

# PRANAV KUMAR PRABHAKAR

Listed in the World's Top 2% Scientist List for  
2021, 2022, 2023, 2024 (Data Released by  
Stanford University)

Professor and Head,  
Department of Biotechnology,  
School of Engineering and Technology,  
Nagaland University, Meriema, Kohima,  
Nagaland, India  
Email: [prabhakar.iitm@gmail.com](mailto:prabhakar.iitm@gmail.com)

## RESEARCHER PROFILE

**ORCID ID:** 0000-0001-8130-1822

**Scopus ID:** 26028020600

**WoS Researcher ID:** G-1416-2010

**Vidwan ID:** 105944

**Google Scholar ID:** BDnsk00AAAAJ&hl=en

## EMPLOYMENT DETAIL

- Professor and Head, Department of Biotechnology, School of Engineering and Technology, Nagaland University, Meriema, Kohima, Nagaland-797004, India
- **Deputy Director**, Research and Development Cell (04 Oct 2024 to 29<sup>th</sup> March 2025) and **Professor (Research Cadre)**, Parul University, Vadodara, from 22<sup>nd</sup> July 2024 to 29<sup>th</sup> March 2025.
- **Head of the Department** of Research Impact and Outcome, Research and Development, Lovely Professional University Punjab; 17<sup>th</sup> July 2022 to 16<sup>th</sup> July 2024
- **Professor** at Lovely Professional University, Punjab; 11<sup>th</sup> September 2021 to 16<sup>th</sup> July 2024.
- **Associate Professor** at Lovely Professional University, Punjab; 01<sup>st</sup> August 2019 till 10<sup>th</sup> September 2021.
- **Assistant Professor** at Lovely Professional University, Punjab; 01<sup>st</sup> August 2011 till 30<sup>th</sup> July 2019.

## OTHER ACTIVITIES/ROLES

- **Research coordinator and NAAC coordinator** for the School of Allied Medical Sciences at Lovely Professional University, Punjab
- Handled all the **Research data for various accreditation bodies**
- **Dealt with all conferences** organized at Lovely Professional University and publication of Conference Proceedings
- Headed the **Publication House** of Lovely Professional University
- Handled **Research Publication** centrally at Lovely Professional University
- Looking for the **Research impact and visibility of the university**

- Associated with the various committees of the universities and part of the **Board of Studies, curriculum development committee**, etc
- Actively involved in the **curriculum design for MSc Clinical Biochemistry**
- Guiding Doctorate, postgraduate, and undergraduate students with research activities and their internships

## EDUCATIONAL QUALIFICATION

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- **Doctor of Philosophy in Biotechnology** at Indian Institute of Technology Madras (IIT Madras), Chennai (2011)
- **Master of Science in Biochemistry** at Science College, Patna (Department of Biochemistry), Patna University, Patna from 2001-2003
- **Bachelor of Science in Chemistry** at C M Science College Darbhanga, Lalit Narayan Mithila University, Darbhanga Bihar, from 1996-1999
- **Intermediate** from Bihar Intermediate Education Council, Patna, Bihar (1996)
- **Matriculation** from Bihar School Examination Board, Patna Bihar (1994)

## RESEARCH AREA

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- Mimic the signalling pathways in metabolic disorders (diabetes) with natural products.
- Combinations and alternative therapies for the management of diabetes mellitus and their secondary complications
- Elucidate molecular mechanisms and strategies for oral insulin delivery.

## RESEARCH PUBLICATIONS

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- [2]. **P.K. Prabhakar**, M. Doble. Synergistic effect of phytochemicals in combination with hypoglycemic drugs on glucose uptake in myotubes. *Phytomedicine*. 2009, 16(12), 1119-1126.
- [3]. **P.K. Prabhakar**, M. Doble. Interaction of phytochemicals with hypoglycemic drugs on glucose uptake in L6 myotubes. *Phytomedicine*. 2011, 18(4), 285-291.
- [4]. P. M. Sivakumar, **P.K. Prabhakar**, M. Doble. Synthesis, antioxidant evaluation and quantitative structure-activity relationship studies of chalcones. *Medicinal Chemistry Research*. 2011, 20(4), 482-492.

