

Weekly seminar of the Service of Endocrinology, Diabetology and Metabolism (EDM)

**Tuesday, November 22<sup>nd</sup> 2016, 17h00-18h00**

Auditoire Jequier Doge, Bâtiment de liaison PMU-CHUV, BL-08

**Prof. Sabine Costagliola, PhD**

Institut de Recherche Interdisciplinaire en Biologie Humaine et Moléculaire

Université libre de Bruxelles

**“Modeling thyroid development and disease in a dish”**

The main research focus of the research of Prof. Costagliola is the molecular dissection of the signaling mechanisms that control morphogenetic processes and gene networks involved in thyroid organogenesis. To date, the signaling mechanisms that control the specification of endoderm-derived organs such as the thyroid, lung, liver or pancreas remain poorly understood. To tackle the question "how different cell types are specified from the gut endoderm", she uses the thyroid as experimental model. Thyroid organogenesis can be grossly divided into 3 phases comprising thyroid precursor cell specification; budding and migration of the thyroid primordium; and functional differentiation of thyroid follicular cells. While some factors critical for migration, differentiation and growth of the thyroid primordium have been identified in mouse knock-out models, little is known about the molecular events involved in thyroid precursors cell specification. A crucial aspect of her working strategy is the combination of various experimental models including mouse, zebrafish and stem cells to delineate the molecular basis of thyroid morphogenesis. A seminal study from her group succeeded in the generation of functional thyroid from embryonic stem cells:

<http://www.nature.com/nature/journal/v491/n7422/abs/nature11525.html>

**Host:** Dr. Gerasimos Sykiotis, EDM Service

If you would like to meet Prof. Costagliola, please contact: [gerasimos.sykiotis@chuv.ch](mailto:gerasimos.sykiotis@chuv.ch)