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Dr. Rohit Srivastava is currently working as a Professor at the Indian Institute of Technology, Bombay. Dr. Srivastava completed his Bachelor of Engineering in Electronics Engineering from VNIT Nagpur in 1999 with distinction and was the recipient of scholarship of merit for graduating students for the year. He joined Tata Consultancy Services, SEEPZ, Mumbai for a short duration of a year. Not finding satisfaction in what he was doing, he decided to complete higher studies in the US. He subsequently went on to finish a Master of Science and a PhD in Biomedical Engineering from Louisiana Tech University, Ruston, LA, USA for which he received the best student of the year award in 2005. His specialization lies in POC Diagnostic devices, Biomedical Microsystems devices (MEMS), nanoengineered biosensors, photothermal therapy in cancers and nanoengineered orthopedic applications. His lab has graduated 21 PhD students and 50 Master's students at IIT Bombay. Currently, his lab at IIT Bombay comprises of 15 PhD students, 3 Master's students, 3 post-docs, 10 interns and 9 staff. His lab has funded projects across all domains, from point of care diagnostic devices to biosensors to cancer nanotechnology to MEMS drug delivery devices.

Dr Srivastava's lab in collaboration with Biosense Technologies Pvt Ltd have already developed and commercialized "UChek" a portable urine analysis system based on the mobile platform and have also made a low cost reader for quantitatively analyzing urine dip sticks for which he has received the DBT Biotech Process and Product Commercialization Award 2015 and the OPPI Young Investigator Award 2014. He has been awarded the prestigious Vasvik Award 2013 for Biological Sciences and Technology for Suchek, which is an indigenous, accurate, low-cost glucometer supported by the Indian Council of Medical Research. Dr Srivastava is also the recipient of the prestigious Tata Innovation Fellowship Award from DBT for his translational work on diagnosing orthopedic implant related infections. **He has recently been awarded the prestigious DBT National Bioscience Award for his efforts in translating technologies from lab. He has recently been awarded the prestigious NASI Reliance Industries Platinum Jubilee Awards 2018 for Application Oriented Innovations in Physical Sciences.**

Dr Srivastava is the proud recipient of the Bill and Melinda Gates Foundation GCE Phase 1 for an innovative work on drug delivery using microneedles. Dr Srivastava's lab has been placed third in the prestigious Healthcare Innovation World Cup organized by HIT Lab on solutions to management of diabetes with a cash award of $5000. The Wellcome Trust UK has further funded this project for making an affordable point of care reader for critical care analytes. Dr Srivastava's lab is also the winner of prestigious 'Samsung Innovation Award 2012' organized by IIT Delhi (August 2012) for innovation 'Drishti which has been transferred to Titan Eye for further development. Dr Srivastava has been conferred the Sr IYBA award in May 2013. He has received the INAE Young Associateship in 2013. He has received the prestigious INAE Young Engineer Award 2010. He is also the recipient of the prestigious DBT-IYBA 2009 award. He has also been elected a Member of the National Academy of Sciences, 2011. Further, he has been awarded the Young Investigator awards from IIT Bombay (2010), DAE (2006) and DST (2006) and is also the recipient of technical awards from Intellectual Ventures Asia Pte Ltd. 80 of his

current ideas have been submitted as patent and design applications to the US and Indian Patent Office with several of them approved, published and under review. In a short duration of 13 years at IIT Bombay, Dr. Srivastava has already published in more than 130 international journals and 100 international conference proceedings with an h-index of 25. He has been instrumental in encouraging 6 of his students to setup Companies either through a TBI or otherwise. He is on the panel of several companies where he mentors them through startup grants. Dr. Srivastava's lab is focusing on developing technologies that can be commercialized and brought to use for the common man in India.

CURRENT POSITION: Professor of Biomedical Engineering in Department of Biosciences and Bioengineering at IIT Bombay

Administrative Responsibilities

- **Core Committee Member of WRCB, IIT Bombay**
- **Core Committee Member for Desai Sethi Centre for Entrepreneurship, IIT Bombay**
- **Committee Member for Institute Biosafety Committee, IIT Bombay**
- **Member for Faculty Search Committee for last 6 years at BSBE**
- **Convener for Institute and Dept Best Thesis Award Committee for last 6 years at BSBE**
- **Member of Department Space Committee for last 6 years at BSBE**
- **Member of Department Post Graduate Committee for 3 years at BSBE**

EDUCATION

PhD in Biomedical Engineering

Louisiana Tech University, Ruston, LA, USA
Aug 2000- May 2005 with a GPA of 4.0/4.0
Major Subjects: Human Physiology, Biomedical Instrumentation, BioMEMS, Fundamentals of Lithography, Thin Film Processes, Nano fabrication by Self-Assembly, Fundamentals of Microfabrication, Biomedical Optics, Fiber Optic Sensors, Principles of Polymers, and Statistics.
Research: Alginate hydrogels for encapsulation and stabilization of glucose oxidase enzyme towards an implantable glucose sensor under NIH grant (R01 EB000739-02).
Advisor: Dr. Michael J. McShane, Associate Professor of Biomedical Engineering at the Louisiana Tech University, Ruston, LA, USA

Master of Science (MS) in Engineering

Louisiana Tech University, Ruston, LA, USA
Aug 2000 –May 2005 with a GPA of 4.0/4.0
Research: Design, fabrication, and characterization of a micromachined infrared Fabry-Perot Interferometer funded by Sandia National Labs under the MASINT (Measurement And Signature INTelligence) program and the National Science Foundation Grant No. 0092001 ("Micro/Nanodevices and Systems")
Advisor: Dr. Michael J. McShane, Associate Professor of Biomedical Engineering at the Louisiana Tech University, Ruston, LA, USA

Bachelor of Engineering (BE) in Electronics Engineering

Visvesvaraya Regional College of Engineering, Nagpur, India,August 1999

Major Subjects: Design of Electronic Circuits, Microprocessors I&II, Control Systems, Digital Techniques, Digital Filters, Satellite Communication, Instrumentation, Communication Electronics. Graduated First in Class with 79/100 marks.

AWARDS AND RECOGNITION

Agency/Organization which gave the award	**Purpose**	**Nature of the award**
NASI	NASI Reliance Industries Platinum Jubilee Awards 2018	Cash award and a plaque
DBT - 2017	National Bioscience Award	Cash award, citation and highest honor of DBT
Cancer Research Society of India	Best research Award 2017	Cash award and citation
DST – Lockheed Martin – Tata Trusts India Innovation Growth Programme (IIGP) 2.0 for 2017	University Challenge winners	Citation and Project Award for Rs 10 lacs
BIRAC, Shristi and ICMR	Gandhian Young Technological Innovation Award 2017 at Rashtrapati Bhavan	Technological Edge Award
Tata Trusts, India Health Fund	Development of therapeutics for MDR-TB	Project award for $300,000
Stars in Global Health, GCC, Canada	Development of wearable patch for uterine activity measurement	Project award for $100,000
Stanford MedTech Award 2016	*Most innovative field-tested prototype of a concept*" category for Innovation in Medical Technologies in conjunction with the AIF-Stanford Medicine Symposium	Citation and Trophy
Lockheed Martin Corporation, US and Department of Science and Technology, Govt of India	Polymer Microneedles based vaccine deliver patch	Gold Medal 2016
DBT	Biotech Product and Process Development and Commercialization Award	Cash Award and Recognition

	2015	
IIM Ahmedabad, Shristi and Techpedia	Gandhian Young Technological Innovation Award 2016 at Rashtrapati Bhavan	Technological Edge Award Top 5
IIM Ahmedabad, Shristi and Techpedia	Gandhian Young Technological Innovation Award 2015 at Rashtrapati Bhavan	Technological Edge Award Top 5
Vasvik Award	Award in the area of Biological Sciences and Technology 2013	Cash award and a citation
DBT ABLE BEST 2014	Biotechnology Entrepreneurship Student Team award 2014	Cash Award of INR 2,00,000 and certification
OPPI Award	Young Scientist Award 2014	Cash award and a citation
DBT	Tata Innovation Fellowship	Research grant plus salary support
DBT IYBA 2013	Sr IYBA award from July 2013	Cash award and research grant of Rs 1 crore
HIT Lab	Healthcare Innovation Worldcup 2013	3rd prize overall amongst 150 entries with a cash award of $5000
IIM Ahmedabad, Shristi and Techpedia	Gandhian Young Technological Innovation Award 2013	Recognition
Samsung India	Samsung Innovation Award 2012 for innovation ‘Drishti: The universal eye glasses	Cash award of INR 1,50,000 and Trophy for Institute
INAE	Young Associate Member from Jan 2013	Recognition from INAE, India
Gates Foundation	Phase 1 grant from May 2013	Recognition worldwide and $100,000 project
M.N.A.Sc	Elected member of NASI Allahabad	Recognition
IIT Bombay	Young Scientist Award 2010	Cash award and citation
INAE	Young Engineer Award 2010	Cash Award + Citation
DBT-IYBA 2009	Young Scientist Award	Cash Award + Research Grant + Citation
DAE-BRNS	Young Investigator Award	Research grant for 10 lacs
DST	Young Investigator Award	Research grant of 9 lacs
IVA, Singapore	Best Solution report (4 total)	Cash award of $32,000
DST	BOYSCAST Fellowship	Fellowship for research work at Vanderbilt University, USA

