

SAIKARTHIK JAYAKUMAR, BSc Allied Health Sciences (Radiology and Imaging Technology), MSc. (Medical Anatomy), MSc. (Medical Sociology), PhD (Medical Anatomy)

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ACADEMIC BACKGROUND

PG Certificate course in Medical Education University of Dundee, Faculty of Medicine	Jan 2024- Dec 2024
Doctor of Philosophy in Medical Anatomy Saveetha Institute of Medical and Technical Sciences University Faculty of Medicine, Saveetha Medical College and Hospital	2012- 2017
Master of Science in Medical Anatomy Saveetha Institute of Medical and Technical Sciences University Faculty of Medicine, Saveetha Medical College and Hospital	2008 – 2011
Master of Science in Medical Sociology Madras university	2009-2011
Bachelor of Science in Allied Health Sciences specialised in Radiology and Imaging Technology Sri Ramachandra Institute of Higher Education and Research Faculty of Allied Health Sciences, Sri Ramachandra Medical College & Research Institute	2004 - 2008

UK NARIC verified Level 8 (Earned Doctorate)

WES Verified: <https://badges.wes.org/Evidence?i=08a82dac-9d95-4f28-a1c3-d478b987e665&type=ca>

RESEARCH SKILLS

- Hands-on experience in rodent handling and behavioural studies, including the Morris water maze test and T maze test.
- Trained in laboratory techniques and cell imaging methods, including cell culture techniques, ELISA, Flow cytometry, and fluorescence microscopy.
- Developed, conducted, and published epidemiological studies in the field of COVID-19, mental health, cardiovascular physiology, haematology, respiratory physiology, obesity, and reproductive physiology.

- Published around 20 research articles in journals indexed in Web of Science, Scopus, PubMed, and others.
- Co-authored a chapter titled “Does COVID-19 Affect Adult Neurogenesis? A Neurochemical Perspective” in the book, “Recent advances in neurochemistry”.
- Performed statistical analyses using SPSS, Minitab, GraphPad Prism, and AMOS statistical programs extensively.
- Mentored undergraduate medical and dental students in research projects.
- Performed data collection, analysis of large data sets, literature search, statistical analysis, and manuscript preparation for publication.

PROFESSIONAL EXPERIENCE

TEACHING EXPERIENCE

Tutor/Instructor - Department of Anatomy, Madha Medical College and Research Institute, India

August 2011 – January 2015

Assistant Professor - Department of Anatomy, Madha Medical College and Research Institute, India

January 2015 – September 2018

Assistant Professor - Department of Anatomy, SRM Medical College and Research Centre, India

October 2018 – September 2019

Assistant Professor - Department of Basic Medical Sciences, College of Dentistry, Majmaah University, Kingdom of Saudi Arabia

September 2019 – September 2024

Associate Professor – Department of Maxillofacial Surgery and Diagnostic Sciences, College of Dentistry, Majmaah University, Kingdom of Saudi Arabia

September 2024- Till date

Responsibilities:

- Course Director for anatomy, embryology and histology module (ANA113)
- Prepared and delivered gross anatomy, embryology, and histology lectures.
- Conducted gross anatomy dissection sessions for medical, dental, and paramedical students
- Prepared histology slides (H&E stained) for purpose of teaching
- Conducted embryology practical sessions using models
- Prepared, administered, and graded examinations, practical assignments, quizzes, weekly tasks and homework activities
- Academic advisor for 1st year students (novice learner advisership)
- Supervised and maintained Anatomy research lab activities.
- Mentored undergraduate medical and dental students to participate in intercollege quiz competitions.
- Mentored undergraduate medical and dental students on Student research projects.

Administrative duties:

- Administrative Medical Director, Majmaah Clinics, Al Majmaah (Nov 2023- Nov 2024)
- Member of quality assurance unit under Vice Deanship of Academic affairs – Measurement of PLO's and KPI
- Member of Exams and Scheduling Unit under Vice Deanship of Academic affairs
- Member of Academic Accreditation Unit under Vice Deanship of Academic affairs
- Member of Curriculum Committee under Vice Deanship of Academic affairs- Played a vital role in revised the Dentistry curriculum based on the directives of NCAAA guidelines for General Dentistry, 2023
- Member of Scientific Research Unit under Vice Deanship Research and Postgraduate studies

CLINICAL EXPERIENCE

Part-time ultrasound technologist

June 2007 – May 2008 (Venus Scans, Chennai, India)

