

KAMARUL ARIFFIN BIN KHALID



- KULLIYAH OF MEDICINE
- IIUM Kuantan Campus
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المؤهل العلمي

- Ph.D in Orthopaedics and Trauma
- PhD in Medicine (Orthopaedics and Trauma)
- Doctor of Philosophy in Medicine
- Diploma in Tissue Banking
- Orthopaedics
- M. Med. Sciences.
- M.B.B.Ch., B.Ch. B.A.O.

مسؤوليات التدريس

ADVANCE TRAUMA	2014/2015 2017/2018
APPLIED PHYSIOLOGY	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
HAND AND RECONSTRUCTIVE MICROSURGERY	2014/2015 2015/2016 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	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	2013/2014 2014/2015 2015/2016 2016/2017 2017/2018 2019/2020

المشاريع البحثية

In Progress

2019 - Present	Safe Single COBOT for Therapist Assistance in Upper Limb Rehabilitation
2018 - Present	Two-Dimensional Stretchable Strain for Facial Expression-Driven Rehabilitation System (AOARD GRANT)
2016 - Present	Development of an Aviation-based Teamwork and Communication Training Programme to Improve Patient Safety in Malaysian Hospitals
2016 - Present	Health Literacy and Internet Usage for Health Purposes among University staff and students
2014 - Present	Non-viral Gene Transfer Approaches for Cartilage Tissue Engineering: Proof of Concept
Unknown - Present	CE Mark Consultant
Unknown - Present	Basic Tendon Repair Course 2/2018
Unknown - Present	BIOMECHANICAL ANALYSIS OF BONE GRAFT USING TREATMENT WITH PASTEURIZATION OR LIQUID NITROGEN: A STUDY USING SHEEP BONE MODEL

Completed

2018 - 2018	Basic Tendon Repair Course 2/2018
2018 - 2018	Basic Fracture Fixation Course 1/2018
2018 - 2020	Two-Dimensional Stretchable Strain for Facial Expression-Driven Rehabilitation System (AOARD GRANT)
2018 - -1	Basic Fracture Fixation Course 1/2018

- 2016 - -1** KAJIAN KEPENTINGAN ADANYA MAKLUMAT BERKAITAN PEKERJAAN DALAM DOKUMEN IDENTITI, REKOD KESIHATAN DAN SIJIL KEMATIAN DI MALAYSIA
- 2016 - 2017** KAJIAN KEPENTINGAN ADANYA MAKLUMAT BERKAITAN PEKERJAAN DALAM DOKUMEN IDENTITI, REKOD KESIHATAN DAN SIJIL KEMATIAN DI MALAYSIA
- 2016 - 2018** Development of A Stretchable Tactile Distribution Sensor
- 2016 - 2020** Health Literacy and Internet Usage for Health Purposes among University staff and students
- 2014 - 2018** Differential Remodeling of Subchondral Bone Plate and Trabecular Bone of the Tibia in Spontaneous Animals Models of Osteoarthritis
- 2014 - 2018** Non-viral Gene Transfer Approaches for Cartilage Tissue Engineering: Proof of Concept
- 2012 - 2016** Pre-Clinical Evaluations of Malaysian-Made "Osteopaste" an Injectable Self-Hardened Synthetic Bone Cement
- 2012 - 2015** A Novel Theoretical Model of Smart Medical Navigation System for Computer-Assisted Surgery
- 2011 - 2015** Experimental Investigation on Lower Limbs Motion Dynamics for Designing Jerk Fee Rehabilitation Assistive Robot
- 2008 - 2011** Compression Fracture of the Thoracolumbar Spine: A Prospective Study Comparing Radiographic Results Between Early Ambulation with and without Lumbar Orthosis
- 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
- 2005 - 2008** Development of Porous Biomaterials for Bone Substitutes via Polymeric Sponge Method
- Unknown - -1** Basic Tendon Repair Course 2/2018