Latech, USA	Best Thesis and Student Award	Citation and cash award
VNIT, Nagpur	Student of the year for 1995-1999	Citation and cash award

JOB EXPERIENCE

Period	Organization	Designation/Nature of Work
Dec 2015 to date	Indian Institute of Technology Bombay, Powai, Mumbai	Professor Teaching MTech and PhD students, Guiding MTech and PhD students, Administrative work for Dept, Writing proposals for extramural funding Ideas for patenting
Jan 2011 to date	Indian Institute of Technology Bombay, Powai, Mumbai	Associate Professor Teaching MTech and PhD students, Guiding MTech and PhD students, Administrative work for Dept, Writing proposals for extramural funding Ideas for patenting
March 2007 to Jan 2011	Indian Institute of Technology Bombay, Powai, Mumbai	Assistant Professor Teaching MTech and PhD students, Guiding MTech and PhD students, Administrative work for Dept, Writing proposals for extramural funding Ideas for patenting
Sept 2005 to March 2007	Indian Institute of Technology Bombay, Powai, Mumbai	Lecturer (sr. scale) Teaching MTech and PhD students, Guiding MTech and PhD students Administrative work for Dept
July 1999 to July 2000	Tata Consultancy Services, SEEPZ, Mumbai, India	Assistant Engineer/GEPS-PPME, Module Leader Maintenance of ARTEMIS weekly jobs. Quality Procedures conforming to the SEI-CMM Level 5.0

PROFESSIONAL RECOGNITION:
Associate Editor for Chemical Sensors journal
Member of National Academy of Sciences, Allahabad (M.N.A.Sc)
Member of Royal Society of Chemistry (MRSC)

ACADEMIC PROJECTS:
Graduate

- **PhD:** Chemical sensors are important for monitoring of chemical processes and biological systems. Glucose is, by far the most widely employed and continues to drive research towards better sensors. Efforts towards immobilizing the sensing chemistry in a

biocompatible polymeric matrix are also being pursued. In this work, alginate microspheres have been fabricated using an emulsification process with high surfactant concentration to form beads in the size range of 20-50μm. Using sodium alginate with calcium chloride as for ionotropic gelation, dextran and glucose oxidase were encapsulated in the gel phase. To limit diffusion of the macromolecule from within the alginate matrix, the layer-by-layer self assembly technique was used to coat the spheres with polyelectrolyte coatings. Leaching studies to assess retention of the macromolecule confirmed that the application of multilayer thin films to the alginate microspheres was effective in reducing total loss of the encapsulated material from the microspheres. The activity of the encapsulated glucose oxidase was also tested over a period of six months and was found to be stable. *In vitro* cytotoxicity tests conducted using NIH-3T3 cells indicate that chondroitin sulfate may be suitable for enhancing the biocompatibility of these systems for *in vivo* studies. These studies support the feasibility of using these microsystems for development of long term implantable glucose sensors.

- **MS:** A broadband tunable filter for the infrared spectral region is desired for use as the wavelength selective element in a miniature absorption spectrometer. The project presents the design, fabrication, packaging, and characterization of a bulk micromachined Fabry-Perot interferometer (FPI) for meeting this need. A novel approach to fabricate a MEMS-based tunable resonant cavity using two separate wafers bonded using a "lock and key" spacer design is outlined, with the goal of realizing electrostatically-actuated membranes from films predeposited on base substrates. This ability could enable the pursuit of MEMS devices without in house CVD capability, after overcoming the shortcomings of bulk-micromachining. Through a combination of modeling and experimental measurements, it is demonstrated that the ability to produce MEMS devices by releasing membranes from films predeposited on substrates is highly susceptible to error in etching and packaging.

Undergraduate

- Worked on a part of project titled " Bio-Telemetering System for Transmission of ECG Signals" at the Indian Institute of Technology, Kharagpur under Prof Saswat Chakraborty as a third year project
- Final year degree project on "Optimizing Multi Layer Perceptron (MLP) Artificial Neural Network (ANN) performance and application to Control of Non Linear Dynamical System." under Asst Prof A P Gokhale.

Research Experience:

Graduate Research Assistant: Sept 2000 – May 2005, Institute for Micromanufacturing, Louisiana Tech University. Conducting research in the BioMINDS lab at IfM

Teaching Experience:

IIT Bombay: Signals and Systems in BME (Fall Semester), Biomedical Microsystems (Spring Semester), Experimental and Quantitative Physiology (Spring Semester), BioNanotechnology (Fall Semester), BB101 (Spring Semester).

Ongoing Research Projects

Sl No.	Title of Project	Funding Agency	Amount	Date of sanction and Duration
1	SODIUM POTASSIUM DETECTION: ELECTRO FINDER	IIT KANPUR MHRD (IMPRINT SCHEME)	1.7 cr	March 2017 to March 2019
2.	Development of affordable testing strips and Point of care reader for Cholesterol, Triglycerides and HDL in whole blood	AIR Scheme from BIRAC	50 lacs	18 months from Feb 2018 to Aug 2019
3.	Heat shock protein targeted biodegradable near infrared light responsive nanoparticles for photothermal ablation of cancervia apoptosis	DBT National Bioscience Award	5 lacs every year	Aug 2018 for 3 years
4.	Development, Evaluation & Scale-UP of Non-invasive & Low cost Rapid TB diagnostics	IIT KANPUR MHRD (IMPRINT SCHEME)	2.3 cr	March 2017 to March 2020
5.	Development of aerosolized formulation (s) for Multi-Drug Resistance TB.	TATA TRUSTS	2 cr	March 2017 to March 2020
6	Development of a low-cost water monitoring kit for multiplex heavy metal detection based on aptamer sensors	DBT-IC IMPACTS	1.4 crore	Dec 2015 for 3 years
7	Preclinical Evaluation Of Gold-Np Coated Plga/Pnvcl Based Cancer Therapy	DBT	43 lacs	March 2016 for 3 years
8	Development of wearable patch for uterine activity measurement	GCC Canada	$100,000	July 2017 for 18 months

Completed Research Projects

Sl No.	Title of Project	Funding Agency	Amount	Date of completion
1	Vaccine delivery using Microneedles	NPMASS, ADA	20 lacs	2 years starting Oct 2012
2	Glucose Monitoring device and strip development	ICMR Glucometer Development	50 lacs	2 years starting Aug 2013

