

AHMAD HAFIZ BIN ZULKIFLY



- OFFICE OF THE DEPUTY RECTOR (RESPONSIBLE RESEARCH AND INNOVATION)
- IIUM Kuantan Campus
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المؤهل العلمي

- Master of Surgery (Orthopaedics)
- Medical Doctor

مسؤوليات التدريس

ADVANCE TRAUMA	2014/2015 2017/2018
APPLIED PHYSIOLOGY	2014/2015 2015/2016 2017/2018 2019/2020
ARTHROPLASTY AND JOINT REPLACEMENT SURGERY	2014/2015 2015/2016 2017/2018 2019/2020
CLINICAL ANATOMY	2014/2015 2015/2016 2017/2018 2019/2020
ELECTIVE	2014/2015
GENERAL ORTHOPAEDIC AND TRAUMATOLOGY I	2015/2016 2017/2018
GENERAL ORTHOPAEDIC AND TRAUMATOLOGY II	2015/2016
GENERAL PATHOLOGY	2014/2015 2017/2018 2019/2020
INTENSIVE CARE & GENERAL SURGERY	2014/2015 2015/2016 2017/2018
INTENSIVE CARE AND GENERAL SURGERY	2019/2020
ISLAMIC INPUT IN ORTHOPAEDIC	2015/2016 2017/2018 2019/2020
ISLAMIC INPUT IN ORTHOPAEDIC SURGERY	2014/2015
OPERATIVE ORTHOPAEDIC SURGERY AND IMPLANTS	2014/2015 2015/2016 2017/2018 2019/2020
ORTHOPAEDIC IMAGING	2014/2015 2015/2016 2017/2018 2019/2020
ORTHOPAEDICS AND TRAUMATOLOGY I	2014/2015 2019/2020
ORTHOPAEDICS AND TRAUMATOLOGY II	2014/2015
ORTHOPAEDICS, TRAUMATOLOGY & REHABILITATION	2010/2011 2011/2012 2012/2013 2013/2014 2014/2015 2015/2016 2016/2017 2017/2018 2018/2019 2019/2020

ORTHOPAEDICS, TRAUMATOLOGY AND REHABILITATION I	2020/2021
PRINCIPLE OF SURGERY & BASIC ORTHOPAEDIC SURGERY	2014/2015 2015/2016 2017/2018
PRINCIPLE ORTHOPAEDIC SURGERY	2014/2015 2015/2016 2017/2018 2019/2020
PRINCIPLES OF SURGERY AND BASIC ORTHOPAEDIC SURGERY	2019/2020
REHABILITATION AND BIOMECHANICS	2014/2015 2015/2016 2017/2018 2019/2020
RESEARCH METHODOLOGY	2012/2013 2013/2014 2014/2015 2017/2018 2019/2020
SPORTS MEDICINE AND ARTHROSCOPY	2014/2015

المشاريع البحثية

In Progress

- 2020 - Present** - Prototype Development of Malaysian Tualang Honey as Intraarticular Viscosupplement for Osteoarthritis
- 2019 - Present** - Bio-inspired algorithm for parametric estimation of spine load in relation to dentists' work posture
- 2018 - Present** - PILOT SCALE DEVELOPMENT OF ANTIMICROBIAL BIOCOMPOSITE MEMBRANE FOR DENTISTRY AND ORTHOPAEDICS
- 2016 - Present** - Safety and Efficacy of Oral Emulsion and Implanted Beads of *N. sativa*-Gentamicin Antibiofilm Fusion for Osteomyelitis
- 2016 - Present** - The Feasibility of using a Combination of Chondrocyte-Specific Transcription Factors and Telomerase Reverse Transcriptase Genes Transfer and Tissue Engineering Technique for Articular Cartilage Regeneration
- 2015 - Present** - Pilot Manufacturing Process of Titania-Silver Composite Coatings on Stainless Steel Using Pulsed DC Magnetron Sputtering Technique
- 2014 - Present** - Non-viral Gene Transfer Approaches for Cartilage Tissue Engineering: Proof of Concept
- 2012 - Present** - Orthopaedics, Musculoskeletal and Bioethical Research Unit

Completed

- 2016 - -1** - Safety and Efficacy of Oral Emulsion and Implanted Beads of *N. sativa*-Gentamicin Antibiofilm Fusion for Osteomyelitis
- 2015 - 2019** - Pilot Manufacturing Process of Titania-Silver Composite Coatings on Stainless Steel Using Pulsed DC Magnetron Sputtering Technique

