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New Research Suggests Dads Shouldn't Be Disregarded When It Comes To Having Healthy Babies

Experts To Highlight Paternal Exposures Research During International Conference

MONTREAL, CANADA –"Don't diss dad" might mean more than making sure you don't forget dad this Father's Day as researchers look at just how influential environmental exposures and genetic interactions are on dad's sperm and, as a result, his offspring. It's one of several anticipated symposia scheduled during the Teratology Society's 55th Annual Meeting later this month in Montreal.

The Teratology Society, an international professional group of scientists hailed as the premier source for cutting-edge research and authoritative information related to birth defects and developmentally-mediated disorders, will host hundreds of world-renowned researchers at the Hôtel Bonaventure Montreal June 27 – July 1.

"We are very conscious that what the mother does or is exposed to during pregnancy will have an impact on her children. We really do not even think about the importance of dad," said Barbara Hales, PhD, a McGill University professor, Teratology Society past-president and cochair of the Paternal Exposures Symposium. "There is now a lot of evidence that the father plays a very important role and that quality of his germ cells may be altered by age, occupational, environmental or lifestyle exposures, like diet and stress."

The highly anticipated symposium, "Paternal Exposures Impact Progeny Outcome by Altering the Sperm Genome," will take place on Sunday, June 28 at 2:30PM and feature several studies, including one that focuses on the role folate supplementation and deficiency may play in altering male gametes (sperm). "Data in Quebec showed that the incidence of neural tube defects decreased by 50% after folate supplementation in pregnant women – and the incidence of heart defects also decreased, but how do dad's folate levels influence the pregnancy?" asked Hales. "There is a new concern that maybe folate supplementation is doing other things, not all favorable. Perhaps the question is how much folate is beneficial and for whom? This is definitely a public health issue."

Additionally, the issue of paternal exposures' impact on men and their offspring is the focus of the Food and Drug Administration's <u>latest guidance</u> released this month on male-mediated development risks for pharmaceuticals. The new guidance provides some consistency in assessing how drugs affect sperm. Hales hopes the Teratology Society's paternal exposures symposium at the annual meeting will fuel growing interest in the impact of men's reproductive health.

"Simply put – Dad is more important than he thinks and I hope more research is done in this area," she said.

The goal of the annual meeting is to provide a forum for scientists to present the latest information on birth defects research allowing Teratology Society members and non-member attendees to learn about new discoveries, discuss the implications of the new information, and to provide an opportunity for clinicians, scientists from government, industry and other health professionals to update their birth defects' knowledge.

The Teratology Society is offering additional perks to those attending the annual meeting this year, including <u>career networking and mentorship</u> for students and postdoctoral fellows registered for the meeting.

For more information on the Teratology Society's annual meeting program, visit: http://www.teratology.org/meetings/2015/agendasun.asp

The Teratology Society is made up of nearly 700 members worldwide specializing in a variety of disciplines, including developmental biology and toxicology, reproduction and endocrinology, epidemiology, cell and molecular biology, nutritional biochemistry, and genetics as well as the clinical disciplines of prenatal medicine, pediatrics, obstetrics, neonatology, medical genetics, and teratogen risk counseling. In addition, it publishes the scientific journal, *Birth Defects Research*. Health care providers, as well as the general public, can preview the annual meeting's full agenda, and scientists interested in becoming a Teratology Society member are encouraged to visit www.Teratology.org.

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