		Scheme		
3	Co-Immobilization in Nanoengineered Polymeric Carriers as Biosensors	DBT	31 lacs	Oct 2009
4.	Nanoengineered Optical Bilirubin Biosensor	Philips Medical Systems	3 lacs	April 2008
5.	Controlled release of immunomodulating agent from nanoengineered alginate carriers	BRNS-DAE	10 lacs	March 2009
6.	LBL for High Throughput Screening System	DST	9 lacs	Aug 2009
7.	Urease and Cresol Red Immobilized Alginate Microspheres as Optical Sensors for Urea Monitoring	ICMR	23 Lacs	Oct 2008 and 3 years Co-PI: Dr. R Banerjee
8.	Controlled Drug Delivery using Layer-by-Layer Self-Assembly with Antibody Conjugated Magnetic PLGA Nanoparticles using Dual Drug Regimen for Breast Cancer Therapy	DST Nano Mission	48 Lacs	Sept 2009 for 3 years Co-PI: Dr. D Bahadur
9.	NANOENGINEERED "SMART TATOO" LACTATE SENSORS	CSIR	15 lacs	Dec 2009, 3 years
10.	Nanoengineered Alginate Carrier Glucose Sensors Using Competitive Binding Resonance Energy Transfer Assays Based on Apoenzymes	BRNS	16 lacs	Aug 2010, 3 years Co-PI: Dr. D Bahadur
11.	Gold Nanostructures and polymeric nanoparticles for breast cancer therapy.	DBT Nanomedicine	30 lacs	June 2010, 3 years Co-PI: Dr. Gopal Kundu
12.	Nanoengineered Lab-on-a-Particle System.	DBT IYBA	42 lacs	June 2010, 3 years
13.	Portable urine analysis system with strip reader	DST-IDP	50 lacs	March 2014 for 18 months
14.	Smart-tattoo calcium sensors for monitoring milk fever in dairy cattle	DBT Bioengg	48 lacs	Aug 2010, 3 years
15.	ACR strips and tracking CKD	GCC Canada	$100,000	18 months starting May 2014
16.	Smart Sense, Multianalyte	Wellcome Trust,	1.5 crore	Jan 2015 for 24

	sensing device for management of Diabetic kedoacidosis (DKA)	UK		months
17.	U-Chek and its validation	DBT IYBA – Sr IYBA award	1 crore	June 2014 for a period of 3 years
18.	Portable device for detecting periprosthetic infections	Tata Innovation Fellowship	27 lacs	Apr 2014 for 3 years
19.	Nano engineered biodegradable bone fixation device for orthopedic applications	ICMR	40 lacs	March 2015 for 3 years
20.	Development of a nanoengineered dual release graft for pain/inflammation management in osteoarthritis	DST NanoMission	60 lacs	March 2015 for 3 years

Refereed Publications (CIF – 500, h-index - 25)

(1) Chauhan, D.; Reddy, P. K.; Prasad, R.; Dhanka, M.; Vats, M.; Ravichandran, G.; Mishra, S.; Poojari, D.; Mhatre, O.; De, A.; **Srivastava, R**. A Comprehensive Evaluation of Degradable and Cost Effective Plasmonic Nanoshells for Localized Photothermolysis of Cancer Cells, *Langmuir* **2019** (revision submitted)

(2) Bavya, M. C.; Vimal Rohan, K.; Gaurav, G. B.; **Srivastava, R**. Synergistic Treatment Strategies to Combat Resistant Bacterial Infections Using Schiff Base Modified Nanoparticulate - Hydrogel System. *Mater. Sci. Eng. C* **2019**, *95*, 226–235.

(3) Divakaran, D.; Lakkakula, J. R.; Thakur, M.; Kumawat, M. K.; **Srivastava, R**. Dragon Fruit Extract Capped Gold Nanoparticles: Synthesis and Their Differential Cytotoxicity Effect on Breast Cancer Cells. *Mater. Lett.* **2019**, *236*, 498–502.

(4) Borse, V.; **Srivastava, R**. Fluorescence Lateral Flow Immunoassay Based Point-of-Care Nanodiagnostics for Orthopedic Implant-Associated Infection. *Sensors Actuators B Chem.* **2019**, *280*, 24–33.

(5) Pawar, V.; Dhanka, M.; **Srivastava, R**. Cefuroxime Conjugated Chitosan Hydrogel for Treatment of Wound Infections. *Colloids Surfaces B Biointerfaces* **2019**, *173*, 776–787.

(6) Bahadur, R.; Kumawat, M. K.; Thakur, M.; **Srivastava, R**. Multi-Fluorescent Cationic Carbon Dots for Solid-State Fingerprinting. *J. Lumin.* **2018**.

(7) Gupta, A.; **Srivastava, R**. Mini Submersible Pump Assisted Sonochemical Reactors: Large-Scale Synthesis of Zinc Oxide Nanoparticles and Nanoleaves for Antibacterial and Anti-Counterfeiting Applications. *Ultrason. Sonochem.* **2018**.

(8) Pawar, V.; Borse, V.; Thakkar, R.; **Srivastava, R**. Dual-Purpose Injectable Doxorubicin Conjugated Alginate Gel Containing Polycaprolactone Microparticles for Anti-Cancer and Anti-Inflammatory Therapy. *Curr. Drug Deliv.* **2018**, *15*, 716–726.

(9) Das, S.; Kumawat, M. K.; Ranganathan, S.; Kumar, R.; Adamcik, J.; Kadu, P.; Padinhateeri, R.; **Srivastava, R**.; Mezzenga, R.; Maji, S. K. Cell Alignment on Graphene-Amyloid Composites. *Adv. Mater. Interfaces* **2018**, *5*, 1800621.

(10) Singh, S. P.; Alvi, S. B.; Pemmaraju, D. B.; Singh, A. D.; Manda, S. V.; **Srivastava, R**.; Rengan, A. K. NIR Triggered Liposome Gold Nanoparticles Entrapping Curcumin as in Situ Adjuvant for Photothermal Treatment of Skin Cancer. *Int. J. Biol. Macromol.* **2018**, *110*, 375–382.

(11) Shanavas, A.; Rengan, A. K.; Chauhan, D.; George, L.; Vats, M.; Kaur, N.; Yadav, P.; Mathur, P.;

Chakraborty, S.; Tejaswini, A.; De, A.; **Srivastava, R**. Glycol Chitosan Assisted in Situ Reduction of Gold on Polymeric Template for Anti-Cancer Theranostics. *Int. J. Biol. Macromol.* **2018**, *110*, 392–398.

(12) Dhanka, M.; Shetty, C.; **Srivastava, R**. Methotrexate Loaded Alginate Microparticles and Effect of Ca^{2+} Post-Crosslinking: An in Vitro Physicochemical and Biological Evaluation. *Int. J. Biol. Macromol.* **2018**, *110*, 294–307.

(13) Yadav, P.; Singh, S. P.; Rengan, A. K.; Shanavas, A.; **Srivastava, R**. Gold Laced Bio-Macromolecules for Theranostic Application. *Int. J. Biol. Macromol.* **2018**, *110*, 39–53.

(14) Pemmaraju, D.; Appidi, T.; Minhas, G.; Singh, S. P.; Khan, N.; Pal, M.; **Srivastava, R**.; Rengan, A. K. Chlorophyll Rich Biomolecular Fraction of A. Cadamba Loaded into Polymeric Nanosystem Coupled with Photothermal Therapy: A Synergistic Approach for Cancer Theranostics. *Int. J. Biol. Macromol.* **2018**, *110*, 383–391.

(15) Gupta, A.; **Srivastava, R**. Zinc Oxide Nanoleaves: A Scalable Disperser-Assisted Sonochemical Approach for Synthesis and an Antibacterial Application. *Ultrason. Sonochem.* **2018**, *41*, 47–58.

(16) Prasad, R.; Chauhan, D. S.; Yadav, A. S.; Devrukhkar, J.; Singh, B.; Gorain, M.; Temgire, M.; Bellare, J.; Kundu, G. C.; **Srivastava, R**. A Biodegradable Fluorescent Nanohybrid for Photo-Driven Tumor Diagnosis and Tumor Growth Inhibition. *Nanoscale* **2018**, *10*, 19082–19091.

(17) Dhanka, M.; Shetty, C.; **Srivastava, R**. Methotrexate Loaded Gellan Gum Microparticles for Drug Delivery. *Int. J. Biol. Macromol.* **2018**, *110*, 346–356.

(18) Prasad, R.; Agawane, S. B.; Chauhan, D. S.; **Srivastava, R**.; Selvaraj, K. *In Vivo* Examination of Folic Acid-Conjugated Gold-Silica Nanohybrids as Contrast Agents for Localized Tumor Diagnosis and Biodistribution. *Bioconjug. Chem.* **2018**, *29*, 4012–4019.

(19) Borse, V.; Kashikar, A.; **Srivastava, R**. Fluorescence Stability of Mercaptopropionic Acid Capped Cadmium Telluride Quantum Dots in Various Biochemical Buffers. *J. Nanosci. Nanotechnol.* **2018**, *18*, 2582–2591.

(20) Banerjee, S.; Gupta, A.; **Srivastava, R**.; Datta, A. Temperature Dependent Excited State Dynamics in Dual Emissive CdSe Nano-Tetrapods. *Phys. Chem. Chem. Phys.* **2018**, *20*, 4200–4207.

(21) Chauhan, D. S.; Prasad, R.; Devrukhkar, J.; Selvaraj, K.; **Srivastava, R**. Disintegrable NIR Light Triggered Gold Nanorods Supported Liposomal Nanohybrids for Cancer Theranostics. *Bioconjug. Chem.* **2018**, *29*, 1510–1518.