ACADEMIC ACCOMPLISHMENTS

- **First class with distinction grade in bachelors (75.3%)**
Thesis title: Measurement of the diameter of Hepatic veins and IVC in South Indian Female population using transabdominal ultrasound
- **First class grade in masters (71%)**
Thesis title: A Sonographic study of spleen morphometry among subjects attending the radiology department of saveetha medical college hospital
- **Highly commended Doctoral thesis**
Thesis title: A comparative study on the effect of fluoxetine and Mucuna pruriens on the cold restraint stress induced hippocampal damage in Wistar albino rats

PUBLICATIONS

- Hamad, Khalid Al-; Aljuhani, Abdullah; Almutairi, Turki; Shanab, Hanan; Almutairi, Reem; Joseph, Angel Mary; Ilango, Saraswathi; **Saikarthik, Jayakumar**. Perceptions, Attitudes, and Curriculum Reflections: Exploring Healthcare Students' Engagement with Basic Medical Sciences in Saudi Arabia. Anatomical Sciences Education (Under Review)
- **Saikarthik Jayakumar**, Srinivasan Vengadassalopathy, Santhosh Venkadassalopathy, Sheela Durairajan, Radha Vijayaraj, Lakshmanan Govindan Advancements and Applications of Split Technology in CRISPR/Cas12a: Transforming Molecular Diagnostics and Biosensing. Biosensor- Basel (Accepted)
- Angel Mary Joseph, Yahya AM Deeban, Sami Aldhuwayhi, Reem Almutairi, Ahmed Altuwalah, Mohammed Z Mustafa, Amar A Thakare, **Saikarthik Jayakumar**, Ashwin Joseph. Evaluation of near-field communication technology for labeling dental ceramic crowns: An in-vitro pilot study. Digital Health. Vol 11, (2025)
- **Jayakumar Saikarthik**, Ilango Saraswathi, Bijaya Kumar Padhi, Muhammad Aaqib Shamim, Nasser Alzerwi, Abdulaziz Alarifi, Aravind P Gandhi. Structural and functional neuroimaging of hippocampus to study adult neurogenesis in long COVID-19 patients with neuropsychiatric symptoms: a scoping review. PeerJ, 13 (e19575) (2025)

- Nasser AlZerwi, **Saikarthik Jayakumar**, Mohamed Helmy Salama, Musaed Rayzah, Yousef Alrohaimi, Turki Bader Alhumedani. The Pipeline Model: A Novel Transformative Pathway in the Dental Education Continuum for Saudi Arabia's Strategic Health Workforce Planning Policy: An Exploratory Review. *Int J Edu Sci*, 48(1): 1-6 (2025)
- Senthil Kumar Babu, Kouser Banu Khaleeluddin, Saikarthik Jayakumar Morphological study of human scalp hair in relevance to thyroid disorders. *International journal of medicine and health research* (Accepted) 2025
- Senthil Kumar Babu, Kouser Banu Khaleeluddin, **Saikarthik Jayakumar**. Correlation Between Thyroid Hormones and Hematological Profiles in Patients with Thyroid Dysfunction. *International Journal of Advancement in Life Sciences Research*. 8 (1) (2025)
- Abdulhameed, Syed Ashique, Abdul Kader Riyaz, Mohammed Almutairy, Salman Khan, **Saikarthik Jayakumar**, and Prachi Gaonkar. "Assessing the Accuracy of Lateral Cephalogram in Quantifying Three-Dimensional Pharyngeal Airway Morphology Compared to Cone-Beam Computed Tomography." *Cureus* 16, no. 3 (2024).
- Krishnan, Divakar Thiruvankata, Kingshika Joylin, I. Packiaraj, M. Kandasamy, John Hearty Deepak, Saraswathi Ilango, Khalid Al Hamad, **Saikarthik J** "Assessment of the Anterior Loop and Pattern of Entry of Mental Nerve Into the Mental Foramen: A Radiographic Study of Panoramic Images." *Cureus* 16, no. 3 (2024).
- Suganitha B... Nasser Alzerwi, **Saikarthik Jayakumar**. Neurotrophic factor mediated neurorestorative effect of *Pongamia pinnata* against transient cerebral hypoperfusion and reperfusion in rats: a preliminary histological and molecular level evidence. *Int.J of Morphology* (accepted)
- **Saikarthik J**. Anatomy eLearning experience in Saudi Arabia during the COVID-19 pandemic- A narrative review. *International Journal of Morphology*. 41 (4)2023
- Sitarz, Ryszard, **Saikarthik J**, et al. To Vaccinate or Not to Vaccinate—Reasons of Willingness and Reluctance of Students against SARS-CoV-2 Vaccination—An International Experience. *International Journal of Environmental Research and Public Health* 19.21 (2022): 14012.
- **Saikarthik J**, Saraswathi I, A Alarafi et al. Role of neuroinflammation mediated potential alterations in adult neurogenesis as a factor for neuropsychiatric symptoms in Post-Acute COVID-19 syndrome- A narrative review. *PeerJ*; 10, e14227
- Sharmila A, Patel S, **Saikarthik J**. Dimensional accuracy of medical models of the skull produced by three-dimensional printing technology by advanced morphometric analysis. *Journal of Anatomical Society of India*. 2022
- **Saikarthik, J.**, Saraswathi Ilango, Senthil Kumar K, Abdullah Alassaf, Abdullah Aljabr, Anand Paramasivam, Suresh Mickeymaray, Yazeed Mohammed Hawsah and Ahmed Saad Aldawish. Contrasting Association Between COVID-19 Vaccine Hesitancy and Mental Health Status in India and Saudi Arabia- A Preliminary Evidence Collected During the Second Wave of COVID-19 Pandemic.. *Frontiers in Medicine*. 2022
- Kumaresan, M., **Saikarthik, J.**, Sangeetha, A., Ilango, S., Kumar, K. S., and Roselin, P. Peri-hilar branching pattern and variations of the renal artery among Indian kidney donors using pre-operative computed tomography angiography: an anatomical study

