1003-30-1202   **Stacey A Muir*** (`muellers2@scranton.edu`), The University of Scranton, St. Thomas Hall, Mathematics Department, Scranton, PA 18510. *Subordinate solutions of a differential equation.* Preliminary report.

In 2003, Ruscheweyh and Suffridge settled a conjecture on subordination of the de la Vallée Poussin means of a complex valued analytic function posed by Pólya and Schoenberg in 1958. They did so by defining a continuous extension of these means by way of a differential equation. By generalizing this differential equation, conditions that guarantee subordinate solutions and a family of such solutions will be presented. In addition, a family of starlike solutions for which subordination fails will be discussed. (Received October 04, 2004)