



Review

Vaccine for Diabetes—Where Do We Stand?

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Abstract: Diabetes is an endocrinological disorder with a rapidly increasing number of patients globally. Over the last few years, the alarming status of diabetes has become a pivotal factor pertaining to morbidity and mortality among the youth as well as middle-aged people. Current developments in our understanding related to autoimmune responses leading to diabetes have developed a cause for concern in the prospective usage of immunomodulatory agents to prevent diabetes. The mechanism of action of vaccines varies greatly, such as removing autoreactive T cells and inhibiting the interactions between immune cells. Currently, most developed diabetes vaccines have been tested in animal models, while only a few human trials have been completed with positive outcomes. In this review, we investigate the undergoing clinical trial studies for the development of a prototype diabetes vaccine.

Keywords: diabetes; vaccines; clinical trials; insulin; GLP

1. Introduction

Persisting as a major global health threat, diabetes mellitus (DM) affects individuals of all ages, ethnicities, and backgrounds, especially those associated with a prominent family history of diabetes and a multitude of environmental factors [1–4]. As reported by the