Stanford

Jayakumar Rajadas

Assistant Professor (Research) of Medicine (Pulmonary and Critical Medicine)

Medicine - Pulmonary, Allergy & Critical Care Medicine

NIH Biosketch available Online

Bio

ACADEMIC APPOINTMENTS

- Assistant Professor (Research), Medicine - Pulmonary, Allergy & Critical Care Medicine
- Member, Cardiovascular Institute
- Member, Wu Tsai Human Performance Alliance
- Member, Maternal & Child Health Research Institute (MCHRI)

ADMINISTRATIVE APPOINTMENTS

- Adjunct Full Professor (WOS), Department of Bioengineering and Therapeutic Sciences, School of Pharmacy, UCSF, (2017- present)
- Founding Director, Advanced Drug Delivery and Regenerative Biomaterials Laboratory, (2020- present)
- Founding Director, Biomaterials and Advanced Drug Delivery Center, (2007-2020)

HONORS AND AWARDS

- SPARK award, Stanford (2009, 2011, 2012,2013, 2014,2019)
- Seed grant, CVI , Stanford (2014, 2017)
- Young Scientist Award in Chemistry, Council of Scientific and Industrial Research, India (1996)
- TANSA Award, Government of Tamil Nadu, India (1999)

PROFESSIONAL EDUCATION

- M,S, University of Madras , Chemistry (1983)
- Ph.D, Indian Institute of Technology , Biophysical Chemistry (1990)

LINKS

- ADDReB Lab website: http://bioadd.stanford.edu/

Teaching

COURSES

2023-24

- Drug Development: Key Issues in Regulation, Benefit vs. Risk, and Commercialization: MED 227 (Aut)
- Introduction to Drug Development: A Guide to Therapeutic Innovation: MED 225 (Spr)

2022-23

- Drug Development: From a Concept to the Clinic: MED 225 (Spr)
- Drug Development: Key Issues in Regulation, Benefit vs. Risk, and Commercialization: MED 227 (Aut)

2021-22

- Drug Development: From a Concept to the Clinic: MED 225 (Spr)
- Drug Development: Key Issues in Regulation, Benefit vs. Risk, and Commercialization: MED 227 (Aut)

2020-21

- Drug Development: From a Concept to the Clinic: MED 225 (Spr)

Professional

PROFESSIONAL INTERESTS

Dr. Rajadas is currently working on the molecular mechanisms of neurodegenerative disorders caused by aggregated tau and Abeta proteins that are synergically involved in Alzheimer's disease development. He uses various biophysical approaches such as AFM, fluorescence, and NMR to understand the structural details of these two proteins' neurotoxic oligomeric forms.

For the past 10 years, our lab has also been involved in transforming biophysical ideas into biomaterial and drug delivery technologies. These technologies include microencapsulation of drugs, vascular grafts, bio-implants, development of small molecule and protein-based drugs, regeneration of nerve and cardiovascular tissues, and wound healing applications.

WORK EXPERIENCE

- Founding Director - Advanced Drug Delivery and Regenerative Biomaterials Laboratory, Stanford Cardiovascular Institute (2020 - present)
- Assistant Director - Cardiovascular Pharmacology, Stanford school of medicine (2013 - present)
- Founding Director - Biomaterials and Advanced Drug Delivery Lab, Stanford School of Medicine (2009 - 2019)
- Instructor - Neurology and Neurological Sciences, Stanford University School of Medicine (2007 - 2012)
- Consulting Professor - Department of Chemical Engineering, Stanford University (2005 - 2007)
- Visiting Professor - Department of Biological Sciences, Stanford University (2003 - 2005)

Publications

PUBLICATIONS

- **Development of chitosan based #-carotene mucoadhesive formulation for skin cancer treatment.** *International journal of biological macromolecules*
  Azhar, F., Naureen, H., Shahnaz, G., Hamdani, S. D., Kiani, M. H., Khattak, S., Manna, M. K., Babar, M. M., Rajadas, J., Rahdar, A., Díez-Pascual, A. M.
  2023: 126659
- **Designing of gradient scaffolds and their applications in tissue regeneration.** *Biomaterials*
  Pattnaik, A., Sanket, A. S., Pradhan, S., Sahoo, R., Das, S., Pany, S., Douglas, T. E., Dandela, R., Liu, Q., Rajadas, J., Pati, S., De Smedt, S. C., Braeckmans, et al
  2023; 296: 122078
- **Oral hymecromone decreases hyaluronan in human study participants.** *The Journal of clinical investigation*
  Rosser, J. I., Nagy, N., Goel, R., Kaber, G., Demirdjian, S., Saxena, J., Bollyky, J. B., Frymoyer, A. R., Pacheco-Navarro, A. E., Burgener, E. B., Rajadas, J., Wang, Z., Arbach, et al
  2022; 132 (9)
- **Development of mucoadhesive adapalene gel for biotherapeutic delivery to vaginal tissue.** *Frontiers in pharmacology*
  Afzaal, H., Shahiq-Uz-Zaman, Saeed, A., Hamdani, S. D., Raza, A., Gul, A., Babar, M. M., Rajadas, J.
  2022; 13: 1017549
- **A neurovascular-unit-on-a-chip for the evaluation of the restorative potential of stem cell therapies for ischaemic stroke.** *Nature biomedical engineering*

Lyu, Z., Park, J., Kim, K., Jin, H., Wu, H., Rajadas, J., Kim, D., Steinberg, G. K., Lee, W.
2021

- **Development of Vancomycin Delivery Systems Based on Autologous 3D Platelet-Rich Fibrin Matrices for Bone Tissue Engineering.** *Biomedicines*
  Dubnika, A., Egle, K., Skrinda-Melne, M., Skadins, I., Rajadas, J., Salma, I.
  2021; 9 (7)

- **Development of Vancomycin Delivery Systems Based on Autologous 3D Platelet-Rich Fibrin Matrices for Bone Tissue Engineering** *BIOMEDICINES*
  Dubnika, A., Egle, K., Skrinda-Melne, M., Skadins, I., Rajadas, J., Salma, I.
  2021; 9 (7)

- **Adipose-derived stromal cells seeded in pullulan-collagen hydrogels improve healing in murine burns.** *Tissue engineering. Part A*
  Barrera, J., Trotsyuk, A., Maan, Z. N., Bonham, C. A., Larson, M. R., Mittermiller, P. A., Henn, D., Chen, K., Mays, C. J., Mittal, S., Mermin-Bunnell, A. M., Sivaraj, D., Jing, et al
  2021

- **Disrupting biological sensors of force promotes tissue regeneration in large organisms.** *Nature communications*
  Chen, K., Kwon, S. H., Henn, D., Kuehlmann, B. A., Tevlin, R., Bonham, C. A., Griffin, M., Trotsyuk, A. A., Borrelli, M. R., Noishiki, C., Padmanabhan, J., Barrera, J. A., Maan, et al
  2021; 12 (1): 5256

- **Electrophysiological Characterization of Glioma using a Biomimetic Spheroid Model**
  Kim, K., Tercan, S., Baday, M., Mahaney, K. B., Recht, L. D., Rajadas, J., Patel, C. B., IEEE
  IEEE.2021: 86-89

- **Association of serum allopregnanolone with restricted and repetitive behaviors in adult males with autism.** *Psychoneuroendocrinology*
  Chew, L., Sun, K. L., Sun, W., Wang, Z., Rajadas, J., Flores, R. E., Arnold, E., Jo, B., Fung, L. K.
  2020; 123: 105039

- **Integrated Ca2+ flux and AFM force analysis in human iPSC-derived cardiomyocytes.** *Biological chemistry*
  Malkovskiy, A. V., Ignatyeva, N., Dai, Y., Hasenfuss, G., Rajadas, J., Ebert, A.
  2020

- **The Effect of Ethanol Consumption on Composition and Morphology of Femur Cortical Bone in Wild-Type and ALDH2*2-Homozygous Mice.** *Calcified tissue international*
  Malkovskiy, A. V., Van Wassenhove, L. D., Goltsev, Y., Osei-Sarfo, K., Chen, C., Efron, B., Gudas, L. J., Mochly-Rosen, D., Rajadas, J.
  2020

- **Repurposing Disulfiram (Tetraethylthiuram Disulfide) as a Potential Drug Candidate against Borrelia burgdorferi In Vitro and In Vivo.** *Antibiotics (Basel, Switzerland)*
  Potula, H. S., Shahryari, J., Inayathullah, M., Malkovskiy, A. V., Kim, K., Rajadas, J.
  2020; 9 (9)

- **Dendritic Cells as Targets for Biomaterial-Based Immunomodulation.** *ACS biomaterials science & engineering*
  Eslami-Kaliji, F., Sarafbidabad, M., Rajadas, J., Mohammadi, M. R.
  2020; 6 (5): 2726-2739

- **Dendritic Cells as Targets for Biomaterial-Based Immunomodulation** *ACS BIOMATERIALS SCIENCE & ENGINEERING*
  Eslami-Kaliji, F., Sarafbidabad, M., Rajadas, J., Mohammadi, M.
  2020; 6 (5): 2726–39

- **Azlocillin can be the potential drug candidate against drug-tolerant Borrelia burgdorferi sensu stricto JLB31.** *Scientific reports*
  Pothineni, V. R., Potula, H. S., Ambati, A., Mallajosyula, V. V., Sridharan, B., Inayathullah, M., Ahmed, M. S., Rajadas, J.
  2020; 10 (1): 3798

- **Amyloid protein aggregates: new clients for mitochondrial energy production in the brain?** *The FEBS journal*
  Sivanesan, S., Chang, E., Howell, M. D., Rajadas, J.
  2020

- **Upregulation of CD47 Is a Host Checkpoint Response to Pathogen Recognition.** *mBio*

Tal, M. C., Torrez Dulgeroff, L. B., Myers, L. n., Cham, L. B., Mayer-Barber, K. D., Bohrer, A. C., Castro, E. n., Yiu, Y. Y., Lopez Angel, C. n., Pham, E. n., Carmody, A. B., Messer, R. J., Gars, et al

2020; 11 (3)

- **Pharmacological antagonism of histamine H2R ameliorated L-DOPA-induced dyskinesia via normalization of GRK3 and by suppressing FosB and ERK in PD.** *Neurobiology of aging*

  Ahmed, M. R., Jayakumar, M., Ahmed, M. S., Zamaleeva, A. I., Tao, J., Li, E. H., Job, J. K., Pittenger, C., Ohtsu, H., Rajadas, J.

  2019; 81: 177–89

- **4-Methylumbelliferyl glucuronide contributes to hyaluronan synthesis inhibition** *JOURNAL OF BIOLOGICAL CHEMISTRY*

  Nagy, N., Gurevich, I., Kuipers, H. F., Ruppert, S. M., Marshall, P. L., Xie, B. J., Sun, W., Malkovskiy, A. V., Rajadas, J., Grandoch, M., Fischer, J. W., Frymoyer, A. R., Kaber, et al

  2019; 294 (19): 7864–77

- **Adenosine and hyaluronan promote lung fibrosis and pulmonary hypertension in combined pulmonary fibrosis and emphysema** *DISEASE MODELS & MECHANISMS*

  Collum, S. D., Molina, J. G., Hanmandlu, A., Bi, W., Pedroza, M., Mertens, T. J., Wareing, N., Wei, W., Wilson, C., Sun, W., Rajadas, J., Bollyky, P. L., Philip, et al

  2019; 12 (5)

- **TOPICAL FOCAL ADHESION KINASE INHIBITOR PROMOTES SKIN REGENERATION AND SCAR PREVENTION IN A PRECLINICAL PORCINE MODEL**

  Kwon, S., Kuehlmann, B., Dohi, T., Trotsyuk, A. A., Hu, M. S., Inayathullah, M., Rajadas, J., Longaker, M. T., Gurtner, G. C.

