### **Personal Statement**

I am an averagely experienced research scientist in the bone biology arena with emphasis on musculoskeletal engineering and cartilage regeneration. I also have good track records in veterinary clinical practice, with bias in orthopaedics and soft tissue surgery. I am also a responsible, highly self-motivated scientist who displays clear organisational skills and determination, capable of working alone or as an excellent team player with little supervision.

My genuine interest in science, especially bone biology, has been consolidated by the university studies and jobs I have undertaken over the last few years. I am always striving to improve my scientific process skills and learn new techniques in the different projects I undertake. I am passionate about science and am an excellent communicator of it, as demonstrated by some scholarship awards I have received after my undergraduate studies.

Presently, I am investigating the biocompatibility, osteoinduction, osteoconduction and osteointergration potential of demineralised caprine bone xenograft transplantation in rabbit model.

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https://scholar.google.com/citations?user=51lS934AAAAJ&hl=en, Linkedin ID:

https://www.linkedin.com/in/adamu-abdul-abubakar-043a7487/, Web of Science Researcher ID: ABE-

5663-2021, Scopus Author ID: 56651924500

**Personal Details:** DOB 03/May 1980, Nationality; Nigerian, Sex; Male, Marital status; Married with 3 kids, Blood group; B+

# **Education and Qualifications**

Aug 2013-Nov 2016: Universiti Putra Malaysia, Doctor of Philosophy (PhD)

Sep 2009-Aug 2012: Usmanu Danfodiyo University, Sokoto, Nigeria, Master of Veterinary Surgery (MVS) Jul 2006-Jul 2007: More Computers Training college, Gusau, Nigeria, Professional Diploma in Computer Sept 2000-Oct 2006: Usmanu Danfodiyo University, Sokoto, Nigeria, Doctor of Veterinary Medicine (DVM)

Aug 1999-Aug 2000: Ahmadu Bello University, Zaria, Nigeria, A Level

# **Work Experience**

Nov 2021-Nov 2022: Senior Lecturer on Sabbatical, Department of Veterinary Surgery and Radiology, University of Ilorin, Nigeria

Jun 2021 to Jun 2022: Adjunct Senior Lecturer in Veterinary Surgery, Department of Veterinary Surgery, University of Abuja, Nigeria

Jan 2017 to Date: Senior Lecturer in Veterinary Surgery, Department of Veterinary Surgery and Radiology, Usmanu Danfodiyo University, Sokoto

Sept 2013-Sept 2015: Graduate Research Assistant, Department of Companion Animal Medicine and Surgery, Universiti Putra Malaysia

Sept 2008-Oct 2016: Lecturer in Veterinary Surgery, Department of Veterinary Surgery and Radiology Usmanu Danfodiyo University, Sokoto, Nigeria

### **Teaching Experience**

**Actively involved in undergraduate teaching** (2008 till Date); VSG 4201: Principle of Surgery, VSG 5102: Veterinary Anaesthesiology. VSG 5203: Small Animal Soft Tissue Surgery, VSG5204: Large Animal Soft Tissue Surgery, VSG 6105: Diagnostic Imaging, VSG6106: Orthopedics and lameness

Actively involved in postgraduate teaching (2017 till Date); VSG 801: Veterinary Anaesthesiolog, VSG 802: Surgical Instrumentation; VSG 805, Theartre Design and Management, VSG 807: Plastic and Reconstructive Surgery, VSG 808: Diagnostic Radiology, VSG 8011: Orthopaedic Surgery, VSG 8012: Clinical Gastroenterology, VSG 8014: Organ Transplantation, VSG 8015: Large Animal Soft Tissue Surgery, VSG 8016: Small Animal Soft Tissue Surgery, VSG 8017: Ophthalmic Surgery, VSG 818: Neurosurgery, VSG 819: Surgical Oncology, VMD 810: Diagnostic Radiology and Oncology

### Supervision of Research

Supervised 7 undergraduate project students to completion

Supervised 2 MSc student dissertations to completion and 2 ongoing MSc

Supervised 1 PhD student Thesis to completion

### Laboratory skills and expertise

**Tissue Culture**- conventional *ex vivo* bone culture, *ex vivo* bone culture using bioreactor, *ex vivo* CAM culture, viability test.