المنشورات

Article

- 2021** [The Malay version of the Michigan hand outcomes questionnaire: cross-cultural adaptation, validation and reliability testing.](#) The Journal of Hand Surgery (Asian-Pacific Volume) pp.1-14
- 2020** [Plant-based skin lightening agents: a review.](#) The Journal of Phytopharmacology , 9 (1) pp.54-60
- 2020** [Pharmacological effects of Clinacanthus nutans Lindau and its potential cosmeceutical values: a comprehensive review.](#) Journal of Pharmaceutical Science and Research , 12 (1) pp.10-19

- 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** [Perspectives and consensus among international orthopaedic surgeons during initial and mid-lockdown phases of coronavirus disease.](#) Journal of Hand and Microsurgery , 12 (3) pp.135-162
- 2019** [Malay version of the Michigan hand outcomes questionnaire: cross-cultural adaptation and reliability testing in Kuantan, Pahang.](#) International Journal of Allied Health Sciences , 3 (3 Special Issue) pp.784-784
- 2019** [Impact of modern technology on the development of natural-based products.](#) Journal of Ayurvedic and Herbal Medicine , 5 (4 (October-December)) pp.133-142
- 2019** [Efficacy of steroid injection versus physiotherapy treatment in work related trigger finger.](#) International Journal of Allied Health Sciences (IJAHSS) , 3 (Special issue) (3)
- 2019** [Cartilaginous matrix components production in the in vivo 'cell-scaffold' construct.](#) International Journal of Allied Health Sciences , 3 (Special issue) (3) pp.807-807
- 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** [Recombinant sclerostin antagonizes effects of ex vivo mechanical loading in trabecular bone and increases osteocyte lacunar size.](#) American Journal Of Physiology - Cell Physiology
- 2018** [Functional outcome of neurotization to the musculocutaneous nerve in traumatic brachial plexus injury.](#) International Medical Journal Malaysia , 17 (Supplementary Issue 1) pp.60-60
- 2018** [Neurotisation In Extended Brachial Plexus Injury: Spinal Accessory Nerve \(SAN\) to Suprascapular Nerve \(SSN\) and Anterior Interosseous Nerve \(AIN\) branch to Pronator Quadratus \(PQ\) to Radial Branch Of Extensor Carpi Radialis Brevis \(ECRB\) a case report.](#) Malaysian Orthopaedic Journal , 12 (Supplement A) pp.1
- 2018** [Structural changes and the differential expression of osteoprotegerin \(OPG\) and receptor activator of nuclear factor kB ligand \(RANKL\) in subchondral bone during the development of osteoarthritis.](#) Malaysian Applied Biology Journal , 47 (6) pp.87-96
- 2018** [Structural changes and the differential expression of osteoprotegerin \(OPG\) and receptor activator of nuclear factor kB ligand \(RANKL\) in subchondral bone during the development of osteoarthritis.](#) Malaysian Applied Biology
- 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
- 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

- 2013** [Lower-limb rehabilitation robot design.](#) IOP Conference Series: Materials Science and Engineering , 53 (1) pp.012038 (1)-012038 (10)
- 2013** [Factors associated with the outcome of open tibial fractures.](#) Malaysian Journal of Medical Sciences , 20 (5) pp.47-53
- 2012** [Characterization of drug-release kinetics in trabecular bone from titania nanotube implants.](#) International Journal of Nanomedicine (7) pp.4883-4892
- 2011** [Phosphate 'sensing' by human bone.](#) Osteoporosis International With other metabolic bone diseases , 22 (Supplement 4) pp.S585-S585
- 2009** [Treatment of a Symptomatic Forearm Muscle Herniation with a Wrap-Around Fascia Lata Graft.](#) Journal of Hand and Microsurgery , 1 (1) pp.54-59
- 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
- 2008** [Successful commercialisation of locally fabricated bioceramics for clinical applications..](#) The Medical journal of Malaysia , 63 (Supp A) pp.49-50
- 2007** [Porous hydroxyapatite for artificial bone applications.](#) Science and Technology of Advanced Materials , 8 (1-2) pp.116-123
- 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** [Sterilisation effect study on granular hydroxyapatite \(HA\).](#) The Medical journal of Malaysia , 59 (Supp B) pp.85-86
- 2004** [Biomaterials research in Malaysia--development in facilities and expertise for in-vivo evaluation.](#) The Medical journal of Malaysia , 59 (Supp B) pp.133-134
- 2004** [Histological evaluation of the early bone response to hydroxyapatite \(HA\) implanted in rabbit tibia.](#) The Medical journal of Malaysia , 59 (Supp B) pp.123-4
- 2004** [Practical Islamic input in Orthopaedics Undergraduate Medical Curricula.](#) International Medical Journal Malaysia , 3 (2) pp.E2
- 1999** [COX-2 inhibitors: a potential target for drug therapy in the management of colorectal cancer.](#) The Medical journal of Malaysia , 54 (3) pp.293-5

