

1086-Q5-2842      **Phillip E. C. Compeau\*** (pcompeau@math.ucsd.edu), UCSD Dept. of Mathematics, 9500  
Gilman Drive #0112, La Jolla, CA 92093, and **Nikolay Vyahhi**. *Rosalind: Free Bioinformatics  
Education via Online Introductory Programming.*

Rosalind (rosalind.info) is a new online resource for learning bioinformatics through problem solving and programming. It consists of a self-contained tree of programming exercises of increasing sophistication, which are motivated and woven together by an ongoing biological narrative. Accordingly, we hope to incite a revolution in learning programming via practical scientific problems.

Rosalind is not geared toward students of a specific field. Furthermore, the site is valuable to novices wanting to learn bioinformatics independently (accounting for over 500 beta testers, many of whom live in areas with no bioinformatics education) and can also be used by university professors for automated homework checking.

Few institutions can afford the huge number of TAs required to scale individualized bioinformatics instruction to hundreds of students. Following the lead of massive open online courses such as those offered by Coursera, we intend to build a huge user community that will facilitate collaboration on exercises, thus aiding the scaling of bioinformatics education. For example, Rosalind will serve as the central educational tool used in a spring 2013 course at UC-San Diego for 100 biology undergraduates. (Received September 25, 2012)