**Bone histology**- bone decalcification techniques, bench top histologic tissue processing, embedding, sectioning, and various staining techniques.

**Immunohistochemistry and Imaging**- immunocytochemistry, immunofluorescence, light, fluorescence, confocal microscope and electron microscopic imaging.

**Experimental disease models**- experimental induction of osteoporosis, fracture model and prostate hyperplasia.

**Experimental animal handling-** familiar with handling and restraint techniques of large and small experimental animals, blood sampling from various routes.

**Anesthesia techniques**- familiar with various anesthetic techniques of laboratory animals (inhalant, intravenous, injectable and epidural)

Suturing technique- familiar with postoperative closure of various types of wound created

#### **Publications**

### Thesis/Dissertation/Project

- 1. **PhD Thesis**: Role of Plasma Membrane Transporters (N<sup>+</sup>/H<sup>+</sup> and HCO<sup>-</sup>3) in Mediating Mammalian Long Bone Growth and Fracture Healing.
- 2. **MVS Dissertation**: Comparative Evaluation of Ford-interlocking, Simple Interrupted and Subcuticular Suture Patterns in Closure of Skin Incision in Goats
- 3. **Undergraduate Project**: Prevalence of Clinical Mastitis and Common Udder Pathogen Associated with it in Sheep.

### **Book Chapter**

1. Yakubu, A. S., Adeyanju, J. B. and **Abubakar, A. A.** (2021). **Suture Materials**. In: Principles of Veterinary Surgery: A Concise Text for Veterinary Students (J. B. Adeyanju and A. Z. Hassan edition). Sponsored by Tertiary Education Trust Fund of Nigeria. Peer reviewed (In Press).

### **Journal Articles**

- Abubakar, A. A., R. A. Andeshi, A. S. Yakubu, F. M. Lawal, and U. Adamu (2014): Comparative Evaluation of Midventral and Flank Laparotomy Approaches in Goat. *Hindawi Journal of* Veterinary Medicine (2014): 1-7. PMID: 26464943 PMCID: PMC4590860 DOI: 10.1155/2014/920191
- 1. Ubedullah Kaka, Hui Cheng Chen, Yong Meng Goh, **Adamu Abdul Abubakar**, Sharida Fakurazi, and Mahdi Ebrahimi (2015): Validation of a Modified Algometer to Measure Mechanical Nociceptive Thresholds in Awake Dogs. *BioMed Research International* (2015): 1-8. doi.org/10.1155/2015/375421
- 2. **Abubakar**, **A.A.**, Adamu, U., Adeyanju, J.B., Kene, R.O.C., Sonfada, M.L., Yakubu, A.S., Sahabi, S.M., Umar, A.A., Ibrahim, H.M., Sa'idu, B. and Bello, A. (2015): Evaluation of Healing Intervals of Incisional Skin Wounds of Goats Closed with Three Suture Patterns. *Nigerian Veterinary Journal* 36 (1): 1107-1115. DOI:10.4314/NVJ.V36I1
- 3. **Abubakar Adamu Abdul**, David Gabriel, Yakubu Abubakar Sadiq, Lawal Fatai Mobolaji and Mamman Mustapha Onoruoyiza (2015): Lumbosacral Epidural Analgesia with Ketamine Alone or in Combination with Xylazine in Dogs. *International Journal of Veterinary Science* 4(3): 111-117.
- 4. Ubedullah Kaka, Bullo Saifullah, **Adamu Abdul Abubakar**, Yong Meng Goh, Sharida Fakurazi, Asmatullah Kaka, Atique Ahmed Behan, Mahdi Ebrahimi4 and Hui Cheng Chen (2016): Serum concentration of ketamine and antinociceptive effects of ketamine and ketamine-lidocaine infusions in conscious dogs. *BMC Veterinary Research* 12(198):1-10. PMID: 27612660 PMCID: PMC5016942 DOI: 10.1186/s12917-016-0815-4

