

## CURRICULUM VITAE

NAME <b>Joseph George</b>	POSITION <b>Research Associate</b> , Department of Neurosciences, Medical University of South Carolina, Charleston, SC 29425, USA
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### EDUCATION

INSTITUTION AND LOCATION	DEGREE(s)	YEAR(s)	FIELD OF STUDY
University of Madras, India	Ph.D.	1989-1995	Biochemistry
University of Calicut, India	M.Sc.	1980-1983	Life Sciences
University of Kerala, India	B.Sc.	1977-1980	Zoology

### PROFESSIONAL TRAININGS

- A. **Advances in Tissue Engineering - 2001: 9<sup>th</sup> Annual Short Course** - August 15-19, 2001, Center for Excellence in Tissue Engineering, Rice University, Houston, Texas, USA.
- B. **Diploma in Systems Analysis and Data Processing** - Faculty of Engineering and Technology, Annamalai University, Tamil Nadu, India (1988-1989).  
**Subjects:** Data Base Management Systems, Systems Analysis and Design, Business Data Processing, Management Information Systems.
- C. **Training on Radiolabelling (<sup>3</sup>H, <sup>14</sup>C) and Radio-iodination (<sup>125</sup>I) Techniques** - Radiopharmaceuticals Division, Bhabha Atomic Research Center, Bombay, India (1987).
- D. **Training Course on Radioimmunoassay Techniques and Their Clinical Applications** - Radiopharmaceuticals Division, Bhabha Atomic Research Center, Bombay, India (1987).
- E. **Certificate Course in Computer Programming** - Department of Computer Science and Engineering, Annamalai University, Tamil Nadu, India (1986-1987).  
**Languages:** BASIC, FORTRAN, COBOL and PL/1.

### AWARDS AND HONOURS

1. Award of **Postdoctoral Fellowship** – Division of Molecular Medicine, Department of Medicine, Columbia University, New York (2003 - 2005).
2. Award of **Postdoctoral Research Fellowship** (1999 - 2000), Kanazawa Medical University, Japan.
3. Award of **Research Associateship** (1995 - 1999), Council of Scientific and Industrial Research (Government of India), New Delhi.
4. Award of **Senior Research Fellowship** (1993 -1995), Indian Council of Medical Research (Government of India), New Delhi.
5. Qualified in the **State Level Screening Test in Life Sciences** for appointment as Lecturer in the Universities and Colleges (Government & Aided) in India (1990).
6. Award of **Senior Research Fellowship** (1989 - 1992), Council of Scientific and Industrial Research (Government of India), New Delhi.
7. First Class with **Second Rank** in Academic Proficiency for Master's in Life Sciences, University of Calicut, India (1982).
8. Award of **Merit Scholarship** for Master's in Life Sciences (1980 - 1982), University of Calicut, Kerala, India.
9. First Class with **Distinction** in Bachelor's of Zoology, University of Kerala, India (1980).

### MEMBERSHIP IN SCIENTIFIC SOCIETIES

1. Active Member, American Association for Cancer Research (**AACR**), since 2005 (**Membership # 125380**)
2. Regular Member, American Association for the Study of Liver Diseases (**AASLD**), since 2006 (**Membership # 111392**)

3. Full Member, **Sigma Xi**, Research Triangle Park, North Carolina, since 2007  
(**Membership # 20079991692**)
4. Member, International Society for Artificial Organs, Since 2000
5. Life Member, Society of Biological Chemists (India), Since 1989
6. Member, Indian Association of Biomedical Scientists, Since 1990