(22) Jayant, R. D.; Joshi, A.; Kaushik, A.; Tiwari, S.; Chaudhari, R.; **Srivastava, R**.; Nair, M. Chapter 8: Nanogels for Gene Delivery. *RSC Smart Materials* **2018**, *2018–Janua*, 128–142.

(23) Kumar, P.; **Srivastava, R**. FITC Conjugated Polycaprolactone-Glycol-Chitosan Nanoparticles Containing The Longwave Emitting Fluorophore IR 820 For In-Vitro Tracking Of Hyperthermia-Induced Cell Death. *bioRxiv* **2018**, 273748.

(24) Makkar, R. L.; Borse, V.; **Srivastava, R**. Design and Development of Portable Fluorescence Reader Using Silicon Photomultiplier (SiPM) Sensor. *Proc. SPIE 10680, Optical Sensing and Detection V* **2018**,*106800B*, 12–13.

(25) Chauhan, D. S.; Bukhari, A. B.; Ravichandran, G.; Gupta, R.; George, L.; Poojari, R.; Ingle, A.; Rengan, A. K.; Shanavas, A.; **Srivastava, R**.; et al. Enhanced EPR Directed and Imaging Guided Photothermal Therapy Using Vitamin E Modified Toco-Photoxil. *Sci. Rep.* **2018**, *8*, 16673.

(26) Chauhan, D. S.; Kumawat, M. K.; Prasad, R.; Reddy, P. K.; Dhanka, M.; Mishra, S. K.; Bahadur, R.; Neekhra, S.; De, A.; **Srivastava, R**. Plasmonic Carbon Nanohybrids for Repetitive and Highly Localized Photothermal Cancer Therapy. *Colloids Surfaces B Biointerfaces* **2018**, *172*, 430–439.

(27) Patil, M.; Keshav, K.; Kumawat, M. K.; Bothra, S.; Sahoo, S. K.; **Srivastava, R**.; Rajput, J.; Bendre, R.; Kuwar, A. Monoterpenoid Derivative Based Ratiometric Fluorescent Chemosensor for Bioimaging and Intracellular Detection of Zn^{2+} and Mg^{2+} Ions. *J. Photochem. Photobiol. A Chem.* **2018**, *364*, 758–763.

(28) Chauhan, D. S.; Arunkumar, P.; Prasad, R.; Mishra, S. K.; K. Reddy, B. P.; De, A.; **Srivastava, R**. Facile Synthesis of Plasmonic Zein Nanoshells for Imaging-Guided Photothermal Cancer Therapy.

Mater. Sci. Eng. C **2018**, *90*, 539–548.
(29) Pawar, V.; Topkar, H.; **Srivastava, R**. Chitosan Nanoparticles and Povidone Iodine Containing Alginate Gel for Prevention and Treatment of Orthopedic Implant Associated Infections. *Int. J. Biol. Macromol.* **2018**, *115*, 1131–1141.
(30) Sasidharan, S.; Poojari, R.; Bahadur, D.; **Srivastava, R**. Embelin-Mediated Green Synthesis of Quasi-Spherical and Star-Shaped Plasmonic Nanostructures for Antibacterial Activity, Photothermal Therapy, and Computed Tomographic Imaging. *ACS Sustain. Chem. Eng.* **2018**, *6*, 10562–10577.
(31) Lakkakula, J. R.; Divakaran, D.; Thakur, M.; Kumawat, M. K.; **Srivastava, R**. Cyclodextrin-Stabilized Gold Nanoclusters for Bioimaging and Selective Label-Free Intracellular Sensing of Co^{2+} Ions. *Sensors Actuators B Chem.* **2018**, *262*, 270–281.
(32) George, L.; Bavya, M. C.; Rohan, K. V.; **Srivastava, R**. A Therapeutic Polyelectrolyte–vitamin C Nanoparticulate System in Polyvinyl Alcohol–alginate Hydrogel: An Approach to Treat Skin and Soft Tissue Infections Caused by Staphylococcus Aureus. *Colloids Surfaces B Biointerfaces* **2017**, *160*, 315–324.
(33) Dhanka, M.; Shetty, C.; **Srivastava, R**. Injectable Methotrexate Loaded Polycaprolactone Microspheres: Physicochemical Characterization, Biocompatibility, and Hemocompatibility Evaluation. *Mater. Sci. Eng. C* **2017**, *81*, 542–550.
(34) Shanavas, A.; Sasidharan, S.; Bahadur, D.; **Srivastava, R**. Magnetic Core-Shell Hybrid Nanoparticles for Receptor Targeted Anti-Cancer Therapy and Magnetic Resonance Imaging. *J. Colloid Interface Sci.* **2017**, *486*, 112–120.
(35) Kumawat, M. K.; Thakur, M.; Gurung, R. B.; **Srivastava, R**. Graphene Quantum Dots from *Mangifera Indica* : Application in Near-Infrared Bioimaging and Intracellular Nanothermometry. *ACS Sustain. Chem. Eng.* **2017**, *5*, 1382–1391.
(36) Kumawat, M. K.; Thakur, M.; Lakkakula, J. R.; Divakaran, D.; **Srivastava, R**. Evolution of Thiol-Capped Gold Nanoclusters into Larger Gold Nanoparticles under Electron Beam Irradiation. *Micron* **2017**, *95*, 1–6.
(37) Keshav, K.; Torawane, P.; Kumar Kumawat, M.; Tayade, K.; Sahoo, S. K.; **Srivastava, R**.; Kuwar, A. Highly Selective Optical and Reversible Dual-Path Chemosensor for Cyanide Detection and Its Application in Live Cells Imaging. *Biosens. Bioelectron.* **2017**, *92*, 95–100.
(38) Chauhan, D. S.; Indulekha, S.; Gottipalli, R.; Reddy, B. P. K.; Chikate, T. R.; Gupta, R.; Jahagirdar, D. N.; Prasad, R.; De, A.; **Srivastava, R**. NIR Light-Triggered Shrinkable Thermoresponsive PNVCL Nanoshells for Cancer Theranostics. *RSC Adv.* **2017**, *7*, 44026–44034.
(39) Vats, M.; Mishra, S.; Baghini, M.; Chauhan, D.; **Srivastava, R**.; De, A.; Vats, M.; Mishra, S. K.; Baghini, M. S.; Chauhan, D. S.; et al. Near Infrared Fluorescence Imaging in Nano-Therapeutics and Photo-Thermal Evaluation. *Int. J. Mol. Sci.* **2017**, *18*, 924.
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10. R D Jayant_& **R Srivastava**, "Dexamethasone release from uniform sized nanoengineered alginate microspheres" Proceedings of BMES 2008 Annual Fall Meeting October 2-4, 2008, St. Louis, MO, USA
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12. R D Jayant & **R Srivastava,** "Controlled release of immunomodulating agent using nanoengineered alginate microspheres", Proceedings of XV International workshop on Bioencapsulation Sept 6-8, 2007, Vienna, Austria

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37. R Agrawal, A Shanavas, S Yadav, D Bahadur, M Aslam, R Srivastava, "Polyelectrolyte coated polymeric nanoparticles for controlled release of docetaxel", Second World Conference on Nanomedicine and Drug Delivery (WCN-2011), March 11, 12 and 13, 2011, Kottayam, Kerala
38. Abhijeet Joshi, Janak Prasad, Rahul Jayant, Rohit Srivastava, Invited Poster Presentation, "Cholesterol biosensor based on alginate silica matrix" International LBL symposium-2011- 20 years of LBL assembly, Strasbourg, France, March 10th-12th, 2011
39. Abhijeet Joshi, Rashmi Chaudhari, Rohit Srivastava, Invited oral presentation, "Nano-in-micro hybrid particles for oxygen sensing", ICNP, Kottayam, Kerala, India September 24-27th, 2010.
40. Abhijeet Joshi, Rashmi Chaudhari, Rohit Srivastava, Oral Presentation, "Nanoparticles for smart tattoo based dissolved oxygen monitoring, Nanobio conference, Zurich, Switzerland October 24-27th, 2010

