

Contact information:

Name: Suchitra Kamle

Current affiliation: Dept. of Molecular Microbiology & Immunology, Brown University

Work Address: 185 Meeting street, Biomed Centre, MMI, SFH-258, Box GB-5, Providence, Rhode Island, US (02912)

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Education

Jul.1998-Jul.2001: BSc. (Biology, Chemistry) DDU Gorakhpur University, UP, India

Aug.2001-Aug.2003: MSc. (Biotechnology) DDU Gorakhpur University, UP, India

Dissertation: Identification & isolation of different strains of *Azospirillum brasiliense* from different cereal crops & grasses

May.2006-Jun. 2011: (Awarded Mar. 2012)

Ph.D. (Biotechnology) CSIR-Indian Institute of Toxicology Research, Lucknow /Banaras Hindu University, Varanasi, UP, India

Thesis: "Studies on The Expression of Recombinant Insecticidal Protein, Development of DNA /Protein Based Detection Strategies and Evaluation of its Allergenicity Potential"

Post-Graduate Training

Oct. 2011- Dec. 2013: DBT Postdoc. Res. Fellow, National Institute of Immunology, Delhi, India

Jan. 2014-Dec. 2015: Postdoc. Res. Fellow, Shanghai Jiao Tong University, Shanghai, China.

Jan. 2016-Dec. 2016: Postdoc. Res. Fellow, Shanghai Jiao Tong University, Shanghai, China

Jan.2017-Jan.2018: Postdoc. Res. Associate, Brown University, Providence, RI, USA

Honors

Jun. 2006-Jul.2007: Junior Research Fellow, Department of Biotechnology, India.

Aug. 2007-Aug. 2010: Senior Research Fellowship, Indian Council of Medical Research (ICMR), New Delhi, India.

Oct. 2012-Dec. 2013: DBT-Postdoctoral Fellowship. Indian Institute of Science, Bangalore, India.

Jul. 2014-Jul. 2015: Postdoctoral Fellowship (Grade A), Shanghai, China.

Jan. 2016-Dec.2017: NSFC Foreign International Young Scientist award, China.

Mar. 2022-Feb. 2023: Legorretta Cancer Center award 2022, Brown University

Mar. 2025-April. 2026: ACS/IRG award 2024, LCC, Brown University

Positions and Employment

Oct. 2003- Dec. 2005: Project Research Assistant, (Dept. of Biotechnology, DDU GKP University, India)

May.2006- Jul. 2007: Junior Research Fellow, DBT (CSIR-Indian Institute of Toxicology Research, Lucknow, India)

Aug.2007- Aug. 2010: Senior Research Fellow, ICMR (CSIR-Indian Institute of Toxicology Research, Lucknow, India)

Oct.2011- Dec. 2011: Postdoctoral Research Associate, Dept. of Science & Technology (National Institute of Immunology, New Delhi, India)

Jan.2012- Dec.2013: DBT-Postdoctoral Fellow, IISc-Bangalore (National Institute of Immunology, New Delhi, India)

Jan. 2014- Dec. 2016: Postdoctoral Fellow, (Shanghai Jiao-Tong University, Shanghai, China)

Jan. 2017- Jan. 2018: Postdoctoral Research Associate, (Brown University, Providence, USA)

Jan. 2018- Feb.2022: Investigator in Molecular Microbiology & Immunology, (Brown University, Providence, USA)

Mar. 2022- Present: Assistant Professor of Molecular Microbiology & Immunology, (Brown University, Providence, USA)

Membership and Professional Activities

2024-Present American Association of Immunology

2022-Present: American Cancer Society CAN

2022-Present: American Lung Association

2021-Present: TRDG member, Alpert Medical School, Brown University

2020-present: Legorretta Cancer Center, Alpert Medical School, Brown University

2016-Present: American Association for the Advancement of Science;

2011 American Chemical Society;

2011 American Society for Microbiology;

2009 Indian Academy of Neurological Sciences

Editorial member: Frontiers of Immunology (2023), American Journal of Current Genetics (2013); Bioinfo publications (2012).

Ad-hoc Peer Reviewer: Redox Biology, Scientific Reports, Frontiers of Immunology, Cells, PlosONE, International journal of Molecular Sciences, Gene, International Journal of Agriculture & Food Chemistry; Food Research International; African Journal of Biotechnology, Molecular Biology & Genetic Engineering, Biosafety.

