IGS GFG

SFB 635
Posttranslational control of protein function

Seminars in Genetics and Molecular Cell Biology

David Pacheu
Dept. Biochemistry and Molecular and Cell Biology,
University of Zaragoza

mt-rRNA variation and human health

Ribosomal RNA (rRNA)-targeting drugs inhibit protein synthesis and represent effective antibiotics forthe treatment of infectious diseases. Given the bacterial origins of mitochondria, the molecular and structural components of the protein expression system are much alike. Moreover, the mutational rate of mitochondrial rRNAs is higher than that of nuclear rRNAs, and some of these mutations might simulate the microorganism?s rRNA structure. Consequently, individuals become more susceptible to antibiotics, the mitochondrial function is affected and toxic effects appear.

We want to analyze not only pathological variants in the mt-rRNA genes and its interaction with ribosomal antibiotics but also very frequent and ancient variants in these genes (like those defining mitocondrial haplogroups) making then possible a pharmacogenomic approach to antibiotic therapy.

Thursday, August 25, 2011 at 11.00 p. m.

Biozentrum, Zülpicher Str. 47 b,
Lecture hall, ground floor (room 0.024)

Host: Thomas Langer, Institute for Genetics,
University of Cologne

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