



Ismaeel Muhamed



Post Doctoral Fellow
/Associate Member, Joint
Department of Biomedical
Engineering

B.Tech, Anna University, Guindy
Campus, India.

M.S, Illinois Institute of
Technology, Chicago IL

PhD, University of Illinois Urbana
Champaign, IL

Mentor: Frances Ligler & Ashley
Brown

Address:

Joint Dept of Biomedical
Engineering UNC Chapel Hill &
NCSU
4305, Engineering building 3,
Raleigh, North Carolina 27606

Phone: 919-515-8002

Email:

ismaeelmuhammed@ncsu.edu

Engineering fibrin microparticles for enhanced wound healing

Research emphasis:

Dr Muhamed's research focus is in engineering fibrin based microparticles for wound healing applications. Applying a combinatorial approach with microfluidics, hydrogel, surface chemistry and biochemistry tools, the generated microparticles will be tested for enhanced wound healing and therapeutic applications.

Applications:

- Wound Healing
- Biomaterials
- Fibrin gels/particles
- High throughput fibrin particle generator

Research Strengths:

- Protein Characterization
- Mechanobiology
- Surface Chemistry
- Microfluidics

Publications and Abstracts: (limit 4)

Muhamed I, Chowdhury F, Maruthamuthu V, Biophysical Tools to Study Cellular Mechanotransduction, Bioengineering, 2017

Muhamed I, Wu J, Sehgal P, Kong X, Tajik A, Wang N, Leckband D, E-Cadherin mediated force transduction signals regulate global cell mechanics, Journal of Cell Science, 2016

Kim TJ, Zheng S, Sun J, Muhamed I, Wu J, Lei L, Kong X, Leckband D, Wang Y, Dynamic visualization of α -catenin reveals rapid, reversible conformation switching between tension states, Current Biology, 2015

Barry A*, Tabdili H*, Muhamed I*, Wu J*, Shashikanth N, Gomez G, Yap A, Gottardi C, de Rooij J, Wang N, Leckband D, α -Catenin cytomechanics – role in cadherin dependent adhesion and mechanotransduction, Journal of Cell Science, 2014