### **JOURNAL PEER REVIEW**

#### **Editorial reviewer for the following reputed international journals**

- |   |                    |   |
|---|--------------------|---|
| 1. Hepatology                                 | Wiley InterScience | ( <i>ISI Impact Factor 2006</i> → 10.446) |
| 2. Stem Cells                                 | AlphaMed Press     | ( <i>ISI Impact Factor 2006</i> → 7.924)  |
| 3. Journal of Hepatology                      | Elsevier           | ( <i>ISI Impact Factor 2006</i> → 6.073)  |
| 4. Tissue Engineering                         | Mary Ann Liebert   | ( <i>ISI Impact Factor 2006</i> → 3.725)  |
| 5. Biotechnology and Bioengineering           | Wiley InterScience | ( <i>ISI Impact Factor 2006</i> → 2.999)  |
| 6. Journal of Biomedical Materials Research   | Wiley InterScience | ( <i>ISI Impact Factor 2006</i> → 2.497)  |
| 7. Clinical Biochemistry                      | Elsevier           | ( <i>ISI Impact Factor 2006</i> → 2.331)  |
| 8. Clinica Chimica Acta                       | Elsevier           | ( <i>ISI Impact Factor 2006</i> → 2.328)  |
| 9. Journal of Gastroenterology and Hepatology | Blackwell          | ( <i>ISI Impact Factor 2006</i> → 1.785)  |

### **POSITIONS HELD**

#### **Current appointment**

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|-------------------------|---|
| Sept. 2006 – Present    | <b>Research Associate</b> , Department of Neurosciences, Medical University of South Carolina, Charleston, SC 29425, USA                                    |
| April 2005 – Sept. 2006 | <b>Research Specialist</b> , Department of Cancer Biology and Pharmacology, University of Illinois at Chicago, College of Medicine at Peoria, IL 61605, USA |
| Sept. 2003 – April 2005 | <b>Postdoctoral Research Fellow</b> , Department of Medicine, Columbia University, New York, NY 10032, USA  |
| Sept. 2002 – Aug. 2003  | <b>Postdoctoral Research Associate</b> , President, Kanazawa Medical University, Uchinada, Ishikawa 920-0293, Japan   |
| Sept. 2000 – Aug. 2002  | <b>Research Scientist</b> , President, Koken Bioscience Institute, Ukima, Kita-ku, Tokyo 115-0051, Japan  |
| Jan. 1999 – Aug. 2000   | <b>Postdoctoral Research Fellow</b> , President, Kanazawa Medical University, Uchinada, Ishikawa 920-0293, Japan  |
| July.1995 – Jan. 1999   | <b>Research Associate</b> , Director, Central Leather Research Institute, Adyar, Madras - 600 020, India  |
| May 1989 – June 1995    | <b>Senior Research Fellow</b> , Director, Central Leather Research Institute, Adyar, Madras - 600 020, India  |
| July 1987 – March 1989  | <b>Assistant Research Officer</b> , Director, Central Leprosy Teaching and Research Institute, Chengalpattu - 603 001 Tamil Nadu, India                     |
| Jan. 1987 – June 1987   | <b>Senior Technical Assistant</b> , Director, Central Leprosy Teaching and Research Institute, Chengalpattu - 603 001 Tamil Nadu, India                     |
| July 1983 – Dec. 1986   | <b>Research Assistant</b> , Director, Central Leprosy Teaching and Research Institute, Chengalpattu - 603 001 Tamil Nadu, India                             |

