

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

A virulence marker for *Enterococcus faecium*

ArticleInfo		
ArticleID	:	4015
ArticleDOI	:	10.1186/gb-spotlight-20010316-01
ArticleCitationID	:	spotlight-20010316-01
ArticleSequenceNumber	:	86
ArticleCategory	:	Research news
ArticleFirstPage	:	1
ArticleLastPage	:	2
ArticleHistory	:	RegistrationDate : 2001-03-16 OnlineDate : 2001-03-16
ArticleCopyright	:	BioMed Central Ltd2001
ArticleGrants	:	
ArticleContext	:	130592211

Tudor Toma

Email: ttoma@mail.dntis.ro

Vancomycin-resistant *Enterococcus faecium* (VREF) causes an infection common in US hospitals and is resistant to all commercially available antibiotics. Hospital outbreaks are rare in Europe, although VREF carriage among healthy individuals and livestock is common. A study from the National Institute of Public Health, Bilthoven, Netherlands, published in the online version of the *Lancet* on 13 March, suggests that genetic screening of *E. faecium* carriers could help eradicate this infection ([Lancet 2001, 357:853-854](#)).

Willems *et al.* used DNA probes based on the *esp* virulence gene from *E. faecalis*, and screened (by Southern blotting) chromosomal digests of 120 VREF isolates associated with hospital outbreaks in the US, Europe and Australia. These were compared with 45 non-epidemic isolates. A particular subpopulation of *E. faecium* was associated with epidemic outbreaks in all three continents, and these epidemic strains carried a variant of the *esp* gene. The variant was not present in non-epidemic and animal isolates.

Esp is a cell-surface protein in *E. faecalis*, required for attachment of the bacteria to gut cells. The variant *esp* gene might be a marker of epidemic strains and could be used as a target for drugs to eradicate the epidemic VREF subpopulation from the gastrointestinal tract of carriers and help prevent the spread of VREF in Europe.

References

1. Willems RJJ, Homan W, Top J, *et al.*: Variant *esp* gene as a marker of a distinct genetic lineage of vancomycin-resistant *Enterococcus faecium* spreading in hospitals. *Lancet* 2001, 357:853-854., [<http://www.thelancet.com>]