  WILEY.2019: A11–A12

- **BIOMIMETIC ADIPIOSE STEM CELL DRESSING FOR SKIN REGENERATION**

  Trotsyuk, A., Bonham, C. A., Rodrigues, M., Mittermiller, P., Rajadas, J., Inayathullah, M., Gurtner, G.

  WILEY.2019: A4

- **4-Methylumbelliferyl glucuronide contributes to hyaluronan synthesis inhibition.** *The Journal of biological chemistry*

  Nagy, N., Gurevich, I., Kuipers, H. F., Ruppert, S. M., Marshall, P. L., Xie, B. J., Sun, W., Malkovskiy, A. V., Rajadas, J., Grandoch, M., Fischer, J. W., Frymoyer, A. R., Kaber, et al

  2019

- **Fidgetin-Like 2 siRNA Enhances the Wound Healing Capability of a Surfactant Polymer Dressing.** *Advances in wound care*

  O'Rourke, B. P., Kramer, A. H., Cao, L. L., Inayathullah, M., Guzik, H., Rajadas, J., Nosanchuk, J. D., Sharp, D. J.

  2019; 8 (3): 91-100

- **Anti-hyperlipidaemic effects of synthetic analogues of nordihydroguaiaretic acid in dyslipidaemic rats** *BRITISH JOURNAL OF PHARMACOLOGY*

  Singh, M., Bittner, S., Li, Y., Bittner, A., Han, L., Cortez, Y., Inayathullah, M., Arif, Z., Parthasarathi, R., Rajadas, J., Shen, W., Nicolls, M. R., Kraemer, et al

  2019; 176 (3): 369–85

- **Conformational Preferences of A#25-35 and A#35-25 in Membrane Mimicking Environments.** *Protein and peptide letters*

  Sambasivam, D. n., Sivanesan, S. n., Sultana, S. n., Rajadas, J. n.

  2019; 26 (5): 386–90

- **An introduction to nanoengineered biomaterials** *NANOENGINEERED BIOMATERIALS FOR REGENERATIVE MEDICINE*

  Mozafari, M., Rajadas, J., Kaplan, D. L., Mozafari, M., Rajadas, J., Kaplan, D.

  2019: 1–11

- **Adenosine and hyaluronan modulate lung fibrosis and pulmonary hypertension in combined pulmonary fibrosis and emphysema (CPFE).** *Disease models & mechanisms*

  Collum, S. D., Molina, J. G., Hanmandlu, A. n., Bi, W. n., Pedroza, M. n., Mertens, T. C., Wareing, N. n., Wei, W. n., Wilson, C. n., Sun, W. n., Rajadas, J. n., Bollyky, P. L., Philip, et al

  2019

- **Salivary thiocyanate as a biomarker of Cystic Fibrosis Transmembrane Regulator function.** *Analytical chemistry*

  Malkovskiy, A. V., Yacob, A. A., Dunn, C. E., Zirbes, J. M., Ryan, S. P., Bollyky, P. L., Rajadas, J. n., Milla, C. E.

  2019

- **Optimization of transdermal deferoxamine leads to enhanced efficacy in healing skin wounds.** *Journal of controlled release : official journal of the Controlled Release Society*

Duscher, D. n., Trotsyuk, A. A., Maan, Z. N., Kwon, S. H., Rodrigues, M. n., Engel, K. n., Stern-Buchbinder, Z. A., Bonham, C. A., Whittam, A. J., Barrera, J. n., Hu, M. S., Inayathullah, M. n., Rajadas, et al

2019

- **Characterization of Brain Dysfunction Induced by Bacterial Lipopeptides That Alter Neuronal Activity and Network in Rodent Brains** *JOURNAL OF NEUROSCIENCE*

  Kim, K., Zamaleeva, A. I., Lee, Y., Ahmed, M., Kim, E., Lee, H., Pothineni, V., Tao, J., Rhee, S., Jayakumar, M., Inayathullah, M., Sivanesan, S., Red-Horse, et al

  2018; 38 (50): 10672–91

- **Characterization of brain dysfunction induced by bacterial lipopeptides that alter neuronal activity and network in rodent brains.** *The Journal of neuroscience : the official journal of the Society for Neuroscience*

  Kim, K., Zamaleeva, A. I., Woo Lee, Y., Ahmed, M. R., Kim, E., Lee, H., Raveendra Pothineni, V., Tao, J., Rhee, S., Jayakumar, M., Inayathullah, M., Sivanesan, S., Red-Horse, et al

  2018

- **Anti-Hyperlipidemic Effects of Synthetic Analogs of Nordihydroguaiaretic acid (NDGA) in Dyslipidemic Rats.** *British journal of pharmacology*

  Singh, M., Bittner, S., Li, Y., Bittner, A., Han, L., Cortez, Y., Inayathullah, M., Arif, Z., Parthasarathi, R., Rajadas, J., Shen, W., Nicolls, M. R., Kraemer, et al

  2018

- **Fidgetin-Like 2 siRNA Enhances the Wound Healing Capability of a Surfactant Polymer Dressing** *ADVANCES IN WOUND CARE*

  O'Rourke, B. P., Kramer, A. H., Cao, L. L., Inayathullah, M., Guzik, H., Rajadas, J., Nosanchuk, J. D., Sharp, D. J.

  2018

- **In vitro and in vivo evaluation of cephalosporins for the treatment of Lyme disease.** *Drug design, development and therapy*

  Pothineni, V. R., Parekh, M. B., Babar, M. M., Ambati, A., Maguire, P., Inayathullah, M., Kim, K. M., Tayebi, L., Potula, H. S., Rajadas, J.

  2018; 12: 2915-2921

- **Deferoxamine Can Prevent Pressure Ulcers and Accelerate Healing in Aged Mice.** *Wound repair and regeneration : official publication of the Wound Healing Society [and] the European Tissue Repair Society*

  Bonham, C. A., Rodrigues, M., Galvez, M., Trotsyuk, A., Stern-Buchbinder, Z., Inayathullah, M., Rajadas, J., Gurtner, G. C.

  2018

- **Cytokines as therapeutic agents and targets in heart disease.** *Cytokine & growth factor reviews*

  Dubnika, A., Manoukian, M. A., Mohammadi, M. R., Parekh, M. B., Gurjarpadhye, A. A., Inayathullah, M., Dubniks, V., Lakey, J. R., Rajadas, J.

  2018

- **TOPICAL DELIVERY OF A FOCAL ADHESION KINASE INHIBITOR RESULTS IN ACCELERATED WOUND HEALING WITH REDUCED SCARRING IN A PORCINE WOUND MODEL**

  Kwon, S., Ma, K., Duscher, D., Padmanabhan, J., Dong, Y., Inayathullah, M., Rajadas, J., Gurtner, G. C.

  WILEY.2018: A13

- **Strategies for directing cells into building functional hearts and parts** *BIOMATERIALS SCIENCE*

  Jafarkhani, M., Salehi, Z., Kowsari-Esfahan, R., Shokrgozar, M., Mohammadi, M., Rajadas, J., Mozafari, M.

  2018; 6 (7): 1664–90

- **Prolonged survival of transplanted stem cells after ischaemic injury via the slow release of pro-survival peptides from a collagen matrix.** *Nature biomedical engineering*

  Lee, A. S., Inayathullah, M., Lijkwan, M. A., Zhao, X., Sun, W., Park, S., Hong, W. X., Parekh, M. B., Malkovskiy, A. V., Lau, E., Qin, X., Pothineni, V. R., Sanchez-Freire, et al

  2018; 2 (2): 104-113

- **In vitro and in vivo metabolite identification of a novel benzimidazole compound ZLN005 by LC-MS/MS.** *Rapid communications in mass spectrometry : RCM*

  Sun, W. n., Nguyen, K. D., Fitch, W. L., Banister, S. D., Tang, H. n., Zhang, X. n., Yu, L. n., Engleman, E. G., Rajadas, J. n.

  2018

- **Possible Clues for Brain Energy Translation via Endolysosomal Trafficking of APP-CTFs in Alzheimer's Disease** *OXIDATIVE MEDICINE AND CELLULAR LONGEVITY*

  Sivanesan, S., Mundugaru, R., Rajadas, J.

  2018: 2764831

- **In vitro and in vivo evaluation of cephalosporins for the treatment of Lyme disease** *DRUG DESIGN DEVELOPMENT AND THERAPY*
  Pothineni, V., Parekh, M. B., Babar, M., Ambati, A., Maguire, P., Inayathullah, M., Kim, K., Tayebi, L., Potula, H. K., Rajadas, J.
  2018; 12: 2915–21

- **Topical Delivery of a Focal Adhesion Kinase Inhibitor Results in Accelerated Wound Healing with Reduced Scarring in a Porcine Wound Model**
  Kwon, S., Ma, K., Duscher, D., Padmanabhan, J., Dong, Y., Inayathullah, M., Rajadas, J., Gurtner, G. C.
  WILEY.2018: A33

- **Transdermal Deferoxamine Enhances Wound Healing in Aged Mice**
  Bonham, C. A., Rodrigues, M., Trotsyuk, A., Stern-Buchbinder, Z., Inayathullah, M., Rajadas, J., Gurtner, G. C.
  WILEY.2018: A10

- **Transdermal Deferoxamine Significantly Enhances Healing of Sickle Cell Ulcers**
  Rodrigues, M., Bonham, C. A., Inayathullah, M., Rajadas, J., Yang, G. P., Caterina, M. P., Gupta, K., Longaker, M. T., Gurtner, G. C.
  WILEY.2018: A11

- **Controlled Delivery of a Focal Adhesion Kinase Inhibitor Results in Accelerated Wound Closure with Decreased Scar Formation.** *The Journal of investigative dermatology*
  Ma, K. n., Kwon, S. H., Padmanabhan, J. n., Duscher, D. n., Trotsyuk, A. A., Dong, Y. n., Inayathullah, M. n., Rajadas, J. n., Gurtner, G. C.
  2018

- **Nordihydroguaiaretic acid, a lignan from Larrea tridentata (Creosote bush) protects against ALIOS diet-induced metabolic dysfunction in mice.** *The Journal of pharmacology and experimental therapeutics*
  Chan, J. K., Bittner, S. n., Bittner, A. n., Atwal, S. n., Shen, W. J., Inayathullah, M. n., Rajada, J. n., Nicolls, M. R., Kraemer, F. B., Azhar, S. n.
  2018

- **Microhemorrhage-associated tissue iron enhances the risk forAspergillus fumigatusinvasion in a mouse model of airway transplantation.** *Science translational medicine*
  Hsu, J. L., Manouvakhova, O. V., Clemons, K. V., Inayathullah, M. n., Tu, A. B., Sobel, R. A., Tian, A. n., Nazik, H. n., Pothineni, V. R., Pasupneti, S. n., Jiang, X. n., Dhillon, G. S., Bedi, et al
  2018; 10 (429)

- **PEG/Dextran Double Layer Influences Fe Ion Release and Colloidal Stability of Iron Oxide Nanoparticles.** *Scientific reports*
  Mohammadi, M. R., Malkovskiy, A. V., Jothimuthu, P. n., Kim, K. M., Parekh, M. n., Inayathullah, M. n., Zhuge, Y. n., Rajadas, J. n.
  2018; 8 (1): 4286

- **Inhibition of Hyaluronan Synthesis Attenuates Pulmonary Hypertension Associated with Lung Fibrosis.** *British journal of pharmacology*
  Collum, S. D., Chen, N. Y., Hernandez, A. M., Hanmandlu, A., Sweeney, H., Mertens, T. C., Weng, T., Luo, F., Molina, J. G., Davies, J., Horan, I. P., Morrell, N. W., Amione-Guerra, et al
  2017

