

PublisherInfo		
PublisherName	:	BioMed Central
PublisherLocation	:	London
PublisherImprintName	:	BioMed Central

Bee behavior

ArticleInfo		
ArticleID	:	4463
ArticleDOI	:	10.1186/gb-spotlight-20020429-01
ArticleCitationID	:	spotlight-20020429-01
ArticleSequenceNumber	:	129
ArticleCategory	:	Research news
ArticleFirstPage	:	1
ArticleLastPage	:	2
ArticleHistory	:	RegistrationDate : 2002-4-29 OnlineDate : 2002-4-29
ArticleCopyright	:	BioMed Central Ltd2002
ArticleGrants	:	
ArticleContext	:	130593311

Jonathan B Weitzman

Email: jonathanweitzman@hotmail.com

The insect **foraging** (*for*) gene encodes a cyclic GMP-dependent protein kinase (PKG) that affects foraging behavior. In *Drosophila* two different *for* alleles have been found, and the two alleles affect food-searching behavior under different ecological conditions. In the April 26 *Science*, Ben-Shahar *et al.* describe changes in *for* expression during bee development (*Science* 2002, **296**:741-744). They studied the honeybee (*Apis mellifera*), which undergoes an age-related developmental switch from hive work to foraging, and cloned the bee *for* ortholog (*Amfor*). Ben-Shahar *et al.* found that foragers had elevated expression of brain *Amfor*; pharmacological activation of PKG activity also induced foraging activity. *Amfor* is highly expressed in the lamina of the optic lobes and the mushroom bodies. Thus, changes in *Amfor* expression and PKG activity contribute to complex behavioral features of bee society.

References

1. Natural behavior polymorphism due to a cGMP-dependent protein kinase of *Drosophila*.
2. *Science*, [<http://www.sciencemag.org>]