

**TRIGR: Approved Ancillary Studies (2002-2018)**

<b><u>Principal Investigator</u></b>	<b><u>Title</u></b>
Aschemeier, Bärbel	Changes in body weight during the first year of life
Bos, Nico	Gut flora in children that are genetically at risk for type 1 diabetes
Counts, Debra	Zonulin in children in TRIGR
Dosch, Michael	Prospective analysis of diabetes associated T-cell abnormalities in the TRIGR North American cohort
Hyöty, Heikki	Interaction between dietary and viral risk factors in the pathogenesis of T1DM
Ilonen, Jorma	Genetic control of diabetes associated autoimmunity
Knip, Mikael	Frequency of ZNT8 autoantibodies and their contribution to beta-cell autoimmunity in TRIGR participants
Knip, Mikael	Intestinal microbiota in relation to signs of beta-cell autoimmunity in TRIGR participants
Luopajarvi, Kristiina	Insulin specific immunity and regulatory T-cells in cord blood cells of TRIGR
Luopajarvi, Kristiina	Polarization of cord blood cells in relation to type 1 diabetes associated genes
Maxwell, Cynthia	Maternal and fetal surveillance in pregnancies complicated by T1DM, a prospective study of perinatal outcome
Pacaud, Daniele	Assessment of consequences of maternal severe hypoglycemia during pregnancy in T1DM mothers on offspring's neuropsychological functioning
Pozzilli, Paolo	Antibodies to post-translationally modified insulin for prediction of type 1 diabetes
Songini, Marco	Association of mycobacterium avium, subspecies paratuberculosis, with type 1 diabetes, a possible trigger
Vaarala, Outi	Immune response to cow's milk bovine insulin and development of type 1 diabetes



April 6, 2018

**Principal Investigator**

**Title**

Virtanen, Suvi	Does later cow's milk intake during childhood modify the effects of an early exposure during infancy on the development and progression of beta-cell autoimmunity
Virtanen, Suvi	The effect of an extensively hydrolyzed infant formula on the development of asthma and allergic diseases
Virtanen, Suvi	Fatty acids as putative effect modifiers in the TRIGR study
Virtanen, Suvi	Obesity and increased growth as putative effect modifiers in the TRIGR Study
Virtanen, Suvi	The role of vitamin D in the development and progression of beta-cell autoimmunity

**TRIGR Ancillary Studies Approved in Concept**

**Principal Investigator**

**Title**

Knip, Mikael	Biomarkers of beta-cell autoimmunity and progression to overt type 1 diabetes based upon lipidomics/metabolomics and serum proteomics
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