- 2014 - 2018** Non-viral Gene Transfer Approaches for Cartilage Tissue Engineering: Proof of Concept
- 2013 - 2015** TRANS DISCIPLINARY PROGRAM (TRGS): MAIN TITLE: FUSION CONCEPT BETWEEN CONTEMPORARY MEDICINE (GENTAMICIN) AND PROPHETIC MEDICINE (N.SAATIVA) FOR FUTURE 'GREENER' PHARMACEUTICAL Project Title:Microbial Inhibition and Biofilm Assay Study Against Osteomyelitic Infection Using New Gentamicin-N.Sativa Fusion Medicine
- 2013 - 2016** TRANS DISCIPLINARY PROGRAM: MAIN TITLE: FUSION CONCEPT BETWEEN CONTEMPORARY MEDICINE (GENTAMICIN) AND PROPHETIC MEDICINE (N.SAATIVA) FOR FUTURE 'GREENER' PHARMACEUTICAL Project Title:Effect of Gentamicin-N.Sativa Fusion Medicine on Osteoblast Cell Lines for Use in Osteo-Healing Applications
- 2013 - 2015** TRANS DISCIPLINARY PROGRAM (TRGS): MAIN TITLE: FUSION CONCEPT BETWEEN CONTEMPORARY MEDICINE (GENTAMICIN) AND PROPHETIC MEDICINE (N.SAATIVA) FOR FUTURE 'GREENER' PHARMACEUTICAL Project Title:Microbial Inhibition and Biofilm Assay Study Against Osteomyelitic Infection Using New Gentamicin-N.Sativa Fusion Medicine
- 2013 - 2015** TRANS DISCIPLINARY PROGRAM (TRGS): MAIN TITLE: FUSION CONCEPT BETWEEN CONTEMPORARY MEDICINE (GENTAMICIN) AND PROPHETIC MEDICINE (N.SAATIVA) FOR FUTURE 'GREENER' PHARMACEUTICAL Project Title:Microbial Inhibition and Biofilm Assay Study Against
- 2013 - 2016** TRANS DISCIPLINARY PROGRAM: MAIN TITLE: FUSION CONCEPT BETWEEN CONTEMPORARY MEDICINE (GENTAMICIN) AND PROPHETIC MEDICINE (N.SAATIVA) FOR FUTURE 'GREENER' PHARMACEUTICAL Project Title:Effect of Gentamicin-N.Sativa Fusion Medicine on Osteoblast Cell Lines for Use in Osteo-Healing Applications
- 2013 - 2016** Evaluation And Characterization Of Plga/Atelocollagen/Fibrin Scaffold For Intervertebral Disc (Ivd) Regeneration
- 2013 - 2017** Osteoarthritis Initiative: Exploring The Potential of Non-Viral Gene Delivery Via Cartilage Tissue Engineering Strategy And The Bioethical Concern From The Islamic Perspective
- 2013 - 2016** TRANS DISCIPLINARY PROGRAM: MAIN TITLE: FUSION CONCEPT BETWEEN CONTEMPORARY MEDICINE (GENTAMICIN) AND PROPHETIC MEDICINE (N.SAATIVA) FOR FUTURE 'GREENER' PHARMACEUTICAL Project Title:Effect of Gentamicin-N.Sativa Fusion Medicine on Osteoblast
- 2012 - 2016** Pre-Clinical Evaluations of Malaysian-Made "Osteopaste" an Injectable Self-Hardened Synthetic Bone Cement
- 2011 - 2013** RU 2011- Functional Outcome of Anterior Cruciate Ligament Reconstruction: Comparison of Bone-Patella Tendon-Bone Versus Hamstring Graft: A Cross Sectional Study
- 2011 - 2017** Research on Biomechanical-To Compare between Imported Implants with OSA's Implants (bone plate and bone screw)
- 2011 - -1** RU 2011- Functional Outcome of Anterior Cruciate Ligament Reconstruction: Comparison of Bone-Patella Tendon-Bone Versus Hamstring Graft: A Cross Sectional Study

- 2011 - 2015** Exploring the Potential of Biosynthetic Cartilage Composite Utilizing Poly (Lactic-Co-Glycolic Acid) and Fibrin Glue as Cells Carrier for Joint Resurfacing
- 2010 - 2012** Histological and Histochemical Study of Human Skeletal Muscle in Diabetes Mellitus.
- 2010 - -1** Comparing Proximal and Distal Microvasculature of The Skin Diabetic Foot Patient: Post Ray and Below Knee Amputation
- 2010 - 2012** Formulation of Malaysian Tualang Honey as Intraarticular Injection for Osteoarthritis
- 2010 - -1** Histological and Histochemical Study of Human Skeletal Muscle in Diabetes Mellitus.
- 2008 - 2011** Compression Fracture of the Thoracolumbar Spine: A Prospective Study Comparing Radiographic Results Between Early Ambulation with and without Lumbar Orthosis
- 2008 - 2011** A prospective study of Open Fracture Treated in Hospital Tengku Ampuan Afzan Kuantan. A Pilot Study for Open Fracture Registry
- 2007 - 2011** A Histological and Ultrastructural Study on Bone Formation in Posterolateral Intertransverse Lumbar Spinal Fusion: A Novel Use for a Locally Produced Bone Graft Substitute
- 2004 - 2006** The Study of Musculoskeletal Meliodosis in Pahang

المنشورات

Article

- 2020** [Your body has a right over you.](#) @halal , March-April pp.10 and-12
- 2020** [The cartilaginous tissue formation using sry \(Sex determining region Y\)-BOX9 and telomerase reverse transcriptase genes transfected chondrocytes: In vivo approach = Formasi tisu tulang rawan menggunakan sry \(Penentu jantina rantau Y\)-BOX9 dan telomeras gen transkripsi berbalik kondrosit transfeksi: Pendekatan in vivo\).](#) Sains Malaysiana , 49 (5) pp.1067-1080
- 2020** [In vitro evaluation of poly \(lactic acid-co-glycolic acid\)/ atelocollagen/fibrin bioscaffold for annulus fibrosus regeneration.](#) Trends in Biomaterials and Artificial Organs , 34 (3) pp.118-123
- 2019** [Orthopaedic metal implant coated with silver in a New Zealand white rabbit model: micro-ct assessment.](#) Malaysian Orthopaedic Journal , 13 (Supplement A) pp.1-1
- 2019** [Effects of low-intensity pulsed ultrasound on recovery of physical impairments, functional performance and quality of life after total knee arthroplasty: Protocol for a quasi-experimental study.](#) Medicine , 98 (36) pp.1-7
- 2019** [Development of OSH risk assessment in IIUM orthopaedics research laboratory according to ISO/IEC 17025:2017 accreditation.](#) International Journal of Recent Technology and Engineering (IJRTE) , 8 (1C2) pp.260-265

