

Curriculum Vitae

Dr. Kaustabh Kumar Maiti
Senior Principal Scientist & Professor, AcSIR
CSIR-National Institute for Interdisciplinary Science and Technology (NIIST), Chemical Sciences and Technology Division, Industrial Estate P.O., Thiruvananthapuram – 695 019, Kerala, India Telephone (O): +91-471 -2515475 / Mob: +91-8547761544 E-mail: kkmaiti@niist.res.in / kkmaiti29@gmail.com Web: http://kkmweb.wix.com/kkmlabwebsite



Educational qualifications

- ❖ Ph.D (2001) in Synthetic Organic Chemistry, University of Calcutta, Kolkata, India
- ❖ M.Sc (1993) in Pure Chemistry, University of Calcutta, Kolkata, India
- ❖ B.Sc (1991) Chemistry (Hons), University of Calcutta

Research and Professional Experience

- ❖ **Senior Principal Scientist & Professor, AcSIR:** CSIR –NIIST, Trivandrum;
April 2020 – till date
- ❖ **Principal Scientist & Associate Professor, AcSIR:** CSIR –NIIST, Trivandrum;
April 2015 – April 2020
- ❖ **Senior Scientist & Assistant Professor, AcSIR:** CSIR –NIIST, Trivandrum;
April 2012 – April 2015

- ❖ **Senior Research Fellow:** Singapore Bioimaging Consortium A*STAR, Singapore, July 2009 - March 2012
- ❖ **Postdoctoral Research Associate:** Complex Carbohydrate Research, Centre (CCRC), University of Georgia, USA May, 2007 - March, 2009
- ❖ **Postdoctoral Research Scientist:** Pohang University of Science & Technology (POSTECH), Republic of Korea, April 2003 - April 2007

Industrial Experience

- ❖ **Executive (R&D):** Sun Pharma Advanced Research Centre (SPARC), Sun Pharmaceuticals Industries Ltd., Vadodara, Gujarat, October 2000 - March 2003
- ❖ **Research Officer:** Alembic Ltd. Vadodara, Gujarat, March 2000 - September 2000

Professional Affiliations

- ❖ Indian Chemical Society: – Life member
- ❖ Indian Science Congress Association - Life member
- ❖ Chemical Research Society of India (CRSI) Life member

Academic achievements

No papers in peer-reviewed Journal (up to March 2023)	96 (Average Impact Factor per paper: 6.53)
No. of Patents	14
H-index	26
Citation (Google Scholar as of July 2023)	2955
Ph.D. Awarded	9
Ph.D. Supervision (ongoing)	6
Postdocs trained	5
M.Sc Project supervised	30

Honors and Awards:

- *Service Excellence Award* from Singapore Bioimaging Consortium (SBIC), A*STAR, Singapore, 2011
- *CSIR Technology Award, CSIR*, Ministry of Science and Technology, Govt. of India, 2020

Research interest:

My research interest consisted within the interface between chemistry, biology and nano science, broadly in the following area:

- A. Nanobiotechnology:** (i) Advanced functional materials; (ii) Nanomaterials; (iii) Fluorescent and Raman active molecules towards the development of sensing, diagnostic and multimodal theranostic nanoplatform for non-communicable diseases, viz., Cancer diagnosis and treatment.
- B. Chemical Biology:** (i) Development of synthetic molecular transporter; Nano-carrier; (ii) *In vitro* cell based assays; molecular pathways towards the development of targeted drug delivery system (DDS) for efficient delivery of chemotherapeutic drugs / small molecular inhibitors / genomic components (non-viral vectors)
- C. Phyto molecules for therapeutic leads::** (i) Isolation of bioactive molecules from plant sources; (ii) Semi-synthetic modification to generate library of compounds; (ii) *In vitro* cell based screening towards the generation for HIT / Advanced HITs in the therapeutic area of cancer, cardiovascular and diabetic which will be the potential for further pre-clinical and clinical trials

Current research interest:

- **Diagnostic & Theranostic Nanoparticle probe development:**
 - 1. Targeted Drug Delivery System Development (TDDS): Both synthetic and nano-carrier scaffold for efficient chemotherapy
 - 2. SERS-tags for diagnostic nanoprobe development for multiplex detection of clinically potential biomarkers

3. Ultrasensitive detection and imaging of human cancer viz., cervical, breast, lung and oral through multimodal probe (Fluorescence, Raman etc)
 1. Detection of bacterial infection (Raman / SERS-tags)
 2. Detection & quantification of lipid bodies in algae's (Raman / SERS-tags)
 3. Early detection of Alzheimer's Disease (Fluorescence / Raman)
- **Multimodal Theranostic nano-probes / Nanomedicine** with SERS, fluorescence, and MRI, as diagnostic modalities and Phototherapy by Photodynamic (PDT), Photothermal hyperthermia (PTT) and Chemo and Chemo-immuno therapy.
 - Rational Approach for Augmenting **New Phytochemical Entities (NPCEs)** from Indigenous Plants Towards Anti-Cancer Potentials
 - Semi-synthetic modification of bioactive natural products isolated from plants and marine sources and transformed them as potential hits / advanced hits towards anti-cancer potential.

Major Projects handled as PI / Co-PI / Project Coordinator

NON-CSIR Project:

Ongoing:

- **Project Title:** “Technology for the Early Detection of Cancer from Blood Sample using SERS and Artificial Intelligence- A Novel Technique” - **Principal Investigator**
Funding Agency: Tata Elxsi (CSR Fund), 74 Lakhs (1 year); (October, 2022- November 2023)
- **Project Title:** Development of a sandwich model magnetic capture system for the detection of pancreatic cancer biomarkers in serum by SERS based immune assay- **Principal Investigator**
Funding Agency: ICMR-DHR. 45 Lakhs (3 years) (Nov, 2021 to Nov, 2024)

- **Project Title:** Diagnostic Evaluation of a SERS-Nanoprobe Based Immunosensor for Early Detection of Alzheimer's Disease Biomarkers from Blood

Principal Investigator

Funding Agency: **ICMR 102.98** Lakhs (3 year); (April, 2022- March, 2025)

Completed:

- **Project Title:** "Biocompatible Combined Polymer-Polysaccharide Core-shell VEGF-Targeted Nano-Carrier For Sustained Intraocular Pharmacotherapy Towards Diabetic Retinopathy"- **Principal Investigator**

Funding Agency: DBT, 51.23 Lakhs (3 year); (September, 2018- June, 2022)

- **Project Title:** "Engineering intelligent theranostic nanocarrier for targeted therapy and diagnosis of cancer"- **Principal Investigator from NIIST**

Funding Agency: **DST, SERB, 16.6** Lakhs (3 year); (August, 2018- July, 2021)

- **Project Title:** "Design A Smart Drug-Delivery System Using Activatable Cell-Penetrating Peptides and Scaffold Based Non-peptide Carriers For Targeting Human Cancer" -**Principal Investigator**