Publications:

Research papers:

1. Ma B, **Kamle S**, Sadanaga T, Lee CM, Lee JH, Yee DY, Zhu Z, Silverman EK, DeMeo DL, Choi AMK, Lee CG, Elias JA, Chitinase 3-like-1 Inhibits Innate Antitumor and Tissue Remodeling Immune Responses by Regulating CD47-SIRP α - and CD24-Siglec10-Mediated Phagocytosis, *The Journal of Immunology*, Volume 213, Issue 9, November 2024, Pages 1279–1291, <https://doi.org/10.4049/jimmunol.2400035>
2. Taifour T, Attalla SS, Zuo D, Gu Y, Sanguin-Gendreau V, Proud H, Solymoss E, Bui T, Kuasne H, Papavasiliou V, Lee CG, **Kamle S**, Siegel PM, Elias JA, Park M, Muller WJ. The tumor-derived cytokine Chi3l1 induces neutrophil extracellular traps that promote T cell exclusion in triple-negative breast cancer. **Immunity**. **2023** Dec 12;56(772):e8.
3. Guetta-Terrier C, Karambizi D, Akosman B, Zepecki JP, Chen JS, **Kamle S**, Fajardo JE, Fiser A, Singh R, Toms SA, Lee CG, Elias JA, Tapinos N. Chi3l1 Is a Modulator of Glioma Stem Cell States and a Therapeutic Target in Glioblastoma. **Cancer Res**. **2023** Jun 15;83(12):1984-1999.
4. Ma B*, **Kamle S***, Akosman B, Khan H, Lee CM, Lee CG, Elias JA. (Dec. 2022) CHI3L1 enhances melanoma lung metastasis via regulation of T cell co-stimulators and CTLA-4/B7 axis. *Frontiers in Immunology* (13) DOI: 10.3389/fimmu.2022.1056397. ***equal contribution.**
5. **Kamle S**, Ma B, Lee CM, Schor G, Zhou Y, Lee CG, Elias JA. (2022). Host Chitinase 3-like-1 is a Universal Therapeutic Target for SARS-CoV-2 Viral Variants in COVID 19. **eLife** **11**:e78273. <https://doi.org/10.7554/eLife.78273>
6. Lee JH, Lee CM, Lee JH, Kim MO, Park JW, **Kamle S**, Akosman B, Hergoz EL, Peng XY, Elias JA, Lee CJ (2022) Kasugamycin Is a Novel Chitinase 1 Inhibitor with Strong Antifibrotic Effects on Pulmonary. **American J. Resp. cell & mol. Bio.** <https://doi.org/10.1165/rcmb.2021-0156OC>
7. **Kamle S**, Ma B, He CH, Akosman B, Zhou Y, Lee CM, El-Deiry WS, Huntington K, Liang O, Machan JT, Kang MJ, Shin HJ, Mizoguchi E, Lee CG, Elias JA. Chitinase 3-like-1 is a therapeutic target that mediates the effects of aging in COVID-19. **JCI Insight**. **2021** Nov 8;6(21):e148749. doi: 10.1172/jci.insight.148749.PMID: 34747367.
8. Ma B[#], Akosman B[#], **Kamle S[#]**, Lee CM, Koo JS, Lee CG, Elias JA. 2021. CHI3L1 regulates PD-L1 and anti-CHI3L1-PD-1 antibody elicits synergistic antitumor. **J Clin Invest**. 2021;131(21):e137750. PMID: 34720089 PMCID: PMC8553560. **#equal contribution.**
9. Zhou L, Huntington K, Zhang S, Carlsen L, So EY, Parker C, Sahin I, Safran H, **Kamle S**, Lee CM, Lee CG, Elias JA, Campbell KS, Naik MT, Atwood WJ, Youssef E, Pachter JA, Navaraj A, Seyhan AA, Liang O, El-Deiry WS. Natural Killer cell activation, reduced ACE2, TMPRSS2, cytokines G-CSF, M-CSF and SARS-CoV-2-S pseudovirus infectivity by MEK inhibitor treatment of human cells. *Oncotarget*. 2020; 11:4201-4223.
10. He CH, Lee CG, Ma B, **Kamle S**, Choi AMK, Elias JA. N-Glycosylation Regulates Chitinase 3-like-1 and IL-13 Ligand Binding to IL-13 Receptor α 2. **Am J Respir Cell Mol Biol**. **2020** Sep;63(3):386-395. doi: 10.1165/rcmb.2019-0446OC. PMID: 32402213; PMCID: PMC7462338.
11. Lee, CM., He, CH., Park, JW., Lee, JH, **Kamle, S**, Ma, B, Akosman, B., Cortez, R., Chen, E., Zhou, Y., Herzog, EL., Ryu, C., Peng, X., Rosas, IO., Poli, S, Bostwick, CF., Choi, AM.,

Elias, JA., Lee, CG. **2019**. Chitinase 1 regulates pulmonary fibrosis by modulating TGF- β /SMAD7 pathway via TGFBRAP1 and FOXO3. *Life science alliance*, 2(3), e201900350.