- 2019** [Fabrication of low-cost hip implant using direct metal laser sintering technique.](#) International Journal of Recent Technology and Engineering (IJRTE) , 8 (4) pp.4544-4547
- 2019** [Development of OSH Risk Assessment in IIUM Orthopaedics Research Laboratory According to ISO/IEC 17025:2017 Accreditation..](#) International Journal of Recent Technology and Engineering (IJRTE) , 8 (1C2) pp.260-265
- 2019** [Matrix production in chondrocytes transfected with sex determining region Y-Box 9 and telomerase reverse transcriptase genes: an in vitro evaluation from monolayer culture to three-dimensional culture.](#) Tissue Engineering and Regenerative Medicine , 16 (3) pp.285-299
- 2018** [A review of powdered additive manufacturing techniques for Ti-6Al-4V biomedical applications.](#) Powder Technology , 331 pp.74-97
- 2018** [Biomaterials application in orthopaedics.](#) Regenerative Research , 7 (1 Special Issue) pp.1-1
- 2018** [Comparison of functional outcome between computer navigated total knee replacement with conventional method.](#) The International Medical Journal Malaysia , 17 (Supplementary Issue 1) pp.68
- 2018** [Midterm outcome of total knee arthroplasty in East Coast population of Hospital Tengku Ampuan Afzan Kuantan.](#) The International Medical Journal Malaysia , 17 (Supplementary Issue 1) pp.46
- 2018** [Strontium ranelate reduces duration of consolidation phase in distraction osteogenesis: 2 case reports.](#) Orthopedic Research Online Journal , 3 (5) pp.1-5
- 2017** [Comparison of biocompatibility and biodegradability of Poly\(Lactic-Co-Glycolic acid\) \(PLGA\) combined with autologous fibrin versus PLGA for intra-articular screw fixation; an in-vivo study with New Zealand white rabbits-The microradiograph, histology and histomorphometry outcomes.](#) Malaysian Orthopaedic Journal , 11 (Supplement A) pp.FR 04-2397/64067
- 2017** [Treatment of osteomyelitis in New Zealand white rabbit using impregnated biomaterials with gentamicin: in vivo study outcome of bacterial study and micro-computed topography evaluation.](#) Malaysian Orthopaedic Journal , 11 (Supplement A) pp.PR01C-PR01C
- 2017** [The in vivo study comparing biocompatibility and biodegradability of poly lactic-co-glycolic acid \(plga\) combined with autologous fibrin versus plga for intra articular screw fixation in New Zealand white rabbit model-the micro-ct scan evaluation.](#) Regenerative Research , 6 (1) pp.1
- 2017** [In vivo evaluation of orthopaedic metal implant coated with silver composite: potential treatment modality for implant related infection.](#) Regenerative Research , 6 (1) pp.14
- 2017** [Current trends in gene-enhanced tissue engineering for articular cartilage regeneration in animal model.](#) Transactions of the Persatuan Genetik Malaysia (TPGM) (7) pp.201-210
- 2017** [Comparison of biocompatibility and biodegradability of poly\(lactic-co-glycolic acid\) \(PLGA\) combined with autologous fibrin versus PLGA for intra-articular screw fixation; an in- vivo study with New Zealand white rabbits- the microradiograph outcome.](#) The International Medical Journal Malaysia , 16 (supp. 1) pp.30

- 2017** [An experimental model of open tibial fracture in the New Zealand white rabbit: surgical technique.](#) Regenerative Research , 6 (1) pp.1-1
- 2017** [Fabrication and characterization of three-dimensional poly\(lactic acid-co-glycolic acid\), atelocollagen, and fibrin bioscaffold composite for intervertebral disk tissue engineering application.](#) Journal of Bioactive and Compatible Polymers pp.1-13
- 2017** [Noise exposure during orthopaedics surgery.](#) Science Heritage Journal / Galeri Warisan Sains (GWS) , 1 (2) pp.32-33
- 2017** [Six hole fracture fixation plates : Comparative mechanical properties study.](#) International Journal of Emerging Technologies in Engineering Research (IJETER) , 5 (10) pp.173-176
- 2017** [The levels of depression, anxiety and stress on pre and post knee arthroplasty patients.](#) IIUM Medical Journal Malaysia , 16 (Supplementary Issue no. 1) pp.39-39
- 2017** [The early outcome in antibacterial activity of orthopaedic metal implant coated with silver composite as future implant related infection treatment – preliminary results.](#) Malaysian Orthopaedic Journal , 11 (Supplement A) pp.BBS05-BBS05
- 2016** [Preoperative acetate templating in primary total knee replacement: does it matter?.](#) The International Medical Journal Malaysia , 15 (Supplementary Issue) pp.78-78
- 2016** [Functional outcome of anterior cruciate ligament \(ACL\) reconstruction: comparison of bone-patella tendon-bone \(BPTB\) vs. Hamstring graft.](#) The International Medical Journal Malaysia , 15 (Supplement Issue) pp.19-19
- 2016** [Histological evaluation of hydroxyapatite granules with and without platelet-rich plasma versus an autologous bone graft : comparative study of biomaterials used for spinal fusion in a New Zealand white rabbit model.](#) Sultan Qaboos University Medical Journal , 16 (4) pp.422-429
- 2016** [Design process of low cost uncemented femoral stem 316L stainless steel using investment casting technique.](#) Advanced Materials Research , 1133 pp.70-74
- 2016** [Metal injection moulding of hip stem CoCrMo alloy powder using palm stearin binder system .](#) Advanced Materials Research , 1133 pp.334-338
- 2016** [Physical and mechanical properties of injection molded co-cr-mo alloy powder for orthopedic applications.](#) Advanced Materials Research , 1133 pp.80-84
- 2016** [The In Vivo study of metal injection moulding 316L stainless steel fracture fixation plate.](#) Advanced Materials Research , 1133 pp.95-98
- 2016** [Outcome of NEXGEN® fixed bearing and posterior stabilising total knee replacement.](#) The International Medical Journal Malaysia , 15 (Supp. 1) pp.80
- 2016** [Bilateral total knee replacement in severe knee osteoarthritis with large bone defect using autologous bone graft augmentation.](#) The International Medical Journal Malaysia , 15 (Supp. 1) pp.74
- 2016** [Osteochondral defect repair via autologous implantation of three dimensional construct engineered from poly\(lactic-co-glycolic acid\)/ fibrin hybrid scaffold seeded with bone marrow mesenchymal stem cells.](#) International Medical Journal of Malaysia (IMJM) , 15 (Supplement Issue) pp.42-42