Funding agency: **DST (SERB) : 27** Lakhs; (June 2013 to May, 2016)

- **Project Title:** "Gold Nanorod Based Targeted Nanoprobe For Cancer Theranostics: Diagnosis By Surface Enhanced Raman Scattering (Sers) And Fluorescence Imaging And Therapy By PDTand PTT"-**Principal Investigator**

Funding Agency: **DBT; 84.224** Lakhs (3 years); (March, 2016-Feb, 2019)

- **Project Title:** Engineering Nanostructured Surfaces for Developing SERS Sensing Platform - **Co-Principal Investigator**

Funding Agency: **DBT 71.5** Lakhs (3 year); (September, 2018- March, 2022)

- **Project Title:** Development Of Multiplexing Detection Platform Of Breast Cancer Biomarkers By Non-Invasive Surface Enhanced Raman Scattering (SERS) Nanoprobe"-
Principal Investigator

Funding Agency: **DST Nano Mission, 37.2 Lakhs** (3 years); (August, 2017 – Dec, 2020)

List of CSIR Network Projects: 12th FYP (March, 2012 to March, 2017)

- **Project Title:** Molecules To Materials To Devices (M2D)
Lab co-ordinator from CSIR-NIIST
Budget: **831 Lakhs** (NIIST)
Major Achievement: *Probes for SERS-based detection of cervical cancer (CSIR-NIIST; TRL 4) - These nanoprobe are being validated in clinical samples through active collaboration with Regional Cancer Centre (RCC), Trivandrum (TLR 4)-* **Project Leader**
- **Project Title:** Nanomaterials: Application and Impact On Safety, Health And Environment (NanoSHE)
Nodal Scientist from CSIR-NIIST
Budget: **116 Lakhs**
Major Achievement: *Gold Nanorod based Theranostic Nanoprobe for Photothermal Chemotherapy to MMP2 expressed cancer tumors : (TRL3)-* **Nodal officer from NIIST**
- **Project Title:** Natural Products as Affordable Healthcare Agents (NaPaHa)
Participating Scientist from CSIR-NIIST
Budget: **413 Lakhs**
Major Achievement: *Isolation Of Anticancer Agent From Hydnocarpus Wightiana Blume and Its Semi Synthetic Modifications For Enhanced Anticancer Activity –* **Participating Scientist from NIIST**

CSIR Mission Mode Project (March, 2018- February, 2020)

- **Project Title:** “Nanobiosensors and Microfluidics for Healthcare”
“Development of SERS-Nanoprobe for Multiplexing Diagnosis of Breast and Lung Cancer Biomarkers in Tumor Tissue Samples By Raman Fingerprint”:

Project Leader - CSIR-NIIST ; Budget: **749 Lakhs** (For CSIR-NIIST)

CSIR FTT Project (Aug., 2018 – March, 2020)

- **Project Title:** Development of Cellular Sensors: Biocompatible fluorescent molecules for sensing and cellular imaging of pH, Zn²⁺ and reactive oxygen species
Co-Principal Investigator / Budget : 75 Lakhs

CSIR FTT Project (June, 2020 – March, 2022)

- **Project Title :** Customized Portable Raman spectrophotometric device for multiplex detection of breast cancer biomarkers
Co-Principal Investigator / Budget : 132 Lakhs

CSIR Covid Project (MLP 0047) (June, 2020 – Nov 2020)

- **Project Title :** Development of Ultrasensitive, Rapid and Portable system for COVID-19 screening using Label-free Raman Fingerprinting and AI
Principal Investigator / Budget : 12 lakhs

CSIR Covid Project (MLP0048) (Aug, 2020 – March, 2021)

- **Project Title :** Multiplexed lateral-flow device(s) for detection of COVID-19 (CSIR-NIIST: COVID-19 ViralRNA detection kit with ultra-bright oligoprobes for the capture and detection of viralRNA via Lateral Flow based devices)
Co-Principal Investigator / Budget: 39 lakhs

Teaching Experience:

The following courses are taken care for AcSIR Ph.D students since 2013 January, session:

- (a) Organic Chemistry (Basic & Advanced); (b) Advanced Carbohydrate Chemistry; (c) Natural Products and basic aspects of Medicinal Chemistry; (d) Advances in Nanoscience and Nanobiotechnology; (e) Research Methodology:

Administrative Experience:

Services provided to the Institute to the following Committees:

- Academic Programme Committee (APC)
- Laboratory Safety Committee
- Works and Service Committee

Services Provided for Institute Facility creation:

Major Equipment:

- Confocal Raman Microscope;
- MALDI-TOF Mass;

Interdisciplinary Chemistry- Biology Interface Research facility

- Biology Lab Set-up for *in vitro* screening & assays (Cell Culture facility)
- Set-up: Diagnostic Research team: Raman scattering based (SERS) nanoparticle probe for cancer biomarker detection
- Facility for in-house fabrication of portable Raman spectrometer for biomedical applications

Publications, Patents, and Conference Presentations / Invited Talks:

PUBLICATIONS:

96. Isolation of two new stereochemical variants of streptophenazine by cocultivation of *Streptomyces* NIIST-D31, *Streptomyces* NIIST-D47, and *Streptomyces* NIIST-D63 strains in 3C2 combinations; D. K. Induja, A. R. S. Jesmina, Manu M. Joseph, Shanmughan Shamjith, Nagaraja Ingaladal, Kaustabh Kumar Maiti, B. S. Dileep Kumar, Ravi S. Lankalapalli*, *The Journal of Antibiotics*, DOI: <https://doi.org/10.1038/s41429-023-00638-7> (Impact Factor: 3.424)

95. A Cationic Donor-Two-Acceptor Dye-Graphene Quantum Dot Nanoconjugate for Ratiometric Detection of Bisulfite Ions and Monitoring of SO₂ Levels in Heat Stressed Cells, Hiremath, Sharanabasava; Thakuri, Ankit; Joseph, Manu; Bhosle, Akhil; Maiti, Kaustabh Kumar Maiti*; Mainak Banerjee*; Amrita Chatterjee*, *ACS Appl. Nano Mater.*, 2023, DOI: <https://doi.org/10.1021/acsanm.3c02043>; (Impact Factor: 6.14)