- **Nanomaterials engineering for drug delivery: a hybridization approach.** *Journal of materials chemistry. B*
  Mohammadi, M. R., Nojoomi, A., Mozafari, M., Dubnika, A., Inayathullah, M., Rajadas, J.
  2017; 5 (22): 3995-4018

- **From solvent-free microspheres to bioactive gradient scaffolds** *NANOMEDICINE-NANOTECHNOLOGY BIOLOGY AND MEDICINE*
  Rasoulianboroujeni, M., Yazdimamaghani, M., Khoshkenar, P., Pothineni, V. R., Kim, K. M., Murray, T. A., Rajadas, J., Mills, D. K., Vashaee, D., Moharamzadeh, K., Tayebi, L.
  2017; 13 (3): 1157-1169

- **Screening of NCI-DTP library to identify new drug candidates for Borrelia burgdorferi.** *journal of antibiotics*
  Pothineni, V. R., Wagh, D., Babar, M. M., Inayathullah, M., Watts, R. E., Kim, K., Parekh, M. B., Gurjarpadhye, A. A., Solow-Cordero, D., Tayebi, L., Rajadas, J.
  2017; 70 (3): 308-312

- **Dynamic CT imaging of volumetric changes in pulmonary nodules correlates with physical measurements of stiffness.** *Radiotherapy and oncology*
  Lartey, F. M., Rafat, M., Negahdar, M., Malkovskiy, A. V., Dong, X., Sun, X., Li, M., Doyle, T., Rajadas, J., Graves, E. E., Loo, B. W., Maxim, P. G.
  2017; 122 (2): 313-318

- **Sutureless microvascular anastomosis with the aid of heparin loaded poloxamer 407.** *Journal of plastic, reconstructive & aesthetic surgery : JPRAS*
  Özer, F., Ni#anc#, M., Ta#, Ç., Rajadas, J., Alhan, D., Bozkurt, Y., Günal, A., Demirta#, S., I##k, S.

2017; 70 (2): 267-273

- **Pharmaceuticals and Stem Cells in Autism Spectrum Disorders: Wishful Thinking?** *WORLD NEUROSURGERY*
  Sivanesan, S., Tan, A., Jeyaraj, R., Lam, J., Gole, M., Hardan, A., Ashkan, K., Rajadas, J.
  2017; 98: 659-672

- **Pharmacological rescue of diabetic skeletal stem cell niches.** *Science translational medicine*
  Tevlin, R., Seo, E. Y., Marecic, O., McArdle, A., Tong, X., Zimdahl, B., Malkovskiy, A., Sinha, R., Gulati, G., Li, X., Wearda, T., Morganti, R., Lopez, et al
  2017; 9 (372)

- **Discovery of novel brain permeable and G protein-biased beta-1 adrenergic receptor partial agonists for the treatment of neurocognitive disorders.** *PloS one*
  Yi, B. n., Jahangir, A. n., Evans, A. K., Briggs, D. n., Ravina, K. n., Ernest, J. n., Farimani, A. B., Sun, W. n., Rajadas, J. n., Green, M. n., Feinberg, E. N., Pande, V. S., Shamloo, et al
  2017; 12 (7): e0180319

- **Nanomaterials engineering for drug delivery: a hybridization approach** *Journal of Materials Chemistry B*
  Mohammadi, M., Nojoomi, A., Mozafari, M., Dubnika, A., Inayathullah, M., Rajadas, J.
  2017; 5 (22): 3995-4018

- **Therapeutic Nanoparticles for Targeted Delivery of Anticancer Drugs** *MULTIFUNCTIONAL SYSTEMS FOR COMBINED DELIVERY, BIOSENSING AND DIAGNOSTICS*
  Alasvand, N., Urbanska, A. M., Rahmati, M., Saeidifar, M., Gungor-Ozkerim, P., Sefat, F., Rajadas, J., Mozafari, M., Grumezescu, A. M.
  2017: 245–59

- **Nanoparticles hybridization to engineer biomaterials for drug delivery** *Nanobiomaterials Science, Development and Evaluation*
  Mohammadi, M., Sun, W., Inayathullah, M., Rajadas, J.
  Elsevier.2017: 147–161

- **Endothelial APLNR regulates tissue fatty acid uptake and is essential for apelin's glucose-lowering effects.** *Science translational medicine*
  Hwangbo, C. n., Wu, J. n., Papangeli, I. n., Adachi, T. n., Sharma, B. n., Park, S. n., Zhao, L. n., Ju, H. n., Go, G. W., Cui, G. n., Inayathullah, M. n., Job, J. K., Rajadas, et al
  2017; 9 (407)

- **Delivery of monocyte lineage cells in a biomimetic scaffold enhances tissue repair.** *JCI insight*
  Hu, M. S., Walmsley, G. G., Barnes, L. A., Weiskopf, K. n., Rennert, R. C., Duscher, D. n., Januszyk, M. n., Maan, Z. N., Hong, W. X., Cheung, A. T., Leavitt, T. n., Marshall, C. D., Ransom, et al
  2017; 2 (19)

- **A small molecule TrkB/TrkC neurotrophin receptor co-activator with distinctive effects on neuronal survival and process outgrowth.** *Neuropharmacology*
  Yang, T., Massa, S. M., Tran, K. C., Simmons, D. A., Rajadas, J., Zeng, A. Y., Jang, T., Carsanaro, S., Longo, F. M.
  2016; 110: 343-361

- **From Solvent-Free Microspheres to Bioactive Gradient Scaffolds.** *Nanomedicine : nanotechnology, biology, and medicine*
  Rasoulianboroujeni, M., Yazdimamaghani, M., Khoshkenar, P., Pothineni, V. R., Kim, K. M., Murray, T. A., Rajadas, J., Mills, D. K., Vashaee, D., Moharamzadeh, K., Tayebi, L.
  2016

- **Pharmaceuticals and Stem Cells in Autism Spectrum Disorders: Wishful Thinking?** *World neurosurgery*
  Sivanesan, S., Tan, A., Jeyaraj, R., Lam, J., Gole, M., Hardan, A., Ashkan, K., Rajadas, J.
  2016

- **Attenuation of synaptic toxicity and MARK4/PAR1-mediated Tau phosphorylation by methylene blue for Alzheimer's disease treatment** *SCIENTIFIC REPORTS*
  Sun, W., Lee, S., Huang, X., Liu, S., Inayathullah, M., Kim, K., Tang, H., Ashford, J. W., Rajadas, J.
  2016; 6

- **In vitro analysis of Mg scaffolds coated with polymer/hydrogel/ceramic composite layers** *SURFACE & COATINGS TECHNOLOGY*
  Yazdimamaghani, M., Razavi, M., Vashaee, D., Pothineni, V. R., Assefa, S., Kohler, G. A., Rajadas, J., Tayebi, L.
  2016; 301: 126-132

- **Enhanced Electrochemical Sensing with Carbon Nanotubes Modified with Bismuth and Magnetic Nanoparticles in a Lab-on-a-Chip** *CHEMNANOMAT*
  Jothimuthu, P., Hsu, J. L., Chen, R., Inayathullah, M., Pothineni, V. R., Jan, A., Gurtner, G. C., Rajadas, J., Nicolls, M. R.
  2016; 2 (9): 904-910
- **Enhanced Electrochemical Sensing with Carbon Nanotubes Modified with Bismuth and Magnetic Nanoparticles in a Lab-on-a-Chip.** *ChemNanoMat : chemistry of nanomaterials for energy, biology and more*
  Jothimuthu, P., Hsu, J. L., Chen, R., Inayathullah, M., Pothineni, V. R., Jan, A., Gurtner, G. C., Rajadas, J., Nicolls, M. R.
  2016; 2 (9): 904-910
- **Conformational dynamics of a hydrophobic prion fragment (113-127) in different pH and osmolyte solutions** *NEUROPEPTIDES*
  Inayathullah, M., Rajadas, J.
  2016; 57: 9-14
- **Effect of osmolytes on the conformation and aggregation of some amyloid peptides: CD spectroscopic data.** *Data in brief*
  Inayathullah, M., Rajadas, J.
  2016; 7: 1643-1651
- **Self-assembly and sequence length dependence on nanofibrils of polyglutamine peptides** *NEUROPEPTIDES*
  Inayathullah, M., Tan, A., Jeyaraj, R., Lam, J., Cho, N., Liu, C. W., Manoukian, M. A., Ashkan, K., Mahmoudi, M., Rajadas, J.
  2016; 57: 71-83
- **Adipose-Derived Stem Cell-Seeded Hydrogels Increase Endogenous Progenitor Cell Recruitment and Neovascularization in Wounds** *TISSUE ENGINEERING PART A*
  Kosaraju, R., Rennert, R. C., Maan, Z. N., Duscher, D., Barrera, J., Whittam, A. J., Januszyk, M., Rajadas, J., Rodrigues, M., Gurtner, G. C.
  2016; 22 (3-4): 295-305
- **Nanotechnology and regenerative therapeutics in plastic surgery: The next frontier** *JOURNAL OF PLASTIC RECONSTRUCTIVE AND AESTHETIC SURGERY*
  Tan, A., Chawla, R., Natasha, G., Mahdibeiraghdar, S., Jeyaraj, R., Rajadas, J., Hamblin, M. R., Seifalian, A. M.
  2016; 69 (1): 1-13
- **Nanotechnology and regenerative therapeutics in plastic surgery: The next frontier.** *Journal of plastic, reconstructive & aesthetic surgery : JPRAS*
  Tan, A., Chawla, R., G, N., Mahdibeiraghdar, S., Jeyaraj, R., Rajadas, J., Hamblin, M. R., Seifalian, A. M.
  2016; 69 (1): 1-13
- **In vitro analysis of Mg scaffolds coated with polymer/hydrogel/ceramic composite layers** *SURFACE AND COATINGS TECHNOLOGY*
  Razavi, M., Yazdimamaghani, M., Vashaee, D., Pothineni, V., Assefa, S., A. Köhler, G., Rajadas, J., Tayebi, L.
  2016
- **Identification of new drug candidates against Borrelia burgdorferi using high-throughput screening** *DRUG DESIGN DEVELOPMENT AND THERAPY*
  Pothineni, V. R., Wagh, D., Babar, M. M., Inayathullah, M., Solow-Cordero, D., Kim, K., Samineni, A. V., Parekh, M. B., Tayebi, L., Rajadas, J.
  2016; 10: 1307-1322
- **In situ Endothelialization: Bioengineering Considerations to Translation** *SMALL*
  Pang, J. H., Farhatnia, Y., Godarzi, F., Tan, A., Rajadas, J., Cousins, B. G., Seifalian, A. M.
  2015; 11 (47): 6248-6264
- **In situ Endothelialization: Bioengineering Considerations to Translation.** *Small (Weinheim an der Bergstrasse, Germany)*
  Pang, J. H., Farhatnia, Y., Godarzi, F., Tan, A., Rajadas, J., Cousins, B. G., Seifalian, A. M.
  2015; 11 (47): 6248-64
- **Transdermal Delivery of Functional Collagen Via Polyvinylpyrrolidone Microneedles** *ANNALS OF BIOMEDICAL ENGINEERING*
  Sun, W., Inayathullah, M., Manoukian, M. A., Malkovskiy, A. V., Manickam, S., Marinkovich, M. P., Lane, A. T., Tayebi, L., Seifalian, A. M., Rajadas, J.
  2015; 43 (12): 2978-2990
- **Altering the concentration of silica tunes the functional properties of collagen-silica composite scaffolds to suit various clinical requirements.** *Journal of the mechanical behavior of biomedical materials*
  Perumal, S., Ramadass, S. K., Gopinath, A., Madhan, B., Shanmugam, G., Rajadas, J., Mandal, A. B.
  2015; 52: 131-138

