## Acoustic reporter genes for noninvasive imaging of microorganisms in mammalian hosts

Raymond W. Bourdeau, Audrey Lee-Gosselin, Anupama Lakshmanan, Arash Farhadi, Sripriya Ravindra Kumar, Suchita P. Nety & Mikhail G. Shapiro

Nature 553, 86-90 (04 January 2018)

doi:10.1038/nature25021

**Download Citation** 

Genetic engineering Protein design

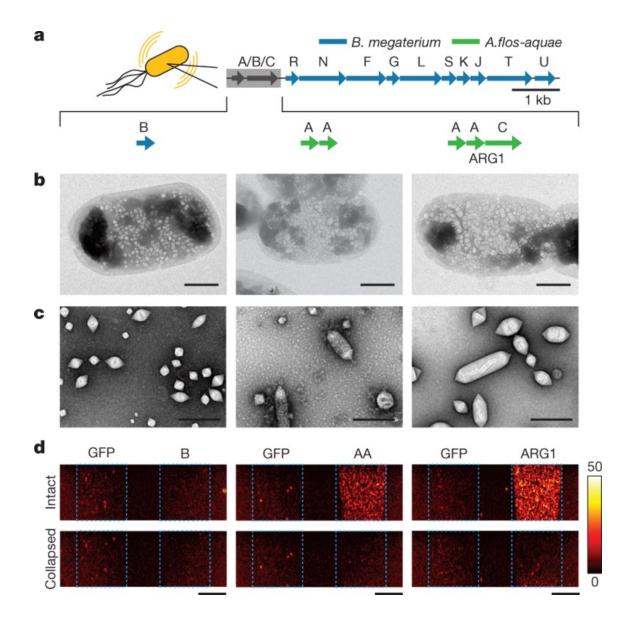
Synthetic biology Ultrasound

Received: 21 December 2016

Accepted: 09 November 2017

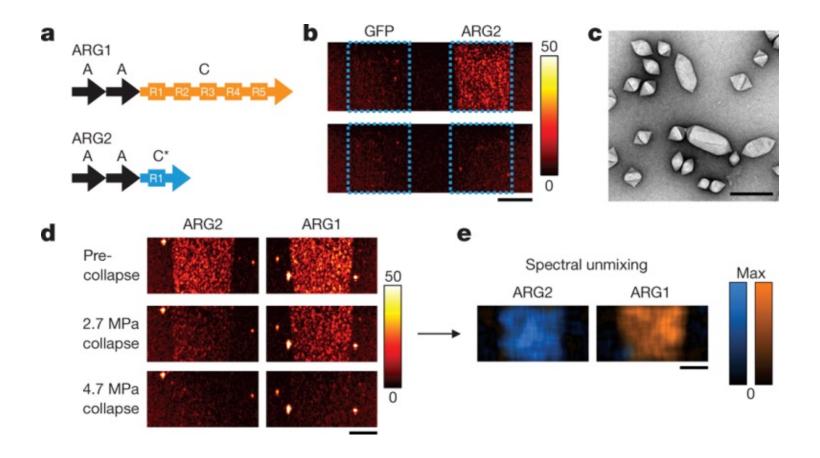
Published online: 03 January 2018

## Genetic engineering of acoustic reporter genes



R W Bourdeau et al. Nature 553, 86-90 (2018) doi:10.1038/nature25021

## Multiplexed imaging of genetically engineered reporter variants



R W Bourdeau et al. Nature 553, 86-90 (2018) doi:10.1038/nature25021

## Ultrasound imaging of bacteria in the gastrointestinal tract