- [5]. **P.K. Prabhakar**, S. Vijayaraghavan, J. Philip, M. Doble. Biocompatibility studies of functionalized CoFe<sub>2</sub>O<sub>4</sub> magnetic Nanoparticles. *Current Nanoscience*. 2011, 7(3), 371-376.
- [6]. **P.K. Prabhakar**, S. Raj, S. N. Sawant, M. Doble. Biocompatibility studies on polyaniline and polyaniline-silver nanoparticles coated polyurethane composites. *Colloids Surf B Biointerfaces*. 2011, 86 (1), 146-153.
- [7]. **P.K. Prabhakar**, M. Doble. Mechanism of action of natural products used in the treatment of diabetes. *Chin. J. Integr. Med*. 2011, 17(8), 563-574.
- [8]. **P.K. Prabhakar**, M. Doble. Synergistic interaction of berberine and arecoline with commercial oral antidiabetic drugs in 3T3-L1 adipocytes. *Ther Adv Endocrinol Metab*. 2011, 2(3), 103-114.
- [9]. **P.K. Prabhakar**, M. Doble. Interaction of cinnamic acid derivatives with commercial hypoglycemic drugs on 2-deoxyglucose uptake in 3T3-L1 adipocytes. *J. Agric. Food Chem*. 2011, 59 (18), 9835-9844.
- [10]. **P.K. Prabhakar**, R. Prasad, S. Ali, M. Doble. Synergistic interaction of ferulic acid with commercial hypoglycemic drugs in streptozotocin-induced diabetic rats. *Phytomedicine*. 2013, 20(6), 488-494.
- [11]. **P.K. Prabhakar**, A. Kumar, M. Doble. Combination therapy: A new strategy to manage diabetes and its complications. *Phytomedicine*. 2013, 21(2), 123-130.
- [12]. R. D. Akhatala, J. A. Chelvane, **P.K. Prabhakar**, P. P. P. Vedanthi, M. Doble, B. Murthy. S., Generation of drugs coated iron nanoparticles through high-energy ball milling. *J. Appl. Phys*. 2014, 115 (12), 124906-1-4. (IF: 2.877)
- [13]. S. U. Maaji, **P.K. Prabhakar**. Hypovitaminosis D in Type-2 Diabetes mellitus patients; variation with age, sex and season. *Indian J. Appl. Res*. 2014, 4 (6), 422-425.
- [14]. P. S. Chakarborty, H. Sapkota, **P.K. Prabhakar**. Synergistic Interaction of Cannabis and Garlic with Commercial Antibiotics. *Int. J. Pharmacogn. Phytochem. Res*. 2015, 7(1), 193-196.
- [15]. P. Popli, **P.K. Prabhakar**. Significance of Tacrolimus Monitoring to Optimize Immunosuppressive Therapy. *Int. J. Pharma Bio Sci*. 2015, 6(2), 191-198.
- [16]. **P.K. Prabhakar**. Pathophysiology of secondary complications of diabetes mellitus. *Asian J. Pharm. Clin. Res*. 2016, 9 (1), 32-36.
- [17]. Kirti, **P.K. Prabhakar**. Human papilloma virus-associated cervical cancer: A review. *Asian J. Pharm. Clin. Res*. 2016, 9 (3), 14-17.

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- [22]. R. P. Jayaswal, **P. K. Prabhakar**. Probiotics- A new diabetes management tool. *International Journal of Green Pharmacy.* 2017, 11(3), S395-S400.
- [23]. R. Nankar, **P. K. Prabhakar**, M. Doble. Hybrid drug combination: Combination of ferulic acid and metformin as anti-diabetic therapy. *Phytomedicine.* 2017, 37, 10-13. (IF: 6.66)
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- and in-vitro approaches. *Assay in Drug Development Technologies*, 2019, 17(8), 339-351.
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Diabetic Wound Healing by Using *In silico* Approaches. *Biointerface Res. Appl. Chem.* 2022. 12(6). 7621-7632.

