

DR. KOYELI GIRIGOSWAMI

Associate Professor
Faculty of Allied Health Sciences
Chettinad Hospital & Research Institute
Chettinad Academy of Research & Education
Kelambakkam, Chennai 603 103, India



Email:koyelig@gmail.com
Contact No.:9600060358

Qualifications:

Ph.D.: 2006, University of Kalyani, West Bengal, INDIA.

Research Interests: Mammalian cell culture, Cytotoxicity, Oxidative damage, Apoptosis, Mutation studies, Apoptotic gene expression, Synthesis of artificial amyloid lawn, Cell culture over synthesized lawn surfaces, Cytotoxicity & effect of metal ions on aggregation of Alzheimer's -amyloid, Nanoparticle Toxicity using zebrafish model, enzymes isolated from natural sources for dissociation of amyloids, ZnO nanoflowers, nanosensors for detection of amyloids, role of ZnO nanoflower in amyloid dissociation, Nanoceria nanoclusters as ROS biosensors.

Work Experience:

- 1) 2017 – present: **Associate Professor** (Biophysics), Faculty of Allied Health Sciences, Chettinad Hospital & Research Institute
- 2) 2013 – 2017: **Assistant Professor** (Biophysics) (Sr. Grade), Faculty of Allied Health Sciences, Chettinad Hospital & Research Institute
- 3) 2008 – 2013: **Assistant Professor** (Biophysics), All India Institute of Hygiene & Public Health, **Govt. of India**, Kolkata, INDIA, from September 2008-2013

Post-Doc:

- 1) 2007-2008: Brain Korea 21 (BK21) Postdoctoral Researcher, Advanced Biomaterial Lab, Korea Advanced Institute of Science and Technology (KAIST), **SOUTH KOREA**

Visits Abroad:

- Korea Advanced Institute of Science and Technology, South Korea.
- Seoul National University, South Korea.

Projects Ongoing/ Completed:

Sr. No.	Funding Agency	Sanctioned Amount in Rs.	Status
1.	CARE-2014	20,000	Completed

Research Guidance:

Degree	Awarded	Ongoing
Ph. D.	-	01
M. Phil.	-	-
M. Sc.	03	02

Summary of Research:

Papers	Citations	h-index	i10-index
19	216	8	7

Patents:**Patent: 01**

1. Chan Beum Park, Sook Hee Ku, Koyeli Girigoswami, and Jungki Ryu. Method for screening drug for neurodegenerative diseases treatment. Korean Patent: Appl. No. 10-2007-0112804 (2007. 11. 06) Patent No. 10-1082484-0000 (2011. 11. 02)

Patents under Process-04

1. Sanjay K Metkar, **Koyeli Girigoswami**, Ramachandran Murugesan and Agnishwar Girigoswami, Denaturation of Amyloids by Lumbrokinase, submitted to Patent Office, Chennai on 09.10.2015, Ref. No. 5412/CHE/2015. Patent published on 14.4.2017 in The Patent Office Journal, India, 10756.
2. Sanjay K Metkar, **Koyeli Girigoswami**, Ramachandran Murugesan and Agnishwar Girigoswami, Degradation Process of Amyloid Fibrils by Serratiopeptidase, submitted to Patent Office, Chennai on 09.10.2015, Ref. No. 5415/CHE/2015.
3. **Koyeli Girigoswami**, Agnishwar Girigoswami, Ramachandran Murugesan and Najim Akhtar, Sensor For Amyloid Detection Based On ZnO Nanoflower Platform, submitted to Patent Office, Chennai on 11.01.2017, Appl. No. 201741001092.
4. Agnishwar Girigoswami, Haribabu V, **Koyeli Girigoswami**, Sharmila P, Label-free biocompatible magnetofluorescent nanoclusters for multimodal imaging, submitted to Patent Office, Chennai on 11.01.2017, Appl. No. 201741001085.