- 2015** [Predictors of major lower limb amputation among type II diabetic patients admitted for diabetic foot problems.](#) Singapore Medical Journal , 56 (11) pp.626-631
- 2015** [Alternative surgical approach to create osteomyelitis in New Zealand White rabbit model.](#) The International Medical Journal Malaysia , 14 (supp. issue) pp.13-14
- 2015** [Evaluation of three dimensional construct engineered from poly\(Lactic-co-glycolic acid\)/fibrin hybrid scaffold using rabbit bone marrow mesenchymal stem cells for osteochondral defect repair.](#) Jurnal Teknologi , 77 (25) pp.77-82
- 2015** [The potential of 3-dimensional construct engineered from poly\(lactic-co-glycolic acid\)/fibrin hybrid scaffold seeded with bonemarrow mesenchymal stem cells for in vitro cartilage tissue engineering.](#) Tissue and Cell , 47 (4) pp.420-430
- 2015** [Identifying the potential of transcription factor Sox9 gene transfer in chondrocytes differentiation and articular cartilage formation in vitro.](#) Jurnal Teknologi , 77 (25) pp.107-113
- 2015** [The potential of 3-dimensional construct engineered from poly\(lactic-co-glycolic acid\)/fibrin hybrid scaffold seeded with bone marrow mesenchymal stem cells for in vitro cartilage tissue engineering.](#) Tissue and Cell , 47 (4) pp.420-430
- 2014** [Fabrication of low-cost, cementless femoral stem 316L stainless steel using investment casting technique.](#) Artificial Organs , 38 (7) pp.603-608
- 2014** [Cartilaginous properties of nucleus pulposus cells seeded on poly\(lactic-co-glycolic acid\)-based scaffolds.](#) Regenerative Research , 3 (2) pp.46-47
- 2014** [Evaluation of bone marrow mesenchymal stem cells growth in vitro for cartilage tissue engineering.](#) Regenerative Research , 3 (2) pp.118-119
- 2014** [Cartilaginous markers expression in human articular chondrocytes overexpressed with SOX9 gene.](#) Regenerative Research , 3 (2) pp.131-132
- 2014** [Preliminary characterization of plga scaffold for intervertebral discs tissue engineering.](#) Regenerative Research , 3 (2) pp.160-162
- 2014** [Cell proliferation assay and sulphated glycosaminoglycan production in poly\(lactic-co-glycolic acid\)-based scaffolds seeded with bone marrow mesenchymal stem cells for cartilage tissue engineering.](#) Regenerative Research , 3 (2) pp.163-164
- 2014** [Design process of cementless femoral stem using a nonlinear three dimensional finite element analysis.](#) BMC Musculoskeletal Disorders , 15 (1(30)) pp.1-17
- 2014** [Primary stability recognition of the newly designed cementless femoral stem using digital signal processing.](#) BioMed Research International , 2014 pp.1-9
- 2014** [Morphological study of the newly designed cementless femoral stem.](#) BioMed Research International , 2014 pp.1-11
- 2014** [Investigation of biomechanical and biosafety of injection moulded implant materials.](#) Advanced Materials Research , 879 pp.79-84
- 2014** [IIUM Teaching Hospital: the way forward?.](#) The International Medical Journal Malaysia , 13 (1) pp.1-2

