

## Dr. Karunanithi Rajamanickam Ph.D.,

Assistant Professor  
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### Qualifications:

**Ph.D.: 2008, Anna University**

### Research Interest:

Medical Imaging - Magnetic Resonance Imaging (MRI), MR-Acquisition and Post-processing, Diffusion Tensor Imaging (DTI), Functional MRI (fMRI), Digital X-ray Radiography, Thermography etc.,

### Post-Doc Experience

**2010-2012:** Department of Chemical and Biological Engineering, Ottawa University, Ottawa, Ontario, Canada

**2012-2013:** Department of Neuroscience, The Ottawa Hospital Research Institute, Ottawa, Ontario, Canada.

### Work Experience:

2014 – Present: Assistant Professor, Chettinad Academy of Research & Education (CARE), Kelambakkam, Chennai 603 103, India

2008 – 2010: Research Associate -Ganga Orthopaedic Research and Education Foundation, Ganga Hospital, Coimbatore, India

**Extramural projects ongoing/completed:** (Prepared proposal to Science and Engineering Research Board – Department of Science and Technology (SERB-DST))

### Research Guidance

**Ph.D.:** 01 (Undergoing)

**M.Sc.:** 02 (Completed)

### Summary of Research:

<b>Papers</b>	<b>14</b>	<b>Cites/paper</b>	<b>21.43</b>	<b>h-index</b>	<b>9</b>	<b>AWCR</b>	<b>47.85</b>
				<b>i10-index</b>	<b>7</b>		
<b>Citations</b>	300	Cites/author	125.5	g-index	14	AW-index	6.92
<b>Years</b>	13	Papers/author	3.61	Hc-index	7	AWCRpA	21.44
<b>Cites/year</b>	23.08	Authors/paper	5.21	HI-index	1.93	e-index	14.76

## Publications

1. Joy Sebastian Prakash & **Karunanithi Rajamanickam**. Aptamers and their significant role in cancer therapy and diagnosis. *Biomedicines*. 2015 //;3(3):248-69.
2. Beauchamp B, Ghosh S, Dysart MW, Kanaan GN, Chu A, Blais A. **Karunanithi Rajamanickam**, Tsai EC, Patti ME, Harper ME. Low birth weight is associated with adiposity, impaired skeletal muscle energetics and weight loss resistance in mice. *International journal of obesity*. 2014 //.
3. **Karunanithi Rajamanickam**, Mendis B, Chakraborty S, Nguyen T, Tsai E. 3.2. 33 Improvement of magnetic resonance imaging correlation with unilateral motor or sensory deficits using diffusion tensor imaging. *Cmaj Canadian Medical Association Journal* 55 (Suppl), S. 2012 //;51.
4. Bernard ED, Beking MA, **Karunanithi Rajamanickam**, Tsai EC, DeRosa MC. Target binding improves relaxivity in aptamer–gadolinium conjugates. *JBIC Journal of Biological Inorganic Chemistry*. 2012 //;17(8):1159-75.
5. Beauchamp B, Ghosh S, Chu A, Blais A, **Karunanithi Rajamanickam**, Tsai E. Epigenetic alterations in skeletal muscle metabolism are associated with weight loss resistance. *Free Radical Biology and Medicine* 53, S55-S. 2012 //;56.
6. **Karunanithi Rajamanickam** & P Ravishankar. Clinical significance of preoperative serum interleukin-6 and C-reactive protein level in breast cancer patients. *World Journal of Surgical Oncology*. 2011 //;9(18).
7. Rajasekaran S, Vijay K, **Karunanithi Rajamanickam**, Abhishek M, Shetty Ap. Prevalence and patterns of disc degeneration in thoracic and cervical spine associated to lumbar disc degeneration in a population with and without low back pain-magnetic resonance imaging analysis in two hundred and ninety nine individuals: 14. *Spine journal meeting abstracts*. 2010 //;14.
8. Rajasekaran S, Vidyadhara S, Subbiah M, Kamath V, **Karunanithi Rajamanickam**. ISSLS prize winner: a study of effects of in vivo mechanical forces on human lumbar discs with scoliotic disc as a biological model: results from serial postcontrast diffusion studies, histopathology and biochemical analysis of twenty-one human lumbar scoliotic discs. *Spine*. 2010 //;35(21):1930-43.
9. Rajasekaran S, Kanna RM, **Karunanithi Rajamanickam**, Shetty AP. Diffusion tensor tractography demonstration of partially injured spinal cord tracts in a patient with posttraumatic Brown Sequard syndrome. *Journal of magnetic resonance imaging*. 2010 //;32(4):978-81.
10. Bagavathiappan S, Saravanan T, Philip J, Jayakumar T, Raj B, **Karunanithi Rajamanickam**, Infrared thermal imaging for detection of peripheral vascular disorders. *Journal of Medical Physics*. 2009 //;34(1):43-.
11. Bagavathiappan S, Saravanan T, Philip J, Jayakumar T, Raj B **Karunanithi Rajamanickam** Investigation of peripheral vascular disorders using thermal imaging. *The British Journal of Diabetes & Vascular Disease*. 2008 //;8(2):102-4.
12. Munagala R, **Karunanithi Rajamanickam**, Pugalendhi V, Panicker TMR, Korath MP. Maggots: Microsurgeons in Wound Debridement. *Bombay Hosp J*. 2007 //;49(1):126-9.
13. **Karunanithi Rajamanickam**, Ganesan S, Panicker TMR, Korath MP, Jagadeesan K. Assessment of bone mineral density by DXA and the trabecular microarchitecture of the calcaneum by texture analysis in pre-and postmenopausal women in the evaluation of osteoporosis. *Journal of medical physics/Association of Medical Physicists of India* 32 (4) 2007 //.
14. Pugalendhi V, **Karunanithi Rajamanickam**, Panicker TM, Abraham C, Gurusurthy P. A Pilot Study on the Breast Development in Female Wistar Rats Using an Indigenous Herbal Preparation by Topical Application. *N Engl J Med*. 2004 //;350:25.

