

# Bridging the gap between scientific discovery and societal benefit

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One of the profiles Schelhorn and Herbers included in the book covers commercialization in the U.S. Department of Agriculture, which has funded Ohio State food science, horticultural and medical research on tomatoes for many years. Credit: Jo McCulty | The Ohio State University

There comes a time in many a university scientist's life when discoveries confined to the lab are ready to reach a wider audience—when a new product or technology has shown in tests that it would provide a meaningful benefit to society.

For [academic researchers](#), no guide exists to help them take that first step toward commercializing their research. Now, a new book is filling that resource gap.

Titled "Beyond Discovery: Moving Academic Research to the Market" (Oxford University Press, 2022), the book is aimed specifically at researchers working in academia, and details how to approach and navigate the world of commercialization, the many ways in which the process can play out, and who the major players are in a university environment.

"Most of the world doesn't know how this happens, and people in universities don't realize they're part of a pipeline. This is the first book written specifically for faculty that tells them how to play the game," said co-author Jean Schelhorn. "There are multiple ways to commercialize research, and faculty need to hear that. There are different levels of involvement with tech transfer, and the hallmark for academics is that the inventor stays involved—but only as involved as they want to be."

Schelhorn and co-author Joan Herbers, both affiliated with The Ohio State University, brought very different, but complementary, backgrounds to development of this guide.

Schelhorn, a chemist, is a serial patented inventor and former industry executive who over decades has developed expertise in coaching and strategizing with scientists as they wade into commercialization waters. She is the current director of commercialization and industry collaborations in Ohio State's College of Veterinary Medicine, where she shepherds faculty inventors through patent applications, licensing agreements and other ventures.

Herbers, an [evolutionary biologist](#), is a professor and dean emerita in

[biological sciences](#) at Ohio State, where she was the principal investigator on a National Science Foundation-funded initiative to increase the presence and success of women faculty in STEM and foster women scientists' pursuit of commercializing their technologies.

The authors emphasize their intention is to demystify the world of commercialization by describing the various types of professionals who help move the process along, substituting regular words for the jargon, and explaining the many pathways to achieving the "transfer of technology out of the institution and into another entity."

"A faculty member once said to me, "You know, this world is like trying to cross the Grand Canyon. How am I going to do that without a guide?" Herbers said. "So we're trying to be their guide."

Among the book's major take-home messages: Moving research into the marketplace does not have to mean forming a [startup company](#).

"If you look at the world right now, there is a huge emphasis on startups and entrepreneurship, which implies you are forming a company," Schelhorn said. "Some technologies are not appropriate for a startup. Meanwhile there is this huge world of licensing, and how you do that is not understood.

"Essentially, everything leaves the university as a license. However, getting there is a very complex process and in this book, we explain it at a detailed level."

Because the information may feel heavy for trepidatious aspiring inventors, Schelhorn and Herbers made a concerted effort to write a highly readable book that inspires scientists to consider how their work might change the world.

"A lot of it is very complex information. There's a lot of fun in there, too," Schelhorn said. "And I can say from experience that going through this process with a team is really a great ride."

In developing the book, Schelhorn drew on her [deep knowledge](#) as a former private-sector patent strategist and longtime Ohio State tech-transfer specialist helping academic scientists imagine a future in which their inventions are making a difference in people's lives. She partnered with Herbers, who has spent her entire career steeped in the academic culture, and trying to improve it.

"The result is truly one of a kind," Herbers said. "This is a culture underserved in terms of material that will help them advance in this area, so our goal was to bring clarity to the field the inventor has to walk through. And we are meeting people where they are, in this culture."

"I have not patented or commercialized a darn thing. But I do know how faculty think and why this can be a hard sell for them."

Interspersed among the book's explanatory chapters are profiles of inventors representing a range of fields, career stages and institution types that are designed to increase the chances that readers will see themselves in the commercialization world and be encouraged to give it a try.

The inclusion of these profiles was particularly attractive to the publisher, said Sarah Humphreville, senior editor, Oxford University Press.

"What we thought was so special about this book was that, though Drs. Herbers and Schelhorn themselves brought a wealth of hands-on teaching, research and commercialization experience, they also gave space throughout their manuscript to the diverse experiences of so many

individuals who had taken interesting, often unusual paths toward commercial success," Humphreville said. "Readers from nearly all academic specialties can find glimmers of their story, or the potential of their ideas, in the stories shared—which, as a publisher, we found quite exciting."

To help inventors share their stories and build new networks, Schelhorn and Herbers have also established a website, <https://gobeyonddiscovery.com/>.

"There's a whole ecosystem for startup founders," Schelhorn said, "but there's very little out there for people who want to keep their foot in an institutional environment and still have things matter in the world."

**More information:** Beyond Discovery: Moving Academic Research to the Market. [oxford.universitypressscholars ... 01/oso-9780197512715](https://oxford.universitypressscholars.com/doi/10.1093/oso-9780197512715)

Provided by The Ohio State University

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