Conference or Workshop Item

- 2019 [Efficacy of steroid injection versus physiotherapy treatment in work related trigger finger.](#) In: **15th Malaysian Society for Surgery of The Hand (MSSH) Annual Scientific Meeting 2019**
- 2019 [Malay version of Michigan Hand Outcome Questionnaire: cross culture adaptation and reliability testing in Kuantan Pahang.](#) In: **15th Malaysian Society for Surgery of the Hand (MSSH) Annual Scientific Meeting**
- 2019 [The osteocyte: master directors of bone remodelling, mineralisation and phosphate-calcium homeostasis.](#) In: **International Pharmacy Conference (IPC) 2019**
- 2019 [Collateral ligament injuries in the hand.](#) In: **15th Malaysian Society for Surgery of The Hand (MSSH) Annual Scientific Meeting 2019**
- 2019 [Cubital tunnel.](#) In: **15th Malaysian Society for Surgery of The Hand (MSSH) Annual Scientific Meeting 2019**
- 2019 [Tendons - anatomy & healing.](#) In: **Tendon Repair Workshop 1/2019**
- 2018 [Carpal tunnel and guyons canal: difficult diagnosis and managing expectations.](#) In: **Combined 14th Malaysian Society of Surgery of the Hand (MSSH) and Malaysian Society of hand Therapists (MSHT) Annual Scientific Meetings**
- 2018 [Functional outcome of steroid injection in trigger finger between professional and service workers.](#) In: **14th MSSH Annual Scientific Meeting & MSHT Annual Scientific Meeting 2018**
- 2018 [The remodelling of tibial trabecular bone in spontaneous animal model of osteoarthritis.](#) In: **The 15th Symposium of the Malaysian Society of Applied Biology (MSAB 2018)**
- 2018 [Structural changes and the differential expression of osteoprotegerin \(OPG\) and receptor activator of nuclear factor kb ligand \(RANKL\) in subchondral bone during the development of osteoarthritis.](#) In: **The 15th Symposium of the Malaysian Society of Applied Biology (MSAB 2018)**
- 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 [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)**

- 2012 [Direct effect of sclerostin on the mechanical loading response in bovine bone.](#) In: **1st Asia Pacific Bone and Mineral Research Meeting and the Australian & New Zealand Bone & Mineral Society 22nd Annual Scientific Meeting**
- 2012 [Computational and experimental characterization of drug release kinetics in trabecular bone from titania nanotube implants.](#) In: **1st Asia Pacific Bone and Mineral Research Meeting and the Australian & New Zealand Bone & Mineral Society 22nd Annual Scientific Meeting**
- 2012 [Mechanical loading response in trabecular bone is abrogated by sclerostin - A direct demonstration.](#) In: **6th Australian Health and Medical Research Congress 2012**
- 2012 [Application of hydroxyapatite granules in posterolateral intertransverse lumbar spinal fusion.](#) In: **International Conference on Nanotechnology, ICONT 2012**
- 2012 [Sclerostin attenuates the mechanical loading response in trabecular bone.](#) In: **Australian Orthopaedic Association - South Australian Branch Annual Scientific Meeting**
- 2011 [Thoracolumbar compression fracture: should we brace? .](#) In: **41st Malaysian Orthopaedic Association Annual General Meeting / Annual Scientific Meeting & 5th ASEAN Arthroplasty Association Meeting**
- 2011 [Response to loading in ex vivo bovine bone.](#) In: **IOF Regionals 2nd Asia-Pacific Osteoporosis and Bone Meeting and ANZBMS Annual Scientific Meeting with JBSMR**
- 2010 [Posterolateral lumbar spinal fusion in the New Zealand white rabbit model: surgical techniques.](#) In: **IIUM Research, Innovation & Invention Exhibition (IRIIE 2010)**
- 2010 [Role of osteocytes in bone response to mechanical loading.](#) In: **The Sixth Clare Valley Bone Meeting**
- 2010 [Production of autologous platelet-rich plasma from an animal model.](#) In: **IIUM Research, Innovation and Invention Exhibition 2010**
- 2010 [Bone formation at posterolateral intertransverse lumbar fusion.](#) In: **IIUM Research, Innovation & Invention Exhibition (IRIIE 2010)**
- 2010 [Working with rabbits in orthopaedic research.](#) In: **4th National Workshop on the Care and Management of Laboratory Animal for Research**
- 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 [Resurfacing arthroplasty for bilateral locked anterior dislocation of the shoulder: A case report.](#) In: **Australian Orthopaedic Association South Australian Branch Scientific Meeting**
- 2008 [Symptomatic muscle herniation of the anterior compartment of the forearm from repetitive use of the power grip at work: A case report.](#) In: **Australian Orthopaedic Association South Australia Branch Scientific Meeting**

