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HEAT TREATMENTS ADAPTATION OF *L.MONOCYTOGENES* AND *SALMONELLA SPP.* AND THEIR IMPACT ON FOOD SAFETY

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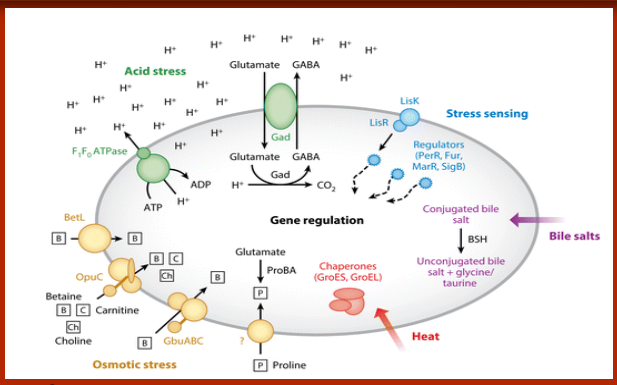
Objectives

- Study the most important microorganisms in the food industry (*Salmonella spp.* and *Listeria monocytogenes),* focusing on the resistance they have acquired to the thermal treatments that are usually used in industrial process.
- Make a prediction of where the food industry should evolve to continue to ensure the food safety.



Specific stress adaptation mechanisms (Begley and Hill, 2010).

Conclusions

- Microorganisms have biological mechanisms that allow them to achieve progressive adaptation to heat treatments that are currently used in food industry.
- Industry tend to the minimization of thermal treatments and follow strictly the legal limits allowing the mo that have adapted to survive and proliferate.
- Using these treatments we are favoring that mo (with superior thermoresistance genetics) survive.
- In medium-long term, revisions of the legal time-temperature limits will be required to ensure the food safety or finding other types of treatments for which no adaptation has been developed.