## **A. PUBLICATIONS (PEER REVIEWED JOURNALS)**

1. **Joseph George**, Naren L. Banik and Swapan K. Ray: Downregulation of Bcl-2 and low-dose taxol treatment in U-251 glioblastoma cells induces apoptosis, inhibits cell invasion, angiogenesis, and tumor growth (*manuscript in preparation to **Oncogene***).
2. **Joseph George**, Naren L. Banik and Swapan K. Ray: Bcl-2 siRNA Augments Taxol Mediated Cell Death in Human Glioblastoma U138MG and U251MG Cells. **Neurochemical Research** 2008 (in press)
3. **Joseph George** and Jasti S. Rao: Restoration TFPI-2 in a human glioblastoma cell line triggers caspase mediated pathway and apoptosis **Clin Can Res.** 13 (2007) 3507-3517. (PMID: 17575213)
4. **Joseph George** and Mikihiro Tsutsumi: siRNA mediated downregulation of connective tissue growth factor prevents N-Nitrosodimethylamine induced hepatic fibrosis in rats. **Gene Ther.** 14 (2007) 790-803 (PMID:17344905)
5. **Joseph George** and Jeanine D'Armiento: Hyaluronic acid expression in N-nitrosodimethylamine induced liver injury in MMP-13 knockout mice (*Manuscript in preparation to **Hepatology***).
6. **Joseph George** and Jeanine D'Armiento: Role of MMP-1 and MMP-9 transgenes in monocrotaline induced pulmonary arterial hypertension in mice (*manuscript in preparation to **Nature Medicine***).
7. **Joseph George**, Jun Onodera, Teruo Miyata: Reconstruction of Dermal Tissue on Biodegradable Honeycomb Collagen Sheet. **Tissue Engineering** 2008 (in press).
8. **Joseph George** and Mikihiro Tsutsumi: Collagen Metabolism in N-nitrosodimethylamine Induced Liver fibrosis in Rats. (Communicated to **Clin. Biochem.**).
9. **Joseph George**: Mechanism of Increased Serum  $\beta$ -Glucuronidase during N-nitrosodimethylamine induced hepatic fibrosis in rats (Communicated to **Biochemistry and Cell Biology**).
10. **Joseph George**: Mineral metabolism in dimethylnitrosamine induced hepatic fibrosis. **Clin Biochem.** 39 (2006) 984-991. (PMID: 16959231)
11. **Joseph George**, Yoshinori Kuboki and Teruo Miyata: Differentiation of mesenchymal stem cells into osteoblasts on honeycomb collagen scaffold. **Biotechnol Bioeng.** 95 (2006) 404-411. (PMID: 16572435)
12. Mikihiro Tsutsumi, **Joseph George**, Kiyohiro Ishizawa, Atushi Fukumura, and Shujiro Takase: Effect of chronic dietary ethanol consumption on the promotion of chemically induced esophageal carcinogenesis in rats. **J Gastroenterol Hepatol.** 21 (2006) 805-813. (PMID: 16704527)
13. **Joseph George** and Robert Stern: Serum hyaluronan and hyaluronidase: Very early markers of toxic liver injury. **Clin Chim Acta.** 348 (2004) 189-197. (PMID: 15369754)
14. **Joseph George**, Mikihiro Tsutsumi and Shujiro Takase: Expression of hyaluronic acid in N-nitrosodimethylamine induced hepatic fibrosis in rats. **Int J Biochem Cell Biol.** 36 (2004) 307-319. (PMID: 14643895)
15. **Joseph George**: Ascorbic acid concentrations in dimethylnitrosamine-induced hepatic fibrosis in rats. **Clin Chim Acta.** 335 (2003) 39-47. (PMID: 12927683).
16. Onodera J., Saito A., **George J.**, Iwasaki T., Ito H., Aso Y., Hamano T., Kanai A., Miyata T., Nagai Y. Application of atelocollagen solution for lacrimal duct occlusion. **Adv Exp Med Biol.** 506 (2002) 1277-1281. (PMID: 12614067)
17. **Joseph George**, K. Ramesh Rao, Robert Stern and Gowri Chandrakasan: Dimethylnitrosamine induced liver injury in rats: the early deposition of collagen. **Toxicology.** 156 (2001) 129-138. (PMID: 11164615).

