

An Invitation to Collaborate in the Consortium on Thyroid and Pregnancy

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Dear Editor,

The number of clinical studies on the effects of thyroid function on fertility and pregnancy is increasing rapidly. However, there are still unanswered clinically important questions such as whether women with mild thyroid function test abnormalities or thyroid peroxidase antibody (TPOAb) positivity prior to conception or during pregnancy can benefit from levothyroxine treatment. While various randomized trials have been performed, these have not always been able to either include the most up-to-date definition of thyroid function test abnormalities, to investigate currently recognized high-risk subgroups, or to translate recent insights from human physiology and observational studies into study designs [1, 2]. In an effort to overcome such limitations, we have now extended the Consortium on Thyroid and Pregnancy to include randomized trials with the aim to combine data and perform individual participant data meta-analyses.

The initial aim of the Consortium on Thyroid and Pregnancy was to create a formal platform for collaboration that can facilitate high-quality studies on the clinical consequences of thyroid function test abnormalities or thyroid autoimmunity on fertility, pregnancy, or child outcomes.

Currently, the consortium consists of 23 prospective cohort studies with data on close to 100,000 mother-and-child pairs. We have recently published our first study [3], and five other studies are currently ongoing (see <http://www.consortiumthyroid-pregnancy.org>).

Through this letter, we would like to invite anyone who has observational data available (published or unpublished) to join the pre-existing Consortium on Thyroid and Pregnancy and join currently ongoing studies. Furthermore, we would like to invite anyone with data available from randomized trials (published or unpublished) to join the new randomized trial arm of the Consortium on Thyroid and Pregnancy for the setup of new studies to further add to knowledge gaps in this field of research. At the bottom of this letter, the inclusion criteria for various types of data that can contribute to the Consortium on Thyroid and Pregnancy can be found. We hope you can join our efforts to advance evidence-based medicine in the field of thyroid, fertility, and pregnancy within the Consortium on Thyroid and Pregnancy.

If you wish to participate, or require more information, please contact us via e-mail.

Inclusion Criteria

For population-based cohorts for studies on thyroid outcomes:

- Non-selected or population-based prospective cohorts
- Serum TSH or FT4 or thyroid antibodies measured in pregnant women (any gestational age)
- Disease-specific prospective cohorts can be included for specific studies when deemed relevant
- Data on thyroid medication usage to identify potential bias

For population-based cohorts for studies on pregnancy or child outcome:

- Non-selected or population-based prospective cohorts
- Serum TSH or FT4 or thyroid antibodies measured in pregnant women (any gestational age)
- **Follow up complete until the end of pregnancy or beyond**
- **Disease-specific prospective cohorts can be included for specific studies when deemed relevant**
- **Cohorts in which women received treatment will be excluded, unless this is part of the research question**

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- For randomized trials:
- Selected women with either subclinical hypothyroidism, isolated hypothyroxinemia, or thyroid antibodies
 - Randomized to treatment or a control group consisting either of no treatment or placebo

- Follow-up complete until the end of pregnancy or beyond
- Disease-specific prospective cohorts can be included for specific studies when deemed relevant

Disclosure Statement

T.I.M.K. has received personal fees from Berlin Chemie, Goodlife Healthcare, and Quidel. R.P.P. stated serving as a consultant to Berlin-Chemie AG, Fertility BV, GoodLife, and Institut Biochimique SA.

References

- 1 Korevaar TI, Tiemeier H, Peeters RP. Clinical associations of maternal thyroid function with foetal brain development: epidemiological interpretation and overview of available evidence. *Clin Endocrinol (Oxf)*. 2018 Apr; 89(2):129–38.
- 2 Korevaar TI, Chaker L, Peeters RP. Improving the clinical impact of randomised trials in thyroidology. *Lancet Diabetes Endocrinol*. 2018 Jul;6(7):523–5.
- 3 Consortium on Thyroid and Pregnancy-Study Group on Preterm Birth, Korevaar TIM, Derakhshan A, Taylor PN, Meima M, Chen L, Bliddal S, et al. Association of Thyroid Function Test Abnormalities and Thyroid Autoimmunity With Preterm Birth: A Systematic Review and Meta-analysis. *JAMA*. 2019 Aug;322(7):632–41.