- 5. **A. A. Abubakar**, M. M. Noordin, T. I. Azmi, U. Kaka, M. Y. Loqman (2016): The use of rats and mice as animal models in *ex vivo* bone growth and development studies. *Bone and Joint Research* 5:610-618. PMID: 27965220 PMCID: PMC5227059 DOI: 10.1302/2046-3758.512.BJR-2016-0102.R2
- 6. Ubedullah Kaka, Nor-Alimah Rahman, Adamu Abdul Abubakar, Yong Meng Goh, Sharida Fakurazi, Mohamed Ariff Omar and Hui Cheng Chen (2018): Pre-emptive multimodal analgesia with tramadol and ketamine–lidocaine infusion for suppression of central sensitization in a dog model of ovariohysterectomy. *Journal of Pain Research* 11:743-752. PMID: 29695926 PMCID: PMC5905489 DOI: 10.2147/JPR.S152475
- 7. S.M. Ibrahima, O.H. Kareem, K.M. Saffanah, A.A. Adamu, M.S. Khan, M.B.A. Rahman, M.M. Noordin, M.Y. Loqmana (2018): Histological and mechanical evaluation of antifreeze peptide (Afp1m) cryopreserved skin grafts post transplantation in a rat model. *Cryobiology* 82: 27–36. doi.org/10.1016/j.cryobiol.2018.04.012
- 8. Ali AK, **Abubakar AA**, Kaka U, Radzi Z, Khairuddin NH, Yusoff MSM, Loqman MY (2018:) Histological changes of immediate skin expansion of the distal limb of rats. *Veterinary World*, 11(12): 1706-1711. PMCID: PMC6362334 PMID: 30774262 doi: 10.14202/vetworld.2018.1706-1711
- 9. S.K. Mahmood, Md. Z.A. Zakaria, I.S. Abdul Razak, L.M. Yusof, **A.A. Abubakar**, Z.K. Mahmood, M.Q. Bin Ab Latip. (2018): *In Vivo* evaluation of the novel nanocomposite porous 3D scaffold in a rabbit model: hematology and biochemistry analysis. *Iraqi Journal of Veterinary Sciences* 32(2):219-230. DOI:10.33899/IJVS.2019.153853
- 10. Saffanah Khuder Mahmood, Intan Shameha Binti Abdul Razak, Sahar Mohammed Ibrahim, Loqman Mohamed Yusof, Adamu Abdul Abubakar, Zaid Khudhur Mahmood and Zuki Abu Bakar Zakaria (2018): In Vivo Evaluation of The Novel Nanocomposite Porous 3D Scaffold in a Rabbit Model. Indian Journal of Science and Technology, 11(19): 1-15. DOI: 10.17485/ijst/2018/v11i19/122540
- 11. Abdulla A. Albishtue, Nurhusien Yimer, Md Zuki A. Zakaria, Abd Wahid Haron, Abd Salam Babji, **Adamu A. Abubakar**, Bahaa H. Almhanawi (2019): Effects of EBN on embryo implantation, plasma concentrations of reproductive hormones, and uterine expressions of genes of PCNA, steroids, growth factors and their receptors in rats. *Theriogenology* 126: 310e-319. PMID: 30605790 DOI: 10.1016/j.theriogenology.2018.12.026
- 12. **Abubakar AA**, Ibrahim S.M, Ali A.K, Handool, K.O, Khan, S.M, Noordin, M.M, Ibrahim T.A, Kaka, U. and Loqman MY. (2019). Postnatal ex vivo rat model for longitudinal bone growth investigations. *Animal Models and Experimental Medicine* 2(1):1–10. PMCID: PMC6431117 PMID: 31016285 doi: 10.1002/ame2.12051
- 13. Abdulla A. Albishtue, Nurhusien Yimer, Md. Zuki A. Zakaria, Abd Wahid Haron, Abd Salam Babji, **Adamu A. Abubakar**, Falah H. Baiee, Hazem Kareem Almhanna and Bahaa H. Almhanawi (2019). The role of edible bird's nest and mechanism of averting lead acetate toxicity effect on rat uterus. *Veterinary World*, 12(7): 1013-1021. **doi:** 10.14202/vetworld.2019.1013-1021. PMID: 31528026 PMCID: PMC6702562 DOI: 10.14202/vetworld.2019.1013-1021
- 14. Khan, M.S., Ibrahim, S.M., **Adamu, A.A**. Rahman, M.B.A., Bakar, M.Z.A., Noordin, M.M., Loqman, Y.M. (2019): PRE-GRAFTING histological studies of skin grafts cryopreserved in  $\alpha$ -helix antarctic yeast oriented anti-freeze peptide (Afp1m), *Cryobiology* 82: 27-36. PMID: 31580830 DOI: 10.1016/j.cryobiol.2019.09.012
- 15. Yakubu AS, **AA Abubakar**, Al-mustapha A Ibrahim, AT Elsa, KI Onifade, ROC Kene and SA Saganuwan, 2020. Effects of propofol anaesthesia pre-medicated with xylazine on serum biochemical profiles and sleep pattern in red sokoto goats. *International Journal of Veterinary Sciences*, 9(2):234-238. DOI: 10.37422/IJVS/20.009
- 16. S.M. Ibrahim, K.O. Handool, A.A. Adamu, J. Abu, S.M. Yusof, M. Ibrahimi, M.Y Loqman (2020). Histological evaluation of the possible role of Na+/ H+ entiporter and anion exchanger in

