

International Clearinghouse for Birth Defects Surveillance and Research Monthly Newsletter

May 2019 Issue 2019-5

46thICBDSR Annual Meeting

The 2019 ICBDSR Annual Meeting will take place in **Bratislava, Slovak Republic** from **September 8-11, 2019**. The meeting will be hosted by the Slovak Medical University in Bratislava, Faculty of Public Health. Interested colleagues are invited to submit abstracts for oral and/or poster presentation at the Scientific Sessions of the ICBDSR Annual Meeting, using the electronic abstract submission form available at http://www.icbdsr.org/abstract-submission-2019-icbdsr-annual-meeting/.

Deadline for submission of abstracts is **May 31st**, **2019.**After submitting an abstract, a confirmation e-mail message will be sent to the corresponding author. Submitted abstracts can be edited until May 31, 2019, following a link in the confirmation message.

Topics for abstracts may include, but are not limited to:

- Birth defects surveillance and related methodological issues
- Epidemiology of specific defects or groups of defects
- Environmental agents and birth defects
- Infectious agents and birth defects
- Lifestyle factors and birth defects
- o Medications and birth defects
- Occupational exposures and birth defects
- Molecular genetics / molecular epidemiology / epigenetics and birth defects
- Prenatal screening, early pregnancy / birth / postnatal outcomes
- Newborn screening disorders
- Rare diseases
- Undiagnosed diseases
- Psychosocial impacts of birth defects, quality of life, education and other related issues

The Annual Meeting Committee will peer-review the abstracts and make the final decisions regarding acceptance of abstracts and designated presentation format. Email of notification regarding acceptance of abstracts will be sent by June 30th, 2019. Visit http://www.icbdsr.org/46th-icbdsr-annual-meeting/ for travel information, link to hotel booking, registration fee, and social events.

What's Going on Regarding Birth Defects: a selection from the recent literature

All readers are kindly invited to contribute to this section of the Newsletter, sending their suggestions to centre@icbdsr.org by the 1st Friday of the month.

Join World Birth Defects Day.

Groisman B, Bermejo-Sánchez E, Romitti PA, Botto LD, Feldkamp ML, Walani SR, Mastroiacovo P. Pediatr Res. 2019 Apr 9. doi: 10.1038/s41390-019-0392-x. [Epub ahead of print] PMID: 30965352

An evolutionary and developmental biology approach to gastroschisis.

Opitz JM, Feldkamp ML, Botto LD.

Birth Defects Res. 2019 Apr 1;111(6):294-311. doi: 10.1002/bdr2.1481. Epub 2019 Feb 28. PMID:30816021 Full text available on request at centre@icbdsr.org

The association between newborn screening analytes and childhood autism in a Texas Medicaid population, 2010-2012.

Canfield MA, Langlois PH, Rutenberg GW, Mandell DJ, Hua F, Reilly B, Ruktanonchai DJ, Jackson JF, Hunt P, Freedenberg D, Lee R, Villanacci JF

Am J Med Genet B Neuropsychiatr Genet. 2019 Apr 24. [Epub ahead of print]DOI: 0.1002/ajmg.b.32728PMID: 31016859

Risk of gastroschisis with maternal genitourinary infections: the US National Birth Defects Prevention Study 1997-2011.

Feldkamp ML, Arnold KE, Krikov S, Reefhuis J, Almli LM, Moore CA, Botto LD. BMJ Open. 2019 Mar 30;9(3):e026297. doi: 10.1136/bmjopen-2018-026297.PMID:30928950

OEIS complex: Prevalence, clinical, and epidemiologic findings in a multicenter Mexican birth defects surveillance program.

Arteaga-Vázquez J, Luna-Muñoz L, Morales-Suárez JJ, Mutchinick OM. Birth Defects Res. 2019 May 1. doi: 10.1002/bdr2.1512. [Epub ahead of print] PMID: 31042330

Variations in the Detection of Anorectal Anomalies at Birth among European Cities.

Aldeiri B, Davidson JR, Eaton S, Coletta R, Cardoso Almeida A, Long AM, Knight M, Cross KM, Chouikh T, Iacobelli BD, Sarnacki S, Bagolan P, Cretolle C, Siminas S, Curry JI, Morabito A, De Coppi P. Eur J Pediatr Surg. 2019 Apr 30. doi: 10.1055/s-0039-1687868. [Epub ahead of print] PMID: 31039595

Selected acculturation factors and birth defects in the National Birth Defects Prevention Study, 1997-2011.