94. Dual Mode ‘Turn-on’ Fluorescence-Raman (SERS) Response probe based on 1H-pyrrol-3(2H)-one scaffold for Monitoring H₂S Levels in Biological Samples; Archana Panthalattu Parambil, Shanmughan Shamjith, Jais Kurian, Akila Kesavan, Ashis K. Sen, Paul R. Thangaraj, Kaustabh Kumar Maiti* and Muraleedharan K. Manheri*; *Analytical Methods*, 2023, DOI: 10.1039/D3AY00282A (Impact Factor: 3.532)
93. Detection of Sialic Acid and Imaging of Cell-Surface Glycan Using a Fluorescence–SERS Dual Probe; Palash Jana, Sudeep Koppayithodi, Madhukrishnan Murali, Monochura Saha, Kaustabh Kumar Maiti,* and Subhajit Bandyopadhyay*; *ACS Sensors*, 2023, <https://doi.org/10.1021/acssensors.2c02849> (Impact Factor: 9.618)
92. Exploration of Phaeanthine: A Bisbenzylisoquinoline Alkaloid Induces Anticancer Effect in Cervical Cancer Cells Involving Mitochondria-Mediated Apoptosis; Alisha Valsan, Murugan Thulasi Meenu, Vishnu Priya Murali, Beutline Malgija, Anuja Gracy Joseph, Prakasan Nisha, Kokkuvayil Vasu Radhakrishnan,* and Kaustabh Kumar Maiti*; *ACS Omega*, 2023, <https://doi.org/10.1021/acsomega.3c01023> (Impact Factor: 4.132)
91. Sortase E-mediated site-specific immobilization of green fluorescent protein and xylose dehydrogenase on gold nanoparticles; Ayilath Susmitha, Jayadev S. Arya, Lekshmi Sundar, Kaustabh Kumar Maiti, Kesavan Madhavan Nampoothiri*; *Journal of Biotechnology*, 367 (2023), 11-19 (Impact Factor: 3.595)
90. A clinically feasible diagnostic spectro-histology built on SERS-nanotags for multiplex detection and grading of breast cancer biomarkers; Vishnu Priya Murali, Varsha Karunakaran, Madhukrishnan Murali, Asha Lekshmi, Shamna Kottarathi, Selvakumar Deepik, Valliamma N. Sarith, Adukkadan N. Ramya, Kozhiparambil G. Raghu, Kunjuraman Sujathan*, Kaustabh Kumar Maiti*; *Biosensors and Bioelectronics*, 227 (2023), 115177 (Impact Factor: 12.54)
89. Monitoring glutathione dynamics in DNA replication (S-phase) using a two-photon reversible ratiometric fluorescent probe; Shayeri Biswas, Sourav Sarkar, Avinash Dhamija, Vishnu Priya Murali*, Kaustabh Kumar Maiti* and Sankarprasad Bhuniya* *J. Mater. Chem. B*, 2023, 11, 1948-1957, (Impact factor: 7.57)
88. Targeted Delivery Polymeric Nanosystem Reinforced by Synergism of Embilin and RPI-1 for Therapeutics of Pancreatic Cancer; Jayadev S. Arya, Manu M. Joseph,* Vishnu Priya Murali, Murukan S. Vidyalekshmi, and Kaustabh Kumar Maiti*; *ACS Appl. Nano Mater.*, 2022, 5, 12, 18622–18636 (Impact Factor: 6.14)

87. A non-invasive ultrasensitive diagnostic approach for COVID-19 infection using salivary label-free SERS fingerprinting and artificial intelligence; Varsha Karunakaran, Manu M. Joseph, Induprabhav Yadev, Himanshu Sharma, K. Shamna, Sumeet Saurav, Remanan Pushpa Sreejith, Veena Anand, Rosenara Beegum, S. Regi David, Thomas Iype, K.L. Sarada Devi, A. Nizarudheen, M.S. Sharmad, Rishi Sharma, Ravindra Mukhiya, Eshwar Thouti, Karuvath Yoosaf, Joshy Joseph, P. Sujatha Devi, S. Savithri, Ajay Agarwal, Sanjay Singh*, Kaustabh Kumar Maiti*; *Journal of Photochemistry and Photobiology B: Biology*, 2022, 112545; (Impact Factor: 6.813)

86. Elucidating cell surface glycan imbalance through SERS guided metabolic glycan labelling: An appraisal of metastatic potential in cancer cells; Madhukrishnan Murali, Vishnu Priya Murali, Manu M. Joseph, Soumya Rajan, Kaustabh Kumar Maiti*, *Journal of photochemistry and photobiology B: Biology*, 2022, 234, 112506 (Impact Factor: 6.813).

85. Libocedroquinone: A Promising Anticancer Lead against Lung Cancer from Calocedrus Decurrens; Santhi Subramanya, Varsha Karunakaran, Selvakumar Deepika, Anuja Joseph Gracy, Veluthoor Sheeba, Karchesy Joseph, Kaustabh Kumar Maiti, Ramavarma Luxmi Varma, Kokkuvayil Vasu Radhakrishnan*, *Planta Medica International Open*, 2022; 9(1) 54-59 (Impact Factor: 3.35)

84. Porous polysaccharide scaffolds: Proof of concept study on wound healing and stem cell differentiation; Preethi Gopalakrishnan Usha, Sreekutty Jalajakumari, Unnikrishnan Babukuttan Sheela, Deepa Mohan, Archana Meena Gopalakrishnan, Maya Sreeranganathan, Raveendran Kuttan Pillai, Catherine Berry, Kaustabh Kumar Maiti, Sreelekha Therakathinal Thankappan*, *Journal of Bioactive and Compatible Polymers*, 2022; 37 (2) 115-133 (Impact Factor: 1.75)

83. NADH-depletion triggered energy shutting with cyclometalated iridium (III) complex enabled bimodal Luminescence-SERS sensing and photodynamic therapy; Shanmughan Shamjith, Manu M. Joseph, Vishnu Priya Murali, Geetha S. Remya, Jyothi B. Nair, Cherumuttathu H. Suresh, Kaustabh Kumar Maiti*, *Biosensors and Bioelectronics*, 204 (2022) 114087 (Impact Factor: 12.54)

82. Nanotheranostic Probe Built on Methylene Blue Loaded Cucurbituril [8] and Gold Nanorod: Targeted Phototherapy in Combination with SERS Imaging on Breast Cancer Cells; Nisha Narayanan, Jeong Hee Kim, Hema Santhakumar, Manu M. Joseph, Varsha Karunakaran, Shanmughan Shamjith, Giridharan Saranya, Palasseri T. Sujai, Ramapurath S. Jayasree, Ishan

81. An Efficient Molecular Luminophore based on Tetraphenylethylene (TPE) Enabling intracellular Detection and Therapeutic Benefits of Hydrogen Sulfide in Alzheimer's Disease; Adukkadan N. Ramya, Manu M. Joseph, Varsha Karunakaran, Chekrain Valappil Shihass Ahammed, Animesh Samanta, Kaustabh K. Maiti*; *Sensors and Actuators B: Chemical*, 355 (2022), 131118 (Impact Factor: 9.221)

80. Dynamic self-assembly of mannosylated-calix[4]arene into micelles for the delivery of hydrophobic drugs; Padincharapad Sreedevi, Jyothi B. Nair, Manu M. Joseph, Vishnu Priya Murali, Cherumuttathu H. Suresh, R. Luxmi Varma*, Kaustabh Kumar Maiti* *Journal of Controlled Release*, 2021, 339, 284–296 (Impact Factor: 11.46)