and review. *Folia Morphologica*. 2022. (in press)

- Paramasivam A, Mickymaray S, **Saikarthik, J.**, Jeraud M, Perumal P, Alassaf A, Aljabr AA, Dasarathy S, Rangasamy SB Locomotor Behavior Analysis in Spinal Cord Injured *Macaca radiata* after Predegenerated Peripheral Nerve Grafting—A Preliminary Evidence. *Veterinary Sciences*. 2021 ;8(12):288
- **Saikarthik, J.**, Ilango, S., and Al-Atram, A. A. Intechopen. Does COVID-19 Affect Adult Neurogenesis? A Neurochemical Perspective. *Recent advances in neurochemistry*. (2021); 1-25
- Aljabr, Abdullah, Saleem Shaikh, S. Karthiga Kannan, Sami Aldhuwayhi, **Saikarthik J**, Riyadh Al-Roomy, Roshan Uthappa, and Alhanouf Alkhujairi. Replacing Non-functional Distractors to Improve the Quality of MCQs: A Quasi-experimental Study. *Int J Edu Sci*. 2021.33, 1-3: 52-58.
- Aristotle S, Sundarapandian S and **Saikarthik J.**, Effectiveness of flipped classroom model in teaching histology for first-year MBBS students based on competency-based blended learning: An interventional study. *Journal of Education and Health Promotion* 10.1 (2021): 152.
- Ilango, S., **Saikarthik, J.**, Kumar, K. S., Srinivasan, K. M., Ardhanaari, M., and Gunapriya, R. Impact of COVID-19 outbreak on the mental health status of undergraduate medical students in a COVID-19 treating medical college: a prospective longitudinal study. *PeerJ*. 2020; 8; e10164
- Rahman A, Ilango, S., **Saikarthik, J**, and Karthiga Kannan. JK Challenges faced in medical education globally, during COVID-19 pandemic and ways to overcome them. *Science: Journal of Medical Education & Research*. 2020; 22 (4): 159- 162
- **Saikarthik, J**, Gunapriya Raghunath, Karthiga Kannan, Anand Paramasivam, Ilango, S. Variation in the branching pattern of superior thoracic artery- A rare case. *Journal of Clinical and Diagnostic Research*. 2020; 14 (2): 1-3
- Kumar, K.S, Ilango S., **Saikarthik, J**, Srinivasan, K.M., Effect of short-term exercise on cardiorespiratory parameters in exercise trained and untrained young adults. *Indian Journal of Clinical Anatomy and Physiology*. 2018; 6 (1): 103 -108
- **Saikarthik, J**, Raghunath, G., Ilango, S., Vijayakumar, J., and Vijayaraghavan, R. Effect of fluoxetine on the hippocampus in cold restraint stress model. *Journal of Clinical and Diagnostic Research*. 2017; 11(6): AF01-AF06
- **Saikarthik, J.**, Ilango, S., Vijayakumar, J., and Vijayaraghavan, R. Phytochemical analysis of methanolic extract of seeds of *Mucuna pruriens* by gas chromatography mass spectrometry. *International Journal of Pharmaceutical Sciences and Research*. 2017; 8 (7): 2916-2921
- **Saikarthik, J.**, Ilango, S., Vijayakumar, J., and Vijayaraghavan, R. Gas mass chromatography mass spectroscopy of Methanol extract of *Mucuna pruriens*. *IJPSR*. 2017; 8(7): 2916-21
- K. Sankaran Sivanandan. R and **Saikarthik. J.**, Histomorphometric study of neurons in the trigeminal ganglia in male wistar albino rats. *Recent Research in Science and Technology*. 2012 (4); 28-31.
- Shenoy V, Saraswathi P, Gunapriya R, **Saikarthik J.**, Double external jugular vein and other rare venous variations of the head and neck. *Singapore medical journal* 2012: (53); 251 – 254

