consultants for the investment industry, where knowledge is money and confidential knowledge is the most precious currency of all. Like Gilman, they participate in 'expert network' firms that bring together academic specialists and clients who seek technical information (see page 280). Such firms do not work exclusively for the investment industry, but hedge funds make up a sizeable part of their business. Expert networks make it easier for researchers to dabble at advising Wall Street, often for clients who do not disclose the companies for which they work.

Undoubtedly, the vast majority of consultations for financial firms do not result in illegal exchanges. Gilman and his alleged hedge-fund co-conspirator were clearly mindful of their transgressions and went to some lengths to evade the barriers to insider trading erected by the expert network that united them in the first place. Experts contacted by *Nature* were confident that they had never divulged confidential information. They were less confident about others, noting that less experienced or over-eager colleagues might be prone to a slip of the tongue here and there.

A small slip can move markets. Telltale cues from body language (a shift in a chair) and tone of voice (a hesitation, a cough) can speak volumes, as can the unguarded answer to one acute question slipped into an otherwise innocuous conversation. Indeed, journalists might find the techniques used by hedge-fund managers to dig out confidential information uncomfortably familiar. Many academics are trained to handle the press; few receive education in how to deal with the financial industry.

The cavalier attitude towards this work is disturbing. For busy physicians, recruitment letters from expert networks are part of a steady flow of surveys and consulting requests that clog their inboxes. Some of the researchers interviewed by *Nature* could not remember which expert networking firms they consult for. Consultations were often viewed as an easy way to pick up a little extra cash when time permits, and, if lucky, perhaps have an engaging conversation along the way.

This casual approach extends to institutions, many of which are well versed in negotiating the rocky road of conflicts of interest raised by consultations for the drug or medical-device industries, but have not explored the issues raised when advising hedge funds. Universities are already wrestling with the mounting requirements from federal funders for the reporting of potential conflicts of interest, and are unlikely to welcome yet another category of extracurricular activities to monitor.

All involved must take the relationship between researchers and Wall Street more seriously. Institutions should discuss the risks involved and, when warranted, take a proactive stance, perhaps using the Cleveland Clinic in Ohio as a guide. Since 2005, the clinic has instituted a special level of legal review for relationships between faculty members and the investment industry. Physicians who embark on these relationships are given special educational material — which might soon include the newspaper accounts of the Gilman case.

"Avoidance may be the best strategy to prevent accidental leaks."

As US regulators cracked down on insider trading, some researchers cut their ties with the financial industry and expert networks for fear of being tainted by association. Those who still consult for Wall Street often say that they do so to help guide investment in their field. That aim is laudable, but it cannot be used to justify consultation on topics that could overlap with privileged information. For example, a researcher who works on a clinical trial for an experimental diabetes drug should think twice before consulting with a hedge fund about diabetes drugs.

Avoidance may be the best strategy to prevent accidental leaks. The Gerson Lehrman Group, the expert network based in New York that employed Gilman, has policies in place to protect consultants from the consequences of unintended disclosure. Two stand out as potentially the most powerful: an academic can refuse a consultation if the subject matter might tread near confidential information; and he or she can abort a consultation — and still get paid — if a client presses for insider knowledge. So the solution is simple: when asked to disclose confidential information, hang up the phone. ■

Natural history

Age-old field methods can tell us more about animal behaviour than can laboratory models.

In the autumn of 1927, the biologist Francis Sumner spent two months in Florida and Alabama trapping wild oldfield mice for studies of skin pigmentation. With the advice of local farmers, Sumner managed to shoo hundreds of rodents out of their burrows.

Sumner also took the opportunity to document the complexity of the vacated mouseholes, detailed in an article published two years later (Sumner, F. B. & Karol, J. J. *J. Mammal.* **10,** 213–215; 1929). The creatures' burrows included a long entrance tunnel leading to a nest and, in case of an invading snake, a secondary escape tunnel that didn't quite reach the surface, a metre or so from the entrance. Other ethologists have since characterized the humble mouse burrow, the structure of which is seen as a model of complex animal behaviour.

Fast-forward almost a century, and a team led by Hopi Hoekstra of Harvard University in Cambridge, Massachusetts, has elegantly unpicked the genetic basis of this behaviour using a cross-breeding design and cutting-edge genotyping methods. Such work, published in this issue (see pages 284 and 402), should appeal to more than just mouse fanciers. Like few papers before, the work shows how long-forgotten field observations, evolutionary theory and molecular genetics can all be brought to bear on a single question.

We have learned much about the physiology of behaviour from model organisms such as laboratory mice — for example, the discovery of genes that determine circadian rhythms, which revealed important mechanisms underlying behaviours such as sleep. But decades of selection for convenient traits such as docility have made laboratory models less than ideal for studying the evolution of complex behaviours. They tell biologists little about the vast behavioural differences that can exist between closely related animals, probably as a result of natural and sexual selection.

Scientists interested in probing the behaviour of wild animals can follow Hoekstra's lead and pick animals and behaviours with a rich history of observation and striking differences between close relatives. Decades-old observations of ant behaviour, including those by Edward O. Wilson, culminated in the discovery, published online in *Nature* today, that a social chromosome explains why some red imported fire ant colonies have one queen, whereas others accept multiple queens.

There are, of course, risks to tackling behavioural genomics in wild animals. The ultimate proof of any gene's role in a specific behaviour involves knocking in or out the gene to remove or endow that behaviour. Such experiments are a challenge even in model organisms, and so far few precedents have been set in non-model species.

Model organisms, imperfect as they are when it comes to studying some behaviours, have focused attention on a handful of organisms. If every interesting animal becomes fair game, there is a risk that behavioural genetics will be fragmented. "If everyone does it in their own species, it will not be a very productive type of enterprise," says Laurent Keller, a geneticist at the University of Lausanne, Switzerland, who led the ant research. He suggests that scientists converge on a set of wild animals in which to intensely study behaviour. If the latest research is any indication, such animals will be no strangers to historians of biology. ■

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