79. De novo design and synthesis of boomerang-shaped molecules and their in silico and SERS-based interactions with SARS-CoV-2 spike protein and ACE2; Amrutham Linet, Manu M. Joseph, Mambatta Haritha, K. Shamna, Sunil Varughese, P. Sujatha Devi,* C. H. Suresh,* Kaustabh Kumar Maiti* and Ishita Neogi* *New J. Chem.*, 2021, 45, 17777 - 17781 (Impact Factor: 3.59)

78. Elucidating Raman Image-Guided Differential Recognition of Clinically Confirmed Grades of Cervical Exfoliated Cells by Dual Biomarker-Appended SERS-Tag; Varsha Karunakaran, Valliamma N. Saritha, Adukkadan N. Ramya, Vishnu Priya Murali, Kozhiparambil G. Raghu, Kunjuraman Sujathan,* and Kaustabh Kumar Maiti*, *Analytical Chemistry*, 2021, 93, 32, 11140–11150, (Impact Factor: 8.008)

77. DNA Condensation Triggered by the Synergistic Self-Assembly of Tetraphenylethylene-Viologen Aggregates and CT-DNA; Sajana Kanangat Saraswathi, Varsha Karunakaran, Kaustabh Kumar Maiti and Joshy Joseph*, *Frontiers in Chemistry*, 2021, DOI: 10.3389/fchem.2021.716771. (Impact Factor: 5.22)

76. Mirabilalones S-W, rotenoids from rhizomes of white Mirabilis jalapa Linn. and their cell proliferative studies; P. Sharathna, V. Alisha, P. Sasikumar, Ajesh Vijayan, F. Ayisha, I.G. Shibi, V.V. Sivan, Kaustabh Kumar Maiti, Ravi S. Lankalapalli, K.V. Radhakrishnan*, *Phytochemistry Letters*, 44 (2021) 178–184.

75. Phthalimide conjugation turns the AIE-active tetraphenylethylene unit non-emissive: its use in turn-on sensing of hydrazine in solution and the solid- and vapour-phase; Sharanabasava D. Hiremath, Ram U. Gawas, Dharmendra Das, Viraj G. Naik, Akhil A. Bhosle, Vishnu Priya Murali, Kaustabh Kumar Maiti, Raghunath Achary, Mainak Banerjee* and Amrita Chatterjee* *RSC Adv.*, 2021, 11, 21269–21278. (Impact Factor: 3.36)

74. Nanohybrids of Magnetically Intercalated Optical Metamaterials for Magnetic Resonance/Raman Imaging and In Situ Chemodynamic/ Photothermal Therapy; Kunnumpurathu Jibin, Marina Victor, Giridharan Saranya, Hema Santhakumar, VishnupriyaMurali, KaustabhK.Maiti, and Ramapurath S. Jayasree* [*ACS Appl. Bio Mater.*](#) 2021, DOI: [10.1021/acsabm.1c00510](#)

73. Antiproliferative labdane diterpenes from the rhizomes of *Hedychium flavescens* Carey ex Roscoe; Santhi Subramanyan, Selvakumar Deepika, Anjitha Ajith, Anuja Joseph Gracy, Mathew Dan, Kaustabh Kumar Maiti1, Ramavarma Luxmi Varma, Kokkuvayil Vasu Radhakrishnan* [*Chem Biol Drug Des.*](#) 2021;00:1–6. (Impact Factor: 2.54)

72. Elucidating Gold–MnO₂ Core–Shell Nanoenvelope for Real Time SERS-Guided Photothermal Therapy on Pancreatic Cancer Cells; Palasseri T. Sujai, Shanmughan Shamjith, Manu M. Joseph, and Kaustabh Kumar Maiti* [*ACS Appl. Bio Mater.*](#) 2021, DOI: [10.1021/acsabm.1c0024](#)

71. Raman Imaging: An Impending approach towards cancer diagnosis; Adukkadan N Ramya, Jayadev S Arya, Murali Madhukrishnan, Shanmughan Shamjith, Murukan S Vidyalakshmi, Kaustabh Kumar Maiti* [*Chem. An Asian Journal*](#), 2021, 16, 409-422 (Impact Factor: 4.85).

70. Amphiphilic fluorescent probe self-encored in plasma to detect pH fluctuation in cancer cell membrane; Arup Podder, Manu M Joseph, Shayeri Biswas, Sanjib Samanta, Kaustabh K. Maiti* and Sankarprasad Bhuniya * [*Chem. Commun.*](#), 2021, 57, 607-610 (Impact Factor: 6.06).

69. A single benzene fluorescent probe for efficient formaldehyde sensing in living cells using glutathione as an amplifier; Anal Jana, Manu M. Joseph, Subrata Munan, Shamna K., Kaustabh Kumar Maiti* and Animesh Samanta;* [*Journal of photochemistry and photobiology B: Biology*](#), 2021, 214, 112091 (Impact Factor: 6.81).

68. Highly selective chemosensor for reactive carbonyl species based on simple 1,8-diaminonaphthalene; Anal Jana, Manu M. Joseph, Subrata Munan, Kaustabh Kumar Maiti*, Animesh Samanta;* [*Journal of photochemistry and photobiology B: Biology*](#), 2020, 213, 112076 (Impact Factor: 6,81).

67. Biocompatible fluorescent probe for detecting mitochondrial alkaline phosphatase activity in live cells; Sabina Khatun, Shayeri Biswas, Arun Kumar Mahanta, Manu M. Joseph, Murukan S.

Vidyalekshmi, Arup Podder, Pralay Maiti, Kaustabh Kumar Maiti*, Sankarprasad Bhuniyaa*; *Journal of Photochemistry & Photobiology, B: Biology*, 2020, 212, 11204 (Impact Factor: 6.81).

66. Elucidating a Thermo-responsive Multimodal Photo-Chemotherapeutic Nano-delivery Vehicle to Overcome the Barriers of Doxorubicin Therapy ; Jyothi B Nair, Manu M Joseph*, Jayadev S Arya, Padincharapad Sreedevi, Palasser T Sujai, and Kaustabh Kumar Maiti*; *ACS Applied Materials and Interfaces*, 2020, 12, 39, 43365–43379 (Impact Factor: 10.34).

65. NADH-Activated Dual Channel Fluorescent Probe for Multicolor Labeling of Live Cells and Tumor Mimic Spheroid; Arup Podder, Vishnu Priya Murali, Selvakumar Deepika, Avinash Dhamija, Shayeri Biswas, Kaustabh Kumar Maiti*, and Sankarprasad Bhuniya*; *Analytical Chemistry*, 2020, 92, 12356-12362 (Impact Factor: 8.003).