- **Filamentous Bacteriophage Promote Biofilm Assembly and Function** *CELL HOST & MICROBE*
  Secor, P. R., Sweere, J. M., Michaels, L. A., Malkovskiy, A. V., Lazzareschi, D., Katznelson, E., Rajadas, J., Birnbaum, M. E., Arrigoni, A., Braun, K. R., Evanko, S. P., Stevens, D. A., Kaminsky, et al
  2015; 18 (5): 549-559

- **Multilayered Magnetic Gelatin Membrane Scaffolds.** *ACS applied materials & interfaces*
  Samal, S. K., Goranov, V., Dash, M., Russo, A., Shelyakova, T., Graziosi, P., Lungaro, L., Riminucci, A., Uhlarz, M., Bañobre-López, M., Rivas, J., Herrmannsdörfer, T., Rajadas, et al
  2015; 7 (41): 23098-109

- **Vascularisation in regenerative therapeutics and surgery** *MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS*
  Jeyaraj, R., Natasha, G., Kirby, G., Rajadas, J., Mosahebi, A., Seifalian, A. M., Tan, A.
  2015; 54: 225-238

- **Vascularisation in regenerative therapeutics and surgery.** *Materials science & engineering. C, Materials for biological applications*
  Jeyaraj, R., G, N., Kirby, G., Rajadas, J., Mosahebi, A., Seifalian, A. M., Tan, A.
  2015; 54: 225-38

- **In silico investigation of FOXM1 binding and novel inhibitors in epithelial ovarian cancer.** *Bioorganic & medicinal chemistry*
  Chen, Y., Ruben, E. A., Rajadas, J., Teng, N. N.
  2015; 23 (15): 4576-4582

- **Protein Corona Influences Cell-Biomaterial Interactions in Nanostructured Tissue Engineering Scaffolds** *ADVANCED FUNCTIONAL MATERIALS*
  Serpooshan, V., Mahmoudi, M., Zhao, M., Wei, K., Sivanesan, S., Motamedchaboki, K., Malkovskiy, A. V., Goldstone, A. B., Cohen, J. E., Yang, P. C., Rajadas, J., Bernstein, D., Woo, et al
  2015; 25 (28): 4379-4389

- **Protein Corona Influences Cell-Biomaterial Interactions in Nanostructured Tissue Engineering Scaffolds.** *Advanced functional materials*
  Serpooshan, V., Mahmoudi, M., Zhao, M., Wei, K., Sivanesan, S., Motamedchaboki, K., Malkovskiy, A. V., Gladstone, A. B., Cohen, J. E., Yang, P. C., Rajadas, J., Bernstein, D., Woo, et al
  2015; 25 (28): 4379-4389

- **Cyclosporine Does Not Prevent Microvascular Loss in Transplantation but Can Synergize With a Neutrophil Elastase Inhibitor, Elafin, to Maintain Graft Perfusion During Acute Rejection** *AMERICAN JOURNAL OF TRANSPLANTATION*
  Jiang, X., Nguyen, T. T., Tian, W., Sung, Y. K., Yuan, K., Qian, J., Rajadas, J., Sallenave, J., Nickel, N. P., Perez, V. d., RABINOVITCH, M., Nicolls, M. R.
  2015; 15 (7): 1768-1781

- **A Thermo-Sensitive Delivery Platform for Topical Administration of Inflammatory Bowel Disease Therapies.** *Gastroenterology*
  Sinha, S. R., Nguyen, L. P., Inayathullah, M., Malkovskiy, A., Habte, F., Rajadas, J., Habtezion, A.
  2015; 149 (1): 52-55 e2

- **A Thermo-Sensitive Delivery Platform for Topical Administration of Inflammatory Bowel Disease Therapies.** *Gastroenterology*
  Sinha, S. R., Nguyen, L. P., Inayathullah, M., Malkovskiy, A., Habte, F., Rajadas, J., Habtezion, A.
  2015; 149 (1): 52-55 e2

- **Significant degradability enhancement in multilayer coating of polycaprolactone-bioactive glass/gelatin-bioactive glass on magnesium scaffold for tissue engineering applications** *APPLIED SURFACE SCIENCE*
  Yazdimamaghani, M., Razavi, M., Vashaee, D., Pothineni, V. R., Rajadas, J., Tayebi, L.
  2015; 338: 137-145

- **Tissue engineering vascular grafts a fortiori: looking back and going forward.** *Expert opinion on biological therapy*
  G, N., Tan, A., Gundogan, B., Farhatnia, Y., Nayyer, L., Mahdibeiraghdar, S., Rajadas, J., De Coppi, P., Davies, A. H., Seifalian, A. M.
  2015; 15 (2): 231-244

- **Tissue engineering vascular grafts a fortiori: looking back and going forward** *EXPERT OPINION ON BIOLOGICAL THERAPY*
  Natasha, G., Tan, A., Gundogan, B., Farhatnia, Y., Nayyer, L., Mandibeiraghdar, S., Rajadas, J., De Coppi, P., Davies, A. H., Seifalian, A. M.
  2015; 15 (2): 231-244

- **Transdermal deferoxamine prevents pressure-induced diabetic ulcers.** *Proceedings of the National Academy of Sciences of the United States of America*
  Duscher, D., Neofytou, E., Wong, V. W., Maan, Z. N., Rennert, R. C., Inayathullah, M., Januszyk, M., Rodrigues, M., Malkovskiy, A. V., Whitmore, A. J., Walmsley, G. G., Galvez, M. G., Whittam, et al

2015; 112 (1): 94-99

- **[Pyr-1]-Apelin-13 delivery via nano-liposomal encapsulation attenuates pressure overload-induced cardiac dysfunction** *BIOMATERIALS*
  Serpooshan, V., Sivanesan, S., Huang, X., Mahmoudi, M., Malkovskiy, A. V., Zhao, M., Inayathullah, M., Wagh, D., Zhang, X. J., Metzler, S., Bernstein, D., Wu, J. C., Ruiz-Lozano, et al
  2015; 37: 289-298

- **Recent Developments in Diffusion Tensor Imaging of Brain.** *Radiology - open journal*
  Parekh, M. B., Gurjarpadhye, A. A., Manoukian, M. A., Dubnika, A., Rajadas, J., Inayathullah, M.
  2015; 1 (1): 1-12

- **Infrared Imaging Tools for Diagnostic Applications in Dermatology.** *SM journal of clinical and medical imaging*
  Gurjarpadhye, A. A., Parekh, M. B., Dubnika, A., Rajadas, J., Inayathullah, M.
  2015; 1 (1): 1-5

- **Borreliacidal activity of Borrelia metal transporter A (BmtA) binding small molecules by manganese transport inhibition** *DRUG DESIGN DEVELOPMENT AND THERAPY*
  Wagh, D., Pothineni, V. R., Inayathullah, M., Liu, S., Kim, K., Rajadas, J.
  2015; 9: 805-815

- **A strategy for analyzing bond strength and interaction kinetics between Pleckstrin homology domains and PI(4,5)P2 phospholipids using force distance spectroscopy and surface plasmon resonance** *ANALYST*
  Malkovskiy, A. V., Wagh, D. A., LONGO, F. M., Rajadas, J.
  2015; 140 (13): 4558-4565

- **Borreliacidal activity of Borrelia metal transporter A (BmtA) binding small molecules by manganese transport inhibition.** *Drug design, development and therapy*
  Wagh, D., Pothineni, V. R., Inayathullah, M., Liu, S., Kim, K., Rajadas, J.
  2015; 9: 805-816

- **Capillary force seeding of hydrogels for adipose-derived stem cell delivery in wounds.** *Stem cells translational medicine*
  Garg, R. K., Rennert, R. C., Duscher, D., Sorkin, M., Kosaraju, R., Auerbach, L. J., Lennon, J., Chung, M. T., Paik, K., Nimpf, J., Rajadas, J., Longaker, M. T., Gurtner, et al
  2014; 3 (9): 1079-1089

- **Diabetes impairs the angiogenic potential of adipose-derived stem cells by selectively depleting cellular subpopulations** *STEM CELL RESEARCH & THERAPY*
  Rennert, R. C., Sorkin, M., Januszyk, M., Duscher, D., Kosaraju, R., Chung, M. T., Lennon, J., Radiya-Dixit, A., Raghvendra, S., Maan, Z. N., Hu, M. S., Rajadas, J., Rodrigues, et al
  2014; 5

- **Exosomes as Immunotheranostic Nanoparticles** *CLINICAL THERAPEUTICS*
  Natasha, G., Gundogan, B., Tan, A., Farhatnia, Y., Wu, W., Rajadas, J., Seifalian, A. M.
  2014; 36 (6): 820-829

- **A hydrodynamic microchip for formation of continuous cell chains** *APPLIED PHYSICS LETTERS*
  Khoshmanesh, K., Zhang, W., Tang, S., Nasabi, M., Soffe, R., Tovar-Lopez, F. J., Rajadas, J., Mitchell, A.
  2014; 104 (20)

- **Effects of light on metalloporphyrin-treated newborn mice.** *Acta paediatrica*
  Wong, R. J., Schulz, S., Espadas, C., Vreman, H. J., Rajadas, J., Stevenson, D. K.
  2014; 103 (5): 474-479

- **Use of bio-mimetic three-dimensional technology in therapeutics for heart disease.** *Bioengineered*
  Serpooshan, V., Zhao, M., Metzler, S. A., Wei, K., Shah, P. B., Wang, A., Mahmoudi, M., Malkovskiy, A. V., Rajadas, J., Butte, M. J., Bernstein, D., Ruiz-Lozano, P.
  2014; 5 (3): 193-197

- **Promotion of airway anastomotic microvascular regeneration and alleviation of airway ischemia by deferoxamine nanoparticles.** *Biomaterials*
  Jiang, X., Malkovskiy, A. V., Tian, W., Sung, Y. K., Sun, W., Hsu, J. L., Manickam, S., Wagh, D., Joubert, L., Semenza, G. L., Rajadas, J., Nicolls, M. R.
  2014; 35 (2): 803-813

- **Polymeric Nanoparticles to Combat Squamous Cell Carcinomas in Patients with Dystrophic Epidermolysis Bullosa.** *Recent patents on nanomedicine*
  Manoukian, M. A., Ott, S. V., Rajadas, J., Inayathullah, M.
  2014; 4 (1): 15-24

- **Diabetes impairs the angiogenic potential of adipose-derived stem cells by selectively depleting cellular subpopulations.** *Stem cell research & therapy*
  Rennert, R. C., Sorkin, M., Januszyk, M., Duscher, D., Kosaraju, R., Chung, M. T., Lennon, J., Radiya-Dixit, A., Raghvendra, S., Maan, Z. N., Hu, M. S., Rajadas, J., Rodrigues, et al
  2014; 5 (3): 79-?

