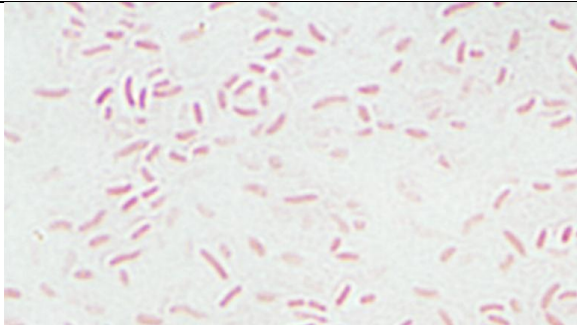
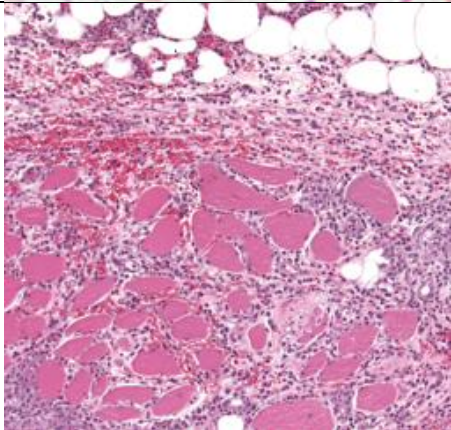

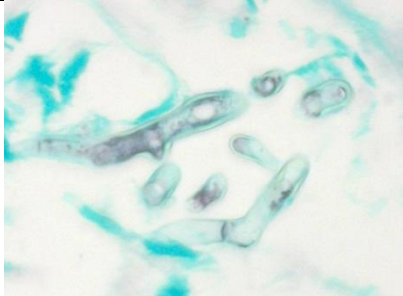
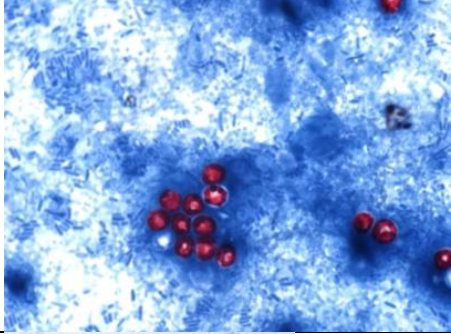

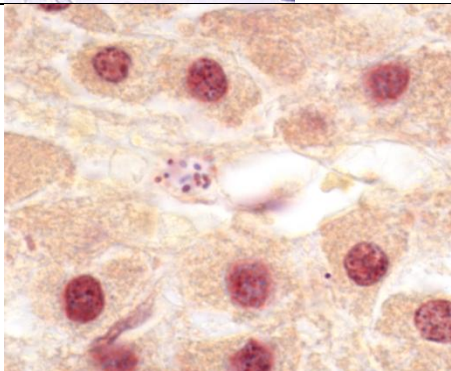

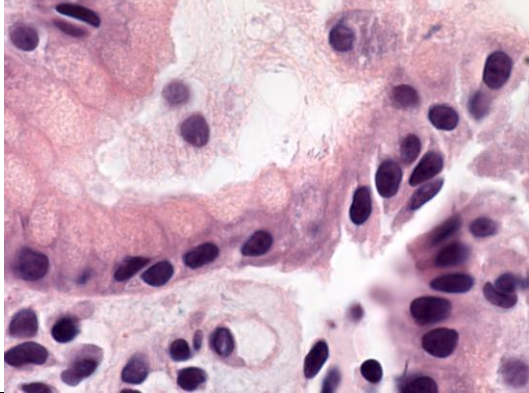

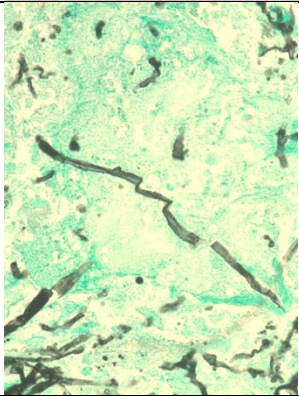
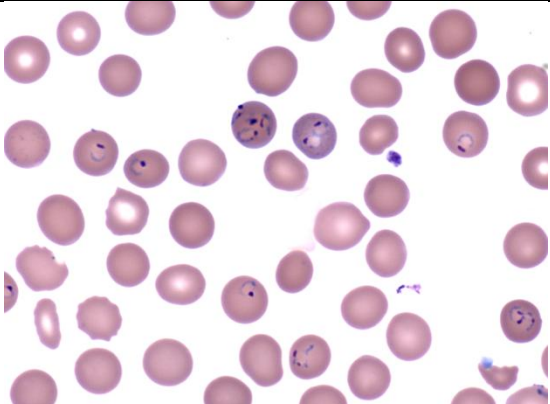


## About the Vignette Banners -

	<p>Gram stain of <i>Vibrio cholerae</i> that was isolated from gallbladder fluid. To learn more about the case: Vogt AP, Doshi, RK, Higgins JE, Burd EM, Ribner BS, Kraft CS. Acute cholecystitis caused by nontoxigenic <i>Vibrio cholerae</i> O1 Inaba. J Clin Micro. 2010;48:1002-1004. (Photographed by Colleen Kraft).</p>
	<p>Subcutaneous tissue stained with hematoxylin and eosin from a patient with necrotizing fasciitis due to <i>Streptococcus pyogenes</i>. To learn more about the case: Guarner J, Sumner J, Paddock CD, Shieh WJ, Greer PW, Reagan S, Fischer M, Van Beneden CA, SR Zaki. Diagnosis of invasive group A streptococcal infections by using immunohistochemical and molecular assays. Am J Clin Pathol 2006;126:148-155. (Photographed by Jeannette Guarner).</p>
	<p>Giemsa stained blood smear of a patient with acute infection caused by <i>Trypanosoma cruzi</i>. (Photographed by Jeannette Guarner).</p>
	<p>Grocott's methenamine silver stained sinus tissue showing broad hyphae with occasional septae consistent with the diagnosis of Mucorales fungal infection. To learn more about histopathology of fungal infections: Guarner J, Brandt ME. Histopathologic diagnosis of fungal infections in the 21st century. Clin Micro Rev 2011;... (Photographed by Jeannette Guarner).</p>