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- [61]. **P. K. Prabhakar**. Combination therapy, a new tool for the management of Obesity. *Endocr Metab Immune Disord Drug Targets*, 2024, 24(4), 402-417. DOI: <https://doi.org/10.2174/1871530323666230825140808>

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- Diagnostics, Innovative Therapies, and Public Health Strategies: A Review. *Current Pharmaceutical Biotechnology*, 2025. DOI: <https://doi.org/10.2174/0113892010355430250330074301>
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#### CONFERENCES PROCEEDINGS (INTERNATIONAL)

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## ORAL PRESENTATION

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- [1]. **P.K. Prabhakar.** Synergistic activity of caffeic acid with oral hypoglycemic drugs for glucose uptake in rat adipocytes at LPUNASYACON 2016 at Lovely Professional University Punjab on 22-23 April 2016.
- [2]. **P.K. Prabhakar, M. Doble.** Antidiabetic activity of ferulic acid in combination with oral antidiabetic drugs in streptozotocin-induced diabetic rats at 3rd Bhartiya Vigyan Sammelan 2012 at Lovely Professional University Punjab on 11-14 Oct 2012.
- [3]. **P.K. Prabhakar, M.Doble.** Glucose uptake stimulatory activity of Arecoline in L6 myotubes at 3rd DiabetesIndia International Conference at Bangalore on 05-07th Dec, 2008.
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- [4]. **P.K.Prabhakar**, M.Doble. Glucose uptake stimulatory activity of Ferulic acid in L6 myotubes at 20th World Diabetes Congress organized by International Diabetes Federation (IDF) in Montreal, Canada on 18-22nd October 2009
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## FDP AS RESOURCE PERSON

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- [1]. FDP on the topic “Workshop on Conducting Quality Projects and Dissertations” at the Lovely Professional University campus on 26th Sep. 2015.
- [2]. FDP on the topic “Secondary Complications of Diabetes Mellitus and Alternative Therapy” at Lovely Professional University campus on 20th Aug. 2016.
- [3]. FDP on the topic “Live Projects and Research Proposals” at Lovely Professional University campus on 14th Oct. 2017.
- [4]. “Short Term Course on Scientific Writing & Communication” at Lovely Professional University campus on 25th May 2021 to 01st June 2021.
- [5]. “Short Term Course on Scientific Writing & Communication” at Lovely Professional University campus on 26th July 2021 to 02nd August 2021.
- [6]. “Online FDP in Career Building in Higher Education and Research” organized by Maharana Pratap College of Pharmacy, Kanpur (UP) on 6th Sept 2021 to 10th Sept 2021.

## FDP AS PARTICIPANT

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- [1]. FDP on the topic “Immunohistochemistry, Histopathology, Histotechnology, Cytology” at Lovely Professional University campus on 30th June- 02nd July. 2014.
- [2]. FDP on the topic “Bioinformatics: peptides & proteins in the therapeutics & software application” at Lovely Professional University campus on 06th July- 08th July. 2015.
- [3]. FDP on the topic “Workshop on Action Research-A Thinking Teacher” at Lovely Professional University campus on 20th Feb. 2016.
- [4]. FDP on the topic “Workshop on Patent search on Xlpat” at Lovely Professional University campus on 14th Jan. 2017.
- [5]. FDP on the topic “Realtime PCR and Capillary Electrophoresis” at Lovely Professional University campus on 15th Apr. 2017.
- [6]. FDP on the topic “Workshop on Molecular Marker Analysis” at Lovely Professional University campus on 11th Nov. 2017.
- [7]. MHRD sponsored workshop on “Herbal Drugs: Issues & Challenges” at GNDU Amritsar from 16 Sept. 2019 to 22nd Sept. 2019.
- [8]. AICTE sponsored Short Term Training Programme on “Computed Aided Drug Designing” Organized by ASBASJSM College of Pharmacy, Bela (Punjab) from 11th Jan 2021 to 16th Jan 2021.
- [9]. DST-sponsored Short Term Training Programme on “Biostatistics & R-Programming” Organized by Ratnavel Subramaniam College of Arts & Science, Coimbatore (Tamilnadu) from 09th Aug 2021 to 14th Aug 2021 and 16th Aug 2021 to 19th Aug 2021.
- [10]. Online FDP on “Research and Innovations in Paramedical and Allied Health Sciences” Organized by Department of Paramedical and Allied Health Sciences, Galgotias University, Greater Noida (UP) from 22nd Nov 2021 to 26th Nov 2021.

