

## HIPPOLITE ONYEJIAKA AMADI (FRSM, CEng MIMechE)

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### **EDUCATION**

- (A) PhD (Orthopaedic Biomechanics), Imperial College London UK, 2002 – 2006
- (B) MSc (Engineering in Medicine), Imperial College London UK, 2001 - 2002
- (C) MEng (UK-MSc eqv, Mechanical Engineering technology & Management), ESUT Nigeria, 1989-1991
- (D) BEng (UK-MEng eqv, Mechanical Engineering), Enugu State University of Technology (ESUT) Nigeria, 1983 – 1988

### **Selected SCHOLARLY HONOURS & PROFESSIONAL APPOINTMENTS**

- (A) Professor, Honorary Research Fellow, Bioengineering Department, Imperial College London UK, 2013 – date
- (B) Professor (visiting) Imo State University Nigeria, 2014 – 2018
- (C) Research Associate, Department of Surgery and Cancer, Imperial College London UK, 2010 – 2012
- (D) Consultant Orthopaedics Biomechanist, Biomechanics Section & Bioengineering, Imperial College London, 2007 – 2009
- (E) Consultant Clinical Engineer in neonatal systems & procedures (selected Nigerian visiting positions in the last 15 years where I was instrumental to the revolutionary reduction in neonatal mortality rate at various times in nearly 30 tertiary hospitals across the entire country)
  - a. University of Abuja Teaching Hospital Gwagwalada Nigeria, 2008 – 2018
  - b. University of Benin Teaching Hospital, Benin-city Nigeria, 2006 – 2018
  - c. Federal Medical Centre (FMC), Owerri Nigeria, 2005 – 2019
  - d. Aminu Kano Teaching Hospital, Kano Nigeria, 2007 – 2017
  - e. Other Nigerian FMCs at Lokoja, Keffi, Nguru, Makurdi, Katsina & Yola, 2008 - date
  - f. Lagos University Teaching Hospital, Lagos Nigeria, 2007 - 2015
  - g. University of Nigeria Teaching Hospital Enugu, 2003 – 2014
  - h. Also other University Teaching Hospitals at: Sokoto, Calabar, Abakaliki, Jos, Ilorin and Port Harcourt
- (F) FELLOW of the Royal Society of Medicine (FRSM), 2017
- (G) CHARTERED Medical Engineer of the United Kingdom & Northern Ireland (CEng), 2004
- (H) REGISTERED Engineer of the Nigerian Engineering Council (COREN), 1997
- (I) MEMBER Medical Division of the United Kingdom Institution of Mechanical Engineers (MIMechE), 2004
- (J) MEMBER of the Nigerian Society of Engineers (MNSE), 1996

### **Selected PUBLICATIONS**

1. Amadi HO, Adesina CT, Olateju EK, Omokaro S, Okechukwu AA, Alabi P, Haruna AS. Validation of a Novel Technique that Minimises Early Neonatal Deaths - a Comparative Study. *Journal of Paediatrics and neonatal care*; 2017 Jan 18; 6(1): 00232.
2. Amadi HO, Olateju EK, Kawuwa MB, Osibogun AO, Alabi P, Ibadin MO. Neonatal hyperthermia and thermal stress in low- and middle-income countries: a hidden cause of death in extremely low-birthweight neonates. *Paediatrics and International Child Health*; 2015 Aug 2; 35(3): 273-281.
3. Amadi HO, Mohammed IL, Kawuwa MB, Oyedokun A, Mohammed H. Synthesis and validation of a weatherproof nursery design that eliminates tropical Evening-Fever-Syndrome in neonates. *International Journal of Paediatrics*, 2014; Volume 2014, ID 986760.
4. Amadi HO, Okonkwo IR, Abioye IO, et al. A new low-cost commercial bubble CPAP (bCPAP) machine compared with a traditional bCPAP device in Nigeria. *Paediatrics and International Child Health*; 2019; 39(3): 184-192
5. Amadi HO, Azubuike JC, Etawo US, Offiong UR, Ezeaka C, et al. The impact of recycled neonatal incubators in Nigeria: a 6-year follow-up study. *International Journal of Paediatrics*, 2010; Volume 2010, Article ID 269293, 7 pages doi:10.1155/2010/269293.
6. Amadi HO, Abdullahi R, Mokuolu OA, et al. Comparison of outcomes using overhead and total body phototherapy for the treatment of severe neonatal jaundice in Nigeria. *Paediatrics and International Child Health*; 2019. DOI: 10.1080/20469047.2019.1610607

### **Selected RECENT/CURRENT PROJECTS**

- (1) The Federal Medical Centre Keffi, Nigeria. Project: Workflow re-design and Unit capacity expansion/installations of appropriate neonatal thermal control technologies for the Special Care Baby Unit at Keffi Nigeria. Dates: January 2015 – October 2016. Project Status: completed
- (2) Ministry of Health Niger State of Nigeria. Project: Phase 1 – Complete layout & workflow design/restructuring, clinical and nursing staff training; Phase 2 - Identification & set-up of appropriate neonatal technologies for a new Special Care Baby Unit at Maternal & Neonatal Hospital Minna Nigeria. Dates: October 2016 – October 2017. Completed and regarded as one of the best appropriately equipped neonatal centres in Africa by some international observers.

