1067-60-468   **Peter Olofsson*** (`polofsso@trinity.edu`), Mathematics Department, Trinity University, One Trinity Place, San Antonio, TX 78212, and **Ryan C Daileda**, Mathematics Department, Trinity University, One Trinity Place, San Antonio, TX 78212. *Budding yeast, branching processes, and generalized Fibonacci numbers.*

We present an application of branching processes to a problem in cell biology where the generalized Fibonacci numbers known as k-nacci numbers play a crucial role. The k-nacci sequence is used to obtain computational formulas, establish asymptotic growth rate, and to justify certain practical simplifications in a branching process application in cell biology. (Received September 05, 2010)