

# McNair Scholars Program Mentor

## Chemistry and Biochemistry

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## Potential Research Project(s) for McNair Scholar

Research interests in the McCarroll Group focus on the application of analytical chemistry to investigate complex chemical phenomena with an emphasis in the areas of molecular spectroscopy and organized media. These include studies of chiral and molecular recognition, the study of phase behavior and interactions in organized media, and the development of the fluorescence sensors and pseudo stationary phases for use in micellar capillary electrophoresis. Research is based on fluorescence spectroscopy and capillary electrophoresis techniques. Fluorescence studies include steady-state and time-resolved fluorescence polarization spectroscopy. Dr. McCarroll is also interested in the synthesis of new materials for use as pseudostationary phases and fluorescence sensors.

## Faculty Mentor Expectations of McNair Scholar

McNair Scholars will be expected to perform independent research projects under the direction of Dr. McCarroll, who will act as a mentor. The projects will typically involve some aspect of analytical chemistry and spectroscopy. The specific area of research will involve the development of techniques to study chiral recognition and/or the development of fluorescence sensors for bioanalytical and environmental applications. The student will be required to attend weekly group meetings, periodically report on their research progress, and meet weekly with Dr. McCarroll.

## Additional Information

The McNair Scholar will have opportunity to present their work at the American Chemical Society National Meeting. Dr. McCarroll encourages students continuing their research projects through the academic year.