

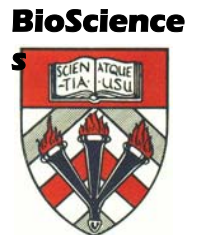
# AlliSURE® - Powder stability testing



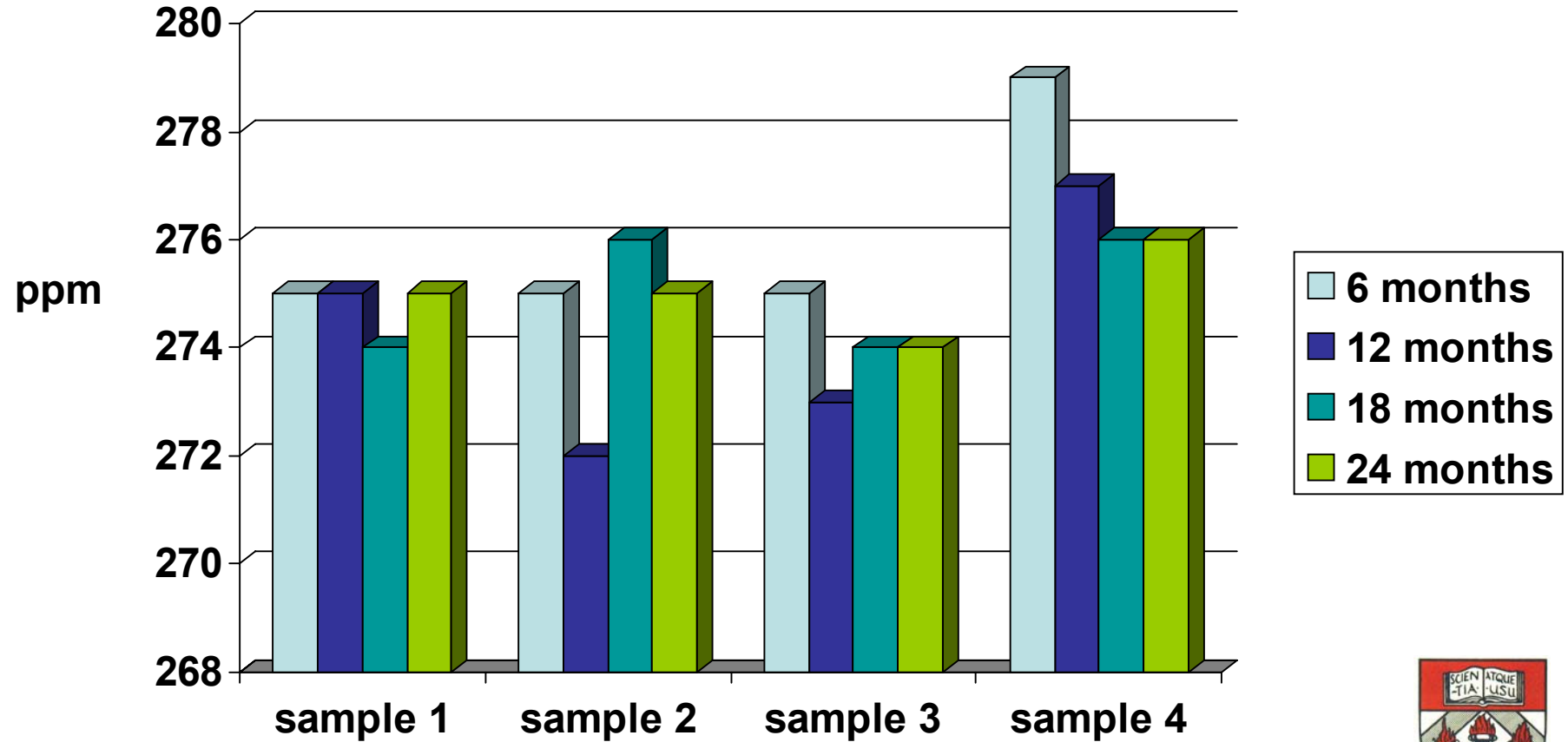
## Dr Ronald R Cutler testing AlliSURE® stability in the laboratory

“We have developed a new method for testing the stability of standardised allicin extracts based on microbiological activity”  
This measurement is a genuine reflection of the ability of the test substance to kill pathogens and this methodology can also clearly demonstrate activity in the human body.”

Previously established methods like HPLC are outdated and difficult to interpret as each testing laboratory uses different methodology and different standards and is only able to measure allicin release in a test sample. This bears no relation whatsoever to what actually happens in the human body. Any production system that relies on the activity of an acid sensitive enzyme is likely to fail significantly when actually given to human subjects. Our method is a direct measure of microbiological activity and each test sample of allicin liquid, powder or cream is assayed against a control strain of MRSA (methicillin resistant *Staphylococcus aureus*). We use approved methods to ascertain the “zone of inhibition “ (British Society of Antimicrobial Chemotherapy) for each batch of allicin liquid, powder or cream. Zone size is directly related to allicin concentration and provided the ring of confidence measures over 12mm then the test extract is deemed capable of destroying MRSA. This methodology will gain full validation when it is published in full in the medical literature later in 2004.



# Allicin powder stability batch no 11607 Mfd May 1999



Duplicate samples from 4 blisters



# AlliSURE ® - Powder stability testing

In the meantime we have also used both HPLC and Mass Spectrometry, firstly to confirm the presence of allicin in the samples we have tested and then also to determine the relative concentration available over a period of 24 months having kept the samples under refrigeration (not frozen) for this period.

Hence the available concentration of allicin from each batch of Allisure powder does not vary significantly over a 2 year period. Recently data has been expanded to 3 years and there does not appear to be any significant degradation in activity since a clear zone of inhibition is still found.

Thus we are confident that the current legal requirement of a 2 year shelf life is fair for this type of garlic extract.

“We would not expect any other commercially available garlic extract to work as well as Allisure®. Simply because they either do not contain any allicin or they rely on your body making it, which often doesn't happen or sometimes produces a very low yield of allicin. Hence, no other product has any blinded published clinical data on anti-microbial activity”.

A handwritten signature in black ink that reads "Ronald R Cutler". The signature is written in a cursive style with a long, sweeping underline.

**Dr Ronald R Cutler**

**PhD, MSc(Lond), MSc(Cranfield), BSc, MIBiol, CIBiol, FIBMS, DMS**

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