Hoyt AT, Shumate CJ, Canfield MA, Le M, Ramadhani T, Scheuerle AE; National Birth Defects Prevention Study. Birth Defects Res. 2019 Apr 25. doi: 10.1002/bdr2.1494. [Epub ahead of print] PMID: 31021057

Maternal periconceptional body mass index and risk for neural tube defects: results from a large cohort study in China.

Zhang L, Zhang Y, Li Z, Ren A, Liu J, Ye R.

J Matern Fetal Neonatal Med. 2019 Apr 22:1-7. doi: 10.1080/14767058.2019.1606192. [Epub ahead of print] PMID: 31006286

Development of heart failure in young patients with congenital heart disease: a nation-wide cohort study.

Gilljam T, Mandalenakis Z, Dellborg M, Lappas G, Eriksson P, Skoglund K, Rosengren A. Open Heart. 2019 Mar 25;6(1):e000858. doi: 10.1136/openhrt-2018-000858. eCollection 2019. PMID: 30997118

A case-control analysis of maternal diet and risk of neural tube defects in Bangladesh.

Obrycki JF, Lee JJ, Kapur K, Paul L, Hasan MOSI, Mia S, Quamruzzaman Q, Christiani DC, Mazumdar M. Birth Defects Res. 2019 Apr 15. doi: 10.1002/bdr2.1505. [Epub ahead of print] PMID: 30989821

Maternal proximity to extremely low frequency electromagnetic fields and risk of birth defects.

Auger N, Arbour L, Luo W, Lee GE, Bilodeau-Bertrand M, Kosatsky T. Eur J Epidemiol. 2019 Apr 11. doi: 10.1007/s10654-019-00518-1. [Epub ahead of print] PMID: 30977029

<u>Maternal genetic markers for risk of celiac disease and their potential association with neural tube defects in offspring.</u>

Hoang TT, Lei Y, Mitchell LE, Sharma SV, Swartz MD, Waller DK, Finnell RH, Benjamin RH, Browne ML, Canfield MA, Lupo PJ, McKenzie P, Shaw GM, Agopian AJ; National Birth Defects Prevention Study.

Mol Genet Genomic Med. 2019 Apr 9:e688. doi: 10.1002/mgg3.688. [Epub ahead of print] PMID:30968606

Birth defects in Tarnaveni area, Romania - preliminary study results.

Mihaileanu R, Neamtiu IA, Bloom M, Stamatian F.

Med Pharm Rep. 2019 Jan;92(1):59-65. doi: 10.15386/cjmed-984. Epub 2019 Jan 15.PMID: 30957088

Interpregnancy change in body mass index and infant outcomes in Texas: a population-based study.

Benjamin RH, Littlejohn S, Canfield MA, Ethen MK, Hua F, Mitchell LE.

BMC Pregnancy Childbirth. 2019 Apr 5;19(1):119. doi: 10.1186/s12884-019-2265-z. PMID: 30953457

<u>Timing of pubertal development in boys born with cryptorchidism and hypospadias: a nationwide cohort study.</u>

Arendt LH, Ernst A, Braskhøj Lauridsen LL, Brix N, Olsen J, Ramlau-Hansen CH.

Asian J Androl. 2019 Apr 5. doi: 10.4103/aja.aja_3_19. [Epub ahead of print] PMID: 30950413

The risk factors of exposure to rubella among pregnant women in Zaria 2013.

Gubio AB, Mamman AI, Abdul M, Olayinka AT.

Pan Afr Med J. 2019 Jan 21;32(Suppl 1):4. doi: 10.11604/pamj.supp.2019.32.1.13335. eCollection 2019. PMID: 30949283

What's Going on Regarding Birth Defects: initiatives and announcements

All readers are kindly invited to contribute to this section of the Newsletter, sending their suggestions to centre@icbdsr.org by the 1st Friday of the month.

The Spina Bifida Foundation of India has started a petition to urge the Food Safety and Standards Authority of India (FSSAI) to improve its standards for the type and amounts of nutrients to add to fortified wheat flour. People from any country can sign the <u>online petition</u>.

