Molecular Imaging and Diagnostics Lab

PUBLICATIONS

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- 1. "Rapid Detection Device for Salmonella typhi in Milk, Juice, Water and Calf Serum", I ndian Journal of Microbiology, 2018, Kaur, A., Nigam NM., Pandya D., **Elangovan, R.**, Jha, S. & Kalyanasundaram. DOI: 10.1007/s12088-018-0730-4
- 2. A Kaur, A Kapil, **R Elangovan**, S Jha, D Kalyanasundaram. Highlysensitive detection of Salmonella typhi in clinical blood samples by magnetic nanoparticle-based enrichment and in-situ measurement of isothermal amplification. PloS one 13 (3), e0194817
- 3. Pandey, V., Gupta, S. & **Elangovan, R**. Compact 3D printed module for fluorescent an d label-free imaging using evanescent excitation. *Methods and applications in fluorescence* (2017).
- 4. Singh, S. *et al.* A portable immunomagnetic cell capture system to accelerate culture diagnosis of bacterial infections. *The Analyst* **141**, 3358-3366 (2016).
- 5. Singh, S. *et al.* Spot Immunomagnetic Enrichment Device for Rapid Detection of Path ogens in Peripheral Blood. *Advanced Materials Technologies* **1** (2016).
- 6. Rastogi, K., Puliyakodan, M. S., Pandey, V., Nath, S. & **Elangovan, R.** Maximum limit t o the number of myosin II motors participating in processive sliding of actin. *Scientific reports* **6** (2016).
- 7. Soni, U. *et al.* Simultaneous type-I/type-II emission from CdSe/CdS/ZnSe nanoheterostructures. *ACS nano* **8**, 113-123 (2013).
- 8. **Elangovan, R**. *et al*. An integrated in vitro and in situ study of kinetics of myosin II fro m frog skeletal muscle. *The Journal of physiology* **590**, 1227-1242 (2012).
- 9. Nath, S. & **Elangovan**, **R.** New perspectives on photosynthetic phosphorylationin the light of a torsional mechanism of energy transduction and ATP synthesis. *Journal of bioenergetics and biomembranes* **43**, 601-610 (2011).
- 10. Fusi, L. *et al.* The mechanism of the resistance to stretch of isometrically contracting single muscle fibres. *The Journal of physiology* **588**, 495-510 (2010).
- 11. Brunello, E. *et al.* Skeletal muscle resists stretch by rapid binding of the second moto r domain of myosin to actin. *Proceedings of the National Academy of Sciences* **104**, 20114-20119 (2007).
- 12. Toedt, G. H., Krishnan, R. & Friedhoff, P. Sitespecific protein modification to identify the MutL interface of MutH. *Nucleic acids research* **31**, 819-825 (2003).

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BOOK CHAPTERS:

1. Fusi, L. *et al.* in *Optical Fluorescence Microscopy*183-189 (Springer Berlin Heidelberg, 2011).

PATENTS:

- 1. MAGNETIC CAPTURING OF RARE CELLS, 3465/DEL/2014 & PCT/IN2015/050155
- 2. MAGNETIC ENRICHMENT OF MAGNETICALLY MARKED CELLS, 485/DEL/2015 & PCT/IN2015/050168
- 3. EVANESCENT WAVE-BASED ILLUMINATION, 2673/DEL/2015
- 4. A COMPOSITION FOR MUCUS OR SPUTUM LIQUEFACTION AND A PROCESS THEREOF, 201811044208