64. Tracking the Foot-prints of Paclitaxel Delivery and Mechanistic Action via SERS Trajectory in Glioblastoma Cells; Jyothi B Nair, Saswat Mohapatra, Manu M Joseph, Santhi Maniganda, Varsha Gupta, Surajit Ghosh, and Kaustabh Kumar Maiti* *ACS Biomater. Sci. Eng.*, 2020, 6, 9, 5254–5263 (Impact Factor: 5.39).

63. Diagnostic Spectro-cytology revealing differential recognition of cervical Cancer lesions by label-free surface enhanced Raman fingerprints and Chemometrics; Varsha Karunakaran, Valliamma N. Saritha, Manu M. Joseph, Jyothi B. Nair, Giridharan Saranya, Kozhiparambil G. Raghu, Kunjuran Sujathan*, Krishnan Nair S. Kumar*, Kaustabh K. Maiti* *Nanomedicine: Nanotechnology, Biology and Medicine*, 2020, 29, 102276 (Impact Factor: 6.45).

62. Targeted Theranostic Nano Vehicle Endorsed with Self-Destruction and Immunostimulatory Features to Circumvent Drug Resistance and Wipe-Out Tumor Reinitiating Cancer Stem Cells; Manu M. Joseph,* Adukkadan N. Ramya, Vineeth M. Vijayan, Jyothi B. Nair, Blossom T. Bastian, Raveendran K. Pillai, Sreelekha T. Therakathinal,* and Kaustabh K. Maiti* *Small*, 2020, 16, 2003309 (Impact Factor: 15.15).

61. A new pentacyclic pyrylium fluorescent probe that responds to pH imbalance during apoptosis; Sandip Chakraborty, Manu M Joseph, Sunil Varughese, Samrat Ghosh, Kaustabh Maiti, Animesh Samanta* and Ayyappanpillai Ajayaghosh* ; *Chemical Science*, 2020, [Advance Article](#) (Impact Factor: 9.96).

60. Self-assembled drug loaded glycosyl-protein metal nanoconstruct: Detailed synthetic procedure and therapeutic effect in solid tumor treatment; B.S. Unnikrishnana, S. Mayaa, G.U. Preethia, K.S. Anusreea, P.L. Reshmaa, M.G. Archanaa, Maiti Kumar Kaustabh, T.T. Sreelekhaa*; *Colloids and Surfaces B: Biointerfaces* 193 (2020) 111082 (Impact Factor: 5.26)
59. Reduced Graphene Oxide–Thioguanine Composites for the Selective Detection of Inorganic and Organic Mercury in Aqueous Media; Sharanabasava D. Hiremath, Kaustabh Kumar Maiti, Narendra Nath Ghosh, Mainak Banerjee*, Amrita Chatterjee*; *ACS Applied Nano Materials* 2020, 3, 3, 3071-3079 (Impact factor: 6.14).
58. Optically Controlled Hybrid Metamaterial of Plasmonic Spiky Gold Inbuilt Graphene Sheets for Bimodal Imaging Guided Multimodal Therapy; Kunnumpurathu Jibin, Jayaram S. Prasad, Giridharan Saranya, Sachin J. Shenoy, Kaustabh K. Maiti, Ramapurath S. Jayasree*; *Biomater. Sci.*, 2020, 8, 3381-3391 (Impact Factor: 7.59)
57. Surface charge modulates the internalization vs penetration of gold nanoparticles: comprehensive scrutiny on monolayer cancer cells, multicellular spheroids and solid tumors by SERS modality; Palasser T. Sujai, Manu M. Joseph,* Giridharan Saranya, Jyothi B. Nair, Vishnu Priya Murali and Kaustabh Kumar Maiti*; *Nanoscale*, 2020, 12, 6971–6975 (Impact Factor: 8.03).
56. Biogenic Ag Nanoparticles of Neem Extract; its Structural Evaluation and Antimicrobial Effects against *Pseudomonas nitroreducens* and *Aspergillus unguis* - NII 08123; Sarah B. Ulaeto, Gincy Marina Mathew, Jerin K Pancrecious, Jyothi B Nair, Thazhivilai Ponnu Devaraj Rajan*, Kaustabh Kumar Maiti, and B.C. Pai, *ACS Biomater. Sci. Eng.* 2020, 6, 1, 235-245 (Impact Factor: 5.39)
55. Galactoxyloglucan-Modified Gold Nanocarrier of Doxorubicin for Treating Drug-Resistant Brain Tumors; Remya Komeri, Maya S, B. S. Unnikrishnan, J. Sreekutty, Preethi GU, Kaustabh Kumar Maiti, and Therakathinal T. Sreelekha* *ACS Appl. Nano Mater.* , 2019, 2, 6287–6299, (Impact factor: 6.14)
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Invited Talks / Conference Presentation

52. Invited talk in the Department of Chemistry, Bose Institute, Kolkata, an autonomous Institute of DST, Govt. of India on 28th March, 2023. Talk entitled “ Advancement of Surface-Enhanced Raman Spectroscopy in Nanotheranostic Applications” by Dr. K K Maiti

51. 21st Prof. K.V. Thomas Endowment Seminar & 4th International Symposium on New Trends in Applied Chemistry (NTAC-2023)” organised by the Postgraduate and Research Department of Chemistry, Sacred Heart College (Autonomous). Thevara, Kochi, Kerala, on 8th February, 2023. Plenary Talk on “Recent Advances in Cancer Nanotheranostics using Surface-enhanced Raman Spectroscopy” by Dr K K Maiti.

50. National Seminar on "Phytochemistry- Uses in Medicine and Industrial Applications,, organized by Fatima Mata National College, Kollam, Kerala on 25th January, 2023. Invited Talk on “Exploring New Phytochemical Chemical Entities Towards Anti-Cancer Potential” by Dr K K Maiti

49. National Workshop on “Hands-on Training on the Development of Image guided Theranostic as Personalized Medicine” organized by Centre for Interdisciplinary Sciences (CIS), JIS Institute of Advanced Studies and Research (JISIASR) Kolkata, JIS University on 20th January, 2023. Plenary Talk entitled “Exploring Cancer Nanotheranostics with Surface enhanced Raman spectroscopy” by Dr K K Maiti

48. 108th Indian Science congress (ISC) which will be held at Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur, from 3rd to 7th January, 2023. Plenary Talk in the session of Natural Products in Healthcare and Industry, titled: “Exploring New Phytochemical Chemical Entities Towards Anti-Cancer Hits” by Dr. K K Maiti

47. Symposium on the Emerging Topics in the Interdisciplinary and Applied Sciences organised by School of Applied and Interdisciplinary Sciences (SAIS) at IACS, Kolkata from 25 to 26 March 2022. Invited talk on Advancement of Surface Enhanced Raman Spectroscopy in Biomedical Applications by Dr. K. K Maiti.

46. Indian Analytical Science Congress (IASC-2022) organized by Indian society of analytical scientists- Kerala chapter and Indian society of analytical scientists HQ Mumbai from March 10-12 2022.