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- [8]. Abhilasha Suwalka, **P. K. Prabhakar**; Evaluating the Association of FGF-23 and IGF-1 Levels in Biochemical Marker with Type 2 Diabetes Mellitus Patients, Lovely Professional University, Registration No. 5228/2023-CO/L, Filed 2023-02-28.

## MEMBERSHIPS

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- Indian Science Congress (Life Member): L36022
- Royal Society of Chemistry- Membership Number- 457051
- American Chemical Society: Membership Number: 31483125
- Asia-Pacific Chemical, Biological & Environmental Engineering Society (APCBEEES) - Membership Number- 100254
- Asian Council of Science Editors- Membership Number - 91.11928

## RECOGNITIONS

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- Organizing secretary for a national conference on Recent Trends on Biomedical Sciences 2015 at Lovely Professional University (20th March 2015)
- Committee member for LPUNASYACON-2016 (National Conference) organized at Lovely Professional University, on 22nd-23rd April 2016.
- Committee member for International Conference of Pharmacy-2017 (International Conference) organized at Lovely Professional University, on 7th-8th April 2017.
- Organizing secretary for national conference on Recent Trends on Biomedical Sciences 2018 at Lovely Professional University (16th March 2018).
- Organizing secretary for national conference on Recent Trends on Biomedical Sciences 2020 at Lovely Professional University in Virtual Mode (02nd-03rd July 2021).
- Co-convenor for International conference on Materials for Emerging Technologies-2021 (ICMET-21) at Lovely Professional University in Virtual Mode (18th-19th February 2022).
- Convener for International Conference on Feminine Hygiene Management- Beyond Taboo (ICFHM-2022) at Lovely Professional University (25th-26th November 2022).

## EDITORIAL BOARD MEMBERS

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- Frontiers in Endocrinology: Diabetes: Molecular Mechanisms (Associate Editor)
- Current Diabetes Review - Bentham Science (Associate Editorial Board Member)
- Endocrine, Metabolic & Immune Disorder - Drug Target (Associate Editorial Board Member)
- Journal of Pure and Applied Microbiology
- Journal of Applied Pharmaceutical Science
- The Pharma Innovation
- International Journal of Scientific Review and Research in Engineering and Technology
- International Journal of Medical Research and Pharmaceutical Sciences
- International Institute of Chemical, Biological & Environmental Engineering
- GSC Biological and Pharmaceutical Sciences (GSCBPS)

## REVIEWERS

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Ageing research reviews; Aging and disease; Asian journal of pharmaceutical and clinical research; Asian journal of pharmaceuticals; Biofouling; Biomedicines; Brain sciences; Cancers; Chemical biology & drug design; Colloids and surfaces; COVID; Current chemical biology; Current issues in molecular biology; Current Pediatric Research; Current pharmaceutical

