CV

Dr. Sahar M. A. Hassanein

Prof. of Pediatrics and Head of Pediatric Neurology Unit Former Chief Director of the Children's Hospitals Faculty of Medicine, Ain Shams University Cairo, Egypt

Biographical Information:

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• Medical Licensure: Egypt, 1986

Professional and objective

Neonatal Neurology, Pediatric Neurology, Neuroprotection, Neonatal brain cooling, Early Intervention and rehabilitation, EEG, aEEG, and EMG.

Hospital quality assurance JCI qualified.

Education:

04/94 MD Pediatrics, Ain Shams University School of Medicine, Cairo, Egypt
09/90 MS Pediatrics, Ain Shams University School of Medicine, Cairo, Egypt
12/86 M.B.B.Ch., Ain Shams University School of Medicine, Cairo, Egypt

• 05/02-01/03 Master degree Thesis in Neuropsychiatry, Ain Shams University_"Effect of eating attitudes and behavior on metabolic control in children and adolescents with type I Diabetes Mellitus".

Posts:

- 10/17-12/2018 Chief Director of Children's Hospitals, Ain Shams University
- 10/04- On Professor, Pediatric Department Ain Shams University, Medical School
- 10/99 Associate Professor, Pediatric Department -Ain Shams University, Medical School
- 10/94- Lecturer, Pediatric Department Ain Shams University, Medical School
- 05/91 Assistant Lecturer in Pediatric Department, Ain Shams University Hospitals
- 05/88-05/91 Pediatric Resident in Pediatric Department, Ain, Shams University Medical School

Certifications:

- Training of Trainers in Neonatology, Organized by Healthy Mother/Healthy Child Project and Jhon Snow, Inc, 2001
- Electrophysiologic studies of the nervous system (nerve conduction studies, Electromyography, EEG)
- 04-05/2001 Course in advanced neonatal care, The George Washington University Medical Center, and The Children's National Medical Center. Washington, District of Columbia.
- Neonatal brain monitoring and neuroprotection (amplitude EEG). Workshop and conference. Austria, Vienna 2008.



- Training workshop about (Learning Management Systems-Moodle). This workshop included: definition of eLearning and its advantages, using LMS in education. how to use Moodle in education. **eLearning center,** Faculty of Medicine, Ain Shams University, 2012.
- Rare Diseases *North African Neuromuscular Training Meeting* 21st 22nd June 2013"Aula Magna" University of Messina, Italy
- Distance education course ILAE-VIREPA (*EEG in the diagnosis & management of epilepsy in neonates & children 4th edition*) From October 10, 2014 until April 26, 2015
- Clinical instructor in "*Professional certificate in Pediatric Neurology*" Arab Institute for continuing professional development (AICPD), Jan.-June 2015.
- Spinal Muscular Atrophy curator in TREAT-NMD (Neuromuscular network).
- TREAT-NMD Curators' and TGDOC meeting in Leiden, the Netherlands on 3rd and 4th November 2014.
- Nerve conduction studies workshop, The Egyptian Clinical Neurophysiology Society ECNPS, 8-9TH April 2015, Kasr Alainy Hospitals.
- Training on **data entry on item bank and exam creation** for under and postgraduates October 2018, **Measurement & evaluation center**, Faculty of Medicine, Ain Shams University.
- Joint Commission International (JCI) 6-months training, International Medical Center- Military medical services, March-August 2018.

