

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Assays & screens			
Sensitizing bacteria to antibiotics by increasing reactive oxygen species (ROS) production	<i>In silico</i> prediction and <i>in vitro</i> screening could help identify targets that increase bacterial ROS production and improve the efficacy of marketed antibiotics. A workflow was developed that included computational modeling of the metabolic state of <i>Escherichia coli</i> followed by <i>in vitro</i> validation of gene targets that could modulate ROS production. <i>In vitro</i> , knockout strains predicted to have increased ROS production showed greater sensitivity to the generic antibiotics ampicillin and ofloxacin than control strains. Next steps could include using this approach to screen for ROS-inducing compounds to use in combination with antibiotics.	Patent application filed; licensed to EnBiotix Inc.	Brynildsen, M.P. <i>et al.</i> <i>Nat. Biotechnol.</i> ; published online Jan. 6, 2013; doi:10.1038/nbt.2458 Contact: James J. Collins, Boston University, Boston, Mass. e-mail: jcollins@bu.edu
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