- endochondral ossification activities of secondary bone healing in rats. *Iraqi Journal of Veterinary Sciences*. DOI 10.33899/ijvs.2019.125832.1165
- 17. Olawale Alimi Alimi, **Adamu Abdul Abubakar**, Abubakar Sadiq Yakubu, Abdullahi Aliyu and Salman Zubairu Abulkadir (2020). Veterinary acutherapy in management of musculoskeletal disorders: An eye-opener to the developing countries' veterinarians. *Open Veterinary Journal* 10(3): 252-260. PMID: 33282695 PMCID: PMC7703614 DOI: 10.4314/ovj.v10i3.2
- 18. **Abubakar Adamu Abdul**, Ahmed Khalaf Ali, Sahar Mohammad Ibrahim, Kareem Obayes Handool, Mohammad Shoaib Khan, Mustapha Mohamed Noordin, Tengku-Azmi Tengku Ibrahim, Ubedullah Kaka, Loqman Mohamad Yusof (2020). Generation of Open Metatarsal Fracture in Rats: A Model for Secondary Fracture Healing. *SciMedicine Journal* 2 (4): 197-211. Doi: 10.28991/SciMedJ-2020-0204-2
- 19. Shaibu Mohammed Atabo, Abubakar Abubakar Umar, Sani Abdullahi Shehu, **Adamu Abdul Abubakar** (2020). Comparative Ossification of the Skull in Three Nigerian Breeds of Sheep: An Alizarin Technique. *Exploratory Animal and Medical Research*, 10(2): 195-203.
- 20. Shaibu Mohammed Atabo, Abubakar Abubakar Umar, Sani Abdullahi Shehu, **Adamu Abdul Abubakar** (2021). Embryonic Development and Comparative Anatomy of the Mandible. *SciMedicine Journal* 3(1): 16-22. **Doi:** 10.28991/SciMedJ-2021-0301-3
- 21. Atabo, S. M., Umar, A. A., Shehu, S. A., & **Abubakar, A. A.** (2021). Development of the Sutures, Infraorbital, and Supraorbital Foramina of the Skull in Nigerian Balami, Uda, and Yankasa Breeds of Sheep. *Acta Veterinaria Eurasia*, 47(2), 98-107. **DOI:** 10.5152/actavet.2021.20060
- 22. Olawale Alimi Alimi1, **Adamu Abdul Abubakar**, Abubakar Sadiq Yakubu, Sani Abdullahi Shehu, Salman Zubairu Abdulkadir, Ekaete Ime Oviawe (2021). Hematological Changes after Caprine Demineralized Bone Matrix Implantation in Ulnar Critical Defect of Rabbit Model. *Revista Brasiliera de Ortopedia* 56 (3): 275-409. DOI:10.1055/s-0041-1729592

### **Seminar Paper Presentation**

1. **Abubakar Adamu Abdul** (2018): Plasma Membrane Transporters in Longitudinal Bone Growth and Fracture Healing. Faculty Seminar Series, Presented at the Veterinary Lecture Hall I, City Campus Complex, Held on 16<sup>th</sup> February 2018.