Teaching experience

- •Teaching Pediatrics and Pediatric neurology for the 5th year students since 1994.
- •Teaching Pediatrics and Pediatric neurology for postgraduate students since 1994
- •*Pediatric neurology online eLearning course creator*, for the National eLearning center- Ministry of higher education 2014. Applied for teaching for pediatrics 5th year 2015-2016 and year 2016-2017. Following the students on the http://cms2.nelc.edu.eg/
- •*Pediatrics eLearning course creator for the undergraduates* Moodle for 4th and 5th year, Faculty of Medicine, Ain Shams University, for the academic year 2017-till now. https://asu2learn.asu.edu.eg/medicine/course/view.php?id=55
- *Pediatrics e-learning course creator for the postgraduates* Moodle, Faculty of Medicine, Ain Shams University, for the academic year 2020-till now.

https://asu2learn.asu.edu.eg/medicinePG/mod/hvp/view.php?id=19591

Years of clinical experience in Neonatal and Child neurology:

- Working for 15 years in the NICU of Pediatric Department, and Maternity Hospital, Ain Shams University- School of Medicine. Neonatal neurology, EEG and aEEG.
- Neurodevelopmental and pediatric neurology clinic of Pediatric Department, Ain Shams University- School of Medicine.
- Neurophysiology Unit, Pediatric Department, Ain Shams University- School of Medicine.

Skills:

- 05/04Electroencephalography for children's techniques and interpretation. Working on Digital EEG Nicolet Viasys.
- 04/05Electromyography and nerve conduction studies using Viking Quest Viasys
- 05/02Neurological assessment of the newborn.
- 02/01Neurodevelopmental assessment of infants by Bayley's II scale.

• **Telemedicine and Tele-education:** Telemedicine presidential project executive committee 2019-till now. Member in the executive committee of the presidential telemedicine project (Ministry of health, Higher education, and communication)

Conferences and clinical projects

- Healthy Mother/Healthy Child Project and John Snow, Inc, Trained and taught Neonatology for upper Egypt Doctors and Clinical Supervision for upper Egypt NICUs improvements Project, 2002.
- 2002-2003Principal Investigator: In neonatal hearing screening using oto-acoustic emission project, Neonatal intensive care unit of Ain Shams University Maternity Hospital.
- Neurology consultant in Project Hope Gaucher disease in Egypt.
- Principal investigator in international pediatric stroke study IPSS, 2012- till now.
- Attended the summit and shared the working groups of Neonatal Encephalopathy and Hypoxic Ischemic Encephalopathy: Advancing the Science and Improving Outcomes National Institute of Child Health and Human Development May 8-9, 2013.
- Participated in the American Academy for Cerebral Palsy and Developmental Medicine (AACPDM) 70th Annual Meeting educational activity and presented a poster "Effect of oral magnesium therapy on spasticity and constipation in children with spastic cerebral palsy", September 20-24, 2016, Diplomat Hollywood, Florida
- TREAT-NMD TGDOC Curator's Meeting on Thursday 12th and the SMA Dataset Workshop on Friday 13th December, at Leiden University in The Netherlands.

<u>Publications: https://scholar.google.com.eg/citations?user=Ux2PkQ0AAAAJ&hl=en</u> ORCID ID: 0000-0002-0191-8425 Scopus ID: 8391009500

- 1. Adapting Evidence-Based Practice Guidelines for Emergency Management of Seizures in Children Beyond the Neonatal Period. Abdel Baky A, Al Refaei A, El Melegy E, Tantawi H, Mansour L, Mohamed M, El Rashidy O, Hassanein S, Omar T, Elsayeh A, ElGazzar H, Amer YS, Abd Elmaksoud M. Pediatr Neurol. 2024 May 10;157:14-18. doi: 10.1016/j.pediatrneurol.2024.05.004. Epub ahead of print. PMID: 38838593.
- 2.A quantitative EEG index for the recognition of arterial ischemic stroke in children. Caffarelli M, Karukonda V, Aghaeeaval M, McQuillen PS, Numis AL, Mackay MT, Press CA, Wintermark M, Fox CK, Amorim E; SIPS Investigators. Clin Neurophysiol. 2023 Dec;156:113-124. doi: 10.1016/j.clinph.2023.10.001.
- 3.**Balance functions and primitive reflexes in dyslexic children.** Hazzaa, N., Shalaby, A., Hassanein, S., Khattab, A., Metwally, N., & Naeem, F. 2023 Hearing, Balance and Communication, 21(3), 169–174. https://doi.org/10.1080/21695717.2023.2176657
- 4. Diaphragmatic and Rectus Femoris Muscles Ultrasonography in Relation to Motor and Respiratory Functions in Ambulatory Boys with Duchenne Muscular Dystrophy. Sahar M.A. Hassanein, Iman Elagouza, Hossam Sakr, Maha Z. Mohammed, Ahmed Rihan, Shaymaa Deifalla. Journal of Pediatric Neurology 2023; 21(05): 352-359 DOI: 10.1055/s-0043-1769477
- 5. Adapting global evidence-based practice guidelines to the Egyptian healthcare context: the Egyptian Pediatric Clinical Practice Guidelines Committee (EPG) initiative. Bull Natl Res Cent. 2023;47(1):88. doi: 10.1186/s42269-023-01059-0.
- 6.Effect of educational intervention on nurses' perception and practice of antimicrobial stewardship programs. Hendy A, Al-Sharkawi S, Hassanein SMA, Soliman SM. Am J Infect Control. 2023 Jan;51(1):41-47. doi: 10.1016/j.ajic.2022.05.001.