- 2013** [Anthropometric measurements of the human distal femur: A study of the adult malay population.](#) BioMed Research International , 2013 (17505) pp.1-6
- 2013** [Factors associated with the outcome of open tibial fractures.](#) Malaysian Journal of Medical Sciences , 20 (5) pp.47-53
- 2012** [Histomorphometric analysis of the endothelial cell in skin microvasculature among diabetic foot ulcer patients .](#) Malaysian Journal of Microscopy , 8 pp.143-147
- 2012** [Viscosity and viscoelasticity of osteoarthritic synovial fluids in comparison to intraarticular injection of hyaluronic acid \(Synvisc and Suplasyn\).](#) Malaysian Orthopaedic Journal , 6 (2sup.A) pp.75-75
- 2012** [Fracture fixation plates for fracture healing: comparing 316L stainless steel by metal injection molding technique plate with conventional plate in rabbit fracture model.](#) Regenerative Research , 1 (Supplement Issue) pp.62
- 2011** [Morphology study of the proximal femur in Malay population.](#) International Journal of Morphology , 29 (4) pp.1321-1325
- 2011** [Molecular identification and characterization of a bacterium that has potential to degrade low concentration of haloalkanoic acid.](#) Research Journal of Microbiology , 6 (6) pp.552-559
- 2011** [Total knee replacement: 12 years retrospective review and experience.](#) Malaysian Orthopaedic Journal , 5 (1) pp.34-39
- 2011** [Ankle fractures: the operative outcome.](#) Malaysian Orthopaedic Journal , 5 (1) pp.40-43
- 2011** [In vitro elution and dissolution of tobramycin and gentamicin from calcium phosphate.](#) African Journal of Pharmacy and Pharmacology , 5 (20) pp.2283-2291
- 2011** [Morphometric study of the acetabular in malay population normal hips and its clinical applications.](#) Journal of Medical Sciences , 11 (5) pp.213-219
- 2010** [Biodegradation of low concentration of monochloroacetic acid-degrading Bacillus sp. TW1 isolated from Terengganu water treatment and distribution plant.](#) Journal of Applied Sciences , 10 (22) pp.2940-2944
- 2010** [Fluorescence microscopy on the biocompatibility of gentamicin-coated hydroxyapatite \(HA\) material on osteoblast.](#) Malaysian Journal of Microscopy , 6 (1) pp.1-8
- 2010** [Kimura's disease with atypical musculoskeletal presentation.](#) Malaysian Orthopaedic Journal , 4 (2) pp.44-47
- 2008** [An in vivo implantation study in New Zealand white rabbits for granular hydroxyapatite.](#) European Cells and Materials , 16 (supp 2) pp.55
- 2008** [Granules hydroxyapatite application in fractures.](#) European Cells and Materials , 16 (supp 2) pp.56
- 2007** [Contralateral posterior interosseous flap used to cover large soft tissue defect in the fingers. A case report .](#) International Medical Journal Malaysia , 6 (1) pp.1-9
- 2006** [Infection Following Internal Fixation Of Closed Fractures.](#) International Medical Journal Malaysia , 5 (1) pp.1-8

- 2006 [Bilateral olecranon fracture in adult. A case report..](#) International Medical Journal Malaysia , 5 (1) pp.1-4
- 2005 [Cycle spokes and chain related injuries in children - emerging injuries in Malaysia.](#) The Medical journal of Malaysia , 60 (Supp C) pp.11-13
- 2004 [Practical Islamic input in Orthopaedics Undergraduate Medical Curricula.](#) International Medical Journal Malaysia , 3 (2) pp.E2
- 2003 [Palm-oil thorn induced granulomatous lesion with aseptic arhthritis.](#) International Medical Journal Malaysia , 2 (2) pp.1-5
- Conference or Workshop Item**
- 2020 [Bone-graft interface in New Zealand White rabbit's model: A novel Malaysian-made biomaterial, "osteopaste".](#) In: **Malaysia Terchnology Expo 2020**
- 2019 [In vivo performance of injectable self-hardened synthetic bone cement \(osteopaste\) as a filler for bone defects.](#) In: **SIRIM Invention, Innovation & Technology Expo (SI2TE) 2019**
- 2019 [The in-vitro and in vivo evaluations of orthopedic metal implant coated with silver composite: Potential treatment modality for implant related infection.](#) In: **Bio-CAM 2017 Conference on Biomedical & Advanced Material**
- 2019 [Bone-graft interface in New Zealand White rabbit's model: a novel Malaysian-made biomaterial, "osteopaste".](#) In: **28th Scientific Conference of Microscopy Society Malaysia**
- 2019 [Orthopaedic metal implant coated with silver in a New Zealand white rabbit model: micro-ct assessment.](#) In: **49th Malaysian Orthopaedic Association Annual Scientific Meeting / Annual General Meeting 2019**
- 2019 [Challenges in implementing shariah compliant hospital.](#) In: **3rd Nusantara Conference 2019 on Medical Issues from Islamic Perspective**
- 2018 [The osteomyelitis study in the New Zealand white rabbit \(NZWR\) model: An approach to treatment.](#) In: **48th Malaysian Orthopaedic Association Annual Scientific Meeting 2018/Annual General Meeting**
- 2018 [Injectable self-hardened synthetic bone cement \(osteopaste\) as a filler for bone defects: A histological result from experimental study in New Zealand White rabbit's tibia.](#) In: **48th Malaysian Orthopaedic Association Annual Scientific Meeting/Annual General Meeting 2018**
- 2018 [Bioartificial Articular Cartilage Substitute \(BACS\): advancing functional tissue engineered medical product.](#) In: **International Invention, Innovation & Technology Exhibition (ITEX 2018)**
- 2018 [Injectable self-hardened synthethic bone cement \(Osteopaste\) as a filler for bone defects: A histological result from experimental study in New Zealand white rabbit's tibia.](#) In: **Malaysia Technology Expo 2018**
- 2017 [Retrospect hospital project development from briefing to completion: Case study of IIUM Teaching Hospital experiences.](#) In: **Seminar ' Lessons Learnt' : Projek Fasiliti Kesihatan & Hospital**

