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The Role of the bchE Gene Product in Bacteriochlorophyll a Synthesis

Parie Garg
Illinois Wesleyan University

David W. Bollivar, Faculty Advisor
Illinois Wesleyan University

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Poster Presentation 15

**THE ROLE OF THE bchE GENE PRODUCT IN
BACTERIOCHLOROPHYLL a SYNTHESIS**

Parie Garg and David Bollivar*

Department of Biology, Illinois Wesleyan University

Bacterial photosynthesis is different from eukaryotic photosynthesis in that it employs different pigments. Although very similar to the chlorophyll pigments used by modern plants and other higher order organisms, bacterial chlorophyll is biochemically different and is synthesized using a different pathway. The biochemical pathway for bacteriochlorophyll a synthesis is being studied extensively, but not much is known about the specific step catalyzed by the product of the bchE gene.

The purpose of this research project is to create a successful expression vector for the bchE gene product by inserting a recombinant plasmid into *Rhodobacter capsulatus*. The activity of the bchE gene product will be studied in vitro, using this organism. This will give us insight into the function of the enzyme produced and will also give us a better understanding of the role of the bchE gene product in bacteriochlorophyll a synthesis.