

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

Characterizing a stem cell niche

ArticleInfo		
ArticleID	:	4578
ArticleDOI	:	10.1186/gb-spotlight-20020913-01
ArticleCitationID	:	spotlight-20020913-01
ArticleSequenceNumber	:	244
ArticleCategory	:	Research news
ArticleFirstPage	:	1
ArticleLastPage	:	2
ArticleHistory	:	RegistrationDate : 2002-9-13 OnlineDate : 2002-9-13
ArticleCopyright	:	BioMed Central Ltd2002
ArticleGrants	:	
ArticleContext	:	130593311

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Stem cells are being widely hyped for their potential in [regenerative medicine](#). But the molecular mechanisms underlying stem cell self-renewal and differentiation are still poorly understood. In the Early Edition of the [Proceedings of the National Academy of Sciences](#), Hackney *et al.* describe a [functional genomic](#) approach to the characterization of a stromal cell line, called AFT024, that can support hematopoietic stem cells. They have compiled their data into the [Stromal Cell Database \(StroCDB\)](#), which resides with the [Stem Cell Database](#) at Princeton. They made a differential cDNA library of clones specific to the supportive cell line, and carried out extensive characterization and annotation of over 1000 genes. In addition they performed microarray analysis in an attempt to define a 'profiling signature' of the stem-cell-supportive microenvironment.

References

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