- 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**
- 2008 [Clavicular osteotomy approach for difficult shoulder surgery.](#) In: **Australian Orthopaedic Association - South Australian Branch Annual Scientific Meeting**
- 2007 [Replantation services in a Malaysian Public Hospital.](#) In: **Fifth SICOT/SIROT Annual International Conference 2007**
- 2007 [Microsurgical services at the Department of Orthopaedic.](#) In: **Fifth SICOT/SIROT Annual International Conference 2007**
- 2007 [Open achilles tendon rupture.](#) 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 [The use of gastrocnemius muscle flap in trauma.](#) In: **Fifth SICOT/SIROT Annual Internatinal Conference**
- 2007 [MR image reconstruction with autoregressive moving average.](#) In: **International Conference on Biotechnology Engineering 2007**
- 2006 [Open achilles tendon rupture: a review of 33 cases.](#) In: **36th Malaysian Orthopaedic Association Annual Garnd Meeting & 2nd Asia Pacific Orthopaedic Association Trauma Section Meeting**

**Book
Book Section**

- 2012 [The Elbow.](#) In: **Mercer's Textbook of Orthopaedics and Trauma Tenth edition** Hodder Arnold, an imprint of Hodder Education, an Hachette UK Company . ISBN 9780340942031; 10: 0340942037 , pp.1382-1419
- 2012 [The Elbow.](#) In: **Mercer's Textbook of Orthopaedics and Trauma Tenth edition** Hodder Arnold, an imprint of Hodder Education, an Hachette UK Company . ISBN 9780340942031; 10: 0340942037 , pp.1382-1419
- 2007 [Tissue banking in the Asia-Pacific region - past, present, and future.](#) In: **Radiation In Tissue Banking: Basic Science and Clinical Applications of Irradiated Tissue Allografts** World Scientific Publishing Co Pte Ltd . ISBN ISBN 13: 9789812705907 ISBN 10: 9812705902 , pp.25-54
- 2007 [Clinical applications of gamma-irradiated deep-frozen and lyophilized bone allografts - the NUH Tissue Bank experience.](#) In: **Radiation In Tissue Banking: Basic Science and Clinical Applications of Irradiated Tissue Allografts** World Scientific Publishing Co Pte Ltd . ISBN ISBN 13: 9789812705907 ISBN 10: 9812705902 , pp.305-316

2005 [Role of ceramics as bone graft substitutes.](#) In: **Bone Grafts and Bone Substitutes: Basic Science and Clinical Applications** World Scientific Publishing Co Pte Ltd . ISBN ISBN 13: 9789812560896 ISBN 10: 9812560890 , pp.445-458

2005 [Role of corals and corraline in orthopaedic surgery.](#) In: **Bone Grafts and Bone Substitutes: Basic Science and Clinical Applications** World Scientific Publishing Co Pte Ltd . ISBN ISBN 13: 9789812560896 ISBN 10: 9812560890 , pp.501-511