



Cartoon detail from 'M.S.', 'Down the Microscope and What Alice Found There', *Brighter Biochemistry* 5 (December 1927).

Wellcome Library, Biochemical Society, *Brighter Biochemistry* SA/BIO/D/1/39.

Flights of fancy

A sketch of a deceptively friendly microbe, apparently drawn by Marjory Stephenson herself, and submitted for inclusion in *Brighter Biochemistry*. The drawing appeared alongside Stephenson's suitably surreal take of Lewis Carroll's *Alice through the Looking Glass* in the December 1927 issue of this in-house laboratory magazine.

In Stephenson's flight of fancy, Alice the biochemist wishes she could descend down the microscope to look for her evasive bacteria. Wish granted, Alice ends up at a bacterial court accused of belittling her subjects. Previously the examiner, Alice becomes the examined. The microbial magistrate condemns the human race to 'death by autoclaving at 20lbs pressure for 30 minutes' and poor Alice is then stained and counterstained, decolourized, washed in acid and alcohol and put up in Canada balsam – just as she had once done to her bacteria. Evidently a morality tale on the principle – 'do to others as you would have them do to you'!

At the time Stephenson produced this story, she was in reality on the cusp of an important discovery that would help illuminate bacterial metabolic processes. During 1928, Stephenson successfully isolated a bacterial enzyme (lactate dehydrogenase) from its host cells.¹

Stephenson went on to publish these results in *Bacterial Metabolism* (1930) – a book that Muriel Robertson noted would have an influence 'not only in England and America, but also abroad' [sic!].²

In *Bacterial Metabolism*, Stephenson summarised the purpose of her researches as to 'catch sight of the machinery' that animates life. Whereas in vertebrates the system is complex, Stephenson claimed to have chosen bacteria for their relative simplicity, where 'the work is but begun and the process is seen in its inception'.³

¹ Joan Mason, 'Marjory Stephenson (1885-1948)', in Edward Shils and Carmen Blacker (eds), *Cambridge Women: Twelve Portraits* (Cambridge, New York and Melbourne: Cambridge University Press), p. 119.

² Muriel Robertson, 'Marjory Stephenson, 1885-1948', *Obituary Notices of Fellows of the Royal Society* 6 (1949), p. 570.

³ Marjory Stephenson, *Bacterial Metabolism* (London, New York and Toronto: Longmans, Green and Co, 1930), p. 9.