- 2017 [Osteomyelitis treatment in New Zealand white rabbit using radiological analysis - the in vivo studies outcome comparison of score at different timing with hydroxyapatite impregnated with gentamicin.](#) In: **Asia Pacific Orthopaedic Association Trauma and Infection Meeting**
- 2017 [The in vitro release study of orthopaedic metal implant coated with silver composite – Preliminary result.](#) In: **Asia Pacific Orthopaedic Association Trauma and Infection Meeting 2017**
- 2017 [The in-vivo study comparison of biocompatibility and biodegradability of poly lactic-co-glycolic acid \(PLGA\) combined with autologous fibrin versus PLGA for intra-articular screw fixation in New Zealand white rabbits model - The micro-CT scan evaluation.](#) In: **1st Postgraduate Symposium on Tissue Engineering and Regenerative Medicine 2017 (TERMSYMPO 2017)**
- 2017 [The in vivo study of open fracture in New Zealand white rabbit using orthopaedic metal implant coated with silver composite – A pilot study.](#) In: **Asia Pacific Orthopaedic Association Trauma and Infection Meeting 2017**
- 2017 [An experimental model of chronic osteomyelitis induced by staphylococcus aureus in New Zealand white rabbit.](#) In: **1st Postgraduate Symposium on Tissue Engineering and Regenerative Medicine 2017 (TERMSYMPO 2017)**
- 2017 [An experimental model of open tibial fracture in the New Zealand white rabbit: Surgical technique.](#) In: **1st Postgraduate Symposium on Tissue Engineering and Regenerative Medicine 2017 (TERMSYMPO 2017)**
- 2017 [Early response in antibacterial activity of orthopaedic metal implant coated with silver composite as future implant related infection treatment – Preliminary result.](#) In: **Asia Pacific Orthopaedic Association Trauma and Infection Meeting 2017**
- 2017 [In vivo evaluation of orthopaedic metal implant coated with silver composite: Potential treatment modality for implant related infection.](#) In: **1st Postgraduate Symposium on Tissue Engineering and Regenerative Medicine 2017 (TERMSYMPO 2017)**
- 2017 [Comparing impregnated of biomaterials with gentamicin as osteomyelitis treatment in New Zealand white rabbit – animal study.](#) In: **Bio-CAM 2017 Conference on Biomedical & Advanced Material**
- 2017 [Treatment of osteomyelitis in New Zealand white rabbit using impregnated biomaterials with gentamicin: in vivo study outcome of bacterial study and micro-computed topography evaluation.](#) In: **50th Anniversary Golden Jubilee of Malaysian Orthopaedic Association & 47th Annual Scientific Meeting / Annual General Meeting 2017**
- 2017 [The levels of depression, anxiety and stress on pre and post knee arthroplasty patients.](#) In: **Medical Research Symposium 2017**
- 2017 [Osteomyelitis treatment in New Zealand white rabbit using impregnated biomaterials with gentamicin– in vivo studies outcome.](#) In: **1st Postgraduate symposium on Tissue Engineering and Regenerative Medicine 2017 (TERMSYMPO 2017)**
- 2017 [Initial response in antibacterial activity of orthopaedic metal implant coated with silver composite.](#) In: **Fundamental Science Congress 2017 (FSC2017)**

- 2017 [The early outcome in antibacterial activity of orthopaedic metal implant coated with silver composite as future implant related infection treatment – preliminary results.](#) In: **50th Anniversary Golden Jubilee of Malaysian Orthopaedic Association & 47th Annual Scientific Meeting / Annual General Meeting 2017**
- 2016 [Poly\(lactic-co-glycolic acid\) and atelocollagen hybrid scaffold seeded with annulus fibrosus cells enhances the formation of cartilaginous tissue engineered construct in vitro.](#) In: **6th MTERMS 2016 in conjunction with 2nd Malaysian Stem Cells Meeting**
- 2016 [Poly\(lactic-co-glycolic acid\), atelocollagen and fibrin hybrid scaffold seeded with annulus fibrosus cells enhances the formation of cartilaginous tissue engineered construct in vitro.](#) In: **6th MTERMS (Malaysian Tissue Engineering and Regenerative Medicine Scientific Meeting) 2016 in conjunction with 2nd Malaysian Stem Cell Meeting**
- 2016 [In vitro and in vivo gene expression studies of cartilage-like tissue engineered construct using a combination of transiently transfected human osteoarthritic chondrocytes and tissue engineering technique.](#) In: **6th MTERMS 2016 in conjunction with 2nd Malaysian Stem Cells Meeting**
- 2016 [Fabrication and evaluation of mechanical strength of poly\(lactic-co-glycolic acid\) scaffold incorporated with atelocollagen type II.](#) In: **National Colloquium on Stem Cell Research 2016**
- 2016 [Early response in antibacterial activity of orthopaedic metal implant coated with silver composite for future osteomyelitis treatment: preliminary results.](#) In: **KAHS Research Week (KRW) 2016 in conjunction with 1st Allied Health Scientific Colloquium (AHSC) 2016**
- 2016 [In vitro and in vivo non-viral SRY \(Sex Determining Region Y\)-box 9 \(SOX9\) and telomerase reverse transcriptase \(TERT\) genes transfer in chondrocytes: work in progress.](#) In: **KAHS Research Week (KRW) 2016 in conjunction with 1st Allied Health Scientific Colloquium (AHSC) 2016**
- 2016 [Effects of SRY \(Sex Determining Region Y\)-Box 9 \(SOX9\) and Telomerase Reverse Transcriptase \(TERT\) genes transfection in chondrocytes seeded on three-dimensional scaffolds: gross observation and cell proliferation assay.](#) In: **6th MTERMS 2016 in conjunction with 2nd Malaysian Stem Cells Meeting**
- 2016 [Viability and glycosaminoglycan content in chondrocytes transfected with SRY \(sex-determining region y\)-BOX 9 and telomerase reverse transcriptase genes.](#) In: **3rd Pan-Asian Biomedical Science Conference 2016 Kuala Lumpur**
- 2016 [Articular cartilage tissue engineering using poly\(lactic-co-glycolic acid\) based scaffolds seeded with bone marrow mesenchymal stem cells: from in vitro to in vivo model.](#) In: **National Colloquium on Stem Cell Research 2016**
- 2016 [Identifying transfection efficiency and cartilaginous markers expression in chondrocytes overexpressed with SRY \(Sex Determining Region Y\)-Box 9 \(SOX9\) gene: A preliminary analysis in an in vitro model.](#) In: **4th International Conference on Biotechnology Engineering 2016 (ICBioE 2016)**
- 2016 [Healing with sound: Exploring possible applications of Qur'anic recitation in human cells.](#) In: **4th International Conference on Biotechnology Engineering 2016 (ICBioE 2016)**