18. **Joseph George** and Gowri Chandrakasan: Biochemical abnormalities during the progression of hepatic fibrosis induced by dimethylnitrosamine *Clin Biochem.* 33 (2000) 563-570. (PMID: 11124342)
19. Ganesan, N., Chandrasekaran, A.N., Hariprasad, T., **George, J.**, Chandrakasan, G. and Kailash, P: Effect of type II collagen treatment in adjuvant induced arthritis. *APLAR J Rheumatol.* 1 (1998) 212-221.
20. **Joseph George** and Gowri Chandrakasan: Lactate dehydrogenase isoenzymes in dimethylnitrosamine induced hepatic fibrosis. *J Clin Biochem Nutr.* 22 (1997) 51-62.
21. **Joseph George** and Gowri Chandrakasan: Molecular characteristics of dimethylnitrosamine induced fibrotic liver collagen. *Biochim Biophys Acta* 1292 (1996) 215-222. (PMID: 8597566).
22. **Joseph George** and Gowri Chandrakasan: Glycoprotein metabolism in dimethylnitrosamine induced hepatic fibrosis in rats. *Int J Biochem Cell Biol.* 28 (1996) 353-361. (PMID: 8920645)
23. **Joseph George**, V.N. Bhatia, S. Balakrishnan and G. Ramu: Serum zinc/copper ratio in subtypes of leprosy and effect of oral zinc therapy on reactional states. *Int J Lepr.* 59 (1991) 20-24. (PMID: 2030313)
24. **Joseph George**, M. Rajendran and V.N. Bhatia: Serum  $\beta$ -glucuronidase in subtypes of leprosy. *Indian J Med Res.* 91 (1990) 106-110. (PMID: 2345017)
25. **Joseph George**, S. Balakrishnan and V.N. Bhatia: Drug interaction during multidrug regimens for treatment of leprosy. *Indian J Med Res.* 87 (1988) 151-156. (PMID: 3397146)
26. **Joseph George**, V.N. Bhatia and S. Balakrishnan: Microbiological assay versus spectrophotometry for determination of rifampicin in urine. *Indian J Lepr.* 60 (1988) 47-52. (PMID: 3060546)
27. **Joseph George** and S. Balakrishnan: Blood dapsone levels in leprosy patients treated with aedapsone. *Indian J Lepr.* 58 (1986) 401-406. (PMID: 3060546)
28. **Joseph George**, S. Balakrishnan, V.N. Bhatia, D. Anandan and S. Harikrishnan: Thyroglobulin autoantibodies in leprosy. *Indian J Lepr.* 58 (1986) 191-195. (PMID: 3805790)
29. **Joseph George** and S. Balakrishnan: A comparative study of the haemagglutination inhibition (HI) test and spot test for detection of dapsone in urine. *Indian J Lepr.* 57 (1985) 601-606. (PMID: 3831099).

## **B. PUBLISHED ABSTRACTS IN REPUTED JOURNALS**

1. **Joseph George**, Naren L. Banik and Swapan K. Ray. siRNA mediated knockdown of Bcl-2 in human glioblastoma cell lines increased taxol-mediated apoptosis. *J. Neurochem.* 102 Suppl. 1 (2007) 259.
2. **Joseph George**, Christopher S. Gondi, Meena Gujrati, Dzung H. Dinh, and Jasti S. Rao. Restoration of TFPI-2 in a human glioblastoma cell line triggers caspase mediated pathway and apoptosis. *Proc. Amer. Assoc. Cancer Res.* 48 (2007) 3661.
3. **Joseph George**, Christopher S. Gondi, Meena Gujrati, Dzung H. Dinh, William C. Olivero and Jasti S. Rao. Treatment with a recombinant adeno-associated virus expressing the TFPI-2 gene simultaneously downregulates MMP-9 and VEGF in a human glioblastoma cell line. *Proc. Amer. Assoc. Cancer Res.* 47 (2006) 957.
4. **Joseph George**, Kazuki Nemoto, Teruo Miyata and Yoshinori Kuboki: Honeycomb collagen scaffold for the in vitro differentiation of mesenchymal stem cells into osteoblasts. *Tissue Eng.* 8 (2002) 1245-1246.
5. Kazuki Nemoto, Hiroko Takita, Ryota Yoshimoto, **Joseph George**, Teruo Miyata and Yoshinori Kuboki: Geometry of honeycomb collagen scaffold gives chamber type microenvironmental units for ectopic osteogenesis when implanted with purified BMP cocktail into rat skin. *Tissue Eng.* 8 (2002) 1148-1149. (IF 2004 – 3.143).
6. **Joseph George**, J. Tsutusmi, M. Takase, S. Expression of TIMP-1 and TIMP-2 in N-nitrosodimethylamine induced hepatic fibrosis in rats. *Hepatology* 32 Pt.2 (2000) 505A.
7. **Joseph George**, M. Tsutsumi W.B. Chen, M. Tsuchishima and S. Takase: Mechanism of the increased serum hyaluronic acid in rats treated with N-nitrosodimethylamine. *J. Gastroenterol. Hepatol.* 15 (2000) F74.