In 2016, FSSAI developed standards that were very much in line with <u>World Health Organization (WHO)</u> <u>recommendations</u>. In 2018, FSSAI switched to <u>dramatically lower standards</u> (see table) that will lead to no reduction in anemia or birth defects of the brain or spine. The petition is to ask FSSAI to revert to the 2016 standards.

Minimum level to be required per kilogram of fortified atta (wheat flour)

Micronutrients	2016	2018
Iron*	20 milligrams sodium	28 milligrams of various iron compounds or
	iron EDTA	14 milligram sodium iron EDTA
Folic acid	1300 micrograms	75 micrograms
Vitamin B12	10 micrograms	0.75 micrograms

^{*}Atta is high extraction flour; the only iron compound recommended is sodium iron EDTA.

Below are links to supporting documents for statistics in the petition.

- In India, <u>34 of every 1,000 infants die</u> before their first birthday.
- In India 130 mothers die for every 100,000 live births.
- Pregnant women with severe anemia are <u>twice as likely to die</u> during or shortly after pregnancy than non-anemic women.
- Around one-half of women in India have anemia.
- Babies born to anemic women are at risk of <u>low birth weight</u> (2500 grams or 5.5 pounds at birth); this makes the child prone to death and disease.
- A recently published review of 19 studies, mostly from Asia and South America, demonstrated a <u>34%</u> reduction of anemia as a result of large-scale programs to fortify food with iron.
- In India, about <u>45 brain and spine birth defects occur</u> in every 10,000 pregnancies. That equates to 115,390 birth defects every year.
- Many children born with spina bifida die before their fifth birthday. See a study from the <u>United Kingdom</u> and a <u>global estimate</u>.

• Fortifying India's staples with adequate amounts of folic acid could prevent more than <u>100,000 deaths</u> among children under five years of age every year.

The Indian Institute of Public Health-Delhi (IIPH-Delhi), Public Health Foundation of India (PHFI) announces the 'Call for Applications' for following on-campus academic programs for the session 2019-20:

- Master of Public Health (MPH) Web link: https://phfi.org/course/master-of-public-health-mph/
- Integrated MSc & PhD in Clinical Research Web link: https://phfi.org/course/integrated-msc-phd-in-clinical-research/
- Post Graduate Diploma in Public Health Management (PGDPHM) Web link: https://phfi.org/course/post-graduate-diploma-in-public-health-management-pgdphm-2/

A limited number of scholarships may be awarded to deserving and meritorious candidates, subject to availability of funds. For further details and eligibility criteria, please visit: https://phfi.org/scholarships/. The program brochures and application forms are available at: https://phfi.org/iiph-delhi/on-campus-programs/. The last date to receive applications is **May 31, 2019**.

News from the ICBDSR Centre, Executive Committee, and ICBDSR Members

2019 Edition of the "Alessandra Lisi Award"

The ICBDSR Executive Committee is pleased to announce the 2019 Edition of the "Alessandra Lisi Award". This award was established in 2007, in memory of Alessandra Lisi, a young researcher at the ICBDSR Centre from 2002 to 2006.

Eligibility requirements

- ✓ Active contribution to the epidemiology or surveillance of birth defects, preferably with an ICBDSR full member program.
- ✓ Evidence of a promising research career and ongoing commitment to the field, as demonstrated by high quality publications in peer-reviewed journals, initiating or coordinating research projects, or obtaining funding for research in the field of birth defects epidemiology.

Candidates must be within seven years of the date from their last formal training in a field directly related to the disciplines of Birth Defects, Developmental Biology, Epidemiology, or Teratology (e.g.degree conferral, postdoctoral fellowship, residency program, etc.).

Application

The application should be sent electronically to centre@icbdsr.org and describe in detail the candidate's accomplishments, date of the last formal training in a relevant discipline listed above, current research interests and projects, and why the nominator believes the candidate's career will promote knowledge of birth defects.

The application package should consist of the following items:

- ✓ A **letter of nomination** from a member of the ICBDSR.
- ✓ A **second letter of reference** from another individual who is familiar with the candidate's research career.
- ✓ The candidate's curriculum vitae.
- ✓ **Up to three representative publications** of the candidate. The candidate is not required to be the first author on each publication, but it should be clear that he/she had a major role in the design and implementation of the research that led or is likely to lead to an advance in birth defects research.
- ✓ The candidate may supply a summary of his/her research career with a description of future research directions (optional).