(1) Label-free discrimination of glioblastoma from necrosis and healthy brain tissue using surface enhanced Raman spectroscopy and artificial intelligence- Poster Presentation: Sreedevi D
(2) Co-Enzyme driven targeted photo therapy for effective cancer management-Oral Presentation : Shamjith S (Best oral presentation)

45. International Webinar on Phytochemistry-Impacts and Applications organized by Kerala academy of sciences from September to December 2021. Development of biocompatible polymer based targeted drug delivery system for the synergic action of Embelin and RPI-1 against pancreatic adenocarcinoma Oral Presentation Arya J.S
(Best Oral- Second prize)

44. Nanomedicine: Biomolecules for Human Health (NBHH- 2021) organised by University of Delhi from 27-28 September 2021. VEGF targeted biocompatible nano drug delivery system to inhibit hyperglycemia induced angiogenesis Oral presentation- Vidhyalekshmi MS

43. Indo-Korean Joint Two-Days Online International Workshop on Advanced Functional Materials Organised by Centre for Interdisciplinary Sciences (CIS), JIS Institute of Advanced Studies and Research (JISIASR) Kolkata, JIS University, India & Department of Biological and Chemical Engineering, Hongik University, Sejong Campus, Republic of Korea from July 15-16. Invited talk on Recent Advances in Cancer Nanotheranostics by Dr. Kaustabh Kumar Maiti

42. Invited Talk in Webinar series “ Advances in Biological Science” : Department of Botany, University of Kerala, Thiruvananthapuram, Kerala, 21st August, 2020; Title of the Talk: Molecular Diagnostic Platforms Through Chemistry, Biology and Nanotechnology.

41. ICCHD-2020: International Conference on Chemistry for Human Development Organized by Professor Asima Chatterjee Foundation with University of Calcutta and Heritage Institute of Technology from January 9–11th, 2020 Poster presentations: (I) Biocompatible core Shell polymer based nanocarrier system for the synergistic delivery of embellin and RPI-1 to pancreatic adenocarcinoma cells, Arya J. S., Vidya lekshmi MS, V Kaustabh Kumar Maiti. (II) Glycan imbalance in cancer cells monitored by SERS based metabolic labelling Madhukrishnan M., Vishnu Priya Murali, Kaustabh Kumar Maiti (III) Surface charge modulates the internalization vs penetration of nanoparticles: A comprehensive scrutiny on monolayer cells, multicellular spheroids and solid tumor by SERS modality Palasseri T. Sujai, Manu M. Joseph, Giridharan Saranya, and Kaustabh Kumar Maiti (IV) A Two-in-one Theranostic Nanoprobe for The Effective Management of Metastatic Melanoma by Targeted Phototherapy; Shamjith S, Giridharan Saranya, Vishnu Priya Murali, Jyothi B Nair, Manu M Joseph and Kaustabh Kumar Maiti

40. ICEM-14: 14th International Conference on Ecomaterials. Organized by CSIR-NIIST, Thiruvananthapuram in association with National Institute for Materials Science, Japan and Ecomaterials Forum, Japan from Feb 5-7, 2020 Poster presentation: A Label Free SERS Based Detection of Marker Nucleobases using Complementary Oligonucleotide Strand for Dengue Viral Infection Selvakumar Deepika, Anjitha Ajith, Vishnu Priya Murali, Varsha Karunakaran and Kaustabh Kumar Maiti (Best poster award)

39. National Conference on New Frontiers in Chemistry - From Fundamentals to Applications (NFCFA2019) (on 20-22 December 2019) at Department of Chemistry, BITS Pilani, K K Birla Goa, Poster presentations Novel Lysosome targeted Fluorescent Probes based on Pyrylium core for monitoring intracellular pH Changes in Living Cells, Ahammed Shihab, Manu M Joseph, Ramya A.N., Animesh Samantra and Kaustabh Kumar Maiti.

38. NANOBIOTECK – 2019, 4th Annual Conference of Indian Society of Nanomedicine, (21st - 23rd November 2019) held at Aerocity, New Delhi as a Delegate. Two Poster presentations, (i) VEGF targeted biocompatible nano-carrier system for the sustained release of drug towards diabetic retinopathy, Vidya lekshmi MS, Arya J.S, Kaustabh Kumar Maiti (ii) Best poster award, Sreedevi P, Jyothi B Nair, Kaustabh Kumar Maiti.

37. 8th Annual Meeting of Indian Academy of Biomedical Sciences, Organised by CSIR-National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram (Feb 25-27th, 2019); New Phytochemical Entities Derived from *Hydnocarpus wightiana* Blume Facilitate Mitochondria Mediated Apoptosis Through cyt c Release Monitored By Raman Fingerprint, Invited Talk: Dr. Kaustabh Kumar Maiti. Bimodal Fluorescence-SERS Encoded Nanococktail for the Multiplex Detection of Lung Cancer Biomarkers, Oral Presentation: Saranya Giridharan Engineered Targeted Theranostic Nano Delivery System for

Tumor Elimination by Overcoming Drug Resistant Cancer Cells and Cancer Stem Cells, Oral Presentation: Manu M. Joseph. Molecular Probe Based on Tetraphenylethylene (TPE) Utilized for Detection and Signaling Role of Hydrogen Sulfide in Alzheimers Disease, Poster Presentation: Ramya A. N. A Model Study of Label Free SERS Based Detection of Marker Nucleobases Using Complementary Oligonucleotide Strand for Dengue Infection Poster Presentation: Anjitha Ajith. Biogenic Cluster-Encased Gold Nanorods as a Targeted Three-in-One Theranostic Nanoenvelope for SERS-Guided Photochemotherapy against Metastatic Melanoma, Poster Presentation: Sujai P. T. Novel potent anticancer agents derived from hydnocarpin induces mitochondria mediated apoptosis and monitoring cyt c release through Raman fingerprinting, Poster Presentation: Arya J.S. An Effective Diagnostic Nano-Probe for Detection of Alzheimer Biomarker Based on SERS and MRI Dual Modalities, Poster Presentation: Varsha Karunakaran.

