



## The Use of Animal Models in Type 1 Diabetes Studies: Promising Results in Animals and Defects in Human Outcomes

Ahed J Alkhatib<sup>1,2,\*</sup>

<sup>1</sup>Department of Legal Medicine, Toxicology and Forensic Medicine, Jordan University of Science and Technology, Jordan

<sup>2</sup>International Mariinskaya Academy, Department of Medicine and Critical Care, Department of Philosophy, Academician Secretary of Department of Sociology, Jordan

\*Corresponding Author: Ahed J Alkhatib, Department of Legal Medicine, Toxicology and Forensic Medicine, Jordan University of Science and Technology, Jordan.

**Received:** December 30, 2020

**Published:** February 27, 2021

© All rights are reserved by **Ahed J Alkhatib**.

In this editorial, I would like to make a focus in a problem we are experienced in diabetes type 1 between basic research and clinical outcomes when we came to apply in human patients. Studies that have conducted using animal models to induce diabetic type 1 depend usually on the use of alloxan or streptozotocin (STZ) to chemically damage pancreatic cells ( $\beta$  cells). Various therapeutic options including herbs of medical use such as *Urtica* species and metformin were used to treat diabetic animals with good results. Coming to humans, no therapeutic options gave good results. A big question came to the mind of researcher, where is the defect?

After a thorough revision of the literature, the defect has been identified. Type 1 diabetes is based on immunological destruction of pancreatic cells ( $\beta$  cells), and this process is not reversible, whereas the chemical destruction of pancreatic cells ( $\beta$  cells) seems to be reversible. The evidence for this opinion is that multi doses of either alloxan or STZ are required to maintain diabetic status of the model.

From a philosophical of science point of view, induced type 1 diabetes is more likely to mimic type 2 diabetes rather than type 1 diabetes. If we are going to adopt logic in explaining the research results of studies targeting type 1 diabetes, I think that the proposed models for type 1 diabetes are not valid and new models are required to be established for better understanding of diabetes type 1 hoping to discover new therapeutic options to help patients.

### Assets from publication with us

- Prompt Acknowledgement after receiving the article
- Thorough Double blinded peer review
- Rapid Publication
- Issue of Publication Certificate
- High visibility of your Published work

**Website:** [www.actascientific.com/](http://www.actascientific.com/)

**Submit Article:** [www.actascientific.com/submission.php](http://www.actascientific.com/submission.php)

**Email us:** [editor@actascientific.com](mailto:editor@actascientific.com)

**Contact us:** +91 9182824667