Publications:

1. P. Sharmiladevi, V. Haribabu, **K. Girigoswami**, S.F. Abubacker, Agnishwar Girigoswami., Effect of Mesoporous Nano Water Reservoir on MR Relaxivity. **Scientific Reports**, (2017) 7: 11179, DOI:10.1038/s41598-017-11710-2. [I.F.= 4.2]

2. R. Deepika, **K. Girigoswami**, R. Murugesan, Agnishwar Girigoswami., Influence of Divalent Cation on Morphology and Drug Delivery Efficiency of Mixed Polymer Nanoparticles, **Current Drug Delivery**, (2017) DOI: 10.2174/1567201814666170825160617. [I.F.= 2.53]
3. Akhtar N, Metkar S.K., Girigoswami A & **Girigoswami K.** ,ZnO nanoflower based sensitive nano-biosensor for amyloid detection. **Mater. Sci. Eng. C.**, (2017) 78:960-968. ISSN: 09284931. [I.F.= 4.164]
4. Metkar S.K., Girigoswami A., Murugesan R. & **Girigoswami K.**, Lumbrokinase for degradation and reduction of amyloid fibrils associated with amyloidosis. **J. Appl. Biomed.**, (2017) 15:96-104. [I.F.= 1.509]
5. Metkar S.K., Girigoswami A., Murugesan R. & **Girigoswami K.**, *In vitro* and *in vivo* insulin amyloid degradation mediated by Serratiopeptidase, **Mater. Sci. Eng. C.**, (2017) 70:728-735. ISSN: 09284931 [I.F.= 4.164]
6. **Girigoswami K.** and Metkar S. K. , Magnetic Nanoparticles Synthesized with Different Precursor Stoichiometry Induced Differential Toxicity in Multiple Cell Lines; **Int. J. Sci. Res.**, (2015) 4(11): 2052-2057. ISSN: 2319-7064.
7. **Girigoswami K.**, Meenakshi V., Murugesan R. & Girigoswami A., Studies on Polymer-Coated Zinc Oxide Nanoparticles: UV-blocking Efficacy and in vivo Toxicity; **Mater. Sci. Eng. C.**, (2015) 56: 501-510. ISSN: 09284931 [I.F.= 4.164]
8. Ghosh R., **Girigoswami K.** & Guha D., Caspase Dependent Apoptosis is Only Inhibited on γ Irradiation of Cells Conditioned by Repetitive Oxidative Stress, **Int. J. Sci. Res.**, (2013) 2: 12-18. ISSN: 2319-7064.
9. Kavya J.C., Amsaveni G., Nagalakshmi M., **Girigoswami K.**, Murugesan R., Girigoswami A., Silver Nanoparticles Induced Lowering of BCL₂ / Bax Causes DLA Tumour Cell Death in Mice, **J Bionosci.**, (2013) 7, 276-281. ISSN: 1557-7910.
10. Ghosh R., **Girigoswami K.** & Guha D., Suppression of apoptosis leads to cisplatin resistance in V79 cells subjected to chronic oxidative stress; **Ind. J Biochem. Biophys.**, (2012) 49: 363-370. [I.F. (2012)= 1.142] ISSN:0975- 0959 (Online); 0301-1208 (Print)
11. Ghosh R. & **Girigoswami K.**, Some spectrofluorimetric studies with intact cells exposed repetitively to low doses of oxidative stress: Proceedings of UGC Sponsored National Seminar on Modern trends in Spectroscopy: Its Application in Chemistry and Biology 2011, (Eds S. Bhattacharya & D.C.Guria), published by **Maulana Azad College**, Kolkata, W.B., INDIA, (2011) pp. 144-152. ISBN-13-978-81-928246-1-1.
12. **Girigoswami K.**, Ku S.K., Ryu J. & Park C.B., A synthetic amyloid lawn system for high-throughput analysis of amyloid toxicity and drug screening; **Biomaterials**, (2008) 29: 2813-2819. [I.F. (2009)=8.153] ISSN: 0142-9612
13. Ryu J., **Girigoswami K.**, Ha C. Ku S.K. & Park C.B., Influence of multiple metal ions on β -amyloid aggregation and dissociation on a solid surface; **Biochemistry**, (2008) 47: 5328-5335. [I.F. (2009)=3.226] ISSN:[0006-2960](#) (print);[1520-4995](#) (web).
14. Kanapathipillai M., Ku S.K., **Girigoswami K.** & Park C.B., Small stress molecules inhibit aggregation and neurotoxicity of prion peptide 106-126; **Biochem. Biophys. Res. Commun**, (2008) 365: 808-813. [I.F. (2009)=2.72] ISSN: 0006-291X
15. Ghosh R. & **Girigoswami K.**, NADH dehydrogenase subunits are overexpressed in cells exposed repeatedly to H₂O₂; **Mutat. Res.**, (2008) 638: 210-215. [I.F. (2009)=3.764] ISSN: 0027-5107