41. Tijore A.S., Srivastava R., "Synthesis and Characterization of Threromosensitive PCL-PNIPAAm-PCL Triblock Copolymeric Micelles for Anticancer Drug delivery", 3rd Bangalore Nano Conference", Bangalore (8-9 December 2010)
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44. R. Chaudhari, A. Joshi, S. Solanki, R. Srivastava, Invited Poster Presentation, "Layer-by-layer Self Assembly on Multifunctional Alginate Microspheres for Biosensing, Drug Delivery and MRI" International LBL symposium-2011- 20 years of LBL assembly, Strasbourg, France, March 10th-12th, 2011
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48. Asifkhan Shanavas, Dhiren Sonara, Mohammed Aslam, Dhirendra Bahadur, **Rohit Srivastava.** Nanostructures for Chemotherapy Coupled Hyperthermia Treatment of Cancer. 4th Bangalore Nano conference. December 7-9, 2011. Bangalore, Karnataka, India.
49. Roshni Ramachandran, Shruti Mankar, **Rohit Srivastava.** "Smart Tattoo" Sensors for monitoring milk fever in Dairy Cattle. 4th Bangalore Nano conference. December 7-9, 2011. Bangalore, Karnataka, India.
50. Ritu Sachan, Uttam N. Chavan, **Rohit Srivastava.** Glucose Sensing using near-infrared dyes in nanoengineered alginate microspheres, 4th Bangalore Nano conference. December 7-9, 2011, Bangalore Karnataka, India.
51. Aravind Kumar, Gopal C Kundu, Rinti Banerjee, **Rohit Srivastava**. Gold Nanocages, Nanoshells and Nanorods - A Comparitive Analysis of Photo Thermal Efficiency, 4th Bangalore Nano conference. December 7-9, 2011, Bangalore Karnataka, India.
52. Rashmi Chaudhari, Abhijeet Joshi, **Rohit Srivastava**, Uric acid quantification by polymeric PtOEP nanoparticles co-immobilized in alginate microspheres, NanoFormulations 2013, University of Manchester, Manchester, United Kingdom, 18-21st June 2013.
53. Ajay Suryavanshi, **Rohit Srivastava**, Pradip Salunkhe, Harshavardhan Pol; 'Novel Magnesium-Polycaprolactone nanocomposite biomaterial for bone fixation applications', 8th Combined Meeting of Orthopedic Research Societies (CORS 2013), European Orthopedic Research Society (EORS), 13-16 October 2013, San Servolo, Venice, Italy.
54. S. Indulekha, P. Arunkumar, D. Bahadur, **R. Srivastava**, Invited Oral presenation, " Novel Thermoresponsive Poly (N-vinyl caprolactam) Sponges as an On-demand drug delivery system for pain management", 4th International Symposium on Surfaces & Interfaces for Biomaterials, Rome, Italy, September 24- 28, 2013.
55. P. Arunkumar, S. Indulekha , **R. Srivastava**, P. Sharma, S. Vijayalakshmi, Invited Oral presenation, " In situ PCL microparticles loaded chitosan composite gels as an Intra-articular drug delivery system for the treatment of Osteoarthritis", 4th International Symposium on Surfaces & Interfaces for Biomaterials, Rome, Italy, September 24- 28, 2013.

56. Vivek Borse, Mayur Sadawana, **Rohit Srivastava**, "Synthesis and Characterization CdTe Quantum Dots", 6th Bangalore India Nano conference, Bangalore, December 5-6, 2013 (Poster presentation)
57. Vivek Borse, Mayur Sadawana, **Rohit Srivastava**, "SmartSense: Point-of-Care Multianalyte Sensor for Diabetic Ketoacidosis", Inclusive Innovations-2013, Pune, December 10-11, 2013 (Invited oral presentation)
58. Vivek Borse, Mayur Sadawana, **Rohit Srivastava**, "Synthesis, Characterization and Protein Conjugation of CdTe Quantum Dots", 6th International Conference On Nano Science And Technology (ICONSAT), 2014, Chandigarh, March 2-5, 2014 (Poster presentation)
59. Vivek Borse, **Rohit Srivastava**, "CdTe Quantum Dots: Aqueous Synthesis, Phase Transfer and Stability", Indo-US workshop on Nanoengineering in Medicine, AIIMS, New Delhi, December 17-19, 2014 (Poster presentation)
60. Vivek Borse, Mayur Sadawana, **Rohit Srivastava**, "Synthesis, Characterization and Fractional Separation of CdTe Quantum Dots", Health Sciences Innovation, H3C Conference, Taj Mahal Palace, Mumbai, January 15-17, 2015 (Merit poster award and oral presentation)
61. Sisini Sasidharan, Dhirendra Bahadur, Rohit Srivastava, Poster presentation, "Branched gold nanoparticles- a theragnostic agent for cancer", Ohio State University-India Health Sciences and Innovation Conference and Trade show, Mumbai, January 15-17, 2015. (Recipient of Merit award)
62. Deepak Singh Chauhan and Rohit Srivastava "Synthesis and characterization of gold encapsulated and tamoxifen loaded PLGA nanoparticles for breast cancer theranostics" 9th IEEE International Conference on Nano/Molecular Medicine and Engineering,Hawaii,USA, November 15-18, 2015
63. Ajay Suryavanshi, Rohit Srivastava; '*Preparation and characterization of Mg-PCL nanocomposites,'* 1st International Conference on Emerging Materials: Characterization and Applications (EMCA 2014), CSIR-CGCRI, Kolkata and NIT Durgapur, December 4-6, 2014, CSIR-CGCRI, Kolkata, INDIA. (Oral Presentation),
64. Ajay Suryavanshi, Rohit Srivastava; *'Development of ceramic nanofillers-PCL composites for orthopedic applications',* 1st Health 3C OSU-India Health Sciences Innovation Conference (H3C 2015), Ohio State University, USA and All India Institute for Medical Sciences (AIIMS), INDIA, January 15-18, 2015, Taj Mahal Palace Hotel, Mumbai, INDIA. (Poster presentation)
65. Ajay Suryavanshi, Rohit Srivastava; '*Novel Magnesium-Polycaprolactone nanocomposite biomaterial for bone fixation applications',* 8th Combined Meeting of Orthopedic Research Societies (CORS 2013), European Orthopedic Research Society (EORS), 13-16 October 2013, San Servolo, Venice, Italy (Poster Presentation)
66. P.Arunkumar, K.S.Snima, S.V.Nair, R.Jayakumar, Vinoth-Kumar Lakshmanan. Proceeding of National Symposium: Emerging Trends in Biotechnology, 2012 organized by Department of Biotechnology, CUSAT during 12-13th December 2012
67. Vivek Borse, Mayur Sadawana, Rohit Srivastava, "CdTe quantum dots: aqueous phase synthesis, stability studies and protein conjugation for development of biosensors", Proc. SPIE 9884, Nanophotonics VI, 988423 (April 19, 2016); DOI:10.1117/12.2225262
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2. **Rohit Srivastava**, J Quincy Brown, Huiguang Zhu, Michael J McShane, "Application of Self-assembled Ultrathin Film Coatings to Stabilize Enzyme Encapsulation and Activity in Alginate Microspheres", Proceedings of HSEMB, 22nd Annual Meeting, 10-11 February 2005, Houston, Texas,
3. Huiguang Zhu, **Rohit Srivastava**, Suman Ramesh Nayak, Jim Atherton, Michael J. McShane, "Efficient Methods for Loading Enzymes into Nanoengineered Capsules for Biosensors and Bioprocessing", Proceedings of BMES 2004 Annual Fall Meeting at the Wyndham Franklin Plaza Hotel, Philadelphia, PA, October 13-16, 2004
4. **R. Srivastava** and M J McShane, "Self-Assembled Ultrathin film coatings to stabilize Enzyme encapsulation in Alginate Microspheres ", Proceedings of BMES 2003 Annual Fall Meeting at Nashville, TN, 1-4 Oct 2003.
5. **Rohit Srivastava**, Javeed Shaikh Mohammed, Swetha Chinnayelka', Michael J McShane, "Design and Fabrication of a Micromachined Infrared Fabry-Perot Interferometer", Proceedings of TexMEMS V held at UTA Automation and Robotics Research Institute, Fort Worth, TX May 6 2003.
6. **R. Srivastava**, G Shenoy, S Forrest, R Besser, and M J McShane, "Microspectrometer for infrared analysis of gases and biological fluids", Proceedings of Second Joint Meeting of the IEEE EMBS-BMES at Houston, TX, 23-26 Oct 2002.
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8. **Srivastava, R**.; Shenoy, G.; Forrest, S.; Besser, R.S.; McShane, M.J, "Microspectrometer for infrared analysis of gases and biological fluids", Engineering in Medicine and Biology, 2002. 24th Annual Conference and the Annual Fall Meeting of the Biomedical Engineering Society, EMBS/BMES Conference, 2002. Proceedings of the Second Joint, Volume: 2 , 23-26 Oct. 2002, Pages:1660 – 1661.
9. **R. Srivastava**, G. Shenoy, S. Forrest, R.S. Besser, and M.J. McShane, "Micromachined Fabry-Perot Interferometer with integrated sample chamber for infrared analysis of biological fluids and gases", Proceedings of TexMEMS IV held at the United Spirit Arena in the Texas Tech University campus in Lubbock, TX, July 11, 2002.
10. **R. Srivastava**, G. Shenoy, Swetha Chinnayelka, S. Forrest, R.S. Besser, and M.J. McShane, "Microfabricated Interferometer and Integrated Fluidic Channel for Infrared Spectroscopy of Aqueous Samples" Proceedings of SPIE, Vol 4626, p 411-420 2002.
11. Gururaj Urvi Shenoy, Scott Forrest, **Rohit Srivastava**, Ronald S Besser, Michael J McShane, "An Infrared Microspectrometer for Biochemical spectroscopy", Proceedings of National BMES Conference, Durham NC, (4 - 7 October 2001).
12. G. Shenoy, **R. Srivastava**, S. Forrest, R.S. Besser, and M.J. McShane, "Micromachined Fabry-Perot Interferometer for Infrared Spectroscopy," Proceedings of Tex-MEMS III Conference, University of Texas and Zyvex Corporation, 2001.