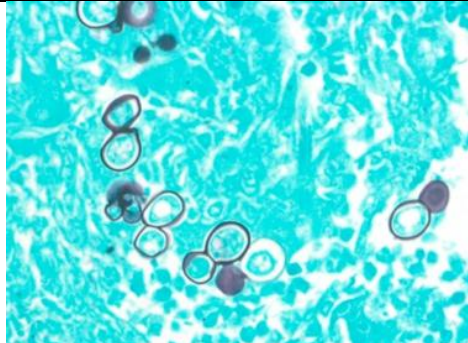
		<p>Brain tissue stained with hematoxylin and eosin from a patient with rabies. The neurons show large eosinophilic (pink) viral inclusions in the cytoplasm called Negri bodies. To learn more about the case: Centers for Disease Control and Prevention (CDC). <u><a href="#">First human death associated with raccoon rabies--Virginia, 2003.</a></u> MMWR Morb Mortal Wkly Rep. 2003 Nov 14;52(45):1102-3. (Photographed by Jeannette Guarner).</p>
		<p>Blood agar plate growing a pure culture of <i>Streptococcus pneumoniae</i>. The plate shows alpha hemolysis around the colonies and central umbilication of the colonies characteristic of this organism. (Photographed by Eileen Burd).</p>
		<p>Ziehl-Neelsen stain of a tissue granuloma showing <i>Mycobacterium tuberculosis</i> (red rods) and macrophages. To learn more about formation of granulomas: Birkness KA, Guarner J, Sable SB, Tripp RA, Kellar KL, Bartlett J, Quinn FD. An in vitro model of the leukocyte interactions associated with granuloma formation in <i>Mycobacterium tuberculosis</i> infection. Immunol Cell Biol 2007;85:160-8. (Photographed by Jeannette Guarner).</p>
		<p>Gram stain of a cerebrospinal fluid showing <i>Listeria monocytogenes</i> (blue rods) and inflammatory cells (pink cells). (Photographed by Eileen Burd).</p>

	<p>Acid-fast stain of a stool sample showing <i>Cryptosporidium</i> spp. (red round structures). (Photographed by Jeannette Guarner).</p>
	<p>Lactophenol cotton blue preparation of a mature sporangium of <i>Mucor</i> spp. (Photograph from the Centers for Disease Control and Prevention Public Health Library).</p>
	<p>Brown Brenn Gram stain of an adrenal gland showing gram-positive cocci from a patient with pneumococemia. To learn more about the case: <a href="#">Guarner J, Paddock CD, Bartlett J, Zaki SR: Adrenal gland hemorrhage in patients with fatal bacterial infections. Mod Pathol 2008;21:1113-20.</a> (Photographed by Jeannette Guarner).</p>
	<p>Necrotic leg lesion in a neutropenic patient with systemic mucormycosis. (Photographed by Marshall Lyon).</p>

	<p>Stomach biopsy stained with hematoxylin and eosin showing <i>Helicobacter pylori</i> in the luminal mucous. (Photographed by Jeannette Guarner).</p>
	<p>White plaques in the tongue of a patient with secondary syphilis. (Unknown photographer).</p>
	<p>Grocott's methenamine silver stained lung tissue showing folded hyphae with rare septae consistent with Mucorales fungal infection. To learn more about histopathology of fungal infections: Guarner J, Brandt ME. Histopathologic diagnosis of fungal infections in the 21st century. Clin Micro Rev 2011;... (Photographed by Jeannette Guarner).</p>
	<p>Giemsa-stained blood smear of a patient who had visited Senegal and presented with <i>Plasmodium falciparum</i>. (Photographed by Jeannette Guarner).</p>



Pathologists preparing to perform an autopsy on a patient with inhalational anthrax. To learn more about the pathology of inhalational anthrax: **Guarner J, Jernigan JA, Shieh WJ, Tatti K, Flannagan LM, Stephens DS, Popovic T, Ashford DA, Perkins BA, Zaki SR, the Inhalational Anthrax Pathology Working Group.** Pathology and pathogenesis of bioterrorism-related inhalational anthrax. *Am J Pathol* 2003;163:701-709. (Photographed during the anthrax bioterrorism United States attack in 2001).



Grocott's methenamine silver stained lung tissue showing yeasts with broad based budding consistent with *Blastomyces dermatitidis*. To learn more about histopathology of fungal infections: Guarner J, Brandt ME. Histopathologic diagnosis of fungal infections in the 21st century. *Clin Micro Rev* 2011;... (Photographed by Jeannette Guarner).



Peruvian women herding llamas in Cuzco reminding us of the One Health Initiative where human and veterinary medicine intersect. (Photographed by Carlos del Rio).



The Semmelweis museum in Budapest, Hungary. Ignac Semmelweis discovered that handwashing decreased the incidence of puerperal sepsis. (Photographed by Carlos del Rio).