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In March 8 [Nature](#), Philip Leighton and colleagues describe a large-scale screen for molecules that guide axons during the development of the nervous system in mice (*Nature* 2001, **410**:174-179). They developed a gene-trap screening method that incorporates elements of the 'secretory trap' technique combined with an axonal marker (placental alkaline phosphatase) whose translation is driven by an IRES (internal ribosome entry site). The method enabled the generation of a large number of mouse lines with diverse patterns of axon labelling in the brain. By comparing the axon tract staining patterns in heterozygous and homozygous mutant mice, Leighton *et al* were able to characterise axon guidance functions for the semaphorin Sema6A and the Eph receptor Eph4A. The results demonstrate that their [gene-trap technique](#) offers a powerful approach to scan the mammalian genome for molecules that regulate [axon guidance](#) in a cell-autonomous manner.

## References

1. *Nature*, [<http://www.nature.com/>]
2. Capturing genes encoding membrane and secreted proteins important for mouse development.
3. Internal ribosome entry sites and dicistronic RNAs in mammalian transgenesis.
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5. The molecular biology of axon guidance.