36. 31st Kerala Science Congress, Organized by Kerala State Council for Science, Technology and Environment at Fatima Mata National College, Kollam (Feb, 2-3rd, 2019); Exploration of New Phytochemical Entities from Hydnocarpus Wightiana Blume : Evolved as Potent Anticancer Hits inducing Mitochondria mediated Apoptosis through Cyt c Release, Oral Presentation: Arya J. S. Bimodal Fluorescence-SERS Encoded Nanococktail for the Multiplex Detection of Lung Cancer Biomarkers, Poster Presentation: Saranya Giridharan. A New Insight on Early Diagnosis of Alzheimer's Disease Biomarkers by Label Based SERS Immunosensor, Poster Presentation: Varsha Karunakaran

35. NANOBIOTECK-3rd Annual Conference of Indian Society of Nanomedicine, Organized by Department of Biotechnology, AIIMS, New Delhi (Oct, 25-27th, 2018); Recent Advancement of Biocompatible Diagnostic Surface Enhanced Raman Scattering (SERS)-Nanoprobe for Spectroscopic Detection and Bioimaging of Human Cancer, Oral Presentation: Kaustabh Kumar Maiti; An Ultrasensitive SERS Based Non-Invasive Label Free Diagnosis of Exfoliated Cells from Cervical Pre- Cancerous Lesions by Raman Fingerprinting, Poster Presentation: Varsha Karunakaran

34. International Conference on Trends in Biochemical and Biomedical Research, Organized by Department of Biochemistry, Institute of Science, Banaras Hindu University, Varanasi (Feb, 13-15th, 2018); SERS Assisted Profiling of Molecular and DNA Level Damage during Apoptosis Induced by Targeted Three in One Theranostic Nanoprobe for Metastatic Melanoma, Oral Presentation: Sujai P. T.; Exploring Hydnocarpin wightiana Blume for the Development of New Chemical Entities Towards Cancer Treatment, Oral Presentation: Arya J. S.

33. 30th Kerala Science Congress, Organized by Kerala State Council for Science, Technology and Environment at Government Brennen College, Thalassery, Kannur (Jan, 28-30th, 2018); A New Insight on Non-invasive Label Free Diagnosis of the Cervical Pre-cancers by Metabolomics and Genomics Profiling using Differential SERS Fingerprinting, Oral Presentation: Varsha Karunakaran.

32. Recent Advances in Photonics, Organized by Department of Atomic and Molecular Physics, Manipal University, Manipal (Nov 13, 2017); Emerging Trends in Raman Spectroscopy Towards Biology and Medicine, Invited talk: Kaustabh Kumar Maiti.

31. 6th Asian Biomaterial Congress on Innovative Biomaterials: Technologies for Life and Society, Organised by Sree Chitra Tirunal Institute for Medical Sciences & Technology , Thiruvananthapuram (Oct, 25-27th, 2017); Emerging Trends in Diagnostic and Theranostic Nanoprobe for Cancer Treatment, Invited talk: Kaustabh Kumar Maiti.

30. 8th East Asia Symposium on Functional Dyes and Advanced Materials, Organised by CSIR-National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram (Sep 20-22, 2017); Poster presentation: Saranya Giridharan, Ramya A.N.

29. International Conference on Emerging Trends in Chemical Sciences, Organised by Manipal Institute of Technology at Manipal University (Sep 14-16, 2017); Emerging Trends in Targeted Drug Delivery System (TDDS), Diagnostic and Theranostic Nanoprobe for Cancer Treatment, Invited talk: Kaustabh Kumar Maiti.

28. 2nd International conference on nutraceuticals and chronic diseases, Organized by IIT Guwahati at Bugmallo, Goa (Sep 1-3, 2017); Exploring Anti-cancer Potential of Hydnocarpin-Isoxazole derivatives as New Chemical Entities; Invited talk: Kaustabh Kumar Maiti.

27. 53rd Annual Convention of Chemists, Organized by Indian Chemical Society, Kolkata at Gitam university Visakhapatnam. (Dec 25-27th 2016);Exploring Anti-cancer Potential of Hydnocarpin-Isoxazole derivatives as New Chemical Entities; Poster presentation : Arya J.S , Ramya A.N and Kaustabh Kumar Maiti.

26. National Seminar on Omics & Biomarker Analysis: In disease Pathology 2.0 & Young Investigators Retreat, Organized by Department of Zoology, University of Kerala, (Dec 19-21 st 2016) ; Recent development of Surface Enhanced Raman Scattering (SERS) nanotag for molecular level detection and bioimaging of cancer cells, Invited Talk : Kaustabh Kumar Maiti.

25. Internatinal Conference on Advanced Materials SCICON '16 materials for a better tomorrow; Organized by Department of Sciences, Amrita Vishwa Vidyapeetam Coimbatore (Dec 19-21 st 2016) ; Recent development on Biocompatible Theranostic Surface Enhanced Raman Scattering (SERS) nanoprobe for spectroscopic detection and bioimaging of human cancer : Invited Talk : Kaustabh Kumar Maiti.

24. Symposium on Celebrating 25 years of Harmony with Organic Chemistry (CYHOC-2016), Organized by students of Dr. G . Vijay Nair, (Dec16-17th, 2016); Short Lecture; Exploring hydnocarpin Guanidinium appended dendron conjugate: A promising candidate for anti- Neoplastic effects in chemotherapy; Invited Talk : Kaustabh Kumar Maiti.

23. International Conference on Current Trends in Biotechnology (ICCB-2016), Organized by School of Biosciences and Technology, VIT University, Vellore in association with the Biotech Research Society, India (Dec, 8-10th, 2016); New Insight of Surface Enhanced Raman Scattering (SERS) nanoprobe for spectroscopic detection and bioimaging of human cancer : Invited Talk : Kaustabh Kumar Maiti.

22. 6th International Conference on Current Trends in Drug Discovery and Research (CTDDR-2016), Organized by CSIR-CDRI Lucknow (Feb, 25-28th, 2016); Cancer Cell-Specific Induction of Apoptosis By Precise Delivery of Doxorubicin using a dual targeting Dendron based transporter; Poster presentation : Jyothi B Nair, Manu M Joseph and Kaustabh Kumar Maiti.

21. 4th International Conference on Frontiers in Nanoscience and Technology (COCHIN NANO-2016), Organized by CUSAT, Cochin (Feb 20-23rd, 2016); New Insight of Biocompatible Surface Enhanced Raman Scattering (SERS) Nanotag for Spectroscopic Detection and Bioimaging of Human Cancer; Invited Talk : Kaustabh Kumar Maiti.

20. 18th CRSI National Symposium in Chemistry ; Organized by Punjab University, Chandigarh, India (Feb, 5-6th, 2016); Stimuli Responsive Nanocarrier Drug Delivery System (DDS) For Targeted Delivery of Doxorubicin towards Folate Expressing Cancer Cells; Poster presentation : Ramya A. N, Sujai P. T. Manu M. Joseph and Kaustabh Kumar Maiti.

19. International Seminar on Recent Biochemical Approaches in Therapeutics : RBAT II; Organized by Kerala Univ. Department of Biochemistry, Thiruvananthapuram (December, 9-12th, 2015); Oral presentation: Manu M Joseph.

18. International Seminar on Recent Biochemical Approaches in Therapeutics : RBAT II; Organized by Kerala Univ. Department of Biochemistry, Thiruvananthapuram (December, 9-12th, 2015); Invited Talk : Kaustabh Kumar Maiti.

17. The International Symposium on Photonics Applications and Nanomaterials; Organized by Sree Chitra Tirunal Institute for Medical Sciences & Technology, Thiruvananthapuram (Oct, 28-30th, 2015); A New Insight of Squaraine Based Raman Reporters for Construction of Diagnostic SERS Nano-Probe in Cancer Screening; Poster presentation : Nisha Narayanan, Ramya A N, Varsha Karunakaran and Kaustabh K. Maiti.

