

WHAT'S IN A NAME?

Why name, surname and ID number are important when referring to Listeria



The Listeria Family Tree (Genus)

Listeria monocytogenes*

Listeria ivanovii*

Listeria seeligeri

Listeria welshimeri

Listeria innocua

Listeria marthii

Listeria aquatica

Listeria booriae

Listeria cornellensis

Listeria fleischmannii

Listeria floridensis

Listeria grandensis

Listeria grayi

Listeria newyorkensis

Listeria riparia

Listeria rocourtiae

Listeria weihenstephanensis

Listeria costaricensis (this one is brand new)

***These two are pathogens! (i.e. they cause disease)**

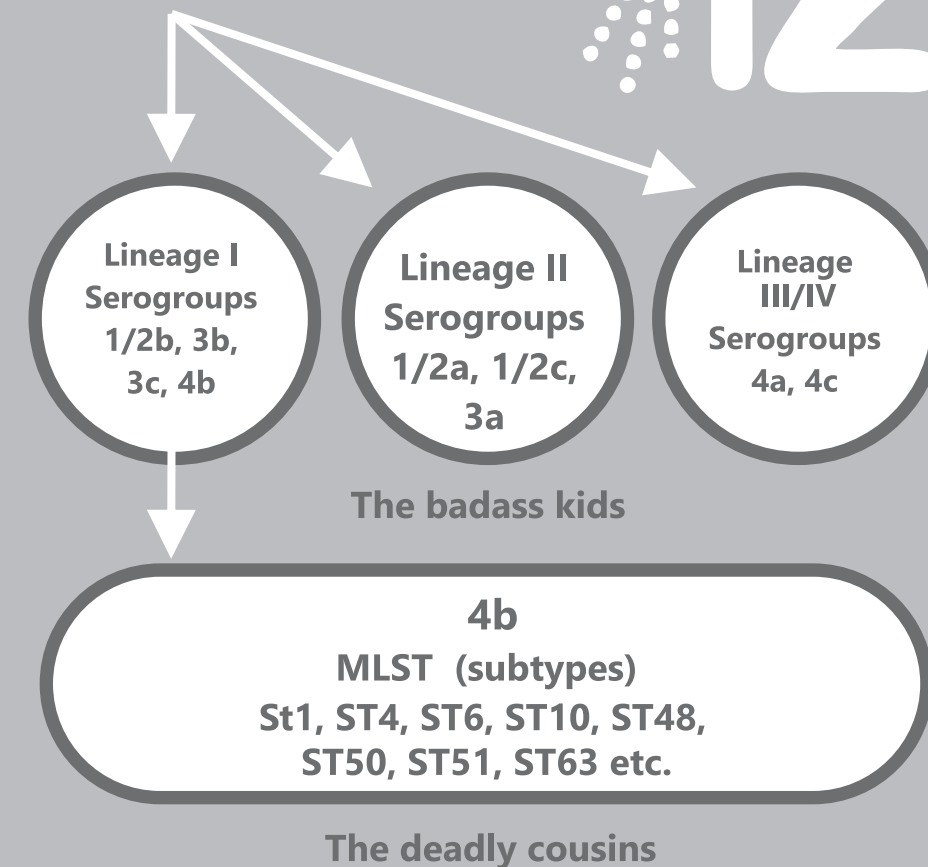
There are currently 18 species of listeria that have been identified and described by scientists.



The Evil Twins Monocytogenes & Ivanovii

Listeria Monocytogenes

Cause illness in humans



Listeria ivanovii

Cause illness predominantly in ruminants



About Monocytogenes

Numerous molecular subtyping techniques have identified three lineage divisions within the *L. monocytogenes* species. Within these three divisions, *L. monocytogenes* has more than 14 serotypes.

Although serotype 1/2a is the most frequently isolated from food, serotype 4b causes the majority of human epidemics. Within each serotype, more detailed genetic analysis allows scientists to isolate sub types such as ST4, ST6.

All of these have the potential to cause disease and even death.

We have all come to know Listeria on a first name basis during the last few months. But time has come to make sure there is clear understanding on who is who in this family and why this pathogen is so important

- *L. monocytogenes* is an important human foodborne pathogen and the third leading cause of foodborne deaths due to microbial causes in the USA.
- All *L. monocytogenes* can cause the severe form of listeriosis.
- Contaminated food is believed to be the primary source of human exposure to *L. monocytogenes* and has been repeatedly linked to sporadic cases and large outbreaks of listeriosis.
- *L. monocytogenes* has the highest hospitalization rate (92%) & highest case-fatality rate (20%-30%) of any foodborne pathogen. It is responsible for more than 1/4 of food-borne disease-related deaths linked to known pathogens.

References

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