- **The effect of bioengineered acellular collagen patch on cardiac remodeling and ventricular function post myocardial infarction.** *Biomaterials*
  Serpooshan, V., Zhao, M., Metzler, S. A., Wei, K., Shah, P. B., Wang, A., Mahmoudi, M., Malkovskiy, A. V., Rajadas, J., Butte, M. J., Bernstein, D., Ruiz-Lozano, P.
  2013; 34 (36): 9048-9055

- **An Anti-CD34 Antibody-Functionalized Clinical-Grade POSS-PCU Nanocomposite Polymer for Cardiovascular Stent Coating Applications: A Preliminary Assessment of Endothelial Progenitor Cell Capture and Hemocompatibility** *PLOS ONE*
  Tan, A., Goh, D., Farhatnia, Y., Natasha, G., Lim, J., Teoh, S., Rajadas, J., Alavijeh, M. S., Seifalian, A. M.
  2013; 8 (10)

- **Blocking Macrophage Leukotriene B-4 Prevents Endothelial Injury and Reverses Pulmonary Hypertension** *SCIENCE TRANSLATIONAL MEDICINE*
  Tian, W., Jiang, X., Tamosiuniene, R., Sung, Y. K., Qian, J., Dhillon, G., Gera, L., Farkas, L., Rabinovitch, M., Zamanian, R. T., Inayathullah, M., Fridlib, M., Rajadas, et al
  2013; 5 (200)

- **Surface modification of a polyhedral oligomeric silsesquioxane poly(carbonate-urea) urethane (POSS-PCU) nanocomposite polymer as a stent coating for enhanced capture of endothelial progenitor cells** *BIOINTERPHASES*
  Tan, A., Farhatnia, Y., Goh, D., Natasha, G., de Mel, A., Lim, J., Teoh, S., Malkovskiy, A. V., Chawla, R., Rajadas, J., Cousins, B. G., Hamblin, M. R., Alavijeh, et al
  2013; 8

- **Polyvinylpyrrolidone microneedles enable delivery of intact proteins for diagnostic and therapeutic applications** *ACTA BIOMATERIALIA*
  Sun, W., Araci, Z., Inayathullah, M., Manickam, S., Zhang, X., Bruce, M. A., Marinkovich, M. P., Lane, A. T., Milla, C., Rajadas, J., Butte, M. J.
  2013; 9 (8): 7767-7774

- **Synthesis of D-amino acid peptides and their effect on beta-amyloid aggregation and toxicity in transgenic Caenorhabditis elegans** *MEDICINAL CHEMISTRY RESEARCH*
  Jagota, S., Rajadas, J.
  2013; 22 (8): 3991-4000

- **Channelrhodopsins: visual regeneration and neural activation by a light switch** *NEW BIOTECHNOLOGY*
  Natasha, G., Tan, A., Farhatnia, Y., Rajadas, J., Hamblin, M. R., Khaw, P. T., Seifalian, A. M.
  2013; 30 (5): 461-474

- **Nanotechnology-Based Gene-Eluting Stents** *MOLECULAR PHARMACEUTICS*
  Goh, D., Tan, A., Farhatnia, Y., Rajadas, J., Alavijeh, M. S., Seifalian, A. M.
  2013; 10 (4): 1279-1298

- **Inception to actualization: Next generation coronary stent coatings incorporating nanotechnology** *JOURNAL OF BIOTECHNOLOGY*
  Tan, A., Farhatnia, Y., de Mel, A., Rajadas, J., Alavijeh, M. S., Seifalian, A. M.
  2013; 164 (1): 151-170

- **Enhanced A beta(1-40) Production in Endothelial Cells Stimulated with Fibrillar A beta(1-42)** *PLOS ONE*
  Rajadas, J., Sun, W., Li, H., Inayathullah, M., Cereghetti, D., Tan, A., Coelho, V. d., Chrest, F. J., Kusiak, J. W., Smith, W. W., Taub, D., Wu, J. C., Rifkind, et al
  2013; 8 (3)

- **Exosomes as nano-theranostic delivery platforms for gene therapy** *ADVANCED DRUG DELIVERY REVIEWS*
  Tan, A., Rajadas, J., Seifalian, A. M.
  2013; 65 (3): 357-367

- **Pathogenesis of Abeta Oligomers in Synaptic Failure** *CURRENT ALZHEIMER RESEARCH*
  Sivanesan, S., Tan, A., Rajadas, J.

2013; 10 (3): 316-323

- **Solvent microenvironments and copper binding alters the conformation and toxicity of a prion fragment.** *PloS one*
  Inayathullah, M., Satheeshkumar, K. S., Malkovskiy, A. V., Carre, A. L., Sivanesan, S., Hardesty, J. O., Rajadas, J.
  2013; 8 (12)

- **Biochemical engineering nerve conduits using peptide amphiphiles** *JOURNAL OF CONTROLLED RELEASE*
  Tan, A., Rajadas, J., Seifalian, A. M.
  2012; 163 (3): 342-352

- **Chaperone Activity of Small Heat Shock Proteins Underlies Therapeutic Efficacy in Experimental Autoimmune Encephalomyelitis** *JOURNAL OF BIOLOGICAL CHEMISTRY*
  Kurnellas, M. P., Brownell, S. E., Su, L., Malkovskiy, A. V., Rajadas, J., Dolganov, G., Chopra, S., Schoolnik, G. K., Sobel, R. A., Webster, J., Ousman, S. S., Becker, R. A., Steinman, et al
  2012; 287 (43): 36423-36434

- **Synergistic photothermal ablative effects of functionalizing carbon nanotubes with a POSS-PCU nanocomposite polymer** *JOURNAL OF NANOBIOTECHNOLOGY*
  Tan, A., Madani, S. Y., Rajadas, J., Pastorin, G., Seifalian, A. M.
  2012; 10

- **Glucose Oxidase Incorporated Collagen Matrices for Dermal Wound Repair in Diabetic Rat Models: A Biochemical Study** *JOURNAL OF BIOMATERIALS APPLICATIONS*
  Arul, V., Masilamoni, J. G., Jesudason, E. P., Jaji, P. J., Inayathullah, M., John, D. G., Vignesh, S., Jayakumar, R.
  2012; 26 (8): 917-938

- **A critical role for the PAR-1/MARK-tau axis in mediating the toxic effects of A on synapses and dendritic spines** *HUMAN MOLECULAR GENETICS*
  Yu, W., Polepalli, J., Wagh, D., Rajadas, J., Malenka, R., Lu, B.
  2012; 21 (6): 1384-1390

- **The Role of Pro, Gly Lys, and Arg Containing Peptides on Amyloid-Beta Aggregation** *INTERNATIONAL JOURNAL OF PEPTIDE RESEARCH AND THERAPEUTICS*
  Jagota, S., Rajadas, J.
  2012; 18 (1): 53-61

- **Enhancement of mesenchymal stem cell angiogenic capacity and stemness by a biomimetic hydrogel scaffold** *BIOMATERIALS*
  Rustad, K. C., Wong, V. W., Sorkin, M., Glotzbach, J. P., Major, M. R., Rajadas, J., Longaker, M. T., Gurtner, G. C.
  2012; 33 (1): 80-90

- **Effect of Phenolic Compounds Against A beta Aggregation and A beta-Induced Toxicity in Transgenic C. elegans** *NEUROCHEMICAL RESEARCH*
  Jagota, S., Rajadas, J.
  2012; 37 (1): 40-48

- **Stem cell niches for skin regeneration.** *International journal of biomaterials*
  Wong, V. W., Levi, B., Rajadas, J., Longaker, M. T., Gurtner, G. C.
  2012; 2012: 926059-?

- **Structural preferences of A beta fragments in different micellar environments** *NEUROPEPTIDES*
  Sambasivam, D., Sivanesan, S., Ashok, B. S., Rajadas, J.
  2011; 45 (6): 369-376

- **Pullulan Hydrogels Improve Mesenchymal Stem Cell Delivery into High-Oxidative-Stress Wounds** *MACROMOLECULAR BIOSCIENCE*
  Wong, V. W., Rustad, K. C., Glotzbach, J. P., Sorkin, M., Inayathullah, M., Major, M. R., Longaker, M. T., Rajadas, J., Gurtner, G. C.
  2011; 11 (11): 1458-1466

- **Adipose tissue-derived stem cells display a proangiogenic phenotype on 3D scaffolds.** *Journal of biomedical materials research. Part A*
  Neofytou, E. A., Chang, E., Patlola, B., Joubert, L., Rajadas, J., Gambhir, S. S., Cheng, Z., Robbins, R. C., Beygui, R. E.
  2011; 98 (3): 383-393

- **Adipose tissue-derived stem cells display a proangiogenic phenotype on 3D scaffolds** *JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART A*
  Neofytou, E. A., Chang, E., Patloia, B., Joubert, L., Rajadas, J., Gambhir, S. S., Cheng, Z., Robbins, R. C., Beygui, R. E.

2011; 98A (3): 383-393

- **Vascular anastomosis using controlled phase transitions in poloxamer gels** *NATURE MEDICINE*
  Chang, E. I., Galvez, M. G., Glotzbach, J. P., Hamou, C. D., El-Ftesi, S., Rappleye, C. T., Sommer, K., Rajadas, J., Abilez, O. J., Fuller, G. G., Longaker, M. T., Gurtner, G. C.
  2011; 17 (9): 1147-U160

- **Quantum dots and carbon nanotubes in oncology: a review on emerging theranostic applications in nanomedicine** *NANOMEDICINE*
  Tan, A., Yildirimer, L., Rajadas, J., De la Pena, H., Pastorin, G., Seifalian, A.
  2011; 6 (6): 1101-1114

- **Rationally Designed Turn Promoting Mutation in the Amyloid-beta Peptide Sequence Stabilizes Oligomers in Solution** *PLOS ONE*
  Rajadas, J., Liu, C. W., Novick, P., Kelley, N. W., Inayathullah, M., LeMieux, M. C., Pande, V. S.
  2011; 6 (7)

- **Efficient gene delivery of primary human cells using peptide linked polyethylenimine polymer hybrid** *BIOMATERIALS*
  Dey, D., Inayathullah, M., Lee, A. S., LeMieux, M. C., Zhang, X., Wu, Y., Nag, D., De Almeida, P. E., Han, L., Rajadas, J., Wu, J. C.
  2011; 32 (20): 4647-4658

- **Engineered Pullulan-Collagen Composite Dermal Hydrogels Improve Early Cutaneous Wound Healing** *TISSUE ENGINEERING PART A*
  Wong, V. W., Rustad, K. C., Galvez, M. G., Neofyotou, E., Glotzbach, J. P., Januszyk, M., Major, M. R., Sorkin, M., Longaker, M. T., Rajadas, J., Gurtner, G. C.
  2011; 17 (5-6): 631-644

- **A matrix micropatterning platform for cell localization and stem cell fate determination** *ACTA BIOMATERIALIA*
  Huang, N. F., Patlolla, B., Abilez, O., Sharma, H., Rajadas, J., Beygui, R. E., Zarins, C. K., Cooke, J. P.
  2010; 6 (12): 4614-4621

- **Lipid-Induced Conformational Transition of Amyloid beta Peptide Fragments** *JOURNAL OF MOLECULAR NEUROSCIENCE*
  Sureshbabu, N., Kirubagaran, R., Thangarajah, H., Malar, E. J., Jayakumar, R.
  2010; 41 (3): 368-382

- **Density functional theory analysis and spectral studies on amyloid peptide A beta(28-35) and its mutants A30G and A30I** *JOURNAL OF STRUCTURAL BIOLOGY*
  Nagarajan, S., Rajadas, J., Malar, E. J.
  2010; 170 (3): 439-450

- **Small molecule BDNF mimetics activate TrkB signaling and prevent neuronal degeneration in rodents** *JOURNAL OF CLINICAL INVESTIGATION*
  Massa, S. M., Yang, T., Xie, Y., Shi, J., Bilgen, M., Joyce, J. N., Nehama, D., Rajadas, J., Longo, F. M.
  2010; 120 (5): 1774-1785

- **Interfacial Flow Processing of Collagen** *LANGMUIR*
  Goffin, A. J., Rajadas, J., Fuller, G. G.
  2010; 26 (5): 3514-3521