11. Zhou Y, He CH, Yang DS, Nguyen T, Cao Y, **Kamle S**, Lee CM, Gochuico BR, Gahl WA, Shea BS, Lee CG, Elias JA. **2018**, Galectin-3 interacts with the Chi3l1 Axis contributes to Hermansky-Pudlak syndrome Lung Disease. *J Immunol*. **2018** Mar 15;200(6):2140-2153, PMID:29427412.
12. Negi H, Merugu SB, Mangukiya HB, Li Z, Zhou B, Sehar Q, **Kamle S**, Yunus FU, Mashausi DS, Wu Z, Li D. Anterior Gradient-2 monoclonal antibody inhibits lung cancer growth and metastasis by upregulating p53 pathway and without exerting any toxicological effects: A preclinical study. *Cancer Letters*. **2019** May 1;449:125-134. doi: 10.1016/j.canlet.2019.01.025. Epub 2019 Jan 25. PubMed PMID: 30685412.
13. Gao G, Yao Y, Li K, Mashausi DS, Li D, Negi H, **Kamle S**, Chen H, Wu Z, Zhou H, Li D. A human leucyl-tRNA synthetase as an anticancer target. *Onco Targets Ther*. 2015;8:2933-42. doi: 10.2147/OTT.S88873. eCollection 2015. PubMed PMID: 26508878; PubMed Central PMCID: PMC4610879.
14. Li Z, Wu Z, Chen H, Zhu Q, Gao G, Hu L, Negi H, **Kamle S***, Li D*. Induction of anterior gradient 2 (AGR2) plays a key role in insulin-like growth factor-1 (IGF-1)-induced breast cancer cell proliferation and migration. *Med Oncol*. **2015** Jun;32(6):577. doi: 10.1007/s12032-015-0577-z. Epub 2015 May 9. PubMed PMID: 25956506; PubMed Central PMCID: PMC4451465. ***Co-corresponding author.**
15. Wu Z, Cheng K, Shi L, Li Z, Negi H, Gao G, **Kamle S***, Li D*. Sal-like protein 2 upregulates p16 expression through a proximal promoter element. *Cancer Sci*. **2015** Mar;106(3):253-61. doi: 10.1111/cas.12606. Epub 2015 Mar 3. PubMed PMID: 25580951; PubMed Central PMCID: PMC4376433. ***Co-corresponding author.**
16. **Kamle S***, Ojha A, Kumar A. Development of an enzyme linked immunosorbant assay for the detection of Cry2Ab Protein in transgenic plants. *GM Crops*. **2011** Apr-Jun;2(2):118-25. doi: 10.4161/gmcr.2.2.16191. Epub 2011 Apr 1. PubMed PMID: 21912216. ***Corresponding author.**
17. **Kamle S***, Kumar A, Bhatnagar RK. Development of multiplex and construct specific PCR assay for detection of cry2Ab transgene in genetically modified crops and product. *GM Crops*. **2011** Jan-Mar;2(1):74-81. doi: 10.4161/gmcr.2.1.16017. PubMed PMID: 21844701. ***Corresponding author.**
18. Kumar R, Singh CK, **Kamle S**, Sinha RP, Bhatnagar RK, Kachru DN. **2010**. Development of nanocolloidal gold based immunochromatographic assay for rapid detection of transgenic vegetative insecticidal protein in genetically modified crops, *Food Chemistry*, 122 (4), 1298 – 1303.
19. Singh CK, Ojha A, **Kamle S**, Kachru DN (**2007**). Assessment of *cry1Ab* transgene cassette in commercial Bt corn MON810: Concurrent Gene, Event, Construct and GMO specific characterization. *Nature Protocol*, DOI: 10.1038/nprot. 2007.440.