- 7.**Pediatric Moyamoya Biomarkers: Narrowing the Knowledge Gap.** Lehman LL, Kaseka ML, Stout J, See AP, Pabst L, Sun LR, Hassanein SA, Waak M, Vossough A, Smith ER, Dlamini N. Semin Pediatr Neurol. 2022 Oct;43:101002. doi: 10.1016/j.spen.2022.101002. Epub 2022 Sep 15. PMID: 36344019.
- 8. Pediatric Stroke and Cardiac Disease: Challenges in Recognition and Management. Mayne EW, Mailo JA, Pabst L, Pulcine E, Harrar DB, Waak M, Rafay MF, Hassanein SM, Amlie-Lefond C, Jordan LC. Semin Pediatr Neurol. 2022 Oct;43:100992. doi: 10.1016/j.spen.2022.100992. Epub 2022 Aug 31. PMID: 36344023; PMCID: PMC9719802.
- 9.International Prevalence and Mechanisms of SARS-CoV-2 in Childhood Arterial Ischemic Stroke During the COVID-19 Pandemic. Beslow LA, Agner SC, Santoro JD, Ram D, Wilson JL, Harrar D, Appavu B, Fraser SM, Rossor T, Torres MD, Kossorotoff M, Zuñiga Zambrano YC, Hernández-Chávez M, Hassanein SMA, Zafeiriou D, Dowling MM, Kopyta I, Stence NV, Bernard TJ, Dlamini N; International Pediatric Stroke Study Group. Stroke. 2022 Aug;53(8):2497-2503. doi: 10.1161/STROKEAHA.121.038250. PMID: 35380052.
- 10. **Towards creation of national cerebral palsy registries in Arab countries: what is missing?**. Hassanein, S.M.A., El-Sobky, T.A. World J Pediatr (2022).
- 11. *Role of MRI evaluation in acute secondary inability to walk in children.* Sedeek, K.H., Aboualfotouh, K., Hassanein, S.M. et al. Egypt J Radiol Nucl Med 52, 37 (2021).
- 12. Vertebral Artery Dissection in a Case of Klippel–Feil Syndrome. Shaimaa A. Mohammad, Sahar M. A. Hassanein, Mohamed M. Fouad. Neuropediatrics 2021; 52(06): 506-508
- 13. Pediatric Ischemic Stroke: An Infrequent Complication of SARS-CoV-2. Lauren A Beslow, Alexandra B Linds, Christine K Fox, Manoëlle Kossorotoff, Yenny C Zuñiga Zambrano, Marta Hernández-Chávez, Sahar MA Hassanein, Susan Byrne, Ming Lim, Nkechi Maduaka, Dimitrios Zafeiriou, Michael M Dowling, Ryan J Felling, Mubeen F Rafay, Laura L Lehman, Michael J Noetzel, Timothy J Bernard, Nomazulu Dlamini, International Pediatric Stroke Study Group. Ann Neurology, 2021, Apr;89(4):657-665. https://doi.org/10.1002/ana.25991.
- 14.Impact of structured simulation-based and on-job training program on nurses' competency in pediatric peripheral intravenous cannulation: Children's hospital experience. Sahar M A Hassanein, Hyam R Tantawi, Bothayna N Sadek, Abdelaziz Hendy, Hisham A Awad. Nurse Educ Today. 2021, 98: 104776.
- **15.**Assessment of balance functions and primitive reflexes in children with learning disability. Nagwa Hazzaa, Amany Shalaby, Sahar Hassanein, Fathy Naeem, Ahmed Khattab and Nancy Metwally. Ain Shams Medical Journal, 2021, 72(4): 97-103.
- 16.Efficacy of oral magnesium therapy in the treatment of chronic constipation in spastic cerebral palsy children: a randomized controlled trial. Sahar M A Hassanein, Shaymaa M Deifallah, Hend A Bastawy. World J. of Pediatrics. 2021 Jan 22. doi: 10.1007/s12519-020-00401-0.
- 17. Cancer and Tumor-Associated Childhood Stroke: Results from the International Pediatric Stroke Study. Lisa R.Sun, Alexandra Linds, Mukta Sharma, Mubeen Rafay, Sudhakar Vadivelu, Sarah Lee, Leonardo R. Brandão, Brian Appavu, Jeremie H. Estepp, Juliette Hukinm Sahar M.A. Hassanein, Anthony Chan, Lauren A.Beslow, International Pediatric Stroke Study Group. Pediatric Neurology. 2020, 111, 59-65.
- 18. Predicting Recovery and Outcome after Pediatric Stroke: Results from the International Pediatric Stroke Study. Ryan J. Felling, Mubeen F. Rafay, Timothy J. Bernard, Jessica L. Carpenter,