- **A beta peptide conformation determines uptake and interleukin-1 alpha expression by primary microglial cells** *NEUROBIOLOGY OF AGING*
  Parvathy, S., Rajadas, J., Ryan, H., Vaziri, S., Anderson, L., Murphy, G. M.
  2009; 30 (11): 1792-1804

- **Pullulan-collagen hydrogel scaffold as a dermal substitute** *95th Annual Clinical Congress of the American-College-of-Surgeons/64th Annual Sessions of the Owen H Wangensteen Forum on Fundamental Surgical Problems*
  Galvez, M. G., Wong, V. W., Chang, E. I., Major, M., Carre, L., Kandimalla, R., Bhatt, K. A., Rajadas, J., Longaker, M. T., Gurtner, G. C.
  ELSEVIER SCIENCE INC.2009: S78–S78

- **The p75 Neurotrophin Receptor Promotes Amyloid-beta(1-42)-Induced Neuritic Dystrophy In Vitro and In Vivo** *JOURNAL OF NEUROSCIENCE*
  Knowles, J. K., Rajadas, J., Nguyen, T. V., Yang, T., LeMieux, M. C., Griend, L. V., Ishikawa, C., Massa, S. M., Wyss-Coray, T., Longo, F. M.
  2009; 29 (34): 10627-10637

- **Radioprotective effect of dl-alpha-lipoic acid on mice skin fibroblasts** *CELL BIOLOGY AND TOXICOLOGY*
  Davis, G. D., Masilamoni, J. G., Arul, V., Kumar, M. S., Baraneedharan, U., Paul, S. F., Sakthivelu, I. V., Jesudason, E. P., Jayakumar, R.
  2009; 25 (4): 331-340

- **Neuroprotective natural antibodies to assemblies of amyloidogenic peptides decrease with normal aging and advancing Alzheimer's disease** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Britschgi, M., Olin, C. E., Johns, H. T., Takeda-Uchimura, Y., LeMieux, M. C., Rufibach, K., Rajadas, J., Zhang, H., Tomooka, B., Robinson, W. H., Clark, C. M., Fagan, A. M., Galasko, et al
  2009; 106 (29): 12145-12150

- **Preparation, Physiochemical Characterization, and Oral Immunogenicity of A beta(1-12), A beta(29-40), and A beta(1-42) Loaded PLG Microparticles Formulations** *JOURNAL OF PHARMACEUTICAL SCIENCES*
  Rajkannan, R., Arul, V., Malar, E. J., Jayakumar, R.
  2009; 98 (6): 2027-2039

- **Conformational polymorphism and cellular toxicity of IAPP and beta AP domains** *JOURNAL OF STRUCTURAL BIOLOGY*
  Andrews, M. E., Inayathullah, N. M., Jayakumar, R., Malar, E. J.
  2009; 166 (2): 116-125

- **Synthesis, pharmacological screening, quantum chemical and in vitro permeability studies of N-Mannich bases of benzimidazoles through bovine cornea** *EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY*
  Jesudason, E. P., Sridhar, S. K., Malar, E. J., Shanmugapandiyan, P., Inayathullah, M., Arul, V., Selvaraj, D., Jayakumar, R.
  2009; 44 (5): 2307-2312

- **Surfactant-induced conformational transition of amyloid beta-peptide** *EUROPEAN BIOPHYSICS JOURNAL WITH BIOPHYSICS LETTERS*
  Sureshbabu, N., Kirubagaran, R., Jayakumar, R.
  2009; 38 (4): 355-367

- **Small Molecule, Non-Peptide p75(NTR) Ligands Inhibit A beta-Induced Neurodegeneration and Synaptic Impairment** *PLOS ONE*
  Yang, T., Knowles, J. K., Lu, Q., Zhang, H., Arancio, O., Moore, L. A., Chang, T., Wang, Q., Andreasson, K., Rajadas, J., Fuller, G. G., Xie, Y., Massa, et al
  2008; 3 (11)

- **Aggregation and conformational studies on a pentapeptide derivative** *BIOCHIMICA ET BIOPHYSICA ACTA-PROTEINS AND PROTEOMICS*
  Sambasivam, D., Liu, C. W., Jayaraman, M., Malar, E. J., Rajadas, J.
  2008; 1784 (11): 1659-1667

- **Diffusible amyloid oligomers trigger systemic amyloidosis in mice** *BIOCHEMICAL JOURNAL*
  Senthilkumar, S., Chang, E., Jayakumar, R.
  2008; 415: 207-215

- **Melatonin prevents amyloid protofibrillar induced oxidative imbalance and biogenic amine catabolism** *LIFE SCIENCES*
  Gunasingh, M. J., Philip, J. E., Ashok, B. S., Kirubagaran, R., Jebaraj, W. C., Davis, G. D., Vignesh, S., Dhandayuthapani, S., Jayakumar, R.
  2008; 83 (3-4): 96-102

- **Efficacy of DL-alpha lipoic acid against systemic inflammation-induced mice: antioxidant defense system** *MOLECULAR AND CELLULAR BIOCHEMISTRY*
  Jesudason, E. P., Masilamoni, J. G., Jebaraj, C. E., Paul, S. F., Jayakumar, R.
  2008; 313 (1-2): 113-123

- **Amyloid toxicity in skeletal myoblasts: Implications for inclusion-body myositis** *ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS*
  Jayaraman, M., Kannayiram, G., Rajadas, J.
  2008; 474 (1): 15-21

- **Lipid-induced conformational transition of the amyloid core fragment A beta(28-35) and its A30G and A30I mutants** *FEBS JOURNAL*
  Nagarajan, S., Ramalingam, K., Reddy, P. N., Cereghetti, D. M., Malar, E. J., Rajadas, J.
  2008; 275 (10): 2415-2427

- **Inhibitory effects of short-term administration of DL-alpha-lipoic acid on oxidative vulnerability induced by A beta amyloid fibrils (25-35) in mice** *MOLECULAR AND CELLULAR BIOCHEMISTRY*
  Jesudason, E. P., Masilamoni, J. G., Ashok, B. S., Baben, B., Arul, V., Jesudoss, K. S., Jebaraj, W. C., Dhandayuthapani, S., Vignesh, S., Jayakumar, R.
  2008; 311 (1-2): 145-156

- **Replicating ligand domains of fetal matrix to promote tissue regeneration**
  Bhatt, K. A., Rajadas, J., Thangarajah, H., VIAL, N., Chang, E., Kelantan, M., Longaker, M. T., Gurtner, G. C.
  WILEY-BLACKWELL PUBLISHING, INC.2008: A38–A38

- **Sustained release of reactive oxygen species on the healing of diabetic rat dermal wounds**
  Vadivel, A., Masilamoni, G. J., Bhatt, K. A., James, J. P., Sen, C. K., Gurtner, G. C., Rajadas, J.
  WILEY-BLACKWELL PUBLISHING, INC.2008: A16–A16

- **The neuroprotective role of melatonin against amyloid peptide injected mice** *FREE RADICAL RESEARCH*
  Masilamoni, J. G., Jesudason, E. P., Dhandayuthapani, S., Ashok, B. S., Vignesh, S., Jebaraj, W. C., Paul, S. F., Jayakumar, R.
  2008; 42 (7): 661-673

- **Anti-inflammatory effect of melatonin on A beta vaccination in mice** *MOLECULAR AND CELLULAR BIOCHEMISTRY*
  Jesudason, E. P., Baben, B., Ashok, B. S., Masilamoni, J. G., Kirubagaran, R., Jebaraj, W. C., Jayakumar, R.
  2007; 298 (1-2): 69-81

- **A therapeutic approach for diabetic wound healing using biotinylated GHK incorporated collagen matrices** *LIFE SCIENCES*
  Arul, V., Kartha, R., Jayakumar, R.
  2007; 80 (4): 275-284

- **Lipid-induced beta-amyloid peptide assemblage fragmentation** *BIOPHYSICAL JOURNAL*
  Widenbrant, M. J., Rajadas, J., Sutardja, C., Fuller, G. G.
  2006; 91 (11): 4071-4080

- **Biodegradation and biocompatibility of contraceptive-steroid-loaded poly (DL-lactide-co-glycolide) injectable microspheres: in vitro and in vivo study** *CONTRACEPTION*
  Dhanaraju, M. D., RajKannan, R., Selvaraj, D., Jayakumar, R., Vamsadhara, C.
  2006; 74 (2): 148-156

- **Development of hepatitis B oral vaccine using B-cell epitope loaded PLG microparticles** *VACCINE*
  Rajkannan, R., Dhanaraju, M. D., Gopinath, D., Selvaraj, D., Jayakumar, R.
  2006; 24 (24): 5149-5157

- **Molecular chaperone alpha-crystallin prevents detrimental effects of neuroinflammation** *BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR BASIS OF DISEASE*
  Masilamoni, J. G., Jesudason, E. P., Baben, B., Jebaraj, C. E., Dhandayuthapani, S., Jayakumar, R.
  2006; 1762 (3): 284-293

- **Lymphocyte toxicity of prion fragments** *JOURNAL OF BIOCHEMISTRY*
  Murali, J., Jayakumar, R.
  2006; 139 (3): 329-338

- **Characterization of polymeric poly(epsilon-caprolactone) injectable implant delivery system for the controlled delivery of contraceptive steroids.** *Journal of biomedical materials research. Part A*
  Dhanaraju, M. D., Gopinath, D., Ahmed, M. R., Jayakumar, R., Vamsadhara, C.
  2006; 76 (1): 63-72

- **Peripheral nerve regeneration in cell adhesive peptide incorporated collagen tubes in rat sciatic nerve - early and better functional regain** *JOURNAL OF THE PERIPHERAL NERVOUS SYSTEM*
  Ahmed, M. R., Jayakumar, R.
  2005; 10 (4): 390-391

- **The neuroprotective efficacy of alpha-crystallin against acute inflammation in mice** *BRAIN RESEARCH BULLETIN*
  Masilamoni, J. G., Vignesh, S., Kirubagaran, R., Jesudason, E. P., Jayakumar, R.
  2005; 67 (3): 235-241

- **Isolation and partial characterization of antifungal protein from Bacillus polymyxa strain VLB16** *PROCESS BIOCHEMISTRY*
  Kavitha, S., Senthilkumar, S., Gnanamanickam, S., Inayathullah, M., Jayakumar, R.
  2005; 40 (10): 3236-3243

- **The protective effect of alpha-crystallin against acute inflammation in mice** *BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR BASIS OF DISEASE*
  Masilamoni, J. G., Jesudason, E. P., Bharathi, S. N., Jayakumar, R.
  2005; 1740 (3): 411-420

- **Microwave irradiated collagen tubes as a better matrix for peripheral nerve regeneration** *BRAIN RESEARCH*
  Ahmed, M. R., Vairamuthu, S., Shafiuzama, M., Basha, S. H., Jayakumar, R.
  2005; 1046 (1-2): 55-67

- **Pexiganan-incorporated collagen matrices for infected wound-healing processes in rat.** *Journal of biomedical materials research. Part A*
  Gopinath, D., Kumar, M. S., Selvaraj, D., Jayakumar, R.
  2005; 73 (3): 320-331

- **Role of fibrillar A beta(25-35) in the inflammation induced rat model with respect to oxidative vulnerability** *FREE RADICAL RESEARCH*
  Masilamoni, J. G., Jesudason, E. P., Jesudoss, K. S., Murali, J., Paul, S. F., Jayakumar, R.
  2005; 39 (6): 603-612

- **Red cell interactions with amyloid-beta(1-40) fibrils in a murine model** *NEUROBIOLOGY OF DISEASE*
  Ravi, L. B., Poosala, S., Ahn, D., Chrest, F. J., Spangler, E. L., Jayakumar, R., Nagababu, E., Mohanty, J. G., Talan, M., Ingram, D. K., Rifkind, J. M.
  2005; 19 (1-2): 28-37

