The Sidney L. Horowitz Lecture in Orthodontics

Regulation of Tooth Number and Shape by Conserved Signaling Pathways

Guest Speaker: Irma Thesleff, DDS, D.Odont, PhD
Professor Emerita, University of Helsinki

Wednesday, May 2, 2018 • 2 pm to 4 pm

COURSE DESCRIPTION
Research using mouse models and organ culture techniques has unraveled the important roles of several conserved signalling pathways in the regulation of tooth development and regeneration. This research has elucidated the pathogenesis of various human dental aberrations, and opened up possibilities to design new dental treatments and new ways to prevent dental defects such as hypodontia. Understanding the cellular and molecular mechanisms of tooth development may also lead to bioengineering of new teeth in the future.

LEARNING OBJECTIVES
Course participants will become familiar with research advances involving tooth regulation and regeneration and gain an understanding of how this may lead to improved dental treatment and prevention of defects.

BIOGRAPHY
Dr. Irma Thesleff is Professor Emerita at the University of Helsinki. She graduated from the Dental School of the University of Helsinki in 1972, received her PhD in 1975 on studies on the etiology of cleft lip and palate, and was postdoctoral scientist at National Institute of Dental Research in Bethesda, USA 1978-79. She was Professor and Chairman of the Department of Pediatric Dentistry and Orthodontics at the University of Helsinki 1990-1995, and Research Director of the Developmental Biology Program at the Institute of Biotechnology, University of Helsinki 1996-2016.

Her research involves understanding the mechanisms that regulate the formation and regeneration of organs that form from the surface of the embryo (ectoderm), including teeth, hairs and glands. The focus is on signaling networks mediating intercellular communication, and examining how they regulate the patterns, numbers, sizes, and shapes of organs. Additional research includes the development of teeth and their renewal from dental stem cells. She has authored over 300 articles and review papers in international journals, and received many major science awards as well as honorary doctorates from several universities. She was nominated in Finland as Academician of Science in 2014.

Lecture: 2 pm-4 pm, Reception: 4 pm-5:30 pm
Roy & Diana Vagelos Education Center
104 Haven Ave. at W. 171st St., New York City

Register at dental.columbia.edu/ce or bit.ly/Horowitz2018

2 CE Credits will be awarded, pre-registration required. For questions call 212-305-6881.