
Doc. MUDr. Irena Aldhoon Hainerová, Ph.D.



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Department of Children and Adolescents 3FM CU and UHKV

<https://www.lf3.cuni.cz/3LF-1003.html>

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Topic title

Increased body weight and cardiometabolic risks in children and adolescents: effective strategy to lifestyle changes, use of telemedicine, predictors of body weight reduction and maintenance, the role of pharmacotherapy and microbiota (to be individually discussed)

Description of scientific activity

After graduation from the First Faculty of Medicine Charles University, Irena joined the Department of Children and Adolescents 3FM CU and UHKV as a junior doctor. Within her postgraduate studies under the supervision of Prof. Jan Lebl, MD (Topic: Aetiology of early-onset obesity in children), she spent 12 months at the Steno Diabetes Centre in Denmark. She participated in sequencing genes involved in energy balance regulation using the samples from Czech patients. This project thus identified the first cases of monogenic obesity in the Czech Republic. After her return, she started cooperating with the Institute of Endocrinology in Prague and was a co-investigator of several grants (MSM, IGA, Norwegian Financial Mechanism - COPAT project) on the role of adenovirus infection in obesity and diabetes, prevalence of metabolic syndrome in obese children and adolescents, glucose homeostasis in overweight individuals,

eating habits and health complications of obesity. At the Department of Children and Adolescents, she was the national co-coordinator of the international TRIGR (Trial to Reduce IDDM in the Genetically at Risk) project.

She has received numerous awards (best lecture: MESPE in 2005 and 2006; best scientific publication in 2017: Czech Medical Society of Jan Evangelista Purkyně; most valuable original work in 2006, 2007 and 2016: Paediatric Endocrine Society; Ministry of Health Award for outstanding achievements in medical research and development in 2016). She is the author and co-author of a number of articles, books, including the best medical book of 2011 (Czech Medical Society of Jan Evangelista Purkyně) - Essentials of Clinical Obesity, in which she wrote the chapter on Childhood Obesity.

She is a co-founder and until 2018 was a member of the Section of Paediatric Obesity within the Czech Obesity Society. Since 2021, she has been a member of the Expert Review Panel No. P01 Metabolic and Endocrine Diseases of the Czech Academy of Sciences. Since 2013, she has served in the editorial board of the International Journal of Obesity. She reviews scientific articles for internationally recognized journals in the field of paediatrics, metabolism, nutrition and obesity. Irena regularly lectures in postgraduate courses, as well as at national and international conferences. She has co-organized several courses on childhood obesity (Childhood Obesity Task Force, European Association for the Study of Obesity) and since 2018 she has been in the program committee of the World Conference on Exercise Medicine.

She has passed her board certification in Clinical Paediatrics, Endocrinology and Paediatric Endocrinology and Diabetology and is licensed in abdominal sonography. In 2013, she completed a month-long fellowship at the Division of Paediatric Endocrinology and Diabetes, Children's Hospital of Philadelphia during her stay in the USA. Between 2018 and 2021 she worked in the UK with full specialist medical registration (GMC 7665033) as a paediatrician (Hereford County Hospital), neonatologist (Neonatal Department of the University Hospital Coventry Warwickshire, Coventry) and endocrinologist/diabetologist (Department of Endocrinology and Diabetes, Birmingham Children's Hospital, Birmingham). She is currently working as a paediatric endocrinologist and diabetologist at the Department of Children and Adolescents 3FM CU and UHKV, where she also teaches medical and physiotherapy students. She also works as a paediatric endocrinologist at the Paediatric Clinic of the First Faculty of Medicine, Charles University and Faculty Thomayer's Hospital.

Selected publications

Aldhoon Hainerová, I.; Zamrazilová, H.; Hill, M.; Hainer, V.: Insulin sensitivity and its relation to hormones in adolescent boys and girls. *Metab. Clin. Exp.*, 2017, 67(February): 90-98.

Zamrazilová, H.; Weiss, R.; Hainer, V.; Aldhoon Hainerová, I.: Cardiometabolic health in obese adolescents is related to length of obesity exposure: A pilot study. *J. Clin. Endocrinol. Metab.*, 2016, 101(8): 3088-3095.

Aldhoon Hainerová, I.; Zamrazilová, H.; Atkinson, R.; Dušátková, L.; Sedláčková, B.; Hlavatý, P.; Lee, ZP.; Kunešová, M.; Hainer, V.: Clinical and laboratory characteristics of 1179 Czech adolescents evaluated for antibodies to human adenovirus 36. *Int. J. Obes.*, 2014, 38(2): 285-291.

Selected or ongoing grants/clinical studies

Determination of beta-hydroxybutyrate and glucose concentrations in paediatric patients with diabetes (since December 2021)

PhD Students

Number of PhD students currently studying: 0, but Irena was a PhD consultant of 1 PhD student