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# Buy-ology: kits and knowledge in molecular biology

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## Abstract

Session: Outsourcing biomedicine (Birgit Nemeč, Lukas Rieppel, Sophia Roosth, Hallam Stevens)

Over the last twenty-five years, the use of commercial ‘kits’ has grown increasingly common in molecular biology. Such kits – usually consisting of standardized reagents along with instructions for use – can be used for hundreds of different laboratory assays, preparations, and experiments. They range in price from a few dollars to hundreds of dollars.

This paper uses interviews with molecular biologists, advertisements, and online discussion forums to interrogate the consequences of this form of ‘outsourcing’. By making laborious and complicated laboratory procedures routine, kits have the potential to generate speed and efficiency in biological work. On the other hand, this routinization means that such work requires very little knowledge of underlying biological or biochemical processes. Such ignorance could lead to poor experimental design, misinterpretation of results, or an inability to innovate.

Both the speeding up and the deskilling of biology point to the emergence of two distinct kinds of labor. The consumers of kits are usually only interested in them so far as they can speed up their own problem solving. Kits are often perceived to give lab workers more time to concentrate on ‘real’ scientific problems. But the production of kits in commercial setting requires attention to different kinds of problems: standardization, robustness, and quality control. These kinds of knowledge and labor are often elided in accounts of biology. Interrogating the origins and usage of kits provides an opportunity to show how these alternative forms of labor also participate the making of biological knowledge.

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