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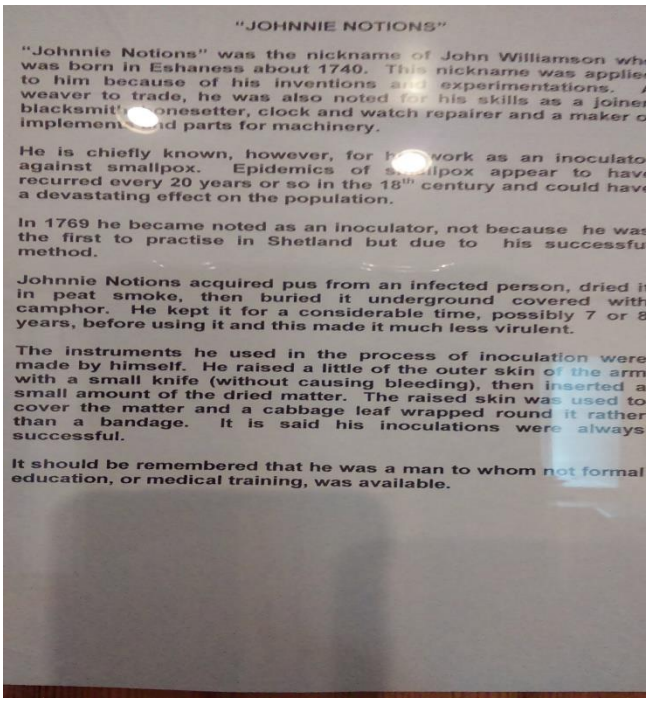
TRAVEL BROADENS THE MIND

Note each sink has its own soap dispenser above sink & hands-free tap. First prize Heathrow airport with dryer per sink

An unknown hero tucked away on western Shetland



"JOHNNIE NOTIONS"

"Johnnie Notions" was the nickname of John Williamson wh was born in Eshaness about 1740. This nickname was applie to him because of his inventions and experimentations. A weaver to trade, he was also noted for his skills as a joine blacksmit[h] stonesetter, clock and watch repairer and a maker o implemen[t]s and parts for machinery.

He is chiefly known, however, for h[is] work as an inoculato against smallpox. Epidemics of s[mall]pox appear to hav recurred every 20 years or so in the 18th century and could hav a devastating effect on the population.

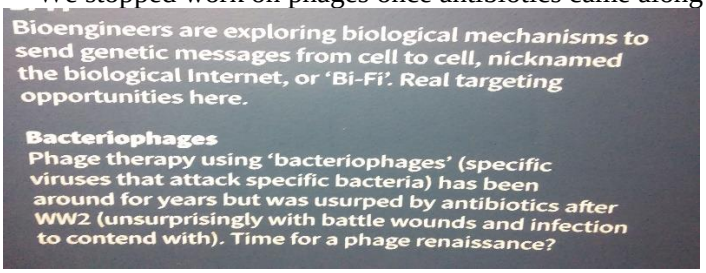
In 1769 he became noted as an inoculator, not because he wa the first to practise in Shetland but due to his successfu method.

Johnnie Notions acquired pus from an infected person, dried i in peat smoke, then buried it underground covered with camphor. He kept it for a considerable time, possibly 7 or 8 years, before using it and this made it much less virulent.

The instruments he used in the process of inoculation were made by himself. He raised a little of the outer skin of the arm with a small knife (without causing bleeding), then inserted a small amount of the dried matter. The raised skin was used to cover the matter and a cabbage leaf wrapped round it rather than a bandage. It is said his inoculations were always successful.

It should be remembered that he was a man to whom not formal education, or medical training, was available.

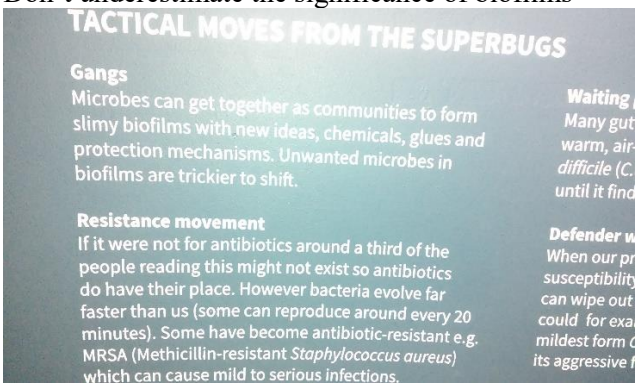
We stopped work on phages once antibiotics came along



Bioengineers are exploring biological mechanisms to send genetic messages from cell to cell, nicknamed the biological Internet, or 'Bi-Fi'. Real targeting opportunities here.

Bacteriophages
Phage therapy using 'bacteriophages' (specific viruses that attack specific bacteria) has been around for years but was usurped by antibiotics after WW2 (unsurprisingly with battle wounds and infection to contend with). Time for a phage renaissance?

Don't underestimate the significance of biofilms



TACTICAL MOVES FROM THE SUPERBUGS

Gangs
Microbes can get together as communities to form slimy biofilms with new ideas, chemicals, glues and protection mechanisms. Unwanted microbes in biofilms are trickier to shift.

Resistance movement
If it were not for antibiotics around a third of the people reading this might not exist so antibiotics do have their place. However bacteria evolve far faster than us (some can reproduce around every 20 minutes). Some have become antibiotic-resistant e.g. MRSA (Methicillin-resistant *Staphylococcus aureus*) which can cause mild to serious infections.

Waiting
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until it find

Defender w
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can wipe out
could for exa
mildest form
its aggressive

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