- **Biotinylated GHK peptide incorporated collagenous matrix: A novel biomaterial for dermal wound healing in rats.** *Journal of biomedical materials research. Part B, Applied biomaterials*
  Arul, V., Gopinath, D., Gomathi, K., Jayakumar, R.
  2005; 73 (2): 383-391

- **Spectroscopic studies on native and protofibrillar insulin** *JOURNAL OF STRUCTURAL BIOLOGY*
  Murali, J., Jayakumar, R.
  2005; 150 (2): 180-189

- **The protective role of DL-alpha-lipoic acid in biogenic amines catabolism triggered by A beta amyloid vaccination in mice** *BRAIN RESEARCH BULLETIN*
  Jesudason, E. P., Masilamoni, J. G., Kirubagaran, R., Davis, G. D., Jayakumar, R.
  2005; 65 (4): 361-367

- **Initial upregulation of growth factors and inflammatory mediators during nerve regeneration in the presence of cell adhesive peptide-incorporated collagen tubes** *JOURNAL OF THE PERIPHERAL NERVOUS SYSTEM*
  Ahmed, M. R., Basha, S. H., Gopinath, D., Muthusamy, R., Jayakumar, R.
  2005; 10 (1): 17-30

- **Global impairment of the ubiquitin-proteasome system by nuclear or cytoplasmic protein aggregates precedes inclusion body formation** *MOLECULAR CELL*
  Bennett, E. J., Bence, N. F., Jayakumar, R., Kopito, R. R.
  2005; 17 (3): 351-365

- **The protective role of DL-alpha-lipoic acid in the oxidative vulnerability triggered by A ss-amyloid vaccination in mice** *MOLECULAR AND CELLULAR BIOCHEMISTRY*
  Jesudason, E. P., Masilamoni, J. G., Jesudoss, K. S., Jayakumar, R.
  2005; 270 (1-2): 29-37

- **The structure of antimicrobial pexiganan peptide in solution probed by Fourier transform infrared absorption, vibrational circular dichroism, and electronic circular dichroism spectroscopy** *BIOPOLYMERS*
  Shanmugam, G., Polavarapu, P. L., Gopinath, D., Jayakumar, R.
  2005; 80 (5): 636-642

- **Crystal structure and conformation of N-(t-Butoxycarbonyl)-L-isoleucyl-L-valine methyl ester (Boc-Ile-Val-OMe)** *MOLECULAR CRYSTALS AND LIQUID CRYSTALS*
  Sukumar, N., Sony, S. M., Ponnuswamy, M. N., Jayakumar, R.
  2005; 428: 77-85

- **Assemblages of prion fragments: novel model systems for understanding amyloid toxicity** *JOURNAL OF STRUCTURAL BIOLOGY*
  Satheeshkumar, K. S., Murali, J., Jayakumar, R.
  2004; 148 (2): 176-193

- **Cytotoxic and membrane perturbation effects of a novel amyloid forming model peptide poly(leucine-glutamic acid)** *JOURNAL OF BIOCHEMISTRY*
  Jayakumar, R., Murali, J., Koteeswari, D., Gomathi, K.

2004; 136 (4): 457-462

- **Influence of manufacturing parameters on development of contraceptive steroid loaded injectable microspheres** *CHEMICAL & PHARMACEUTICAL BULLETIN*
  Dhanaraju, M. D., Jayakumar, R., Vamsadhara, C.
  2004; 52 (8): 976-979
- **Influence of beta-amyloid fibrils on the interactions between red blood cells and endothelial cells** *NEUROLOGICAL RESEARCH*
  Ravi, L. B., Mohanty, J. G., Chrest, F. J., Jayakumar, R., Nagababu, E., Usatyuk, P. V., Natarajan, V., Rifkind, J. A.
  2004; 26 (5): 579-585
- **Multilayered peptide incorporated collagen tubules for peripheral nerve repair** *BIOMATERIALS*
  Ahmed, M. R., Venkateshwarlu, U., Jayakumar, R.
  2004; 25 (13): 2585-2594
- **Alpha-crystallin-incorporated collagen matrices as an aid for dermal wound healing.** *Journal of biomedical materials research. Part B, Applied biomaterials*
  Ahmed, M. R., Gopinath, D., Gomathi, K., Sehgal, P. K., Jayakumar, R.
  2004; 69 (2): 241-248
- **Dermal wound healing processes with curcumin incorporated collagen films** *BIOMATERIALS*
  Gopinath, D., Ahmed, M. R., Gomathi, K., Chitra, K., Sehgal, P. K., Jayakumar, R.
  2004; 25 (10): 1911-1917
- **Calix[8]arene-mediated self-assembly of tetrapeptide H-Leu-Leu-Ile-Leu-OMe** *JOURNAL OF MOLECULAR RECOGNITION*
  Satheeshkumar, K. S., Vasu, G., Vishalakshi, V., Moni, M. S., Jayakumar, R.
  2004; 17 (1): 67-75
- **Structure and conformation of N-(t-butoxycarbonyl)-L-isoleucyl-L-leucine methyl ester** *MOLECULAR CRYSTALS AND LIQUID CRYSTALS*
  Thirumuruhan, R. A., Sony, S. M., Shanmugam, G., Ponnuswamy, M. N., Jayakumar, R.
  2004; 414: 39-48
- **Structural analysis of amyloid beta peptide fragment (25-35) in different microenvironments** *BIOPOLYMERS*
  Shanmugam, G., Jayakumar, R.
  2004; 76 (5): 421-434
- **Peripheral nerve regeneration in RGD peptide incorporated collagen tubes** *BRAIN RESEARCH*
  Rafiuddin, M., Jakakumar, A. R.
  2003; 993 (1-2): 208-216
- **Preparation and characterization of injectable microspheres of contraceptive hormones** *INTERNATIONAL JOURNAL OF PHARMACEUTICS*
  Dhanaraju, M. D., Vema, K., Jayakumar, R., Vamsadhara, C.
  2003; 268 (1-2): 23-29
- **Effect of osmolyte on the micellization of SDS at different temperatures** *LANGMUIR*
  Inayathullah, N. M., Jasmine, G. J., Jayakumar, R.
  2003; 19 (22): 9545-9547
- **Monolayer formation of short helical turn forming peptide derivatives at the air-water and air-solid interfaces** *CHEMICAL PHYSICS LETTERS*
  Ganesh, S., Jayakumar, R.
  2003; 380 (5-6): 681-688
- **Structural transitions involved in a novel amyloid-like beta-sheet assemblage of tripeptide derivatives** *BIOPOLYMERS*
  Ganesh, S., Jayakumar, R.
  2003; 70 (3): 336-345
- **Spectroscopic investigation on gel-forming beta-sheet assemblage of peptide derivatives** *BIOPOLYMERS*
  Ganesh, S., Prakash, S., Jayakumar, R.
  2003; 70 (3): 346-354
- **Interaction of collagen with corilagin** *COLLOID AND POLYMER SCIENCE*
  Andrews, M. E., Murali, J., Muralidharan, C., Madhulata, W., Jayakumar, R.

2003; 281 (8): 766-770

- **Increased neuronal nitric oxide synthase (nNOS) activity triggers picrotoxin-induced seizures in rats and evidence for participation of nNOS mechanism in the action of antiepileptic drugs** *BRAIN RESEARCH*
  Rajasekaran, K., Jayakumar, R., Venkatachalam, K.
  2003; 979 (1-2): 85-97

- **Conformational polymorphism of the amyloidogenic peptide homologous to residues 113-127 of the prion protein** *BIOPHYSICAL JOURNAL*
  Satheeshkumar, K. S., Jayakumar, R.
  2003; 85 (1): 473-483

- **Quercetin incorporated collagen matrices for dermal wound healing processes in rat** *BIOMATERIALS*
  Gomathi, K., Gopinath, D., Ahmed, M. R., Jayakumar, R.
  2003; 24 (16): 2767-2772

- **Red cell perturbations by amyloid beta-protein** *BIOCHIMICA ET BIOPHYSICA ACTA-GENERAL SUBJECTS*
  Jayakumar, R., Kusiak, J. W., Chrest, F. J., Demehin, A. A., Murali, J., Wersto, R. P., Nagababu, E., Ravi, L., Rifkind, J. M.
  2003; 1622 (1): 20-28

- **Self-assembly of the synthetic polymer (Leu-Glu)(n): An amyloid-like structure formation** *LANGMUIR*
  Moses, J. P., Satheeshkumar, K. S., Murali, J., Alli, D., Jayakumar, R.
  2003; 19 (8): 3413-3418

- **Influence of laboratory ware related changes in conformational and mechanical properties of collagen** *JOURNAL OF APPLIED POLYMER SCIENCE*
  Sripriya, R., Ahmed, M. R., Sehgal, P. K., Jayakumar, R.
  2003; 87 (13): 2186-2192

- **Electrocatalytic oxidative cleavage by electrogenerated periodate** *JOURNAL OF MOLECULAR CATALYSIS A-CHEMICAL*
  Khan, F. N., Jayakumar, R., Pillai, C. N.
  2003; 195 (1-2): 139-145

- **Circular dichroism and Fourier transform infrared spectroscopic studies on self-assembly of tetrapeptide derivative in solution and solvated film** *JOURNAL OF PEPTIDE RESEARCH*
  Ganesh, S., Jayakumar, R.
  2003; 61 (3): 122-128

- **Amyloid insulin interaction with erythrocytes** *BIOCHEMISTRY AND CELL BIOLOGY-BIOCHIMIE ET BIOLOGIE CELLULAIRE*
  Murali, J., Koteeswari, D., Rifkind, J. M., Jayakumar, R.
  2003; 81 (1): 51-59

- **Effect of Ca2+ on the self assembly of a nonionic peptide aggregate** *LETTERS IN PEPTIDE SCIENCE*
  Moses, J. P., Inayathullah, N. M., Murugesan, M., Andrews, M. E., Balasubramanian, M. P., Jayakumar, R.
  2003; 10 (1): 25-32

- **Self-assembly of chromotropic acid - a plausible explanation for monodisperse oligomer formation** *COLLOID AND POLYMER SCIENCE*
  Murugesan, M., Rajakumar, V. R., Scbibioh, M. J., Jayakumar, R.
  2002; 280 (12): 1147-1150

- **Electrochemical reductive allylation of N-benzylideneethanolamine** *TETRAHEDRON LETTERS*
  Khan, F. N., Jayakumar, R., Pillai, C. N.
  2002; 43 (38): 6807-6809

- **Binding of hemoglobin to red cell membranes with eosin-5-maleimide-labeled band 3: Analysis of centrifugation and fluorescence lifetime data** *BIOCHEMISTRY*
  Demehin, A. A., Abugo, O. O., Jayakumar, R., Lakowicz, J. R., Rifkind, J. M.
  2002; 41 (27): 8630-8637

- **Study on the stabilisation of collagen with vegetable tannins in the presence of acrylic polymer** *BIOMATERIALS*
  Madhan, B., Muralidharan, C., Jayakumar, R.
  2002; 23 (14): 2841-2847

- **Role of N-t-Boc group in helix initiation in a novel tetrapeptide** *JOURNAL OF PEPTIDE RESEARCH*
  Ganesh, S., Jayakumar, R.
  2002; 59 (6): 249-256

- **Aging and the Red Cell** *Mechanisms of Cardiovascular Aging (Book Chapter)*
  Rifkind JM, Abugo OO, Nagababu E, Somasundaram R, Demehin A, Jayakumar R, Hagen T
  2002: 281-305