Patents:

No.	Title of the IDF	Name of Inventors	Date of Application
1.	A stable delivery system for statin family drugs	Dhirendra Bahadur, Himanshu Panda and Rohit Srivastava	*IPA No. 2093/Mum/2008*
2.	Multilayer Nanocomposite	Asifkhan Shanavas, Dhirendra Bahadur, Dhirenkumar Sonara, Mohd Aslam and Rohit Srivastava	*IPA No -811/MUM/2011*
3.	Glucose biosensor system coupled with an anti-inflammatory module and methods for using the same	Rohit Srivastava, Rahul Dev Jayant and Ayesha Chaudhary	***Granted US Patent No US 8916136 B2, 23rd Dec 2014***
4.	Glucose biosensor system coupled with an anti-inflammatory module and methods for using the same	Rahul Dev Jayant, Ayesha Chaudhary and Rohit Srivastava	*IPA No. 1319/MUM/2010.*
5.	Biosensor for health monitoring and uses thereof	Ayesha Chaudhary and Rohit Srivastava	*US Patent Application No. 12/837,218*
6.	Compositions and methods for Nano-in-Micro particles	Abhijeet Joshi and Rohit Srivastava	*US Patent Application No. 12/728,936*
7.	A system for correction of refractive errors without human intervention	Bhushan Kharbikar, Ajay Suryawanshi, Nitin Pawar, Anupam Bam and Rohit Srivastava	*IPA No. 349/MUM/2013*
8.	Fluorescent polysaccharide based pH responsive compositions and methods of preparation thereof	Rashmi Chaudhari, Abhijeet Joshi and Rohit Srivastava	*IPA No. 2002/MUM/2013*
9.	Novel poly (N-vinyl caprolactam) based sponges/patches as a thermoresponsive transdermal drug delivery system	Indulekha S. and P. Arunkumar and Rohit Srivastava	IPA Filed
10.	Locally injectable *Cissus quadrangularis* (Veldt grape) extracts/fractions for treating bone fractures and the manufacturing process thereof	Gautam Shetty, Arun Mullaji, Shreya Agrawal and Rohit Srivastava	*IPA No. 3809/MUM/2014*
11.	Polycaprolactone (PCL) microparticles loaded in chitosan in situ gelling	Gautam Shetty, Arun Mullaji, S Vijaylakhsmi, Indulekha S., P. Arunkumar and Rohit Srivastava	*IPA No. 3471/MUM/2014*

	system as a drug delivery system for bone diseases and bone repair/regeneration		
12.	A method for preparation of ultra-small polymeric nanoparticles	Abhijeet Joshi, Rashmi Chaudhari and Rohit Srivastava	*IPA No. 3714/MUM/2014*
13.	The Art, Method, Manner, Process and System of Preparation of poly (N-vinyl caprolactam) based thermoresponsive transdermal drug delivery system	Indulekha S., P Arunkumar and Rohit Srivastava	*IPA No. 3808/MUM/2014*
14.	Polymer based drug delivery system	Vaishali Pawar, Gautam Shetty, Arun Mullaji, Rohit Srivastava	*IPA No. 3278/MUM/2014*
15.	TPGS comprised gold coated poly- (lactic-co-glycolic acid) nanostructures and a process for its preparation	Deepak Singh Chauhan, Radhika Poojari, Aravind Kumar Rengan, Asifkhan Shanavas , Abhijit De, Amirali Bakarali Bukhari and Rohit Srivastava	*IPA No. 4082/MUM/2015*
16.	Near infra-red hybrid nanomaterials and graphene oxide for theranostics applications	Deepak Singh Chauhan, Mukesh Kumar Kumawat and Rohit Srivastava	*IPA No. 4747/MUM/2015*
17.	Liponions as a multi-colour fluorescent biolabelling probe	Aravind Kumar, Mukeshchand Thakur and Rohit Srivastava	*IPA No. 2368/MUM/2015*
18.	Targeted polymeric nano-complexes as drug delivery system	Radhika Poojari, Dulal Panda and Rohit Srivastava	*IPA No. 3738/MUM/2015*, FER received
19.	Degradable or transformable gold coated liposomal nano-construct and a process for its preparation	Aravind Kumar Rengan, Amirali Bhukhari, Arpan Pradhan, Rinti Banerjee, Abhijit De and Rohit Srivastava	*IPA No. 4910/MUM/2015*
20.	Nano-in-Micro formulation as biosensors	Rohit Srivastava, Abhijeet Joshi and Rashmi Chaudhary	*IPA No. 2967/MUM/2015*
21.	Protein-gold nanohybrids and a process for its synthesis	Sisini Sasidharan, Dhirendra Bahadur and Rohit Srivastava	*IPA No. 201621018272*
22.	Targeted polymeric nano-complexes as drug delivery system	Radhika Poojari Dulal Panda Rohit Srivastava	***US Patent No: 15/276,810 Filing Date: September 27, 2016***
23.	Nano-engineered bioresorbable polymer	Ajay Suryavanshi, Jayesh Bellare, Kunal Khanna and Rohit	*IPA No. 201611012973*

	composite for bone-soft tissue fixation applications	Srivastava	
24.	Multifunctional polymeric nanocarrier	Radhika Poojari, Dulal Panda and Rohit Srivastava	*IPA NO: 201621001554*
25.	Drug delivery system	Radhika Poojari, Dulal Panda and Rohit Srivastava	*IPA No. 201621006380*
26.	Wearable trans-epi-dermal/dermal drug delivery and diagnostic gadget based on microneedles	Bhushan Kharbikar and Rohit Srivastava	*IPA No. 201721020761*
27.	Degradable or transformable gold coated liposomal nano-construct and a process for its preparation	Aravind Kumar Rengan, Amirali Bhukhari, Arpan Pradhan, Rinti Banerjee, Abhijit De and Rohit Srivastava	***PCT Patent Application no. PCT/IN2016/000296 dated 29/12/2016***
28.	Composite polymeric nanoformulation	Piyush Kumar and Rohit Srivastava	*IPA No. 201621024204*
30.	Process for the synthesis of multi-fluorescent carbon nanostructures	Mukeshchand Thakur, Raju Gurang, Mukesh Kumawat and Rohit Srivastava	*IPA No. 201621011794*
31.	Cyclodextrin functionalized inorganic nanostructures: synthesis and applications thereof	Jaya Raju Lakkakula, Deepika Divakaran Tharayil, Mukeshchand Thakur, Mukesh Kumar Kumawat and Rohit Srivastava	*IPA No. 201721016954*
32.	Process of growing metal nanoparticles in the polymeric matrices	Jaya Raju Lakkakula, Deepika Divakaran Tharayil, Rajesh W. Raut and Rohit Srivastava	*IPA No. PAA2556/SG/SBS/Y*
33.	Alloy, Bi and tri metallic nanoparticles for Photothermal therapy	Jaya Raju Lakkakula, Deepika Divakaran Tharayil, Rajesh W. Raut and Rohit Srivastava	*IPA No. 201721029703*
34.	A system for assisting paralyzed and blind people in the name of Indian Institute of Technology, Bombay.	Vimal Rohan, Bavya MC, Liya George, Santhikumar K. and Rohit Srivastava	*IPA No. 201721011429*
35.	A process for synthesis of protein derived branched gold nanostructures	Sisini Sasidharan, Dhirendra Bahadur and Rohit Srivastava,	*IPA No. 201721024704*
36.	The art, method, manner, process and system of protein nanoparticles crosslinked with natural aldehydes	Sisini Sasidharan, Dhirendra Bahadur and Rohit Srivastava,	*IPA No. 201721028321*
37.	A composite comprising of doxorubicin-alginate conjugate and non-steroidal anti-	Vaishali Pawar, Vivek Bhaskar Borse and Rohit Srivastava	*IPA No. 201721025996*

