

International Clearinghouse for Birth Defects Surveillance and Research Monthly Newsletter

June 2022 Issue 2022-06

ICBDSR ANNUAL MEETING

The **48**th **ICBDSR Annual Meeting** will be held from **September 18**th**to 21**st, **2022** in Bologna, Italy, at Hotel Relais Bellaria. It will bean in-person meeting with the possibility to join the scientific session by live stream.

The Annual Meeting Committee is starting to review the abstracts for oral and poster presentation received by the deadline of June 15. Authors will be informed about the acceptance of their abstract. The final agenda of the meeting is under preparation.

Authors of accepted oral presentations may present their work either in person or virtually (pre-recorded) Please note that that in person oral presentations will be prioritized.

Authors of accepted posters may present their work either in person or virtually, and all will be required to send a pre-recorded presentation of the poster, in order to make it available online.

Authors of an accepted poster who will attend in person are encouraged to bring a traditional poster to allow interactions with colleagues present in person.

Information on hotel reservation and registration: http://www.icbdsr.org/48th-icbdsr-annual-meeting/ Please note: <a href="https://deadline.com/deadl

Venues of future Annual Meetings:

2023: Malta

2024: Prague (Czech Republic)

ICBDSR ALESSANDRA LISI AWARD

We are pleased to announce the 2022 Edition of the "Alessandra Lisi Award". This award was established in 2007, in memory of Alessandra Lisi, a young researcher at the ICBDSR Coordinating Centre.

Eligibility requirements

- ✓ Active contribution to the epidemiology or surveillance of birth defects, preferably with anICBDSR 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 directlyrelated to the disciplines of Birth Defects, Developmental Biology, Epidemiology, or Teratology (e.g. degree conferral, postdoctoral fellowship, residency program, etc.)

Application

The application package should be sent electronically to centre@icbdsr.org. See full information at http://www.icbdsr.org/alessandra-lisi-award/

Nature of the award

The winner will receive a plaque and a travel stipend to attend the ICBDSR Annual Meeting, held in Bologna, Italy, from 18th to 21st September 2022. 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

September 19th: Award winner will give his/her presentation at the ICBDSR Annual Meeting Information on the Award and past Awardees at http://www.icbdsr.org/alessandra-lisi-award/

ICBD corner: News and comments from the International Centre on Birth Defects (ICBD)

Birth Defect Training Case Studies. In many settings (clinic, business, etc.) case studies are effective training tools, especially in a group setting. At ICBD we have developed three extended case studies on birth defect identification, description, reporting, and coding. As they work through these case studies, the trainees, will be also exposed to concepts such as birth defect sequence (e.g. spina bifida sequence) and non-random associations (VACTERL association), and to basic information about some common risk factors, genetic (e.g., trisomy 18, deletion 22q11) and otherwise (maternal diabetes, folic acid insufficiency).

Methodologically, the case studies highlight the value of checklists and clinical clues for high quality activities. For consistency, the case studies are aligned with the content of the Quick Reference Handbook and the Manual for Program Managers (second edition), recently issues by WHO/CDC/ICBDSR.

The target audience is mainly surveillance staff but also clinical providers (e.g., nurses, junior doctors, medical students)in point of care settings such as birth hospitals.



We are now looking for programs that would like to test pilot these case studies. If interested, we will provide you with documentation (including notes for trainers and a slide deck). What we ask in return is a timely review with feedback and evaluation.

For the ICBD, Lorenzo Botto, ICBD Director

What's Going on

National Cytomegalovirus (CMV) Awareness Month

June is National Cytomegalovirus (CMV) Awareness Month in the US. It is an annual observance to increase awareness of CMV, the most common infectious cause of birth defects.

CMV is the most common infectious cause of birth defects in the United States. About 1 out of 5 babies with congenital CMV infection will have birth defects or other long-term health problems, such as hearing loss. https://www.cdc.gov/cmv/awareness-month.html

International Federation for Spina Bifida and Hydrocephalus (IFSBH)

Do you have Spina Bifida or Hydrocephalus? Are you more than 30 years old? Then you might be the ideal candidate to join the IF Working Group on Ageing. IF invites you to apply through the QR code on the picture. Learn more about the group here: http://bit.ly/IFAgeing



A selection from the recent literature, and recommendations from readers

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

Top 3 highlights this month (selected and commented by ICBD)

Kancherla V, Botto LD, Rowe LA, Shlobin NA, Caceres A, Arynchyna-Smith A, Zimmerman K, Blount J, Kibruyisfaw Z, Ghotme KA, Karmarkar S, Fieggen G, Roozen S, Oakley GP Jr, Rosseau G, Berry RJ. Preventing birth defects, saving lives, and promoting health equity: an urgent call to action for universal mandatory food fortification with folic acid. Lancet Glob Health. 2022 May 23:S2214-109X(22)00213-3. doi: 10.1016/S2214-109X(22)00213-3. Epub ahead of print. PMID: 35617975.