At the discretion of the Awards Committee, additional information may be requested from the candidate. The winner will receive a plaque and a travel stipend to attend the ICBDSR Annual Meeting. The award will be presented at the meeting, during which the awardee will present his/her research onbirth defects.

Timeline:

June 30th: Deadline for submitting application

July 15th: Notification of the winner

<u>September 9th</u>: Award winner will give his/her presentation at the ICBDSR Annual Meeting in Bratislava, Slovak Republic. Full information on the Award and past Awardees is available at http://www.icbdsr.org/alessandra-lisi-award/.

Online Self-Paced Course on Birth Defect Surveillance and Prevention

The online course remains available for interested professionals. The course has been developed by the International Centre on Birth Defects (ICBD – ICBDSR Centre), and supported in part by funding from the National Center on Birth Defects and Developmental Disabilities, US Centers for Disease Control and Prevention, through Agreement 2016-2017 with the Task Force for Global Health. The course is designed for clinicians, epidemiologists, public health professionals, and anyone interested in understanding birth defects and improving their prevention and care. The course includes videos, quizzes, a discussion forum, and publications/resources. It is available in English and Spanish. To date, 165 applicants from 41 countries have participated in the course. Further information is available at http://www.icbdsr.org/online-self-paced-course-on-birth-defect-surveillance-and-prevention/. The registration form is available at www.icbdsr.org/course-registration. Once registered, you will receive an email with guidance on how to register by yourself in the course platform www.icbdsrtraining.org and how to self-enroll in the self-paced course in either English or Spanish.

Meetings and Conferences

ECPCA – European Cleft Palate Craniofacial Association, June 12-15. 2019, Utrecht, The Netherlands. Theme of the congress is *"Future perspectives in research & therapy"*. Abstracts submission is open. http://ecpca.eu/

Annual Meeting of the Society for Epidemiology Research (SER), June 18-21, 2019, Minneapolis, Minnesota, US.SER holds an annual meeting in June of each year. The purpose of the annual meeting is to bring together epidemiologists from all stages of their career trajectory—from trainees to senior scientists. https://epiresearch.org/annual-meeting/2019-meeting/

59th **Annual Meeting of the Teratology Society,** June 22–26, 2019, San Diego, California, US. The theme for the meeting is "Sea Changes in Birth Defects Research and Prevention". The program offers an exciting variety of scientific sessions, and three workshops will be offered: Current Topics and Updates for Pregnancy Registries, Multidisciplinary Research Needs, and Irresponsible Conduct of Research: What Happens When Things Go Wrong. http://teratology.org/meetings/2019/

3rd Congress of Joint European Neonatal Societies, September17-21, 2019, Maastricht, The Netherlands. https://www.mcascientificevents.eu/jens/

Shaping the Future in Pediatrics, October 2-4, 2019, Rome (Italy).

Main Conference topics: Advances in clinical pediatrics and precision medicine; Artificial intelligence in the clinic; Building the hospital of the future; Digital therapies and digital communication for pediatrics; Startup pitch for pediatrics. https://www.mcascientificevents.eu/shapepediatrics/

2nd International Comprehensive Cleft Care Workshop: Education for Sustainable Cleft Care, October 16-18, 2019. Hilton Lima Miraflores, Lima, Peru. https://cleftworkshop.org/

9th International Conference on Birth Defects and Disabilities in the Developing World (ICBD 2019) – "Health for all: Accelerate Efforts for Birth Defects Prevention and Care". October23-26, 2019, Colombo, Sri Lanka. Extended deadline for abstracts submission: May 31, 2019. https://slma.lk/icbd2019/abstracts/

13thAsia Pacific Conference on Human Genetics, November 7-9, 2019, Makati Shangri-la Manila, Philippines. The theme of the conference is "Advancing Translational Medicine and Collaborations in Genomics." This

conference will bring together an outstanding community of faculty, scientists, researchers, and students from the Asia Pacific region and different parts of the world. Deadline of early bird registration is on July 7, 2019. You may register here. Abstract Submission is extended to June 7, 2019. Kindly ask secretariat@apchg2019.org for guidelines for abstract submission.

March 3rd, World Birth Defects Day - WBDD Movement

world

Join the WBDD as a Partner Organization

by completing the online application form on the WBDD website https://www.worldbirthdefectsday.org/application-form/.

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Join WBDD page on Facebook https://www.facebook.com/WBDDay/ Visit WBDD website https://www.worldbirthdefectsday.org/