

A Case Study Approach to Licensing Chemistry-based Technologies

Accurate valuations of chemistry-based technologies and intellectual property (IP) within markets such as life sciences, nanotechnology, and electronics can be a challenging task. At the 2016 AUTM Eastern Region Meeting held in Philadelphia in September, Richman Chemical's Senior Project Manager of Custom Services, Joseph Slavin, moderated a panel discussion on this topic. The panel discussed a multi-faceted approach involving proper technology assessment, process optimization, and confirmation of commercial viability. Pertinent case studies are highlighted below.

The Unproven Method – Case Study #1

A Tech Transfer Office approached a CMO with a promising anti-cancer molecule possessing blockbuster market potential. The complex and novel chemistry required significant scale-up. The CMO chose to proceed with a fixed bid proposal despite an incomplete technical transfer package.

After proceeding with the scale-up process, the CMO failed to isolate the desired quantity due to the limitations of the original technology package. However, the CMO and client gained significant knowledge from the effort, and both parties worked together to construct a more productive and viable FTE (Time and Materials) arrangement.

Lesson Learned: While fixed bid proposals are often desired by clients and CMOs, alternate project parameters sometimes are best for long-term project success.

Safety First – Case Study #2

A team of graduate students at a major research university developed a new and novel diagnostic imaging technology. They performed a successful milligram scale synthesis but needed to move toward kilogram scale-up. The team approached a consultant for safety review purposes in order to assess the viability of a scaled-up process.

While performing the safety review, the consultant asked if a green color and gas evolved from the flask during the exotherm? Following a “YES” response, the consultant confirmed the formation of an explosive intermediate. Thus, the technical effort ceased in the interest of both safety and cost while the team considered alternate methodologies.

Lesson Learned: A second expert set of eyes can identify potential setbacks. Although the team started over in this case, a safety review early in the evaluation process provided valuable “no-go” feedback. This ultimately allowed for subsequent process refinement and much-improved licensing prospects!

Complex Problems & Solutions – Case Study #3

A university-supported laboratory isolated a dozen, naturally-occurring anti-cancer agents. The separation chemistry posed significant technical and costing challenges. While all preliminary assay results indicated good clinical activity, the university made a strategic decision NOT to pursue the technology.

Instead, an established life science company licensed the rights to the process chemistry, adequately funded the development, and the team identified one active agent optimal for eventual commercialization. While the technical effort required significant additional funding, the ROI for the life science company proved well worth the investment. And, the university secured an attractive licensing deal.

Lesson Learned: When university-borne technology reaches a funding crossroad due to strategic concerns, industry participation often represents the BEST way to continue to commercialization of the technology AND monetize the IP for the university itself.

AUTM – Association of University Technology Managers is a nonprofit organization supports and enhances the global academic technology transfer profession through education, professional development, partnering and advocacy. AUTM's more than 3,200 members represent managers of intellectual property from more than 300 universities, research institutions and teaching hospitals around the world as well as numerous businesses and government organizations.

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