design; Current research; Diabetes research and clinical practice; Diabetes, metabolic syndrome and obesity; Emerging microbes & infections; Foods; Indian journal of microbiology; International journal of environmental research and public health; International journal of food properties; International Journal of pharmacy and Pharmaceutical Sciences; Journal of Agricultural and Food Chemistry; Journal of Applied Polymer Science; Journal of Ayurveda and Integrative Medicine; Journal of Clinical Medicine; Journal of Complementary & integrative medicine; Journal of Enzyme Inhibition and Medicinal Chemistry; Review activity for Journal of herbal medicine; Journal of Microbial & biochemical technology; Journal of translational medicine; Life; Medical hypotheses; Nanomedicine; Pathophysiology; Pharmaceuticals; Phytomedicine; Phytotherapy research; Recent patents on drug delivery & formulation; SN Applied Sciences; Vaccines.

## RESEARCH MENTORSHIP

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- Research projects advised and mentored for three (03) undergraduates and two (02) postgraduates during my PhD research work
- 05 PhD students defended; 3 PhD ongoing, 02 MSc students
- Doctorate defended
  - Role of Fibroblast Growth Factor (FGF-23) and Insulin-Like Growth Factor (IGF-1) in Bone Metabolism in the Case of Pre-Diabetes & Type 2 Diabetes Mellitus Patients. Dr. Abhilasha Suwalka; Registration Number: 11919675; Lovely Professional University)
  - Single Nucleotide Polymorphism in Adipokine Genes and its Correlation with Plasma Level of Adipokines in Individuals with Prediabetes. Dr. Bineesh CP; Registration Number: 41800728; Lovely Professional University)
  - Isolation, Purification, and Characterization of Antidiabetic Compounds Derived from *Morchella esculenta*. Dr. Keshav Anand; Registration Number: 11919206; Lovely Professional University)
  - Identification of SIRT1 (Silent mating type information regulation 2 homolog 1) modifiers as promising therapeutic agents for improving reduced wound healing in Type II Diabetes. Dr. Rupal Dubey; Registration Number: 41800467; Lovely Professional University)
  - Evaluation of the potential role of Thymosin alpha 1 in Bone remodeling. Dr. Indu Bala; Registration Number: 41700089; Lovely Professional University)
- Postgraduate

- 2019-2020
  - Navpreet Kaur (Registration No: 11806572) M.Sc. Clinical Biochemistry: Effect of thyroid dysfunction on lipids profile.
  - Mohammad Sani Danboza (Registration No: 11814440), M.Sc. Clinical Biochemistry: The relevance of cancer markers in the diagnosis of different types of cancers
- 2017-2018
  - Mohammad Zia Rasekh (Registration No: 11616689) M.Sc. Clinical Biochemistry: Effect of thyroid dysfunction on lipids profile
  - Abdur Rahim Abidi (Registration No: 11613699) M.Sc. Clinical Biochemistry: Role of thyroid disorder in diabetes mellitus
- 2016-2017
  - Muhammad Shafi Bhat (Registration No: 11501798) M.Sc. Clinical Biochemistry: Association of Interleukin 13 Gene Variants in Allergic Rhinitis and Atopic asthma among Kashmiri Population-a hospital-based study
  - Jasjot Singh (Registration No: 11501800) M.Sc. Clinical Biochemistry: Hospital Based Clinical Study on Prevalence of TPO Antibodies in Association to Autoimmune Thyroid Diseases – Punjab
  - Amrit Kaur (Registration No: 11501029) M.Sc. Clinical Microbiology: Sensitivity Pattern of Klebsiella pneumoniae in Lower Respiratory Tract Samples in Critical area
  - Parminder Kaur (Registration No: 11501111) M.Sc. Clinical Microbiology: Identification of Pathogenic Bacteria in Blood Cultures and Susceptibility Testing of Isolates with Various Antibiotics
  - Shaiesta Khanum (Registration No: 11501596) M.Sc. Clinical Microbiology: Urinary Tract Infection and Antibiotics Sensitivity in the Bacterial Isolates from the Urine Sample
- 2015-2016
  - Ajay Kumar (Registration No: 11400527) M.Sc. Clinical Biochemistry: Impact of lifestyle modification on reducing risk of CVD
  - Kote Ganesh Sudhakar (Registration No: 11410884) M.Sc. Clinical Biochemistry: Adenosine Deaminase as the Biochemical Marker of Rheumatoid Arthritis

