

## Special Issue on Environmental Trigger(s) of Type 1 Diabetes: Why Is It So Difficult to Identify?

### Call for Papers

Type 1 diabetes (T1D) is one of the most common chronic diseases with childhood onset, and the disease incidence has increased from two- to fivefold over the past half century by yet unknown means. T1D occurs when the body's immune system turns against itself, destroying in a very specific and targeted way the pancreatic beta-cells. T1D results from poorly defined interactions between susceptibility genes and environmental determinants. In contrast to the rapid progress in finding T1D genes, identification and confirmation of environmental trigger(s) determinants remain a formidable challenge. Identification of environmental determinant(s) responsible for development or protection against T1D may ultimately be used in prevention. The high cost of the disease monetary and otherwise to the affected individuals, families, and society implies that preventing a fraction of cases, or even a delay in onset, will be of high value.

We invite investigators to contribute original research articles as well as review articles that will stimulate the continuing efforts in identification of the environmental triggers in development of T1D. We are particularly interested in articles with new data on environmental factors associated with development T1D. Articles using bioinformatics to evaluate the number of cases (either autoantibody positivity or disease onset used as cases) needed for the identification of a certain environmental trigger are very welcome too. In addition, we are interested in articles presenting autoantibody patterns in T1D prediction and cellular and molecular mechanisms in the pathogenesis of T1D. Potential topics include, but are not limited to:

- Cellular immunology and T1D
- Molecular immunology and T1D
- Role of viral agents
- Role of gut bacteria/gut environment
- Role of nutritional factors
- Role of vitamin D and UV exposure
- Role of xenobiotics and T1D
- Role of smoke and tobacco-related products and T1D
- Role of chemical exposure in T1D risk

- Role of infection load in early childhood as well as in higher ages
- Role of respiratory infections (wheezing and asthma)
- Role of antibiotic usage and probiotics in early childhood
- Role of intrauterine factor for T1D risk in the child
- Autoantibodies and T1D prediction
- Metabolomics and lipidomics in T1D prediction
- Role of epigenetics in T1D prediction
- Relationship between environmental factors, epigenetics, and molecular alterations causing T1D

Before submission authors should carefully read over the journal's Author Guidelines, which are located at <http://www.hindawi.com/journals/bmri/guidelines/>. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/bmri/endocrinology/entri/> according to the following timetable:

Manuscript Due	Friday, 22 August 2014
First Round of Reviews	Friday, 14 November 2014
Publication Date	Friday, 9 January 2015

#### Lead Guest Editor

**Kjersti S. Rønningen**, Oslo University Hospital, Rikshospitalet, Oslo, Norway;  
[kjersti.skjold.ronningen@rr-research.no](mailto:kjersti.skjold.ronningen@rr-research.no)

#### Guest Editors

**Jill M. Norris**, Colorado School of Public Health, Anschutz Medical Campus, Aurora, CO 80045, USA;  
[jill.norris@ucdenver.edu](mailto:jill.norris@ucdenver.edu)

**Mikael Knip**, Institute of Clinical Medicine, University of Helsinki, Helsinki, Finland; [mikael.knip@helsinki.fi](mailto:mikael.knip@helsinki.fi)