- Nomazulu Dlamini, Sahar M. A. Hassanein, Lori C. Jordan, Michael J. Noetzel, Michael J. Rivkin, Kevin A. Shapiro, Mahmoud Slim, and Gabrielle deVeber. ANN NEUROL 2020; 87:840–852 19. *Treatment and Outcome of Childhood Cerebral Sinovenous Thrombosis*. Ryan J. Felling, Sahar M. A. Hassanein, Jennifer Armstrong, Luis Aversa, Lori Billinghurst, Neil A. Goldenberg, Jo Ellen Lee, Emily C. Maxwell, Michael J. Noetzel, Warren Lo, on behalf of the International Pediatric
- 20. Arterial Ischemic Stroke Secondary to Cardiac Disease in Neonates and Children. Melissa G. Chung, Kristin P. Guilliams, Jenny L. Wilson, Lauren A. Beslow, Michael M. Dowling, Neil R. Friedman, Sahar M.A. Hassanein, Rebecca Ichord, Lori C. Jordan, Mark T. Mackay, Mubeen F. Rafay, Michael Rivkin, Marcela Torres, Dimitrios Zafeiriou, Gabrielle de Veber, Christine K. Fox, On behalf of the International Pediatric Stroke Study Investigators. Pediatric Neurology. 2019, 100: 35-41.

Stroke Study Group. Neurology: Clinical Practice. 2019, 10 (3): 232-244.