- 2016 [Characterization of poly \(lactic-co-glycolic acid\) / atelocollagen hybrid scaffold for intervertebral disc regeneration](#) . In: **4th International Conference on Biotechnology Engineering 2016 (ICBioE 2016)**
- 2016 [Formation of human articular cartilage from in vitro to in vivo short-term ectopic implantation model: Gross observation, histology and immunohistochemistry analysis](#). In: **4th International Conference on Biotechnology Engineering 2016 (ICBioE 2016)**
- 2016 [Case report: Bilateral total knee replacement in severe knee osteoarthritis](#). In: **46th Malaysian Orthopaedic Association Annual General Meeting/Annual Scientific Meeting & 10th ASEAN Arthroplasty Association Meeting**
- 2016 [In vivo evaluation of 3-dimensional PLGA/ Atelocollagen/ Fibrin scaffolds for intervertebral disc \(IVD\) regeneration](#). In: **6th MTERMS 2016 in conjunction with 2nd Malaysian Stem Cells Meeting**
- 2016 [Bioartificial Articular Cartilage Substitute \(BACS\): today's innovation for active tomorrows](#). In: **IRIIE 2016 Commercial Potential Award**
- 2016 [Swelling capacity and degradation behaviour of poly\(lactic-co-glycolic acid\) tissue engineering scaffold through atelocollagen, fibrin or, combination of atelocollagen and fibrin addition](#). In: **4th International Science Postgraduate Conference 2016**
- 2016 [Monolayer culture expansion of Annulus fibrosus cells for intervertebral disc regeneration](#). In: **KAHS Research Week (KRW) 2016 in conjunction with 1st Allied Health Scientific Colloquium (AHSC) 2016**
- 2015 [Bioartificial articular cartilage substitute: towards the development of functional tissue engineered medical product](#). In: **The International Conference and Exposition on Inventions by Institutions of Higher Learning (PECIPTA 2015)**
- 2015 [Evaluation of three-dimensional construct engineered from poly\(lactic-co-glycolic acid\)/fibrin hybrid scaffold seeded with rabbit bone marrow Mesenchymal stem cells for osteochondral defect repair](#). In: **International Conference on Advancement in Science and Technology (iCAST 2015) - 'Frontiers in Biotechnology'**
- 2014 [A curious case of asymptomatic septic knee in closed tibial plateau fracture](#). In: **44th Malaysian Orthopaedic Association (MOA) Annual General Meeting / Annual Scientific Meeting 2014 incorporating 11th CAOS Asia Meeting**
- 2014 [Exploring Islamic views on the application of gene transfer in tissue engineering approach](#). In: **K.A.H.S. Research Week 2014**
- 2014 [The use of poly\(lactic-co-glycolic acid\) and fibrin scaffolds for articular cartilage tissue engineering](#) . In: **International Health Conference IIUM (IHCI) 2014**
- 2014 [The in vivo studies of injection moulded 316l stainless steel fracture fixation plate](#). In: **K.A.H.S. Research Week 2014**
- 2013 [Histomorphometric analysis of the endothelial cell in skin microvasculature among diabetic foot ulcer patients](#). In: **IIUM Research, Invention and Innovation Exhibition 2013**

- 2012 [The diminution of capillary luminal area within dermal microcirculation and its association in diabetic foot ulcer patients.](#) In: **21st Scientific Conference Of The Microscopy Society Malaysia**
- 2012 [The study of the Tualang honey viscosity.](#) In: **5th Federation of Islamic Medical Associations (FIMA) Conference in conjunction with the 14th IMAM Annual Scientific Meeting**
- 2012 [A prospective study of paediatric fractures in Hospital Tengku Ampuan Afzan, Kuantan.](#) In: **42nd Malaysian Orthopaedics Association Annual General Meeting/ Annual Scientific Meeting**
- 2012 [Application of hydroxyapatite granules in posterolateral intertransverse lumbar spinal fusion.](#) In: **International Conference on Nanotechnology, ICONT 2012**
- 2011 [Thoracolumbar compression fracture: should we brace? .](#) In: **41st Malaysian Orthopaedic Association Annual General Meeting / Annual Scientific Meeting & 5th ASEAN Arthroplasty Association Meeting**
- 2011 [Gram negative infection following plating of Tibia resulted with exposed bone and implant.](#) In: **SICOT 2011 XXV Triennial World Congress**
- 2011 [Biomechanical comparison study between metal injection moulded fracture fixation plates with conventional plates.](#) In: **IIUM Research, Invention & Innovation Exhibition 2011**
- 2011 [Histomorphometric analysis of the endothelial cell in skin microvasculature among diabetic foot ulcer patients.](#) In: **20th Scientific Conference of Microscopy Society of Malaysia**
- 2011 [Hyaluronic acid rheological properties of Synvisc and Suplasyn for intraarticular injection In osteoarthritis.](#) In: **International Health Conference IIUM 2011**
- 2011 [Quantitative histological and histochemical studies of different muscles of the lower limb in diabetes mellitus cases.](#) In: **20th Scientific Conference of the Microscopy Society of Malaysia & 21st Annual General Meeting**
- 2011 [Fracture fixation plate for fracture healing comparing 316L stainless steel by metal injection molding technique plate with convantional plate in rabbit fracture model.](#) In: **International Health Conference IIUM 2011**
- 2011 [Fabrication of metallic implants using palm based binder through MIM process.](#) In: **Proceedings of the Euro International Powder Metallurgy Congress and Exhibition, Euro PM 2011**
- 2010 [Screw complication of ACL reconstruction: report of two cases.](#) In: **40th Malaysian Orthopaedic Association Annual General Meeting/ Annual Scientific Meeting**
- 2010 [Posterolateral lumbar spinal fusion in the New Zealand white rabbit model: surgical techniques.](#) In: **IIUM Research, Innovation & Invention Exhibition (IRIIE 2010)**
- 2010 [Three dimensional anthropometric measurements of the distal femur and proximal tibia for the Malay population .](#) In: **2010 IEEE EMBS Conference on Biomedical Engineering & Sciences (IECBES 2010)**