#### Conferences and Workshops Attended

- Orthopaedic Surgery and Small Animal Cardiovascular Diseases Workshop, Held on 21<sup>st</sup> November, 2013, at Faculty of Veterinary Medicine, Universiti Putra Malaysia (UPM)
- 2. Current Practice in Ruminant and Equine Theriogenology, Held on 8th–9th January, 2014 at Faculty of Veterinary Medicine, Universiti Putra Malaysia (UPM)
- 3. Equine Lameness and Diagnostic Imagining: Investigation and Interpretation, Held on 8<sup>th</sup>–9<sup>th</sup> February, 2014 at Faculty of Veterinary Medicine, Universiti Putra Malaysia (UPM)
- 4. Veterinary Association of Malaysia (VAM) Congress, Held on 20<sup>th</sup> -22<sup>nd</sup> June, 2014 at Palm Garden Hotel, IOI resort, Putrajaya, Malaysia
- 5. The Asian Federation of Laboratory Animal Science Association Congress (AFLAS 2014) 11-12 November 2014, Held at Royale Chulan Hotel, Kuala Lumpur, Malaysia.
- 6. Sixth Pan Commonwealth Veterinary Congress (PCVC) and 27<sup>th</sup> Veterinary Association of Malaysia (VAM) 23-27 March, 2015. Held at Royale Chulan Hotel, Kuala Lumpur, Malaysia.
- 7. Seminar on Management of Seizure in Dogs and Cats, Held on 10<sup>th</sup> June 2015 at Faculty of Veterinary Medicine, Universiti Putra Malaysia.
- 8. International Conference on Drug Discovery and Translational Medicine 2018 (ICDDTM '18) on 4th & 5th December 2018 at the Everly Putrajaya, Malaysia.

# Scholarship/Fellowship Awards

- 1. Usmanu Danfodiyo University staff training and development fellowships for MSc (2009-2012), Ref.: UDUS/R/STDO/SP:3834
- Usmanu Danfodiyo University staff training and development fellowships for PhD (2013-2016), Ref.: UDUS/R/STDO/SP:3834
- 3. Special Graduate Research Assistance (SGRA), Universiti Putra Malaysia from 2014-2015, Ref.: UPM/SPS/GS37671

**Membership of Professional Bodies:** Member Nigerian Veterinary Medical Association (NVMA), Member Science Association of Nigeria (SAN), Member International Society for Tissue Engineering and Regenerative Medicine (TERMIS)

**Editorial Reviewer to:** Sokoto Journal of Veterinary Sciences, Nigerian Veterinary Journal, Journal of Veterinary Medical Science, BioMed Research International, Pakistan Journal of Scientific and Industrial Research, Advances in Animal and Veterinary Sciences, Pakistan Journal of Zoology

# Administrative Responsibilities

- 1. Head Department of Veterinary Surgery and Radiology while on Sabbatical at University of Ilorin from December 2021 to date
- 2. Examination Officer Department of Veterinary Surgery and Radiology from 2017 to 2021
- 3. Assistant Editor Sokoto Journal of Veterinary Sciences from 2018 to date
- 4. Faculty of Veterinary Medicine Seminar Coordinator from May 2019 to 2021
- 5. Departmental Postgraduate Coordinator from December 2019 to 2021
- 6. Course coordinator VSG 5203, Small Animal Soft Tissue Surgery, 2018/2019 Academic Session
- 7. Course coordinator VSG 5102, Veterinary Anaesthesiology, 2018/2019 Academic Session
- 8. Course coordinator VSG 6105, Diagnostic Imaging, 2019/2020 Academic Session

# **Activities and Interest**

- 1. Athletics: Active in Swimming and Cycling
- 2. Others: Reading, Listening to Radio and Watching Television

#### Referees

- 1. Prof. Aminu Ibrahim Daneji (Undergraduate Supervisor)
  - Department of Veterinary Medicine
  - Usmanu Danfodiyo University, Sokoto
  - +234 8035073560, email: daneji.aminu@udusok.edu.ng
- 2. Prof. Logman Mohamad Yosuf (PhD Supervisor)

Department of Companion Animal Medicine and Surgery,

Universiti Putra Malaysia,

- +60192590571, email: myloqman@gmail.com
- 3. Prof. Abubakar Sadiq Yakubu,

Department of Veterinary Surgery and Radiology

Usmanu Danfodiyo University, Sokoto

+234 7038417775, email: yakubu.abubakar@udusok.edu.ng

**Declaration**: I hereby declare that the particulars furnished herein by me are true to the best of my knowledge and belief.

Place: (Dr. AA. Abubakar) Date: 20/03/2022