- 21. *Mortality After Pediatric Arterial Ischemic Stroke*. Beslow LA, Dowling MM, Hassanein SMA, Lynch JK, Zafeiriou D, Sun LR, Kopyta, Titomanlio L, Kolk A, Chan A, Biller J, Grabowski EF, Abdalla AA, Mackay MT, deVeber G. Pediatrics. 2018 May;141(5).
- 22. Human Umbilical Cord Blood CD34-Positive Cells as Predictors of the Incidence and Short-Term Outcome of Neonatal Hypoxic-Ischemic Encephalopathy: A Pilot Study. Sahar M. A. Hassanein, Mohamed Hassan Nasr Eldin, Hanaa A. Amer, Adel E. Abdelhamid, Moustafa El Houssinie, and Abir Ibrahim. J Clin Neurol. 2017 Jan;13(1):84-90.
- 23. Posttraumatic Acute Disseminated Encephalomyelitis in a Child Resolved by Steroid Therapy: Case Report. Sahar Hassanein, and Yosra Abdelzaher Ibrahim. J Clin Neurol. 2016 Apr; 12(2): 245–247.
- 24. Safety and Efficacy of Cerebrolysin in Infants with Communication Defects due to Severe Perinatal Brain Insult: A Randomized Controlled Clinical Trial. Sahar M.A. Hassanein, Shaymaa M. Deifalla, Moustafa El-Houssinie, and Somaia A. Mokbel. J Clin Neurol. 2016 Jan; 12(1):79-84 25. Effect of Caffeine on Preterm Infants' Cerebral Cortical Activity: An observational study. Hassanein SM, Gad GI, Ismail RI. J Matern Fetal Neonatal Med. 2015, 28, 2090-2095. 26. Single dose recombinant erythropoietin versus moderate hypothermia for neonatal hypoxic ischemic encephalopathy in low resource settings. MS El Shimi, HA Awad, SMA Hassanein, GI Gad, SS Imam, HA Shaaban. The Journal of Maternal-Fetal & Neonatal Medicine. 2014, 27
- 27. *Neonatal nursery noise: practice-based learning and improvement*. Hassanein SM, El Raggal NM, Shalaby AA. J Matern Fetal Neonatal Med. 2013 Mar;26(4):392-5.

(13):1295-1300.

- 28. Evoked potentials and neurocognitive functions in pediatric Egyptian Gaucher patients on enzyme replacement therapy: a single center experience. AAG Tantawy, EM Sherif, AAM Adly, S Hassanin, AH Awad. Journal of inherited metabolic disease. 2013, 36 (6): 1025-1037.
- 29. Somatosensory evoked potential for detection of subclinical neuropathy in Egyptian children with acute lymphoblastic leukaemia. AAG Tantawy, SM Hassanein, AAM Adly, OM Saeed, YW Darwish. Pakistan Journal of Biological Sciences 13 (11)
- 30. *Perinatal ventriculomegaly*. SMA Hassanein, H Moharram, AM Monib, AR Ramy, WA Ghany. Journal of Pediatric Neurology. 2009, 6 (4), 293-307
- 31. Cryptosporidium gastroenteritis in Egyptian children with acute lymphoblastic leukemia: magnitude of the problem. SMA Hassanein, MMS Abd-El-Latif, OM Hassanin, LMS Abd-El-Latif. Infection. 2012, 40 (3), 279-284

