Position Focus: The Research Assistant will provide organizational and research support for lab activities related to biophysical studies of bacterial pili, electrical properties of pili and their role in bacterial physiology, within the Microbial Sciences Institute at West Campus. The lab will study bacterial pili and biofilms. The goals of the lab are (1) to determine the mechanisms by which environmental bacteria transfer electrons along conductive pili, commonly referred to as “microbial nanowires”, (2) to determine the mechanisms by which pathogenic bacteria attach to host surfaces and cause infections using pili and related proteins.

The Research Assistant will facilitate general lab operation and provide experimental support in microbiology, biophysics, and biochemistry. This position will involve: preparation of media for
environmental and pathogenic bacteria; autoclaving; dishwashing; purification of pili proteins; imaging cells and pili with TEM and AFM, organization of lab databases and records; implementing defined data collection protocols and ordering and maintenance of lab equipment and supplies.

**Essential Duties**

1. Researches and collects data through complex laboratory/ scientific experiments, techniques, and procedures; library research; structured interviews; or through other means for designated research assignments.  2. Records and compiles information related to research data. Codes data accordingly to research specifications. Uses a computer terminal to input and retrieve data and to generate reports. Processes and summarizes data using scientific or statistical techniques.  3. Assists in data interpretation and analyses. Reports on status of research activities. Sets up, operates and maintains laboratory equipment and apparatus.  4. Formulates and prepares scientific solutions and media. Recruits study participants. Orders and maintains inventory of supplies.  5. May assist in designing, developing, and modifying research experiments, procedures, or survey instruments. May oversee and instruct research staff.  6. Performs additional functions incidental to research activities.

**Required Education and Experience**

Six years of related work experience, four of them in the same job family at the next lower level, and high school level education; or four years of related work experience and an Associate's degree; or little or no work experience and a Bachelor's degree in a related field; or an equivalent combination of experience and education.

**Required Skill/Ability 1:** Detail-oriented, thorough, and an excellent record keeper; effective communication and organizational skills.

**Required Skill/Ability 2:** Demonstrated ability working with protein purification. Demonstrated ability to culture environmental and pathogenic organisms and bacteria.

**Required Skill/Ability 3:** Ability to work independently as well as collaboratively. Eager to learn and flexible. Ability to function well in a demanding environment.

**Required Skill/Ability 4:** Solid computer skills and experience using programs in Microsoft Office Suite. Familiarity with computer programs used for data manipulation.

**Preferred Education, Experience and Skills:** BS degree or higher in Biochemistry, Chemistry, or Microbiology and 3 years working in a lab; experience with computer programs to analyze, interpret and manipulate scientific data using statistical techniques; experience with bacterial pili preferred proteins; anaerobic preferred culture growth; cultivation of BSL2 level bacterial pathogens and their mammalian host cells

**Weekend Hours Required?** No

**Evening Hours** No
Drug Screen  No
Health Screening No

Background Check Requirements: All candidates for employment will be subject to pre-employment background screening for this position, which may include motor vehicle, DOT certification, drug testing and credit checks based on the position description and job requirements. All offers are contingent upon the successful completion of the background check. Please visit www.yale.edu/hronline/careers/screening/faqs.html for additional information on the background check requirements and process.

Posting Disclaimer: The intent of this job description is to provide a representative summary of the essential functions that will be required of the position and should not be construed as a declaration of specific duties and responsibilities of the particular position. Employees will be assigned specific job-related duties through their hiring departments.

Affirmative Action Statement: Yale University considers applicants for employment without regard to, and does not discriminate on the basis of, an individual's sex, race, color, religion, age, disability, status as a veteran, or national or ethnic origin; nor does Yale discriminate on the basis of sexual orientation or gender identity or expression.