8. **Joseph George** and Gowri Chandrakasan: Collagen metabolism in dimethylnitrosamine induced hepatic fibrosis in rats. *FASEB J.* 11 (1997) A1094.
9. **Joseph George** and Gowri Chandrakasan: Structural and functional alterations in liver during fibrosis. *ICMR Bull.* 26 (1996) 36-37.
10. **Joseph George** and Gowri Chandrakasan: Metabolism of liver collagen in dimethylnitrosamine induced hepatic fibrosis. *Immunol. Cell Biol.* 73 (1995) A14.

### **C. CHAPTER IN BOOKS**

1. **Joseph George** and Swapan K. Ray: Molecular Mechanisms of Taxol Induced Cell Death in Glioblastomas. *In: Glioblastoma: Molecular Mechanisms of Pathogenesis and Current Therapeutic Strategies.* Edited by Ray S.K. Springer Science/Humana press, New York (*in preparation*).
2. Onodera J., Saito A., **George J.**, Iwasaki T., Ito H., Aso Y., Hamano T., Kanai A., Miyata T., Nagai Y: Application of atelocollagen solution for lacrimal duct occlusion. *In: Lacrimal Gland, Tear Film and Dry Eye Syndromes 3: Basic Science and Clinical Relevance.* Edited by D. Sullivan *et al.*, Kluwer Academic/Plenum Publishers, New York, 2002 pp.1277-1281.

### **27. PAPER PRESENTATIONS**

1. **Joseph George**, Naren L. Banik and Swapan K. Ray: Synergistic effect of Bcl-xL small interfering RNA and Genistein induces apoptosis, inhibits angiogenesis and tumor growth in SH-SY-5Y and SK-N-DZ Neuroblastoma Cells. Paper to be presented at the 99th Annual meeting of the American Association for Cancer Research to be held at San Diego, CA, USA, April 12-16, 2008.
2. **Joseph George**, Naren L. Banik and Swapan K. Ray: siRNA Mediated Knockdown of Bcl-2 and Low-Dose Taxol Treatment in U251MG Glioblastoma Cells Induces Apoptosis, Inhibits Cell Invasion, Angiogenesis and Tumor Growth Paper to be presented at the 99th Annual meeting of the American Association for Cancer Research to be held at San Diego, CA, USA, April 12-16, 2008.
3. **Joseph George**, Naren L. Banik and Swapan K. Ray: siRNA Mediated Downregulation of hTERT and Simultaneous Treatment with Interferon- $\gamma$  Inhibits Invasion, Angiogenesis and Tumor Growth Through Cell Cycle Arrest in SNB-19 and LN-18 Glioblastoma Cells. Paper to be presented at the 99th Annual meeting of the American Association for Cancer Research to be held at San Diego, CA, USA, April 12-16, 2008.
4. **Joseph George**, Naren L. Banik and Swapan K. Ray: siRNA mediated knockdown of Bcl-2 in human glioblastoma cell lines increased taxol mediated apoptosis. Paper presented at the 21st Biennial meeting of the International Society for Neurochemistry (ISN) and the 38th Annual Meeting of the American Society for Neurochemistry (ASN) held at Cancun, Mexico, August 19-24, 2007.
5. **Joseph George**, Christopher S. Gondi, Meena Gujrati, Dzung H. Dinh, and Jasti S. Rao. Restoration of TFPI-2 in a human glioblastoma cell line triggers caspase mediated pathway and apoptosis. Paper presented at the 98th Annual meeting of the American Association for Cancer Research held at Los Angeles, CA, USA, April 14-18, 2007.
6. **Joseph George**, Naren L. Banik and Swapan K. Ray: RNA interference of anti-apoptotic Bcl-2 increased taxol mediated apoptosis in a highly invasive human glioblastoma cell line. Paper presented at the 8th annual frontiers in neuroscience research day held at Charleston, SC, USA, March 16, 2007.
7. **Joseph George**, and Mikihiro Tsutsumi. siRNA mediated downregulation of connective tissue growth factor prevents N-Nitrosodimethylamine induced hepatic fibrosis in rats. Paper presented at the 57th Annual Meeting of the American Association for the Study of Liver Diseases held at Boston, Massachusetts, USA, October 27-31, 2006.
8. **Joseph George**, Christopher S. Gondi, Meena Gujrati, Dzung H. Dinh, William C. Olivero and Jasti S. Rao. Treatment with a recombinant adeno-associated virus expressing the TFPI-2 gene simultaneously downregulates MMP-9 and VEGF in a human glioblastoma cell line. Paper presented at the 97th Annual meeting of the American Association for Cancer Research held at Washington, DC, USA, April 1-5, 2006.
9. **Joseph George**, Kazuki Nemoto, Teruo Miyata and Yoshinori Kuboki. Honeycomb collagen scaffold for the in vitro differentiation of mesenchymal stem cells into osteoblasts. Paper presented at the 5th Annual meeting of the Tissue Engineering Society International held at Kobe, Japan, December 8-10, 2002.
10. Kazuki Nemoto, Hiroko Takita, Ryota Yoshimoto, **Joseph George**, Teruo Miyata and Yoshinori Kuboki. Geometry of honeycomb collagen scaffold gives chamber type microenvironmental units for ectopic