- 32. Cord blood interleukin-6 and neonatal morbidities among preterm infants with PCR-positive ureaplasma urealyticum. Hassanein SM, El-Farrash RA, Hafez HM, Hassanin OM, Abd El Rahman NA. J Matern Fetal Neonatal Med. 2012 Oct;25(10):2106-10.
- 33. Predictive value of vascular endothelial growth factor in preterm neonates with intraventricular haemorrhage. El Shimi MS, Hassanein SM, Mohamed MH, Abdou RM, Roshdy A, Atef SH, Aly H. J Matern Fetal Neonatal Med. 2012 Sep;25(9):1586-90.
- 34. Two-stage single-volume exchange transfusion in severe hemolytic disease of the *newborn*. Abbas W, Attia NI, Hassanein SM. J Matern Fetal Neonatal Med. 2012 Jul;25(7):1080-3. doi: 10.3109/14767058.2011.622008.
- 35. *Hemihydranencephaly syndrome: case report and review*. Hassanein SM, Abbas YA, Monib AM, El Alfy MS. Dev Neurorehabil. 2011;14(5):323-9. doi:10.3109/17518423.2011.593574. Review. PubMed PMID: 21870957.
- 36. *Umbilical cord blood CD45*(+)*CD34*(+) *cells coexpression in preterm and full-term neonates: a pilot study*. Hassanein SM, Amer HA, Shehab AA, Hellal MM. J Matern Fetal Neonatal Med. 2011 Feb;24(2):229-33. doi: 10.3109/14767058.2010.482606. Epub 2010 Jun 23.
- 37. *Melatonin and sleep-related problems in children with intractable epilepsy*. Elkhayat HA, Hassanein SM, Tomoum HY, Abd-Elhamid IA, Asaad T, Elwakkad AS. Pediatr Neurol. 2010 Apr;42(4):249-54. doi:10.1016/j.pediatrneurol.2009.11.002. PubMed PMID: 20304327.
- 38. *Vascular endothelial growth factor in neonates with perinatal asphyxia*. Aly H, Hassanein S, Nada A, Mohamed MH, Atef SH, Atiea W. Brain Dev. 2009 Sep;31(8):600-4. doi: 10.1016/j.braindev.2008.09.004.
- 39. Gestational age, sex and maternal parity correlate with bone turnover in premature infants. Aly H, Moustafa MF, Amer HA, Hassanein S, Keeves C, Patel K. Pediatr Res. 2005 May;57(5 Pt 1):708-11.
- 40. Physical activity combined with massage improves bone mineralization in premature infants: a randomized trial. Aly H, Moustafa MF, Hassanein SM, Massaro AN, Amer HA, Patel K. J Perinatol. 2004 May;24(5):305-9. PubMed PMID: 15071483.
- 41. *Umbilical Cord Blood CD34*+/*CD45*+ *Cells in Preterm and Full Term Neonates.* Pediatric Academic Societies' Annual Meeting May 2009. Abstract 4347.300

42. <u>Professional memberships</u>

- Member in the International Child Neurology Society (ICNA).
- Board member and secretary of the African Child Neurology Society (ACNA). https://icnapedia.org/community/groups/acna
- Principal investigator for Egypt in International pediatric stroke study (IPSS) since 2012. Member in the executive committee of the International pediatric stroke study (IPSS) since 2020 https://internationalpediatricstroke.org/ipss-committees/. Member in the educational committee of International Stroke Organization (IPSO), since 2020 https://internationalpediatricstroke.org/ipso-committees/. Member in the IPSO Hemorrhagic Pediatric Stroke Working Group https://internationalpediatricstroke.org/working-group/.
- Principal investigator and REDCap admin for "National Egyptian Network Pediatric Stroke and Hemiplegia Registry (NENPSHR) and Cardio-Brain study database. http://pediatric.asu.edu.eg/redcap/
- Member in the World Stroke Organization https://www.world-stroke.org/.

- Hold the position of Egyptian Spinal Muscular Atrophy curator in TREAT-NMD (TREAT Neuromuscular International organization) since 2012 till now. Presenting Egypt in all TREAT-NMD meetings. (https://treat-nmd.org/about-the-treat-nmd-network/become-a-member/members-organisations/), (https://treat-nmd.org/about/contact/sahar-hassanein/).
- Principal investigator and REDCap admin for the Egyptian Pediatric Neuromuscular disease registry "EGYPT PED NMD" registry. http://pediatric.asu.edu.eg/redcap/
- Member in the American academy of cerebral palsy and developmental medicine AACPDM.
- Member in Research Ethics Committee (REC), Faculty of Medicine, Ain Shams University.
- Board Member Chair of Master of Science in Pediatric Neurology, Faculty of Medicine, Ain Shams University.
- Member in the executive committee of the Egyptian Telemedicine project.
- Board member of the Egyptian Pediatric Guidelines committee "EPG" and admin of the (https://www.epg.edu.eg/) website.
- Member in Ambulatory Pediatric Association APA. Pediatric Academic Societies.
- President of Egyptian Society of Perinatal Neurocare ESPNC.
- Active member in Egyptian Society of Child Neuro Psychiatry ESCNP
- Member in Egyptian Society of Neonatal and Preterm Care ESNPC.