16. **Bose (Girigoswami) K.** & Ghosh R., Response to γ -irradiation in V79 cells conditioned by repeated treatment with low doses of hydrogen peroxide; **Radiat. Environ. Bioph.**, (2005) 44: 131- 137. [I.F. (2006) =1.776. ISSN: 0301-634X (print version)ISSN: 1432-2099 (electronic version)]
17. **Bose (Girigoswami) K.**, Bhaumik G. & Ghosh R., Induced resistance in cells exposed to repeated low doses of H₂O₂ involves enhanced activity of antioxidant enzymes; **Cell Biol. Int.**, (2005) 29: 761-767. [I.F. (2006) =1.619] ISSN: 1065-6995
18. **Bose (Girigoswami) K.**, Bhaumik G. & Ghosh R., Chronic low dose exposure to hydrogen peroxide changes sensitivity of V79 cells to different damaging agents; **Ind. J Exp. Biol.**, (2003) 41 : 832-836. [I.F.= 0.55] ISSN: 0975-1009 (Online); 0019-5189 (Print)
19. **Bose (Girigoswami) K.**, Bhaumik G. & Ghosh R., Low dose chronic exposure to oxidative stress changes sensitivity of V79 cells to different damaging agents by inhibiting apoptosis, in Proceedings of National Seminar on Recent Advances in Molecular Physiology, (Eds. N. Saha et al), published at **Kalyani University Press**, Kalyani, (2002) pp.144-150.

Book Chapter:

1. **Bose (Girigoswami) K.**, Bhaumik G. & Ghosh R. (2003); Chronic low doses of H₂O₂ affect sensitivity of mammalian cells to different damaging agents through changes in their antioxidant enzyme status; in Recent Environmental Changes- Its Impact on Health, Agriculture and Ecosystem, (Ed. S.C Santra), **published by World View**, Kolkata on behalf of University of Kalyani, W.B., India, pp.201-210.

Papers presented at Conferences:

Total: 39 (25 International and 14 National)

Workshops/Conferences Organized:03 (03 National)

1. Organizer of SERB, DST, Govt. of India Sponsored National Conference on Nanotechnology in Medicine, 8th -9th September, 2017. Grant Sanction No.SERB/F/2907/2017-18.
2. Organizer of Two day National Workshop in Molecular and Cellular Diagnostics, 10-11 Feb, 2017 at CHRI along with HiMedia.
3. Organizer of Workshop on Nanotechnology for Dental Applications, 11-12th April, 2017 at CHRI.

Invited Lecture/Resource person:

- Koyeli Girigoswami, Studies on Response of Mammalian Cells after Chronic Exposure to Cytotoxic Agent, organized by Prof. Seong Hun Kim at Seoul National University, SOUTH KOREA on 27.02.2007 (invited lecture).
- Koyeli Girigoswami, Biomedical applications of optical in vivo imaging, at Workshop on 'Clinical Applications of Optical in vivo Imaging' held at Translational Research Platform for Veterinary Biologicals, TANUVAS, Chennai on 24.11.2016 (Resource person).

- Koyeli Girigoswami, Biomedical applications of optical in vivo imaging, at Workshop on 'Clinical Applications of Optical in vivo Imaging' held at Translational Research Platform for Veterinary Biologicals, TANUVAS, Chennai on 14.11.2017 (Resource person)