osteogenesis when implanted with purified BMP cocktail into rat skin. Paper presented at the 5th Annual meeting of the Tissue Engineering Society International held at Kobe, Japan, December 8-10, 2002.

11. **Joseph George**, Yu Aso and Teruo Miyata: Enhanced cell attachment and proliferation on connective tissue protein matrix. Paper presented at the 13th World Congress of International Society for Artificial Organs held at Osaka, Japan, November 5-8, 2001.
12. **Joseph George** and Gowri Chandrakasan: Effect of curcumin on stellate cell activation and hyaluronic acid accumulation in dimethylnitrosamine induced hepatic fibrosis in rats. Paper presented at the International Conference on New Strategies for the Treatment of Liver Cirrhosis held at Tokyo, Japan, June 7-9, 2001.
13. Onodera J., Saito A., **George J.**, Iwasaki T., Ito H., Aso Y., Hamano T., Kanai A., Miyata T., Nagai Y.: Application of atelocollagen solution for lacrimal duct occlusion. Paper presented at the 3rd International Conference on the Lacrimal Gland, Tear Film and Dry Eye Syndromes: Basic Science and Clinical Relevance held at Maui, Hawaii, November 15-18, 2000.
14. **Joseph George**, Mikihiro Tsutsumi and Shujiro Takase: Expression of TIMP-1 and TIMP-2 in N-nitrosodimethylamine induced hepatic fibrosis in rats. Paper presented at the 51st Annual Meeting of the American Association for the Study of Liver Diseases held at Dallas, Texas, USA, October 27-31, 2000.
15. **Joseph George**, Mikihiro Tsutsumi and Shujiro Takase: Mechanism of the increased serum level of hyaluronic acid in rats treated with nitrosodimethylamine. Paper presented at the joint meeting of the International Association for the Study of the Liver and Asian Pacific Association for the Study of the Liver held at Fukuoka, Japan, June 2-7, 2000.
16. Anitha Balachander, **Joseph George** and Gowri Chandrakasan: Characterization of collagen types in cultured stellate cells from rat liver. Paper presented at the Keystone Symposia held at Colorado, USA, March 24-31, 2000.  
**Joseph George** and Gowri Chandrakasan: Protective role of curcumin against dimethylnitrosamine induced hepatic fibrosis in rats. Paper presented at the 8<sup>th</sup> FAOBMB Congress held at Kuala Lumpur, Malaysia, November 22-26, 1998.
18. **Joseph George** and Gowri Chandrakasan: Serum type III procollagen peptide and laminin P1 levels as a diagnostic tool for monitoring the progression of liver fibrosis and cirrhosis. Paper presented at the National Conference on Molecular Diagnostics held at Trivandrum, India, June 27-29, 1998.
19. **Joseph George** and Gowri Chandrakasan: Lysosomal fragility in dimethylnitrosamine induced liver injury in rats. Paper presented at the 66th Annual Meeting of the Society of Biological Chemists (India) held at Visakhapatnam, India, December 22-24, 1997.
20. **Joseph George** and Gowri Chandrakasan: Collagen metabolism in dimethylnitrosamine induced hepatic fibrosis in rats. Paper presented at the 17th International Congress of Biochemistry and Molecular Biology held at San Francisco, USA, August 24-29, 1997.
21. **Joseph George**, N. Anilkumar and Gowri Chandrakasan: Collagenolytic cathepsins in dimethylnitrosamine induced hepatic fibrosis in rats. Paper presented at the 65th Annual Meeting of the Society of Biological Chemists (India) held at Bangalore, India, November 20-23, 1996.
22. **Joseph George**, K. Ramesh Rao and Gowri Chandrakasan: Histopathological and biochemical alterations in dimethylnitrosamine induced liver injury in rats. Paper presented at the XVIIth Annual Conference of the Indian Association of Biomedical Scientists held at Pondicherry, India, October 5-6, 1996.
23. **Joseph George** and Gowri Chandrakasan: Biochemical studies on collagen during dimethylnitrosamine induced hepatic fibrosis. Paper presented at the XVIth Annual Conference of the Indian Association of Biomedical Scientists held at Calcutta, India, November 3-5, 1995.
24. **Joseph George** and Gowri Chandrakasan: Changes in serum and liver calcium, magnesium, potassium and sodium levels in dimethylnitrosamine induced hepatic fibrosis in rats. Paper presented at the 64th Annual Meeting of the Society of Biological Chemists (India) held at Lucknow, India, October 6-8, 1995.
25. **Joseph George** and Gowri Chandrakasan: Metabolism of liver collagen in dimethylnitrosamine induced hepatic fibrosis. Paper presented at the 19th Annual Conference of the Connective Tissue Society of Australia and New Zealand held at Terrigal, Australia, October 1-5, 1995.
26. **Joseph George** and Gowri Chandrakasan: Selenium levels in dimethylnitrosamine induced hepatic fibrosis in rats. Paper presented at the XVth Annual Conference of the Indian Association of Biomedical Scientists held at Ootacamund, India, October 29-30, 1994.
27. **Joseph George** and Gowri Chandrakasan: Molecular characteristics of dimethylnitrosamine induced fibrotic liver collagen. Paper presented at the international symposium on 'Collagen: Structure, Biology and Technology' held at Madras, India, September 15-17, 1994.

