It is now 90 years since the discovery of insulin. There have been many improvements in insulin therapy over the years, with purer insulins, insulin analogues, and insulin pumps. Further improvements continue to be made. Insulin degludec is an ultra-long acting insulin with a flat insulin profile, and early clinical use has shown less hypoglycaemia in patients with type 1 diabetes.

Metformin is established as the drug of first choice for the treatment of type 2 diabetes. Sulfonylureas can cause weight gain and hypoglycaemia, and several second-line alternatives are now available. Aleglitazar is being studied in diabetic patients following acute coronary syndromes, and seems to have many of the benefits of pioglitazone. Like pioglitazone it can cause weight gain and fluid retention. DPP-4 inhibitors do not cause hypoglycaemia and are weight neutral, several daily drugs are now available, and once-weekly DPP-4 inhibitors are in phase 3 development. SGL2 inhibitors decrease the urinary reabsorption of glucose, promoting weight loss and reductions in blood pressure. Finally, several newer GLP-1 receptor agonists are being developed, including once weekly preparations, and preparations that are injected every three months.

“Reducing CV risk in diabetes”
Recent studies have challenged the notion that for CV risk reduction in people with diabetes lower is better. Attempts to normalise glycaemia have been associated with increased mortality in people with type 2 diabetes, and an HbA1c target of 7.0% is safer, especially for patients with longstanding disease or established cardiovascular disease. Similarly, attempts to normalise blood pressure have not shown any major reduction in cardiovascular endpoints beyond conventional blood pressure targets, but have been associated with more side effects. For cholesterol however, the use of higher doses of statins does seem to improve outcomes in people with diabetes. The place of fibrates and of newer lipid-lowering treatments is at present uncertain. Ezetimibe has been shown to reduce outcomes in patients with renal disease when added to low dose simvastatin, and the results of further outcome studies are awaited with interest.

“Interactive case discussions”
We will present a series of diabetes case histories and will ask the audience to vote on possible treatment options to control glycaemia and / or to reduce cardiovascular risk.

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