

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

EU researches superbugs

ArticleInfo		
ArticleID	:	4891
ArticleDOI	:	10.1186/gb-spotlight-20031202-01
ArticleCitationID	:	spotlight-20031202-01
ArticleSequenceNumber	:	243
ArticleCategory	:	Research news
ArticleFirstPage	:	1
ArticleLastPage	:	3
ArticleHistory	:	RegistrationDate : 2003-12-2 OnlineDate : 2003-12-2
ArticleCopyright	:	BioMed Central Ltd2003
ArticleGrants	:	
ArticleContext	:	130594411

Rossella Lorenzi

Email: Lorenzi@tin.it

Research on antibiotic resistance received a boost on Friday (November 28) as the [European Commission](#) awarded €6 million to two major projects intended to tackle bacterial resistance to antibiotics.

Announced in Rome at a 3-day EU conference on the role of research in combating antibiotic resistance, the funding is part of a €12.6 million budget from the first call for proposals within the [Sixth Framework Programme](#) (2002-2006).

"People trust antibiotics to cure almost any kind of disease. Unfortunately, as recent outbreaks of severe acute respiratory syndrome show, this is not the case," European Research Commissioner Philippe Busquin said in a statement. "More research for the benefit of patients is needed to make use of the wealth of information provided by more than 140 bacterial genomes known today. We must also make sure that the pharmaceutical industry continues its research into the development of new antibiotics."

The new research projects will be launched in early 2004. While the first project looks into resistance to lactam antibiotics in clinical use, the other one investigates basic molecular mechanisms of resistance. It will focus specifically on *Streptococcus pneumoniae*, a major contributor to community-acquired pneumonia and invasive disease.

"Despite being a major cause of morbidity and mortality worldwide, sometimes leading to a fatal disease, *Streptococcus pneumoniae* is also found in a high proportion of healthy children attending daycare centers," Birgitta Henriques Normark, head of the Department of Molecular Epidemiology and Biotechnology at the [Swedish Institute for Infectious Disease Control](#), told us. "A better knowledge of molecular mechanisms involved in antibiotic resistance development and of host-pathogen interactions affecting pneumococcal infections would lead to improved intervention, prevention, and treatment strategies of these common community acquired infections."

The 3-year project will look into how the bacteria manage to survive, grow, and spread in the presence of an antibiotic and what factors determine whether an infection will be mild or severe.

It will also involve comparative genomic approaches, including DNA microarrays to be developed making use of fully sequenced multiple antibiotic resistant and invasive clonal types, and sequencing of a strain of *Streptococcus mitis*, a frequent source of heterologous genes and gene fragments resulting in resistance determinants in *S. pneumoniae*.

Three further calls within the Sixth Framework Programme are expected to grant more funds shortly to other projects on antimicrobial resistance research.

References

1. European Commission, [http://europa.eu.int/comm/index_en.htm]
2. Sixth Framework Programme, [http://europa.eu.int/comm/research/fp6/index_en.html]
3. Swedish Institute for Infectious Disease Control, [<http://www.smittskyddsinstitutet.se/default.aspx?id=2166>]