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etymologia

Prototheca [pro″to-the′kə]

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From the Greek *proto-* (first) + *thēkē* (sheath), *Prototheca* is a genus of variably shaped spherical cells of achloric algae in the family *Chlorellaceae*. Wilhelm Krüger, a German expert in plant physiology and sugar production, reported *Prototheca* microorganisms in 1894, shortly after spending 7 years in Java studying sugarcane. He isolated *Prototheca* species from the sap of 3 tree species. Krüger named these organisms as *P. moriformis* and *P. zopfii*, the second name as a tribute to Friedrich Wilhelm Zopf, a renowned botanist, mycologist, and lichenologist.

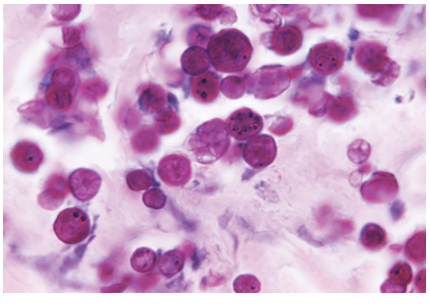

Figure 1. Periodic acid–Schiff–stained tissue sample from a case-patient who had protothecosis, showing several sphere-like cells of *Prototheca* spp. Source: Dr. Jerrold Kaplan, Centers for Disease Control, 1971.

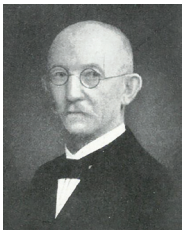

Figure 2. Wilhelm Krüger (1857–1947). Source: Institute for Sugar Beet Research (http://www.ifz-goettingen.de).

Protothecosis affects humans and wild and domestic animals, primarily causing mastitis in cows. Human protothecosis was reported in 1964 from a skin lesion in a farmer from Sierra Leone. There are increasing reports of infections in immunocompromised patients. Debates regarding *Prototheca* taxonomy persist.

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