

*Svetlana Madjunkova MD, Ph.D* holds an MD degree with honors and MSc and PhD in reproductive genetics with focus on pregnancy loss and, invasive and non-invasive prenatal diagnosis of chromosomal abnormalities, inherited disorders and blood group incompatibilities. She completed a research postdoctoral fellowship with the Department of Pathology & Laboratory Medicine at Mount Sinai Hospital in Toronto working on cell-free and cell-based non-invasive prenatal testing and a joint clinical and research training in reproductive toxicology with the Division for Clinical Pharmacology and Toxicology at SickKids Hospital in Toronto.

Dr Madjunkova is a head of Reproductive Genetics at CReATe Fertility Centre, Toronto, Canada. Her laboratory is uniquely positioned as part of the largest clinic offering assisted reproduction in Canada to provide advanced clinical preimplantation, fertility related genetic testing and translate research and new genomic technologies into clinical tests. Dr Madjunkova and her team for the first time developed a test to diagnose balanced chromosomal rearrangements in embryos (PGT-SR test for couples with balanced rearrangements) which was published in June 2020 by the New England Journal of Medicine. Furthermore, Dr Madjunkova and her team are leading the clinical adaptation of non-invasive PGT test with results published in several papers. She is heading a research team in many projects on improving embryo selection, preimplantation testing and further research in reproductive failure and improving outcomes in ARTs. Her interest is in the development of novel technologies for non-invasive and comprehensive multi-omic assessment of embryos and fetuses and well as in the parental genetic and epigenetic contribution to developing embryo, fetus and offspring. She is leading a collaborative efforts to study the effects of mosaicism on early embryo development and short and long term consequences on child development.

She has published over 40 peer reviewed papers and presented her work at over 100 National and International professional and scientific meetings. She is recipient of many awards and fellowships and has been invited numerous times as speaker/session chair to conferences and lecturer to undergraduate, graduate and postgraduate courses. Dr. Madjunkova is a reviewer for a list of journals in the field, and an active collaborator on FP7 EU project, International Breakpoint Mapping Consortium- Copenhagen, Denmark and grants funded by CIHR. She has a network of international collaborators in many fertility centers, bioinformatics groups and industry partners supporting initiatives that aim to advance the field of human reproduction.

Dr Madjunkova is co-directing the Reproductive Genetics course for the master studies program in Clinical Embryology with the Department of Laboratory Medicine and Pathobiology at University of Toronto, and is actively involved in reproductive genetics training for Genetic counselling students from MSc program at University of Toronto. She is also supervising graduate and postgraduate students and fellows.

Dr Madjunkova is an active member of Canadian Fertility and Andrology Society and currently the chair of CFAS Genetics Special Interest Group.