A data-supported call to action supporting universal fortification with folic acid to prevent birth defects. A paper rich in data and information not only on the epidemiology evidence for effectiveness, but also on the practicalities of implementation. This call to action was supported by many organization of clinicians, public health professionals, and patients.

Santoro M, Coi A, Pierini A, Rankin J, Glinianaia SV, Tan J, Reid A, Garne E, Loane M, Given J, Aizpurua A, Astolfi G, Barisic I, Cavero-Carbonell C, de Walle HEK, Den Hond E, García-Villodre L, Gatt M, Gissler M, Jordan S, Khoshnood B, Kiuru-Kuhlefelt S, Klungsøyr K, Lelong N, Lutke R, Mokoroa O, Nelen V, Neville AJ, Odak L, Rissmann A, Scanlon I, Urhoj SK, Wellesley D, Wertelecki W, Yevtushok L, Morris JK. Temporal and geographical variations in survival of children born with congenital anomalies in Europe: A multi-registry cohort study. Paediatr Perinat Epidemiol. 2022 Jun 8. doi: 10.1111/ppe.12884. Epub ahead of print. PMID: 35675091.

In this remarkable example of collaboration (among many birth defect programs) and expansion (from birth defect occurrence to basic outcomes), the team from 17 EUROCAT registries linked to mortality records to assess the 1-year mortality of babies born with congenital anomalies. Tracking outcomes should become part of standard operations of effective birth defect programs.

Marchincin SL, Howley MM, Van Zutphen AR, Fisher SC, Nestoridi E, Tinker SC, Browne ML; National Birth Defects Prevention Study. <u>Risk of birth defects by pregestational type 1 or type 2 diabetes: National Birth Defects Prevention Study, 1997-2011</u>. Birth Defects Res. 2022 Jun 6. doi: 10.1002/bdr2.2050. Epub ahead of print. PMID: 35665489.

A twist on diabetes and major birth defects, separating and comparing type 1 and type 2 diabetes (both were associated with increased risk for birth defects, involving multiple organ systems).

Outcomes and Longitudinal Studies

Diaz P, Coughlin W, Lam W, Ermis P, Aguilar D, GandugliaCazaban CM, Agopian AJ. <u>Describing characteristics</u> of adults with and without congenital heart defects hospitalized with <u>COVID-19</u>. Birth Defects Res. 2022 Jun 11. doi: 10.1002/bdr2.2052. Epub ahead of print. PMID: 35689527.

Prevention / Risk Factors

Wilson RD, O'Connor DL. <u>Guideline No. 427: Folic Acid and Multivitamin Supplementation for Prevention of Folic Acid-Sensitive Congenital Anomalies.</u> J ObstetGynaecol Can. 2022 Jun;44(6):707-719.e1. doi: 10.1016/j.jogc.2022.04.004. PMID: 35691683

Dwyer ER, Filion KB, MacFarlane AJ, Platt RW, Mehrabadi A. Who should consume high-dose folic acid supplements before and during early pregnancy for the prevention of neural tube defects? BMJ. 2022 Jun 7;377:e067728. doi: 10.1136/bmj-2021-067728. PMID: 35672044.

Reece AS, Hulse GK. <u>Epidemiological association of cannabinoid- and drug- exposures and sociodemographic factors with limb reduction defects across USA 1989-2016</u>: A geotemporospatial study. Spat Spatiotemporal Epidemiol. 2022 Jun;41:100480. doi: 10.1016/j.sste.2022.100480. Epub 2022 Jan 29. PMID: 35691647.

Yakuwa N, Takahashi K, Anzai T, Ito N, Goto M, Koinuma S, Uno C, Suzuki T, Watanabe O, Yamatani A, Murashima A. <u>Pregnancy Outcomes With Exposure to Second-Generation Antipsychotics During the First Trimester.</u> J Clin Psychiatry. 2022 Jun 8;83(4):21m14081. doi: 10.4088/JCP.21m14081. PMID: 35687862.

Suhl J, Conway KM, Rhoads A, Langlois PH, Feldkamp ML, Michalski AM, Oleson J, Sidhu A, Kancherla V, Obrycki J, Mazumdar M, Romitti PA; National Birth Defects Prevention Study. Pre-pregnancy exposure to arsenic in diet and non-cardiac birth defects. Public Health Nutr. 2022 May 27:1-36. doi: 10.1017/S1368980022001318. Epub ahead of print. PMID: 35620934.

Infections, including COVID-19

Moro PL, Olson CK, Clark E, Marquez P, Strid P, Ellington S, Zhang B, Mba-Jonas A, Alimchandani M, Cragan J, Moore C. <u>Post-authorization surveillance of adverse events following COVID-19 vaccines in pregnant persons in the vaccine adverse event reporting system (VAERS), December 2020 - October 2021.</u> Vaccine. 2022 May 26;40(24):3389-3394. doi: 10.1016/j.vaccine.2022.04.031. Epub 2022 Apr 12. PMID: 35489985; PMCID: PMC9001176.