INTERNATIONAL RESEARCH PROJECTS

- Co-investigator in an ongoing multinational longitudinal study titled “*The impact of COVID-19 pandemic on the students mental health and lifestyle changes: An International study*” which is being conducted by the researchers of the department of Psychiatry, Psychotherapy and Early intervention, Medical University of Dublin, Poland.

ONGOING RESEARCH PROJECTS

- Primary investigator on an research project titled “*Association of emotional intelligence between mental health and Professionalism among health care and non-health students- A multi-centric study*”.
- Primary investigator in an ongoing binational cross-sectional study titled “*Public interests and concerns about COVID-19 vaccine and its association with mental health – a comparative study between the Indian and Saudi Arabian population*”
- Primary investigator in an ongoing multinational cross-sectional study titled “*Perception and attitude of Basic medical science courses among healthcare students in Saudi Arabia*”

PAPERS PRESENTED IN CONFERENCES

- Best Poster award in International Stroke Conference , Majmaah University, Feb 2024
- “Incidence of peri-hilar renal arteries among donors in Indian population” presented at the British Association of Clinical Anatomist, 2021 (Online)
- Presented at the “COVID-19 symposium” at Majmaah University, 2020 (Online)
- “Clinical impact of variations in the branching pattern of Superior thoracic artery- a cadaveric study” presented at the Annual Conference of Association of Anatomist, 2010
- “Thoracic Kidney- A case study” presented at the 57th National Conference of Anatomical Society of India, 2010
- “Measurement of the diameter of Hepatic veins and IVC in South Indian Female population using transabdominal ultrasound” presented at the Annual Conference of Association of Anatomist, 2008

ACADEMIC & PUBLIC SERVICE

EDITOR

- Academic Editor with PeerJ- Journal of life and environmental sciences (Current Impact factor 2.98; WoS Q2)
- Associate editor for the Majmaah Journal of Health Sciences

REVIEWER

- Reviewed many manuscripts in anatomical and physiological, epidemiological, and medical education related studies for various peer- reviewed journals.
- Some of these journals includes BMC psychiatry, BMC public health, Frontiers in public health, SAGE Open, PeerJ, etc.,

INSTITUTIONAL SERVICE

- Verified and organised students’ academic certificates for scholarships.

- Conducted workshop on “How to frame a good quality Comprehension MCQ?” at the College of Dentistry, Majmaah University

RESEARCH INTERESTS

- Brain health, Cognition and Mental health
- Neurodegenerative disorders
- Medical Education research
- Gross Anatomy and Radiological Anatomy research

PROFESSIONAL MEMBERSHIPS AND CERTIFICATIONS

- Member of NACADA
- Member of Saudi Society of Medical Education
- Fellowship with Institute of Biomedical Sciences, United Kingdom
- Full member of Royal Society of Biology, United Kingdom (Membership No. P0134599)
- Member of British Association of Clinical Anatomist, United Kingdom (Membership No. 509)
- Member of the Anatomical Society, UK
- Life member with Association of Anatomist of Tamilnadu

CERTIFICATIONS

- “Introduction to artificial intelligence” certificate program from Alison
- “Assessment in Higher Education: Professional development for Teachers” from Erasmus University, Rotterdam (Online)
- “Instructional methods in health professions education” from University of Michigan online program
- “Understanding student development and diversity” certificate program from Alison
- Completed Essential Skills in Medical Education (Online) in December 2021

LANGUAGES

- Fluent in English and Tamil
- Can read Hindi

REFERENCES

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