- 2013-2014
  - Suresh Kumar (Registration No: 11212006) M.Sc. Clinical Microbiology: Nosocomial infections caused by MDR-Pseudomonas aeruginosa producing metallo beta lactamase
- 2012-2013
  - Neha Rani (Registration No: 11113065) M.Sc. Clinical Microbiology: Prospective study on catheter-associated urinary tract infections and prevention of catheter-associated UTI
  - Pralay Shankar Chakraborty (Registration No: 11100078) M.Sc. Clinical Microbiology: Interaction of selected plants extracts with commercial antibiotics
  - Arun Kumar (Registration No: 11113371) M.Sc. Clinical Microbiology: Isolation of microorganisms from blood sample and their antibiotic susceptibility pattern
  - Ashok Bhatt (Registration No: 11108508) M.Sc. Clinical Microbiology: Prospective study on bacterial isolates from pus sample and their antibiotic susceptibility pattern
- 2011-2012
  - Dimple Kumar (Registration No: 11011452) M.Sc. Industrial Microbiology: Determination of carbohydrate, protein, and rhamnolipid content in mixed biofilm

## **COURSES TAUGHT**

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- **@ IIT Madras - As Teaching Assistance**
  - BT 3030 - Biostatistics
  - BT 3060 - Molecular Biology and Genetic Engineering Lab
  - BT 5740 - Microbiology
  - BT 6720 - Bioinformatics
  - BT 7020 - Animal Tissue Culture
- **@ Lovely Professional University - as Assistant, Associate Professor & Professor**
  - MLT130: Immunology and Serology (UG)
  - MLT136 & MLT137: Biochemistry Theory and Practical (UG)
  - MLT218 & MLT228: Clinical Biochemistry Theory and Practical (UG)
  - MLT219: Immunology (UG)

- MLT322 & MLT326: Diagnostic Biochemistry Theory and Practical (UG)
- MLT513 & MLT554: Clinical Biochemistry Theory and Practical (UG)
- MLT516: Molecular Biology and Genetics (PG)
- MLT518: Molecular Biology and Microbial Genetics (PG)
- MLT522: Pathogenesis of Infectious Disease (PG)
- MLT565 & MLT566: Biochemistry & Intermediary Metabolism Theory & Practical (PG)
- MLT645: Applied Biochemistry & Quality Control
- MCE503: Biochemistry (For M.Sc Clinical Embryology)

## HONORS AND AWARDS

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- **Research Appreciation Award 2020** from Lovely Professional University in November 2021
- **"World Top 2% Scientist List" prepared by Stanford University USA 2024**
- **"World Top 2% Scientist List" prepared by Stanford University USA 2023**
- **"World Top 2% Scientist List" prepared by Stanford University USA 2022**
- **"World Top 2% Scientist List" prepared by Stanford University USA 2021**
- Recipient of travel grant towards attending ATTD 2009 in Greece from **Indian Institute of Technology Madras & CSIR and approved by DST.**
- Received a **Full grant from the International Diabetes Federation (IDF)** for attending the 20th World Diabetes Congress, 2009 in Montreal, Canada
- **Senior Research Fellow** (Jan 2008-June 2011) awarded by *MHRD, New Delhi*
- **Junior Research Fellow** (Jan 2006-Dec 2007) awarded by *MHRD, New Delhi*
- Qualified in national **Graduate Aptitude Test for Engineering – GATE (2005) with AIR 109**
- **Qualified CSIR-UGC NET (Dec 2004)** qualified for lectureship
- 4th rank holder in University in M. Sc Biochemistry (2001-2003)

I do hereby declare that the above-furnished details are true and correct to the best of my knowledge.

Pranav Kumar Prabhakar