- 2010 [Production of autologous platelet-rich plasma from an animal model.](#) In: **IUM Research, Invention and Innovation Exhibition 2010**
- 2010 [Screw complication of ACL reconstruction: report of two cases.](#) In: **The 4th ConMed Linvatec Asia Arthroplasty Symposium 2010**
- 2010 [Bone formation at posterolateral intertransverse lumbar fusion.](#) In: **IUM Research, Innovation & Invention Exhibition (IRIIE 2010)**
- 2009 [Different effect of hydroxyapatite granules in posterolateral spinal fusion in New Zealand white rabbit: a preliminary result.](#) In: **Combined Meeting of 39th Malaysian Orthopaedic Association Annual Scientific Meeting & Annual Congress of The World Society for Endoscopic, Navigated & Minimal Invasive Spine Surgery**
- 2008 [An In Vivo Implantation Study in New Zealand White Rabbits for Granular Hydroxyapatite.](#) In: **eCM IX MUSCULOSKELETAL TRAUMA: 50 YEARS OF AO RESEARCH**
- 2008 [Granules Hydroxyapatite Application In Fractures.](#) In: **eCM IX MUSCULOSKELETAL TRAUMA: 50 YEARS OF AO RESEARCH**
- 2007 [Musculoskeletal melioidosis.](#) In: **Fifth SICOT/SIROT Annual International Conference 2007**
- 2007 [The use of a made-in- Malaysia Hydroxyapatite \(HA\) granules \(GRANUMAS\): early clinical results a one year review.](#) In: **Fifth SICOT/SIROT Annual International Conference 2007**
- 2007 [Palm oil thorn induced tumour-like lesion: a review of 4 cases.](#) In: **Fifth SICOT/SIROT Annual International Conference 2007**
- 2006 [Local flap for open fracture grade IIIB tibia.](#) In: **36th Malaysian Orthopaedic Association Annual Scientific Meeting & 2nd Asia Pacific Orthopaedic Association Trauma Section Meeting**
- 2006 [Palm oil thorn induced tumour like lesion: a review of 3 cases.](#) In: **36th Malaysian Orthopaedic Association Annual Scientific Meeting & 2nd Asia Pacific Orthopaedic Association Trauma Section Meeting**

Book

- 2014 [Metal injection molding of implant materials.](#) Engineering Materials Programme, AMREC SIRIM Berhad . ISBN 978-967-11588-1-4

Book Section

- 2014 [Fabrication and characterization of injection moulded fracture fixation plates for orthopedic applications.](#) In: **Metal injection molding of implant materials** Engineering Materials Programme, AMREC SIRIM Berhad . ISBN 978-967-11588-1-4 , pp.39-56
- 2014 [Fabrication and characterization of injection moulded fracture fixation plates for orthopedic applications.](#) In: **Metal injection molding of implant materials** Engineering Materials Programme, AMREC SIRIM Berhad . ISBN 978-967-11588-1-4 , pp.39-56

- 2014 [Fabrication and characterization of injection moulded fracture fixation plates for orthopedic applications.](#) In: **Metal injection molding of implant materials** Engineering Materials Programme, AMREC SIRIM Berhad . ISBN 978-967-11588-1-4 , pp.39-56
- 2014 [An in vivo implantation study in New Zealand white rabbit for fracture model healing with metal injection molding plates: preliminary result..](#) In: **Metal injection molding of implant materials** Engineering Materials Programme, AMREC SIRIM Berhad . ISBN 978-967-11588-1-4 , pp.119-148
- 2007 [Effects of gamma irradiation on the biomechanics of bone.](#) In: **Radiation in tissue banking: basic science and clinical applications of irradiated tissue allografts** World Scientific Publishing Co. Pte. Ltd. . ISBN 978-981-270-590-7 , pp.147-154
- 2007 [Effects of gamma irradiation on the biomechanics of bone.](#) In: **Radiation in tissue banking: basic science and clinical applications of irradiated tissue allografts** World Scientific Publishing Co. Pte. Ltd. . ISBN 978-981-270-590-7 , pp.147-154
- 2007 [Ethical, religious, legal, and cultural issues in tissue banking.](#) In: **Radiation in Tissue Banking: Basic Science and Clinical Applications of Irradiated Tissue Allografts** World Scientific Publishing Co. Pte. Ltd. . ISBN 978-981-270-590-7 , pp.55-66
- 2007 [Ethical, religious, legal, and cultural issues in tissue banking.](#) In: **Radiation in Tissue Banking: Basic Science and Clinical Applications of Irradiated Tissue Allografts** World Scientific Publishing Co. Pte. Ltd. . ISBN 978-981-270-590-7 , pp.55-66