## Conference/Workshop/Invited Lecture/Resource person/Seminar/:

1. **Karunanithi Rajamanickam** and Joy Sebastian Prakash J. **Characterization of Breast Cancer Tumours using Texture Analysis of Saggital T2 weighted MR Images.** 37<sup>th</sup> Annual Conference of Association of Medical Physicists of India. 18<sup>th</sup> to 20<sup>th</sup> Nov 2016 – Hotel Marriot Convention Centre - Hyderabad
2. Joy Sebastian Prakash J and **Karunanithi Rajamanickam.** **Synthesis, Characterization and MR relaxivity studies of water soluble CdSe Quantum Dots – A bimodal Fluorescent / MR probe for in-vivo imaging.** 37<sup>th</sup> Annual Conference of Association of Medical Physicists of India. 18<sup>th</sup> to 20<sup>th</sup> Nov 2016 – Hotel Marriot Convention Centre – Hyderabad
3. V Divya, Joy Sebastian Prakash, **Karunanithi Rajamanickam.** Quantitative assessment of Hippocampal and Corpus Callosum Volumes for Clinical staging in Alzheimer's Disease (AD). International Journal of Current Research and Academic Review. 2016;4(1):128-.
4. P Sharon Jebamalar, J Joy Sebastian Prakash, **Karunanithi Rajamanickam.** Assessment of Brain Lateral Ventricular Volume in Alzheimer's Disease – A pilot study. International Journal of Current Research and Academic Review. 2016 //;4(1):130-.
5. A Jayalakshmi, Joy Sebastian Prakash, **Karunanithi Rajamanickam.** Qualitative Assessment of Fiber Tracts and Neuronal Loss for Evaluating Alzheimer's Disease, Mild Cognitively Impairment and Normal Ageing. nternational Journal of Current Research and Academic Review. 2016 //;4(1):129-.
6. **Karunanithi Rajamanickam,** Mendis B, Chakraborty S, Nguyen T, Tsai E. 3.2. 33 Improvement of magnetic resonance imaging correlation with unilateral motor or sensory deficits using diffusion tensor imaging. Cmaj Canadian Medical Association Journal 55 (Suppl), S. 2012 //;51.
7. Mehdizadeh S, **Karunanithi Rajamanickam,** Gupta A, Cruce R, Blanco AC. Diffusion tensor imaging in multiple sclerosis: A method of differentiating symptomatic and asymptomatic cervical cord lesions. The Canadian Society for Clinical Investigation and the Clinician 2012 //.
8. Sajedeh Shahabhi, **Karunanithi Rajamanickam,** Eve Chung Tsai, Xudong Cao. SPIO enabled MR imaging of biodegradable PLGA channels for spinal cord injury. 11th ANNUAL OHRI RESEARCH DAY. 2011 //;55.
9. Rajasekaran S, Vijay K, **Karunanithi Rajamanickam,** Abhishek M, Shetty AP. Prevalence And Patterns Of Disc Degeneration In Thoracic And Cervical Spine Associated To Lumbar Disc Degeneration In A Population With And Without Low Back Pain-Magnetic Resonance Imaging Analysis In Two Hundred And Ninety Nine Individuals: 14. Spine Journal Meeting Abstracts. 2010 //;14.
10. Bagavathiappan S, Saravanan T, Philip J, Jayakumar T, Raj B, **Karunanithi Rajamanickam** editors. Thermography for health care2009.
11. **Karunanithi Rajamanickam,** Panicker TMR, Korath MP, Jagadeesan K, Ganesan S, editors. Texture analysis of trabecular bone using conventional radiographs: medical imaging and osteoporosis2008.