	inflammatory agent and process for preparation thereof		
38.	Nano-engineered bioresorbable polymer composite for bone-soft tissue fixation applications	Ajay Suryavanshi, Jayesh Bellare, Kunal Khanna and Rohit Srivastava	*PCT/IN2017/000094*
39.	Methotrexate loaded gellan gummicroparticles synthe sis and application thereof	Mukesh Dhanka and Rohit Srivastava	*IPA No. 201721025703*
40.	Hemosealant composition and process for preparation thereof	Shruti Mankar, Yasodha kannan Sivasamy and Rohit Srivastava	*IPA No. 201721018417*
41.	Near infra-red responsive thermosensitive nanoshells and process for making the same	Rupesh Gottipalli, Deepak Singh Chauhan, Indulekha S., P. Arunkumar and Rohit Srivastava	*IPA No. 201621009168*
42.	Zein-gold nanoshells and applications thereof	Deepak Singh Chauhan, Arunkumar P., Indulekha S. and Rohit Srivastava	*IPA No. 201621019949*
43.	Dual therapeutic disintegrable GNR-liposome nanohybrid for plasmonic photothermal cancer theragnostic	Deepak Singh Chauhan, Rajendra Prasad, Selvaraj Kaliaperumal and Rohit Srivastava	*IPA No. 201721029874*
44.	Fluorescent Strip Reader - Electronic device for application in medical diagnostics	Vivek Borse, Abhaysinha Patil and Rohit Srivastava	*Design Registration No. 292001*
45.	UridSa - Urine Dip Strip Reader	Vivek Borse, Vartika Verma and Rohit Srivastava	*Design Registration No. DES/BS/124303011-1/17-18*
46.	Fluorescent graphene nanostructures: Synthesis and anti-counterfeiting applications thereof	Rohan Bahadur, Mukeshchand Thakur, Mukesh Kumawat and Rohit Srivastava	*IPA No. 201721038918*
47.	Zinc oxide nanoleaves, scalable disperser assisted sonochemical method for synthesis and antibacterial application thereof	Anadi Gupta and Rohit Srivastava	*IPA No. 201721031696*
48.	Red luminescent graphene quantum dots, synthesis and applications thereof	Mukeshchand Thakur, Raju Gurang, Mukesh Kumawat and Rohit Srivastava	*IPA No. 20172106198*
49.	Tocophotoxil	Deepak Singh Chauhan, Amirali Bhukhari, Asifkhan Shanavas, Aravind Kumar Rengan, Abhijit De and Rohit Srivastava	*Trademark Filed in 2017*

50.	Microneedle patch of reinforced polymer with vaccine loaded silk nanoparticles for painless vaccination and thermally stable vaccine	Bhushan Kharbikar and Rohit Srivastava	*IDF NO. PAT/BS/10330401-2/15-16*
51.	Drug delivery system	Radhika Poojari, Dulal Panda and Rohit Srivastava	*PCT Patent Application No. PCT/IN2017/000049*
52.	The process of synthesis of ultra-small iron oxide nanoparticles and metal/non-metal doped ultra-small iron oxide nanoparticles for MR Imaging	Sisini Sasidharan, Dhirendra Bahadur and Rohit Srivastava	*IPA No. 201721042818*
53.	Fluorescence lateral flow immunoassay for point-of-care detection of orthopedic implant associated infection	Vivek Borse and Rohit Srivastava	*IPA No. PAT/BS/124303011-1/16-17*
54.	Phytosomal nanoformulation of *Cissus quadrangulari*s as local application for bone healing	Shreya Agrawal, Dhirendra Bahadur, Kritika Braroo, Gautam Shetty, Arun Mullaji and Rohit Srivastava	*IPA No. 201721002500*
55.	Synthesis and characterization of cefuroxime cross-linked chitosan hydrogel for antibacterial applications	Vaishali Pawar and Rohit Srivastava	*IPA No. PAT/BS/134300009-1/16-17*
56.	Triple action concoction for the complete postoperative management after partial or total knee replacement and process for preparation thereof	Vaishali Pawar, Gautam Shetty, Arun Mullaji and Rohit Srivastava	*IPA No. PCT/IN2019/050042*
57.	Detection kit for diagnosis of Cervical cancer by Quantification of Visual inspection of Acetic Acid	Aravind Kumar Rengan, Anurag Meena, Appidi Tejaswini, Syed Alvi and Rohit Srivastava	*IPA No 201841016604*
58.	FINS, Cost affordable wearable device designed for paralyzed and blind people	Bavya M.C, Liya George, Vimal Rohan K, Santhikumar K and Rohit Srivastava	*IPA No. 201721011429*
59.	Chitosan-PAAH Gel: A novel antibacterial agent for treating superficial and implant related deep bacterial infections	Bavya M.C, Liya George, Vimal Rohan K and Rohit Srivastava	*With Attorney*
60.	Multifunctional gold	Deepak Singh Chauhan and P.	*With Attorney*

	deposited protein nanoshells for theragnostic applications	Arunkumar and Rohit Srivastava	
61.	Multifunctional GO-Au PLGA as nanocomposite filler, contrast agent and for photothermal killing of resistive microbes in dental cavity	Deepak Singh Chauhan, Mukesh Kumawat and Rohit Srivastava	*With Attorney*
62.	New Trademark application for Proto-Photoxil (word) in classes 05, 10 and 44, In the name of Indian Institute Of Technology Bombay	Deepak Singh Chauhan, Barkha Singh, Pradeep Kumar Reddy, Rajendra Prasad and Rohit Srivastava	*Trademark Filed 2018*
63.	Liposomal formulations for treatment of cancer	Deepak Bharadwaj, Appidi Tejaswini, Aravind Kumar Rengan and Rohit Srivastava	*IPA No. 201841032747*
64.	New Trademark application for GO-Photofil (word) in classes 05, 10 and 44, In the name of Indian Institute Of Technology Bombay	Deepak Singh Chauhan, Mukesh Kumawat and Rohit Srivastava	*Trademark filed 2018*
65.	Biodegradable hyaluronic acid decorated polymeric nanoparticles for localized cancer nanomedicine: A one-pot synthesis	Nishant Kumar Jain and Rohit Srivastava	*With Attorney*
66.	Polycaprolactone based plasmonic nanoshells and applications thereof	Deepak Singh Chauhan Pradeep Kumar Reddy, Mukti Vats, Rajendra Prasad and Rohit Srivastava	*IPA No. 201821029776*
67.	NIR light responsive solid lipid nanoparticle synthesis and applications thereo	Deepak Singh Chauhan, Pradeep Kumar Reddy, Nishant Jain and Rohit Srivastava	*With Attorney*
68.	Fluorescent gold nanorods and method of preparation thereof	Rajendra Prasad, Deepak Singh Chauhan, Janhavi Devrukhar, Ramkrishn Gupta and Rohit Srivastava	*IPA No. 201821022488*
69.	Biodegradable fluorescent liposomal nanocomposites and method of preparation thereof	Rajendra Prasad, Deepak Singh Chauhan, Janhavi Devrukhar, Ramkrishn Gupta and Rohit Srivastava	*IPA No. 201821020431*
70.	Ozonotherapy as an adjunct to control multiple drug resistant (MDR) and XDR (extensive drug	Vinay Saini, Lalit Kumar Anande, Amar Shivaji Pawar and Rohit Srivastava	*With Attorney*

