

## SEM Council Members

### Name:

Juan A. Ayala

### Council Role:

Secretary

### Employer or Institute:

*Centro de Biología Molecular Severo Ochoa (CBMSO), Autonomous University of Madrid (UAM) - Spanish National Research Council (CSIC), Spain*

### Title:

Research Scientific

Head of the Bacterial Cell Division and Antibiotic Resistance Research Group at the CBMSO, Madrid.

### Main Areas of Study/Work:

Bacterial cell division. PBPs. Peptidoglycan.  $\beta$ -lactamases.

### Other Interests:

Honorary Professor at the "Universidad Autónoma de Madrid" (UAM), Spain.

Professor Ad-Honorem of the "Universidad de la República" (Udelar), Uruguay.

### Three Main or Most Recent Publications:

SM González-Leiza, MA de Pedro, JA Ayala. 2011 AmpH, a bifunctional DD-endopeptidase and DD-carboxypeptidase of *Escherichia coli*. *Journal of Bacteriology* 193:6887-6894

AE Tayler, JA Ayala, P Niumsup, K Westphal, JA Baker, L Zhang, TR Walsh, B Wiedemann, PM Bennett, MB Avison. 2010. Induction of  $\beta$ -lactamase production in *Aeromonas hydrophila* is responsive to  $\beta$ -lactam-mediated changes in peptidoglycan composition. *Microbiology* 156:2327-2335

E Sauvage, F Kerff, M Terrak, JA Ayala, P Charlier. 2008. The penicillin-binding proteins: structure and role in peptidoglycan biosynthesis. *FEMS Microbiology Reviews* 32:234-258

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### Keywords:

$\beta$ -lactam antibiotics.  $\beta$ -lactamases. Penicillin-binding proteins (PBPs). Antibiotics resistance mechanisms. Microbial cell division. Molecular Microbiology.

