

In Memoriam – Yury Verslinsky (°1943 – †2009)

Yury Verlinsky, a name, a face that everybody knows, not only in reproductive medicine and PGD, but also in genetics and prenatal diagnosis. It is not difficult to say that ART and PGD would be quite different from its present without Yury, his ideas, his initiatives, and his challenging attitude.



Born in Siberia in 1943, he started his career in genetics in Ukraine obtaining, in the late 60s, a PhD in Cytogenetics and Embryology on what became his major interest, his passion: the genetics of embryos and correlated defects during development and birth. In 1978 he moved to Chicago where he began to realize his ambitious project of giving couples the possibility of a healthy child. With this idea in mind, he pioneered the introduction of chorionic villus sampling (CVS) in the early 80s, while a few years later, he contributed to revolutionize the concept of prenatal diagnosis by anticipating the diagnosis to the earliest stage as possible, the oocyte. Actually, it was in 1990 when he promoted the biopsy of polar bodies to test meiotic errors and to diagnose single gene disorders. This was a great advance in the field of preventive medicine, although this approach was partially shadowed by the impossibility of testing the paternal genotype. 'Listen, forget about embryos, the answer is already in polar bodies!' Yury used to say. So, he moved forward and developed methods for karyotyping the second polar body and for detecting female translocations. Although the approach of analyzing embryos has always been more popular in PGD centers, the technique of testing polar bodies has now been reevaluated due to the undeniable advantages that this strategy has. In this line of thought, ESHRE decided to establish a Task Force aimed at performing a study on polar bodies, starting this year.

One of Yury's most notable advances was the introduction, in the year 2000, of a novel approach for combining PGD for a genetic disorder, Fanconi anaemia in that case, with testing to identify HLA-compatible embryos. In this way, umbilical cord blood cells from the healthy baby born were used for stem cell transplantation to save his affected sibling. The story of this saviour baby and the images of a happy and grateful family came to the press and nowadays more than 300 HLA cycles have been performed in Chicago, and this approach has been adopted by other centres around the world.

Yury's challenge to diseases did not stop here and in 2001 he published on the possibility of performing PGD on late onset disorders. He was actually criticised for this application of PGD, as well as for performing HLA-matching; ethical concerns and objections were raised and he was accused of 'designing babies'. Nevertheless he kept going in his line of thoughts, as he was deeply convinced that suffering, pain and anguish should be fought and overcome whenever possible and at any cost. This was his belief and all his life was the expression of his creed. Many children and families around the world are grateful to him, and this represents the greatest confirmation that he did the right thing in life.

Still in this framework of fighting diseases, a few years ago he started to work with stem cells to construct a system to further investigate the molecular basis of genetic disorders. With the help of his valid collaborators, he established in 2005 the world's first bank of human embryonic stem cell lines with abnormal genotypes. These cells represent a source for the study of the mechanisms involved in the disease, as well as a unique in vitro model to test drugs and develop cellular and gene therapy especially for disorders for which there is currently no cure.

Besides these outstanding contributions to science, Yury consolidated several PGD centers and collaborations around the world that accumulated more than 7000 cycles up to date. He always supported the analysis of polar bodies whenever possible, but also studied improvements in the study of embryos and he designed the study of informative genotyping markers to perform PGD even in the absence of a known mutation.

He published almost 200 peer-reviewed papers and promoted PGD as much as he could, by organizing courses, exporting the technique to other centers and actively contributing to its diffusion the world. He believed so much in PGD that in 1990 he organized the first International Symposium on PGD, held in Chicago. From there, a yearly working group on PGD stemmed that became in 2002 the Preimplantation Genetic Diagnosis International Society (PGDIS), of which Yury was the first president.

In 2007, he was diagnosed with colon cancer, a disease that he fought with the usual strength and energy, until 16th July 2009 when he had to surrender to a condition that was more aggressive and devastating than his unbelievable desire of living.

It is extremely difficult and painful to use the past form when talking about a great man that was at the same time a great scientist and an unconditioned friend. But his message to life resides in his way of living: he was always very active and enthusiastic, with an incredible strength and passion for the things in which he strongly believed. This is how we want to remember him, to keep him alive in those of us that had the fortune of knowing Yury Verlinsky.

Luca Gianaroli
Chairman of ESHRE