

Abstract for an Invited Paper  
for the OSF07 Meeting of  
The American Physical Society

**Student learning and development in photo-physics research**

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The impact of undergraduate research experiences on student learning and development is attracting more and more attention as institutions strive to improve science education at the undergraduate level. While many of us are familiar with the value of undergraduate research, the data and the theoretical frameworks with which we can understand how and why it is are just now being collected and developed. The findings are remarkable, although in many cases not surprising since research projects incorporate naturally lessons from what we already know about how people learn. Increased independence, self-knowledge, skill mastery, and attitudinal changes towards the scientific enterprise are just some of the benefits students enjoy by engaging in collaborative research. Examples from my experience working with 18 undergraduates over 10 years on various research projects at Bryn Mawr College will be discussed.