16. The International Symposium on Photonics Applications and Nanomaterials; Organized by Sree Chitra Tirunal Institute for Medical Sciences & Technology, Thiruvananthapuram (Oct, 28-30th, 2015); Investigation of Tetra Phenyl Ethylene (TPE) Based Raman Reporters for Construction of SERS Nanoprobe in Prostate Cancer

Detection, Poster presentation : Ramya A. N., Manu J., Saranya G., Jyothi B. N., Sujai P. T. and K. K. Maiti.

15. The Ramanbhai Foundation 7th International Symposium on Current Trends in Pharmaceutical Sciences "Advances in New Drug Discovery & Development"; Organized by Zydus Research Centre, Ahmedabad, India (Feb, 2-4th, 2015); An Efficient Approach on Guanidium Appended Molecular Transporter For Targeted Delivery of Doxorubicin Towards Malignant Cells: A Future Prospect in Cancer Therapy; Poster presentation : Jyothi B Nair, Santhi Maniganda, Varsha Karunakaran, Kaustabh Kumar Maiti.

14. 6th International Conference on Nano Science and Technology (ICONSAT 2014); Organized by Institute of Nano Science and Technology (INST), Mohali, Punjab (March, 2-5th, 2014); New Insight of Squaraine Based Raman Reporters for Construction of Diagnostic SERS Nano-Probe In Cancer Screening; Poster presentation: Nisha N, Jyothi B Nair, Kaustabh Kumar Maiti.

13. 2nd International Conference on Advanced Functional Materials (ICAFM 2014), Organized by CSIR-NIIST, Trivandrum (February, 19-21st, 2014); New Insight of Squaraine Based Raman Reporters for Construction of Diagnostic SERS Nano-Probe In Cancer Screening. Poster presentation: Nisha N, Jyothi B Nair, Kaustabh Kumar Maiti.

12. 27th International Carbohydrate Symposium (ICS27), Organized by Department of Organic Chemistry, Indian Institute of Science, Bangalore, India (January, 12-17th, 2014); Construction of Drug Delivery Vector: Sorbitol Based Carrier Conjugated with Cathepsin B Peptide Sequence targeting Towards Lysosome. Poster presentation; Santhi Maniganda, Vandana, Raghu K.G, Kaustabh Kumar Maiti.

11. National Seminar on Emerging Trends in Chemical Sciences (ETCS-2013): Organized by Department of Chemistry, University of Kerala, Kariavattom, Trivandrum (May, 29-31st, 2013); Development of Highly Sensitive Biocompatible Surface Enhanced Raman Scattering (SERS) Nanotag for Spectroscopic Detection and Bioimaging of Human Cancer); Invited Talk; Kaustabh Kumar Maiti.

10. Nano India 2013 Organized by CSIR-NIIST, Trivandrum and Supported by Nano Mission, DST, New Delhi (February 19-20th, 2013); Development of Highly Sensitive Biocompatible SERS Nanotags for Spectroscopic Detection and Bioimaging of Human cancer in a Murine Xenograft Model" Poster Presentation; Kaustabh Kumar Maiti.

9. 5th Asian Conference on Colloid and Interface Sciences (ACCIS 2013): Organized by Asian Society for colloid and Surface Science (ASCASS), Department of Chemistry, University of North Bengal, Darjeeling, India (November, 20-23rd, 2013); Development of Highly Sensitive

Biocompatible Surface Enhanced Raman Scattering (SERS) Nanotag for Spectroscopic Detection and Bioimaging Human Cancer.Oral Presentation; Kaustabh Kumar Maiti.

8. A*STAR CHEMISTRY SYMPOSIUM, A*STAR Scientific Conference; Biopolis, Singapore (November 10th, 2011) ;“ Development of Biocompatible SERS Nanotag with Increased Stability for in vivo Cancer Detection”, (Invited Talk) Kaustabh Kumar Maiti, Animesh Samanta, Marc Vendrell and Young Tae Chang.

7. A*STAR CHEMISTRY SYMPOSIUM, A*STAR Scientific Conference; Biopolis, Singapore (October 1st, 2009); “ Synthesis of Novel Raman Reporters and characterization of their SERS properties in a gold colloid”, Poster presentation; Kaustabh Kumar Maiti, Sung Ju Cho and Young Tae Chang.

6. 236th National Meeting and Exposition organized by American Chemical Society (ACS), Philadelphia, USA (August 17-21st, 2008); "Differentially innate immune detection of peptidoglycan by Toll –like receptor" Oral presentation in Carbohydrate Chemistry Division; Kaustabh K Maiti, Jinkeng Asong, Margreet Wolfert, Douglas Miller, Geert-Jan Boons.

5. 236th National Meeting and Exposition organized by American Chemical Society (ACS), Philadelphia, USA (August 17th-21st, 2008); "Differential recognition of Gram-positive and – negative synthetic peptidoglycan fragments by Toll-like receptor 2" (Poster presented in Medicinal chemistry Division;) Kaustabh K Maiti, Jinkeng Asong, Margreet Wolfert, Douglas Miller, Geert-Jan Boons.

4. The 11th Korea-Japan Joint Symposium On Drug Design and Development, Jeju Island, Korea (May 10-12th, 2006); "Design and Synthetic Studies of Novel Guanidine-containing Molecular-Transporters Using Inosito dimers as Scaffold", (Poster presentation) Kaustabh K. Maiti, Ock-Youm Jeon, Woo Sirl Lee and Sung-Kee Chung.

3. XVII NATIONAL SYMPOSIUM ON ORGANIC CHEMISTRY held in honour of Professor (Mrs.) Ashima Chatterjee on the occasion of her 80th Birth Anniversary, at Science City, Kolkata, India."1,3-dipolar cycloadditions of nitrones to stereoselective cinnamic acid piperidides"; (Poster Presentation) Kaustabh K Maiti, . Avijit Banerji, Sunanda Halder (nee Datta), T.Prange and A. Neuman.

2. International conference on chemistry and 36th annual Convention of Chemists organized by INDIAN CHEMICAL SOCIETY, Calcutta, India (December 11-16th ,1999); "Stereo-and region-selective cycloadditions of acyclic C-aryl-N-methyl nitrones" (Poster presentation) Kaustabh K Maiti, Avijit Banerji, Sunanda Halder (nee Datta), T.Prange and A. Neuman.

1. 84th Indian Science Congress, Delhi University, (January 3 -8th, 1997); "Investigations of the cycloaddition of C,N-Diarylnitrones to 1,4-disubstituted-1,3-diene compounds" (Oral Presentation) Kaustabh Kumar Maiti, Avijit Banerji, Sunanda Halder (nee Datta), T. Prange and A. Neuman.