Abstract
In incidence of diabetes is rising inexorably yet drug treatment has essentially remained the same for decades now. Given the history of diabetes drug discovery over the last half century what are the prospects for new drug classes in the future? Although major improvements in the management of diabetes in well developed and well funded healthcare systems have been seen in recent years, the incidence of diabetes is rising at an alarming rate, particularly in countries with less developed healthcare systems. Addressing this issue is a major challenge for the future.

Keywords: type 2 diabetes, global, burden, medicine

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Is this a big enough armoury to tackle the growing problem? Indeed, metformin itself could be argued to fit the bill as a relatively safe, effective and certainly economic medicine. Type 2 diabetes is a progressive disease, even with intensive treatment the disease will eventually win for the vast majority.

Asking the question, “what are the prospects for our grandchildren?” again, it might yield a rather cynical answer of “not great if the past 60 years predicts the next”.

I don’t believe this. There has been plenty of high quality research, especially in more recent times, which I am sure will find its way into this journal in the future. We also have a more tools in the toolbox in terms of therapy compared to back then. Today, we are not bound by the paradigm of being dependent on inventing and developing small molecule therapies. In my experience these have shown themselves to be notoriously hard to develop for chronic diseases. We now have antibody and peptide therapeutics, which open up a much broader accessible space. If we take one protein therapeutic, insulin look at the improvements in that single protein therapeutic over the past decade or so. Furthermore, antibodies can be combined with small molecules and peptides to cover even more space. There is also a reawakening of interest in drugs from plants (indeed metformin is from French Lilac) which could be a very attractive proposition for the emerging economies where tens of millions of people will require treatment.

However, the likelihood of a “cure” by drug intervention is extremely challenging and probably very low. New drugs must get better at improving symptoms and quality of life which, if it translates to a large reduction in hospitalisation cases, then there will be a prospect of easing the burden.

Acknowledgements

None.

Conflict of interest

Author declares that there is no conflict of interest.

References