	resistant) tuberculosis		
71.	New Trademark application for ThermoLiD (word) in classes 05, 10 and 44	Gopal Kundu, Mahadeo Gorain, Rajendra Prasad, Deepak Singh Chauhan, Janhavi Devrukhar, Barkha Singh, Amit Yadav and Rohit Srivastava	*With Attorney*
72.	Antagomir based novel detection of oral cancer using colour inducing polymer sensor	Nikita Shriyan and Rohit Srivastava	*With Attorney*
73.	Fluorescent hollow mesoporous silica and method of preparation thereof	Gopal Kundu, Mahadeo Gorain, Rajendra Prasad, Deepak Singh Chauhan, Janhavi Devrukhar, Barkha Singh, Amit Yadav and Rohit Srivastava	*IPA No. 201821022718*
74.	Wearable trans-epi-dermal/dermal drug delivery and diagnostic gadget based on microneedles	Bhushan Kharbikar and Rohit Srivastava	*IPA No. 201721020761*
75.	Room temperature synthesis of bio-compatible porous silica nanoparticles using lipid as a structure directing agent	Rajendra Prasad, Deepak Chauhan and Rohit Srivastava	*With Attorney*
76.	Rapid and scalable microwave assisted hydrothermal method for synthesis of fluorescent carbon spheres	Rajendra Prasad, Deepak Singh Chauhan, Janhavi Devrukhar, Barkha Singh and Rohit Srivastava	*With Attorney*
77.	Red emissive liposomal nanopitchers for localized diagnosis and phototriggered tumour ablation	Rajendra Prasad, Deepak Singh Chauhan, Janhavi Devrukhar, Gopal Kundu, Mahadeo Gorain, Amit Singh Yadav and Rohit Srivastava	*With Attorney*
78.	One step biocompatible folic acid stabilized end-end assembled gold nanorods and usage thereof	Rajendra Prasad, Deepak Singh Chauhan, Barkha Singh, Janhavi Devrukhar and Rohit Srivastava	*With Attorney*
79.	Rapid and scalable bioresponsive plasmonic gated functional nanohybrid and their use of	Rajendra Prasad, Deepak Singh Chauhan, Janhavi Devrukhar, Barkha Singh, Amit Yadav, Gopal Kundu, Mahadeo Gorain and Rohit Srivastava	*Filing for US Patent through NCCS Pune*
80.	One-step scalable design of biocompatible gold	Rajendra Prasad, Deepak Singh Chauhan, Janhavi Devrukhar,	*Filing for US Patent through NCCS Pune*

	nanorods for nanomedicine	Barkha Singh, Amit Yadav, Gopal Kundu, Mahadeo Gorain and Rohit Srivastava	
81.	New Trademark application for Thermo-Photoxil (word) in classes 05, 10 and 44	Deepak Chauhan, Pradeep Reddy, Abhijit De and Rohit Srivastava	*Trademark Filed*
82.	New Trademark Application for CefuGel, ChiCef	Vaishali Pawar and Rohit Srivastava	*Trademark under filing*
83.	New Trademark Application for ChiSep or ChiSpon	Vaishali Pawar and Rohit Srivastava	*Trademark under filing*
84.	New Trademark application for NanoTorrid in class 5	Ashish Jha and Rohit Srivastava	*TM/BS/11I300008-1/18-19*
85.	Diagnosis of genetic and neurological disorder through dermatoglyphics studies using in screen fingerprint sensor device	Nikita Shriyan and Rohit Srivastava	*Patent under filing Feb 2019*
86.	Filing of Indian trademark application in respect of innovative work on "Polymeric NanoCubons nanofillers for various application	Ashish Jha and Rohit Srivastava	*TM/BS/11I300008-2/18-19*
87.	Filing of Indian trademark application in respect of innovative work on "H-PHOTOFLUOR	Nishant Kumar Jain, Deepak Singh Chauhan, Mukesh Kumar Kumawat, Rajendra Prasad, Jinal Mehta and Rohit Srivastava	*Trademark Filed*
88.	A low-cost fabrication method of polymeric microneedles for transdermal drug delivery	Pankaj Shivhare, Mihir Rajhansa and Rohit Srivastava	*IPA Filing under process*
89.	PPC NanoTorrid for Photothermal therapy in Cancer	Ashish Jha and Rohit Srivastava	*IPA No. PAT/BS/11I300008-1/18-19*
90.	Trademark application under the name of " Urine Dip Stick Reader"	Vivek Borse, Vartika Verma and Rohit Srivastava	*TM/BS/124303011-2/17-18*
91.	One step biocompatible folic acid stabilized end-end assembled gold nanorods and usage thereof	Rajendra Prasad, Deepak Singh Chauhan, Janhavi Devrukhar, Barkha Singh, Amit Yadav, Gopal Kundu, Mahadeo Gorain and Rohit Srivastava	*Patent Filing under process*
92.	NIR light responsive red	Nishant Kumar Jain, Deepak	Patent Filing under process

	emissive biodegradable nanohybrids for cancer theranostic	Singh Chauhan, Mukesh Kumar Kumawat, Rajendra Prasad, Jinal Mehta and Rohit Srivastava	
93.	ORACAN-D: Oral cancer detection	Vivek Borse and Rohit Srivastava	*Registration No. 3232765, 11/04/2016, Trade Marks Journal No. 1766, 10/10/2016, Class 10*
94.	DEiCONT - Detection of ionic impurities in water	Vivek Borse and Rohit Srivastava	*Registration No. 3232766, 11/04/2016, Trade Marks Journal No. 1766, 10/10/2016, Class 9*
95.	PorColoR - Portable colorimetric strip reader	Vivek Borse and Rohit Srivastava	*Registration No. 3304995, 08/07/2016, Trade Marks Journal No. 1774, 05/12/2016, Class 10*
96.	Preclam-PCD - point of care diagnostic test kit for preeclampsia	Vivek Borse and Rohit Srivastava	*Application submitted: TM/BS/124303011-1/16-17*
97.	PorFloR - Portable Fluorescence Reader	Vivek Borse, Mayur Sadawana, Abhaysinha Patil and Rohit Srivastava	*Registration No. 3232763, 11/04/2016, Trade Marks Journal No. 1766, 10/10/2016, Class 10*
98.	PPC NanoCubons® nanofillers for various application	Ashish Jha and Rohit Srivastava	*IPA No. PAT/BS/11I300008-2/18-19*

Technology Transfers from Nanobios Lab:

1. Biosense Technologies Pvt Ltd, Thane – Uchek Urine Analysis System (commercialized)
2. Biosense Technologies Pvt Ltd, Thane – Suchek, Glucose sensor and Strips (commercialized)
3. Biosense Technologies Pvt Ltd, Thane – ACR Strips and Reader (commercialized)
4. Biosense Technologies Pvt Ltd, Thane – SmartSense- Critical Care Analyzer (under approvals)
5. Shukla Ashar Pvt Ltd – Aayudh – Green Nanoparticles for MDR-TB therapeutics
6. Dynasene Technologies Pvt Ltd, Mumbai – Stripless Glucometer
7. CareNx Pvt Ltd – Mobile Phone Reader for Lateral Flow Assays
8. Arthritis Research Pvt Ltd, Mumbai – Nanoformulation for Bone Healing
9. Dynansense Technologies Pvt Ltd – CGMS glucose sensor system

Innovative Technologies/ Products under development:

1. Albumin Creatinine Ratio Strips validated at KEM Hospital and reader developed and demonstrated at Parliament House, New Delhi.
2. HbA1C strips prepared and validated at KEM Hopsital. Reader underway for transfer to student company
3. Continuous Monitoring Glucose System prepared and transferred to Student Company. Testing underway for commercialization

4. Cholesterol and Triglyceride strips prepared for a BIRAC project. Reader underway for testing of the strips (First in India)
5. Glycated Albumin Assay and Reader developed. Testing underway (First in India)
6. Strips prepared and tested for determining Ectopic Pregnancy (First in India)
7. Sodium Potassium sensing assay developed for MHRD IMPRINT Project. Reader underway
8. **SYNC Glucometer and Strips approved by NIB, Noida and successfully commercialized**
9. Novel Nano formulation developed for treating MDR TB for TATA TRUST project (First in India)

Professional Meetings Attended:

- Given several invited talks at conferences and local colleges in India
- Attended IEEE Nano 2012 in Birmingham, UK during Aug 2012 for an oral talk
- Attended Indo-Japan Joint Workshop in POC diagnostic devices during Feb 2012
- Attended BRG meeting in Ireland during Sept 2009 for a poster presentation
- Attended Indo-US symposium on biomedical devices in Feb 2007
- Attended Indo-Canadian Workshop on Nanotechnology in June 2007