



Illinois Wesleyan University
Digital Commons @ IWU

John Wesley Powell Student Research
Conference

2003, 14th Annual JWP Conference

Apr 12th, 9:00 AM - 10:00 AM

Isolation, Amplification, and Expression of *BCHC*

Eileen Forde

Illinois Wesleyan University

David Bollivar, Faculty Advisor

Illinois Wesleyan University

Follow this and additional works at: <https://digitalcommons.iwu.edu/jwprc>

Forde, Eileen and Bollivar, Faculty Advisor, David, "Isolation, Amplification, and Expression of *BCHC*" (2003). *John Wesley Powell Student Research Conference*. 39.
<https://digitalcommons.iwu.edu/jwprc/2003/posters/39>

This Event is protected by copyright and/or related rights. It has been brought to you by Digital Commons @ IWU with permission from the rights-holder(s). You are free to use this material in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/ or on the work itself. This material has been accepted for inclusion by faculty at Illinois Wesleyan University. For more information, please contact digitalcommons@iwu.edu.

©Copyright is owned by the author of this document.

Poster Presentation P15

ISOLATION, AMPLIFICATION, AND EXPRESSION OF *BCHC*

Eileen Forde and David Bollivar*

Department of Biology, Illinois Wesleyan University

The *bchC* gene of *Chloroflexus aurantiacus* has been identified by the use of computer based sequence homology searches. To test for function of the proposed gene, it was necessary to create a system so that the polypeptide encoded by the gene could be expressed and identified. Oligonucleotide primers were designed to amplify the *bchC* region so that this gene could be cloned. The amplified gene was cloned and sequenced, and ultimately placed in an expression vector that resides in the bacterium *E. coli*. The protein was then expressed using an arabinose induction system. SDS-PAGE and Western analysis have been used to confirm that the polypeptide is expressed properly. Enzymatic assays were then performed to test for function of the *bchC* gene product. The demonstration of the enzyme activity, 2-hydroxyethyl bacteriochlorophyllide oxidase, was successful allowing the designation of this gene as sufficient for the enzymatic activity.