoplasma capsulatum* by human macrophages. J Exp Med. 1987; 165(1): 195–210.