28. Venkatesan N., **Joseph George** and Gowri Chandrakasan: Cyclophosphamide induced lung injury in rats. Paper presented at the 62nd Annual Meeting of the Society of Biological Chemists (India) held at Madurai, India, December 19-22, 1993.
29. **Joseph George**, N. Venkatesan and Gowri Chandrakasan: Molecular characteristics of fibrotic liver collagen in rats. Paper presented at the 62nd Annual Meeting of the Society of Biological Chemists (India) held at Madurai, India, December 19-22, 1993.
30. **Joseph George** and Gowri Chandrakasan: Biosynthesis of collagen during dimethylnitrosamine induced hepatic fibrosis in rats. Paper presented at the 61st Annual Meeting of the Society of Biological Chemists (India) held at Hyderabad, India, December 21-23, 1992.
31. **Joseph George**, N. Venkatesan and Gowri Chandrakasan: Histamine levels in dimethylnitrosamine induced hepatic fibrosis in rats. Paper presented at the XIIIth Annual Conference of the Indian Association of Biomedical Scientists held at Trivandrum, India, September 19-20, 1992.
32. Venkatesan, N., **Joseph George** and Gowri Chandrakasan: Angiotensin I converting enzyme activity in cyclophosphamide induced pulmonary fibrosis in rats. Paper presented at the XIIIth Annual Conference of the Indian Association of Biomedical Scientists held at Trivandrum, India, September 19-20, 1992.
33. **Joseph George** and Gowri Chandrakasan: Ascorbic acid levels in dimethylnitrosamine induced hepatic fibrosis in rats. Paper presented at the 27th Leather Research-Industry Get together held at Madras, India, January 28-30, 1992.
34. **Joseph George**, N. Venkatesan and Gowri Chandrakasan: Serum hydroxyproline levels in subtypes of leprosy. Paper presented at the Diamond Jubilee-Annual Meeting of the Society of Biological Chemists (India) held at Calcutta, India, December 26-30, 1991.