- (3) Ongoing since 2007, I have presided over a nationwide network of multicentre research and maintenance of frugal technologies for neonatal thermoneutral control across institutions from entire regions of Nigeria in collaboration with the Committee of Chief Executives of Federal Tertiary Hospitals (CCEFTHI). Numbers: total number of tertiary hospitals since inception – 31.

#### **Selected CONFERENCE PAPERS**

- (1) Olateju EK, Adeshina CT and Amadi HO. 2017. Temperature control that minimises early neonatal deaths. In: proceedings of the 3rd Global Forum on medical devices, World Health Organisation, Geneva, Switzerland.
- (2) Amadi HO, Azubuike JC, Adimora GN, Osibogun AO, Alabi P, Uwakwem AC. 2013. Unexplored success route to Nigeria's MDG4 target on neonatal mortality. 2<sup>nd</sup> Global forum on medical devices, World Health Organisation, Geneva, Switzerland.
- (3) Amadi HO, Bull AMJ. 2010. Protocol and Validation of a Computer Method for Determining Glenohumeral Ligament Attachments in vivo. Proceedings of the 6<sup>th</sup> World Congress on Biomechanics, Singapore.

#### **Selected INVITED TALKS**

- (1) Amadi HO. 2018. Neonatal thermal stress – uncovering the hidden cause of death in extremely low birthweight neonates in low- and middle-income countries. Keynote Presentation, Neonatology & perinatology international, Frankfurt Germany, 6<sup>th</sup>-8<sup>th</sup> May 2018.
- (2) Amadi HO. 2017. Neonatal hyperthermia in extreme heat waves. International Conference on Global Health. Tropical Health Education Trust (THET). London 23<sup>rd</sup>-25<sup>th</sup> October 2017.
- (3) Amadi HO. 2016. Advocating for newborn survival in Africa. In proceedings: The 10<sup>th</sup> Stop Cervical, Breast and Prostate Cancer in Africa Conference (SCCA). Princess Nikky Foundation and the Forum of African First Ladies Summit, African Union Complex Addis Ababa, Ethiopia 24<sup>th</sup> – 27<sup>th</sup> July 2016.
- (4) Amadi HO. 2014. Promoting neonatal health whilst mitigating climate change – leading by example. In proceedings: A summary report on World Health Organisation conference on health and climate Geneva, Switzerland 26<sup>th</sup> – 29<sup>th</sup> August 2014; WHO Bulletin, vol.224 (1):6.
- (5) Amadi HO. 2013. Neonatal Concerns in tropical Africa. Summer event Guest Lecture, Heads of Diplomatic Missions of Africa and the Commonwealth Nations to the United Kingdom. Abuja House, Campden Hill London, 29<sup>th</sup> June 2013.

#### **Selected INTELLECTUAL PROPERTY/PATENT RIGHTS**

- (1) Amadi HO. PATENT No: NG/PT/NC/2018/2689 of the Federal Republic of Nigeria. Invention of PoliteheartCPAP bubble Continuous Positive Airway Pressure Machine (a non-invasive neonatal ventilator), Patent Office, Abuja, 30<sup>th</sup> January 2018
- (2) Invented the polite-oxygen splitter system (PSS) in 2019
- (3) Invented the politeO2blend for neonatal and adult oxygen therapy in 2019
- (4) Amadi HO. 2012. Glenohumeral joint (GHJ) Protractors, GB1200589.8; in The Patents Journal No.6406, pp:6. Intellectual Property Office, UK, 29 February 2012.
- (5) Invented the HANDY APPROACH neonatal temperature control protocol. In: Current Topics in Tropical Medicine, Intech open access publishers Croatia ISBN 978-953-51-0274-8; April 2012, pp:513-544.
- (6) Invented the INITIAL SETPOINT ALGORITHM (ISA) temperature control protocol. Journal of Paediatrics and neonatal care; 2017 Jan 18; 6(1): 00232.
- (7) Invented the RECYCLED INCUBATOR TECHNOLOGY (RIT). Annals Tropical Paeditr; 27:207-214. Used to re-popularise neonatal incubator intervention and care in many Nigerian tertiary newborn facilities.

COMPREHENSIVE 35 paged RESUME can be submitted upon request