Epidemiology and Surveillance

Yan H, Zhai B, Feng R, Wang P, Zhang Y, Wang Y, Hou Y, Zhou Y. <u>Prevalence of Congenital Heart Disease in Chinese Children With Different Birth Weights and Its Relationship to the Neonatal Birth Weight</u>. Front Pediatr. 2022 May 19;10:828300. doi: 10.3389/fped.2022.828300. PMID: 35664878; PMCID: PMC9160328.

Gorini F, Santoro M, Pierini A, Mezzasalma L, Baldacci S, Bargagli E, Boncristiano A, Brunetto MR, Cameli P, Cappelli F, Castaman G, Coco B, Donati MA, Guerrini R, Linari S, Murro V, Olivotto I, Parronchi P, Pochiero F, Rossi O, Scappini B, Sodi A, Vannucchi AM, Coi A. <u>Orphan Drug Use in Patients With Rare Diseases: A Population-Based Cohort Study.</u> Front Pharmacol. 2022 May 16;13:869842. doi: 10.3389/fphar.2022.869842. PMID: 35652051; PMCID: PMC9148958.

Ssentongo P, Heilbrunn ES, Ssentongo AE, Ssenyonga LVN, Lekoubou A. <u>Birth prevalence of neural tube defects in eastern Africa: a systematic review and meta-analysis.</u> BMC Neurol. 2022 Jun 1;22(1):202. doi: 10.1186/s12883-022-02697-z. PMID: 35650541; PMCID: PMC9158202.

Chen P, Li M, Mu Y, Wang Y, Liu Z, Li Q, Li X, Dai L, Xie Y, Liang J, Zhu J. <u>Temporal trends and adverse perinatal outcomes of twin pregnancies at differing gestational ages: an observational study from China between 2012-2020.</u> BMC Pregnancy Childbirth. 2022 Jun 3;22(1):467. doi: 10.1186/s12884-022-04766-0. PMID: 35659606; PMCID: PMC9164484.

Recommendations from readers

Cairncross ZF, Couloigner I, Ryan MC, McMorris C, Muehlenbachs L, Nikolaou N, Wong RC, Hawkins SM, Bertazzon S, Cabaj J, Metcalfe A. <u>Association Between Residential Proximity to Hydraulic Fracturing Sites and Adverse Birth Outcomes.</u> JAMA Pediatr. 2022 Jun 1;176(6):585-592. doi: 10.1001/jamapediatrics.2022.0306. PMID: 35377398; PMCID: PMC8981068.

News from ICBDSR Executive Committee

Two ICBDSR Collaborative papers have been recently published:

Kancherla V, Tandaki L, Sundar M, Lux A, Bakker MK, Bergman JE, Bermejo-Sánchez E, Canfield MA, Feldkamp ML, Groisman B, Hurtado-Villa P, Källén K, Landau D, Lelong N, Lopez-Camelo J, Mastroiacovo P, Morgan M, Mutchinick OM, Nance AE, Nembhard WN, Pierini A, Šípek A, Stallings EB, Szabova E, Wertelecki W, Zarante I, Rissmann A. A <u>Multicountry Analysis of Prevalence and Mortality among Neonates and Children with Bladder Exstrophy.</u> Am J Perinatol. 2022 May 29. doi: 10.1055/s-0042-1748318. Epub ahead of print. PMID: 35644130.

Gili JA, López-Camelo JS, Nembhard WN, Bakker M, de Walle HEK, Stallings EB, Kancherla V; ECEMC Peripheral Group, Contiero P, Dastgiri S, Feldkamp ML, Nance A, Gatt M, Martínez L, Canessa MA, Groisman B, Hurtado-Villa P, Källén K, Landau D, Lelong N, Morgan M, Arteaga-Vázquez J, Pierini A, Rissmann A, Sipek A, Szabova E, Wertelecki W, Zarante I, Canfield MA, Mastroiacovo P. <u>Analysis of early neonatal case fatality rate among newborns with congenital hydrocephalus, a 2000-2014 multi-country registry-based study</u>. Birth Defects Res. 2022 May 28. doi: 10.1002/bdr2.2045. Epub ahead of print. PMID: 35633200.

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 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 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. Additional information is available at http://www.icbdsr.org/online-self-paced-course-on-birth-defect-surveillance-and-prevention/. Please, register through the online registration form.

Meetings and Events

A list of future Meetings & Events is available at http://www.icbdsr.org/meetings/.

All readers are kindly invited to contribute to this section of the Newsletter, sending information about future meetings/events at centre@icbdsr.org



Continue to raise awareness on birth defects throughout the year!

Join the WBDD partners at https://www.worldbirthdefectsday.org/application-form/

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Instagram worldbidday
Join WBDD page on Facebook https://www.facebook.com/WBDDay/.

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