13th International Workshop on Resistance to Thyroid Hormone and Thyroid Hormone Action

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The 13th International Workshop on Resistance to Thyroid Hormone (IWRTH) will be held on 11-14 September 2018 in Doorn, The Netherlands, immediately before the 41st Annual Meeting of the European Thyroid Association in Newcastle, United Kingdom, which commences on Saturday 15th September. The venue, Landgoed Zonheuvel, is situated in a quiet location on the main road between Maarn and Doorn in the Utrechtse Heuvelrug, a 10,000 hectare (25,000 acre) wooded National Park area covering a glacial ridge of heathlands, shifting sands, forests, grass lands and floodplains that covers part of the province of Utrecht. Travel details to this well-connected region can be found on the workshop website along with information and links regarding connections to the ETA meeting in Newcastle.

The IWRTH meeting brings together clinicians, basic scientists and senior investigators working on thyroid hormone action and the syndromes of impaired sensitivity to thyroid hormone (ISRTH). Importantly, the workshop will maintain the tradition of encouraging active participation of young investigators, who represent the future of research and who will be eligible for accommodation and travel support because of generous sponsorship from the American Thyroid Association, European Thyroid Association, UK Society for Endocrinology as well as private donations.

Thirty-nine presentations from leading international laboratories will include the latest research on the role of thyroid hormone transport, metabolism and receptors in human ISRTH syndromes and animal models. Sessions will be devoted to: thyroid hormone transporters, deiodinase and selenoprotein biology, gene defects and treatment; and RTHα and RTHβ syndromes resulting from thyroid hormone receptor mutations, incorporating discussion of unusual clinical cases and therapeutic possibilities. Further topics will focus on novel mechanisms of thyroid hormone action including new receptor ligands, the role of thyroid hormones in development, aging, inflammation, tissue degeneration and repair, and in specific target tissues.

The format of the meeting will be similar to previous workshops with particular emphasis on younger investigators and scientists presenting data on behalf of their laboratories. Sessions are structured to include equal amounts of time for both presentation and debate
in order to promote extensive discussion among participants. Apart from brief optional
abstracts, there will be no published proceedings, enabling groups to present their latest,
unpublished observations. There will also be a new opportunity to submit abstracts
containing novel data of exceptional interest for one of two late-breaking oral
presentations. Shared meals, breaks, poster sessions and activities will enhance
interaction. This is an important and highly-valued tradition that facilitates engagement
throughout the meeting for the benefit of all attendees and especially for younger
scientists and students.

Since its inception 25 years ago in 1993, the workshop has grown in stature and earned
international esteem. At the first meeting in Cambridge UK, a consensus statement was
issued establishing the nomenclature of thyroid hormone receptor β gene (THRB)
mutations in classical RTH (1-5), first described in humans in 1967 (6). At the third meeting
in Aspen CO USA in 1997, the first mouse models of RTH were presented and their major
role in advancing understanding of the mechanism of thyroid hormone action emerged.
During the seventh meeting in Lyon, France in 2005 considerable attention was paid to
new details concerning the structure, molecular biology, physiology and pharmacology of
the thyroid hormone receptors (7) as well as the broadening definition of thyroid hormone
hyposensitivity. Indeed, by the time of the eighth workshop on the Azorean Island of San
Miguel in 2007, a new term "reduced sensitivity to thyroid hormone (RSTH)" was adopted
and accepted as the field advanced (8). Furthermore, following discovery of patients with
RTHα due to mutations affecting the thyroid hormone receptor α gene (THRA) around the
time of twelfth meeting in Quebec City, Canada in 2012 it became apparent that
understanding of RTH should be re-classified to include possible inherited forms of
impaired sensitivity to thyroid hormone that might occur at the level of thyroid hormone
transport, metabolism and receptor (9-11)fl. By the most recent meeting in Colorado
Springs, USA in 2016 new possible sub-types of thyroid hormone receptor defects were
hypothesized (12), and new mouse models first discussed at that workshop have now
transformed the field as we embark on a new and unexpected journey that may ultimately
resolve the intricacies of thyroid hormone action (13).
The stage is thus set for an exciting and outstanding 13th International Workshop on Resistance to Thyroid Hormone in The Netherlands this September in which we know participation will be enthusiastic, controversial and forthright, but absolutely certain to advance the field and our understanding.
References


8. Refetoff S 2008 Resistance to thyroid hormone: one of several defects causing reduced sensitivity to thyroid hormone. Nat Clin Pract Endocrinol Metab 4:1.


