

## Improving the Speed and quality of Innovation Through Industry-Academic Partnerships

### Issue:

The industry research environment is increasingly selecting for 'generalist' scientists who are effective at both multi-tasking under pressure and increasingly fitting the old "Jacks of all trades-masters of none" profile. Sacrifice is a necessary aspect of this model. A focus on breadth of knowledge and speed necessarily sacrifices depth of knowledge. Depth of knowledge has become tantamount to remaining competitive as the pace of change in science is continuing to accelerate. In this context, the goal of industry is to provide innovative solutions to customers ahead of direct competitors. How does industry deliver on this mission as our staff becomes enriched with generalists?

### What has been done?

Historically, industry hired scientists from academia in order to fill the need for depth of knowledge in areas that happened to be strategically important at that point in time. Problems arise when that particular area is no longer of strategic interest. The academic scientist now owns an extraordinary depth of knowledge in an area that is no longer important to company. The scientist has several options including: becoming flexible, leave, or become marginalized and a potential target for downsizing. To make matters worse, the company now has a fixed cost which may or may not be of future use. In order to avoid this pattern, industry has increasingly begun to engage in "open innovation" models which seek to combine the industry market knowledge with the academic depth of technical knowledge.

### Impacts/new partnerships

Abbott Nutrition has partnered with the University of Illinois (Urbana-Champaign campus) to focus on developing nutrition that improves cognitive development and cognitive decline, the "Center for Nutrition Learning and Memory" (CNLM). The partnership is described at <http://cnlm.illinois.edu/>. Briefly the objective of the partnership is to bring together cross-functional teams from industry and multiple academic disciplines including psychology, neuroscience, nutrition science, animal science, animal behavior, genomics, chemistry and engineering. The Center sponsors competitive grants on a yearly basis.

Outcome of project (social impact/measure of increased quality of life)

The CNLM is now entering its second year. The experience has been remarkable in that the merger of distinctly different approaches to research has been both rewarding and productive. The research being done is moving nutrition-cognition research to "cutting edge," and will deliver unexpected benefits to the young and old. The key to driving this progress has been committed management on both sides and committed scientific collaborators from both organizations. The arts of listening carefully to those using an unfamiliar technical language and of entrepreneurial behaviors have proven to be essential to the success of the Center.

### How has your project been aided by your FSLI experience?

Absolutely. The FSLI experience gave me insight into current challenges in the academic (Land grant) system. This learning provided me with a very different perspective that I would not otherwise have had. In addition, the group training sessions provided me with additional learnings that have proven very useful in group settings and negotiations.

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