- **A novel tyrosine derivative to study non-covalent assembly involving C-H center dot center dot center dot O hydrogen bonding** *BULLETIN OF THE CHEMICAL SOCIETY OF JAPAN*
  Satheeshkumar, K. S., Malar, E. J., Jayakumar, R.
  2002; 75 (1): 89-90

- **Adiabatic compressibility and intrinsic viscosity studies on peptide aggregates** *LETTERS IN PEPTIDE SCIENCE*
  Andrews, M. E., Moses, J. P., Sendhil, S., Rakkappan, C., Jayakumar, R.
  2002; 9 (4-5): 167-172

- **Sonication induced sheet formation at the air-water interface** *CHEMICAL COMMUNICATIONS*
  Satheeshkumar, K. S., Jayakumar, R.
  2002: 2244-2245

- **Immunological significance of metal induced conformational changes in the mitogenic Achatinin(H) binding to carbohydrate ligands** *COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY C-TOXICOLOGY & PHARMACOLOGY*
  Indra, D., Ganesh, S., Ramalingam, K., Asokan, C., Jayakumar, R.
  2000; 127 (2): 177-183

- **Formation of multilamellar vesicles ('onions') in peptide based surfactant** *BIOORGANIC & MEDICINAL CHEMISTRY LETTERS*
  Jayakumar, R., Murugesan, M., Ahmed, M. R.
  2000; 10 (14): 1547-1550

- **Anomalous temperature dependence of peptide films at air-water interface** *BIOORGANIC & MEDICINAL CHEMISTRY LETTERS*
  Jayakumar, R., Murugesan, M.
  2000; 10 (10): 1055-1057

- **Aggregational studies on beta-turn forming peptide Tyr-Pro-Gly-Asp-Val** *LANGMUIR*
  Jayakumar, R., Murugesan, M., Selvi, S., Scibioh, M. A.
  2000; 16 (7): 3019-3021

- **Hemodynamic changes during aging associated with cerebral blood flow and impaired cognitive function** *NEUROBIOLOGY OF AGING*
  Ajmani, R. S., Metter, E. J., Jaykumar, R., Ingram, D. K., Spangler, E. L., Abugo, O. O., Rifkind, J. M.
  2000; 21 (2): 257-269

- **Self-assembly of a peptide Boc-(IIe)(5)-OMe in chloroform and N,N-dimethylformamide** *LANGMUIR*
  Jayakumar, R., Murugesan, M., Asokan, C., Scibioh, M. A.
  2000; 16 (4): 1489-1496

- **Structural transition of nonionic peptide aggregates in aqueous medium** *LANGMUIR*
  Murugesan, M., Scibioh, M. A., Jayakumar, R.
  1999; 15 (17): 5467-5473

- **Role of nitric oxide on GABA, glutamic acid, activities of GABA-T and GAD in rat brain cerebral cortex** *BRAIN RESEARCH*
  Jayakumar, A. R., Sujatha, R., Paul, V., Asokan, C., Govindasamy, S., Jayakumar, R.
  1999; 837 (1-2): 229-235

- **Behavioural and biochemical changes after simultaneous and post-treatment of vitamin A and D on cadmium toxicity** *ENVIRONMENTAL TOXICOLOGY AND PHARMACOLOGY*
  Sujatha, R., Jayakumar, A. R., Krishnamoorthy, M. S., Paul, V., Jayakumar, R.
  1999; 7 (3): 189-197

- **Involvement of nitric oxide and nitric oxide synthase activity in anticonvulsive action** *BRAIN RESEARCH BULLETIN*

Jayakumar, A. R., Sujatha, R., Paul, V., Puviarasan, K., Jayakumar, R.
1999; 48 (4): 387-394

- **Impact of monocrotophos on protein and carbohydrate metabolism in different tissues of albino rats** *CYTOBIOS*
  Elumalai, M., Jayakumar, R., Balasubramanian, M. P.
  1999; 98 (389): 131-136
- **3(10) helix formation in protected tripeptide** *PROTEIN AND PEPTIDE LETTERS*
  Jayakumar, R., Scibioh, M. A., Pattabhi, V., Manoharan, P. T.
  1998; 5 (6): 321-331
- **Effect of a novel tetrapeptide derivative in a model of isoproterenol induced myocardial necrosis** *MOLECULAR AND CELLULAR BIOCHEMISTRY*
  Ramesh, C. V., Malarvannan, P., Jayakumar, R., Jayasundar, S., Puvanakrishnan, R.
  1998; 187 (1-2): 173-182
- **Self assembling peptides exhibiting antithrombotic activity** *PROTEIN AND PEPTIDE LETTERS*
  Ramesh, C. V., Jayakumar, R., Puvanakrishnan, R.
  1998; 5 (3): 147-154
- **A novel surface-active peptide derivative exhibits in vitro inhibition of platelet aggregation** *PEPTIDES*
  Ramesh, C. V., Jayakumar, R., Puvanakrishnan, R.
  1998; 19 (10): 1695-1702
- **Physicochemical characterization of a novel surfactant peptide containing an arginine cation and laurate anion** *COLLOID AND POLYMER SCIENCE*
  Ramesh, C. V., Jayakumar, R., Puvanakrishnan, R.
  1997; 275 (12): 1162-1168
- **Aggregation of a tetrapeptide derivative [Boc-Ile-Gly-Met-Thr(Bzl)-OBzl] in chloroform** *JOURNAL OF THE CHEMICAL SOCIETY-PERKIN TRANSACTIONS 2*
  Murugesan, M., Venugopal, M., Jayakumar, R.
  1997: 1959-1963
- **Synthesis and aggregational behavior of acidic proteinoid** *JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY*
  Kumar, A. B., Jayakumar, R., Rao, K. P.
  1996; 34 (14): 2915-2924
- **Physicochemical studies on reverse micelles of sodium bis(2-ethylhexyl) sulfosuccinate at low water content** *LANGMUIR*
  Manoj, K. M., Jayakumar, R., Rakshit, S. K.
  1996; 12 (17): 4068-4072
- **Surface active peptide-mediated porphyrin aggregation** *BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS*
  Venkatesh, B., Jayakumar, R., Pandian, R. P., Manoharan, P. T.
  1996; 223 (2): 390-396
- **Self-assembly of a nonionic peptide surfactant in aqueous medium** *LANGMUIR*
  Murugesan, M., Jayakumar, R., Durai, V.
  1996; 12 (7): 1760-1764
- **IN-VITRO STUDIES ON A NOVEL MICELLE-FORMING PEPTIDE WITH ANTICOAGULANT ACTIVITY** *INTERNATIONAL JOURNAL OF PEPTIDE AND PROTEIN RESEARCH*
  Ramesh, C. V., Jayakumar, R., Puvanakrishnan, R.
  1995; 45 (4): 386-390
- **PEPTIDE AGGREGATES - A NOVEL MODEL SYSTEM TO STUDY SELF-ASSEMBLY OF PEPTIDES** *INTERNATIONAL JOURNAL OF PEPTIDE AND PROTEIN RESEARCH*
  Jayakumar, R., JAYANTHY, C., GOMATHY, L.
  1995; 45 (2): 129-137
- **AGGREGATION, HYDROGEN-BONDING AND THERMODYNAMIC STUDIES ON BOC-VAL-VAL-ILE-OME TRIPEPTIDE MICELLES IN CHLOROFORM** *JOURNAL OF THE CHEMICAL SOCIETY-FARADAY TRANSACTIONS*
  Jayakumar, R., Jeevan, R. G., Mandal, A. B., Manoharan, P. T.

1994; 90 (18): 2725-2730

- **CRYSTAL-STRUCTURE AND CONFORMATION OF N-(T-BUTOXYCARBONYL)-L-ALANYL-S-BENZYL-L-CYSTEINE METHYL-ESTER** *BULLETIN OF THE CHEMICAL SOCIETY OF JAPAN*
  Sukumar, N., Ponnuswamy, M. N., Jayakumar, R.
  1994; 67 (7): 1976-1979

- **AGGREGATION, HYDROGEN-BONDING AND THERMODYNAMIC STUDIES ON TETRAPEPTIDE MICELLES** *JOURNAL OF THE CHEMICAL SOCIETY-FARADAY TRANSACTIONS*
  Mandal, A. B., Jayakumar, R.
  1994; 90 (1): 161-165

- **ANGIOTENSIN-I CONVERTING-ENZYME ACTIVITY IN ADRIAMYCIN-INDUCED NEPHROSIS IN RATS** *TOXICOLOGY*
  Venkatesan, N., Ramesh, C. V., Jayakumar, R., Chandrakasan, G.
  1993; 85 (2-3): 137-148

- **CRYSTAL-STRUCTURE AND CONFORMATION OF N-(T-BUTOXYCARBONYL)-L-ISOLEUCYL-L-ALANINE BENZYLESTER** *JOURNAL OF CRYSTALLOGRAPHIC AND SPECTROSCOPIC RESEARCH*
  Sukumar, N., Ponnuswamy, M. N., Jayakumar, R.
  1993; 23 (10): 769-772

- **CHARACTERIZATION OF BOC-LYS(Z)-TYR-NHNH2 DIPEPTIDE .1. PHYSICOCHEMICAL STUDIES ON THE MICELLE FORMATION OF A DIPEPTIDE IN THE ABSENCE AND PRESENCE OF IONIC SURFACTANTS** *JOURNAL OF THE CHEMICAL SOCIETY-FARADAY TRANSACTIONS*
  Mandal, A. B., Dhathathreyan, A., Jayakumar, R., Ramasami, T.
  1993; 89 (16): 3075-3079

- **CRYSTAL-STRUCTURE AND CONFORMATION OF N-(T-BUTOXYCARBONYL)-L-VALINE N-HYDROXYSUCCINIMIDE ESTER** *BULLETIN OF THE CHEMICAL SOCIETY OF JAPAN*
  Sukumar, N., Ponnuswamy, M. N., Jayakumar, R.
  1993; 66 (7): 2101-2103

- **MICELLE FORMATION OF BOC-VAL-VAL-ILE-OME TRIPEPTIDE IN CHLOROFORM AND ITS CONFORMATIONAL-ANALYSIS** *JOURNAL OF THE CHEMICAL SOCIETY-CHEMICAL COMMUNICATIONS*
  Jayakumar, R., Mandal, A. B., Manoharan, P. T.
  1993: 853-855

- **A FOURIER-TRANSFORM INFRARED SPECTROSCOPIC INVESTIGATION OF HYDROPHOBIC PEPTIDES IN LIPID ENVIRONMENT - A MONOLAYER STUDY** *INDIAN JOURNAL OF CHEMISTRY SECTION A-INORGANIC BIO-INORGANIC PHYSICAL THEORETICAL & ANALYTICAL CHEMISTRY*
  Jayakumar, R., Dhathathreyan, A., Ramasami, T.
  1993; 32 (5): 373-375

- **A NEW MICELLE-FORMING PEPTIDE** *JOURNAL OF THE CHEMICAL SOCIETY-CHEMICAL COMMUNICATIONS*
  Mandal, A. B., Jayakumar, R.
  1993: 237-238

- **CONFORMATIONAL PREFERENCE OF N-ACYL UREA CONTAINING VALINE RESIDUE IN DMSO D(6)** *BIOORGANIC & MEDICINAL CHEMISTRY LETTERS*
  Jayakumar, R., Pattabhi, V.
  1993; 3 (2): 153-156

- **C9 CONFORMATION OF N-(N-ALPHA-[(TERT-BUTYLOXY)-CARBONYL]-L-ALANYL)-N,N'-DICYCLOHEXYLUREA IN SOLID AND SOLUTION** *INTERNATIONAL JOURNAL OF PEPTIDE AND PROTEIN RESEARCH*
  Sudarsanakumar, C., Srinivasan, S., Jayakumar, R.
  1992; 39 (4): 285-290