



GenEpi Bio-Train Virtual training 23

EIEC (Enteroinvasive *E. coli*) vs *Shigella*

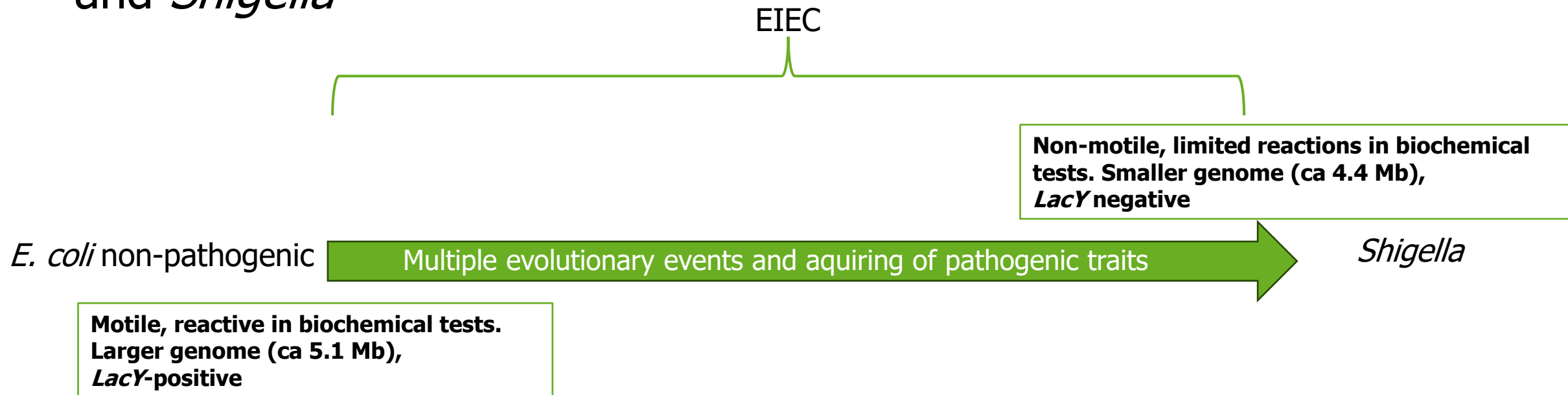
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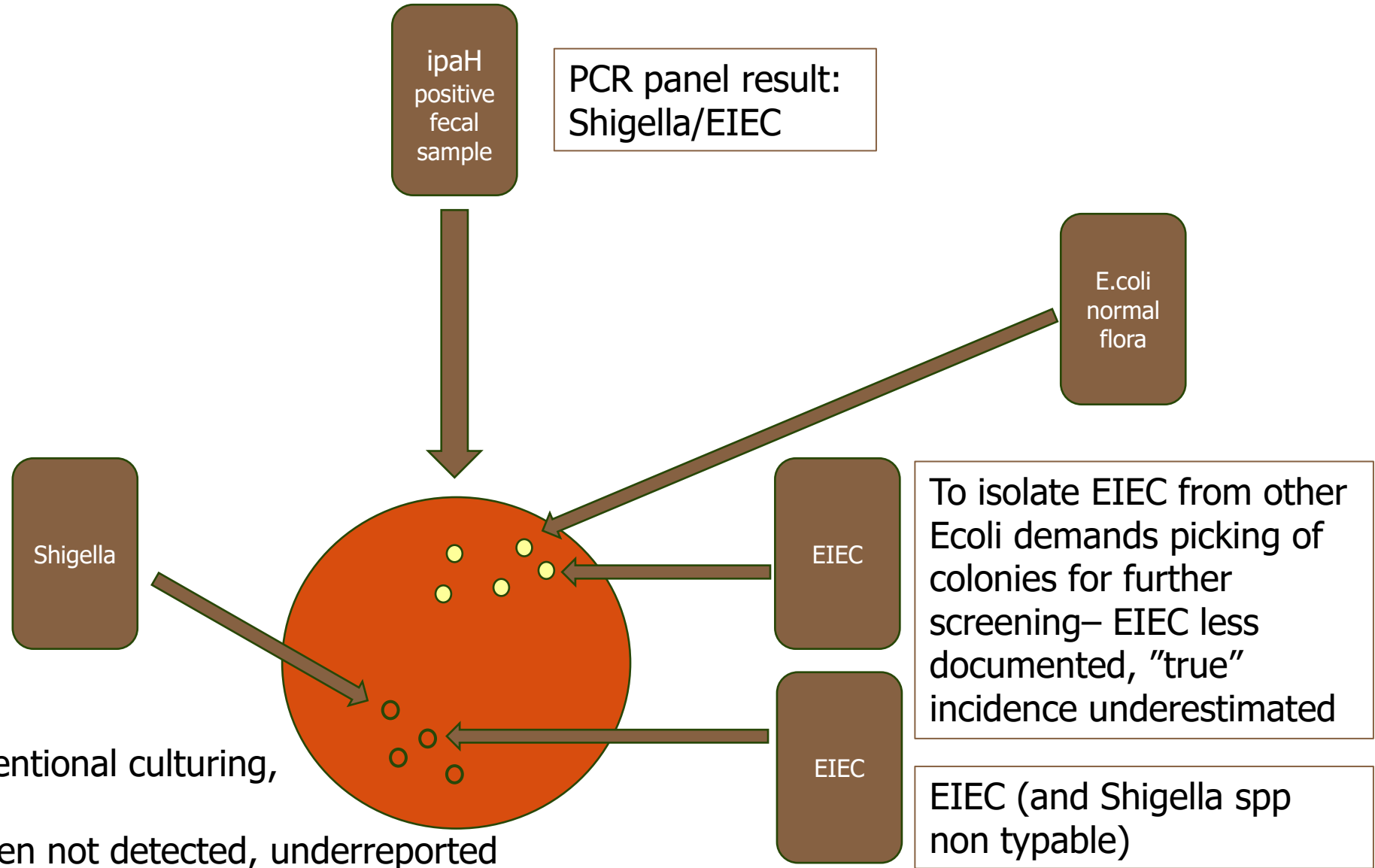
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EIEC (Enteroinvasive *E. coli*) vs *Shigella*

- EIEC can be found on a spectrum between *E.coli* like to *Shigella* like phenotypic properties.
- Marker gene for molecular detection, *ipaH*, is found both in EIEC and *Shigella*



It is usually said: the infectious dose required for EIEC to cause disease is higher than that of *Shigella* and the disease caused by EIEC appears to be milder.



Shigella: Low sensitivity conventional culturing, i.e. low isolation rate.
>Shigellosis infections are often not detected, underreported

Consequence move *Shigella* genus to be included as an *E. coli* species as already shown phylogenetically -



i.e. if the notifiable disease would be *Shigella*/EIEC infection and a confirmed case would only need a positive PCR (*ipaH*)

Why is a disease notifiable:

Threat to public health, requires source tracing, control measures by authorities.

- There will be many more cases to follow up with less severe infection.
- In comparison: ETEC, EPEC infections are not needed to be notifiable.
- In comparison STEC: Higher and lower virulence dependent on *stx* subtype.
- More *Shigella* infections would be notified, since PCR is more sensitive than cultivation.
- Need to recognise that there are different subtypes of different pathogenetic potential where the “*Shigella* variants” belong to those with higher pathogenic potential.
- To have a label on a disease - communication

Thank you!