Review

1. Lee SY, Lee CM, Ma B, **Kamle S**, Elias JA, Zhou Y, Lee CG. (2022). Targeting Chitinase 1 and Chitinase 3-like 1 as Novel Therapeutic Strategy of Pulmonary Fibrosis. Front. Pharmacol. <https://doi.org/10.3389/fphar.2022.826471>
2. **Kamle S**, Ali S. Genetically modified crops: detection strategies and biosafety issues. Gene. 2013 Jun 15;522(2):123-32. doi: 10.1016/j.gene.2013.03.107. Epub 2013 Apr 6. PubMed PMID: 23566850.
3. **Kamle S**, Ali S. (2013) Mutations in H-ras gene and Costello syndrome. The Journal of Genetics- Photon, 114:124-129.
4. **Kamle S**, Ali S. (2013) Reverberations on Biosafety Issues pertaining to Genetically Modified Crops. Biosafety, 2:112- 114.

Book Chapter

1. **Kamle S***, Li D., Lee CG., Elias J. (2022). Methods for transient expression and purification of monoclonal antibodies in mammalian cells. Advances in Protein Molecular & Structural Biology Methods. 31-39p Science Direct .***Corresponding author.** <https://doi.org/10.1016/B978-0-323-90264-9.00003-9>
2. **Kamle S***, Li D, Ojha A, Kumar A. Development of an Enzyme-Linked Immunosorbent Assay for the Detection of GM Proteins in Transgenic Crops/Produce. **Methods Mol Biol.** 2019;1902:159-166. doi: 10.1007/978-1-4939-8952-2_12. PubMed PMID: 30543068. ***Corresponding author**
3. **Kamle S***, Li D. Genetically Modified Crops: Biosafety regulations and detection strategies. 2016. Ronald Watson & Victor Preedy. Genetically modified organisms in food: Production, Safety, Regulation and Public Health. Elsevier Science/Academic Press: Amsterdam, The Netherlands; Boston, MA, USA, 2016; 11-16p. ***Corresponding author.**
4. **Kamle S***, Ojha A, Kumar A. Development of enzyme-linked immunosorbent assay for the detection of Bt protein in transgenic cotton. **Methods Mol Biol.** 2013; 958:131-8. doi: 10.1007/978-1-62703-212-4_10. PubMed PMID: 23143488. ***Corresponding author.**

Reports in news/magazines

1. <https://www.brown.edu/news/2021-11-08/covid-mechanism>. Nov. 8. 2021 <https://newsconcerns.com/researchers-reveal-the-cellular-mechanism-behind-why-the-elderly-are-at-risk-of-infection-and-death-from-sars-cov-2-sciencedaily/>
2. The peer reviewed journal of Clinical investigation **Nov.1.2021** (<https://www.jci.org/articles/view/137750>) JCI has published the interview highlighting that our studies demonstrate that CHI3L1 a 18-glycosylhydrolase molecule contributes to pulmonary metastasis by regulating PD-1-PD-L-1 axis, and simultaneous targeting of CHI3L1 and PD-1/PD-L1 axis elicits synergistic antitumor responses.
3. The International Service for the Acquisition of Agri-biotech Applications

<https://www.isaaa.org/kc/cropbiotechupdate/article/default.asp?ID=7568>
Detection System for *cry2Ab* in GM Crops, **March 25, 2011**.

Development of

Genes submitted in NCBI: Identified 5 genes of *Bubalus bubalis* match with *H-ras*, sequences submitted in NCBI (2013): GenBank KF951099 - KF951103

Patents

1. PCT/US2023/081359. **US patent filed (2023)** Jack A. Elias, **Suchitra Kamle**, Chun Geun Lee and Bing Ma. Treatment of epidermal growth factor receptor mutant non-small cell lung cancer
2. 18/058,167 appl. **US patent (2022)** Jack A. Elias, Chun Geun lee, **Suchitra Kamle**, Bing Ma, Changmin Lee. Methods for preventing, reversing or treating an infection induced by a virus that enters host cells via ace2 receptor.
3. WO/2021/102131. awarded. **US patent (2021):** Jack A. Elias, Chun Geun Lee, **Suchitra Kamle**. Bispecific antibodies against CHI3L1 and CTLA4 with enhanced cytotoxic effects on tumor cells.
4. US patent **filed 2020:** Jack A. Elias, Chun Geun Lee, **Suchitra Kamle**. Methods for preventing, reversing or treating a Covid19 infection.
5. 62/843931; 62/876507;898324. awarded. **US patent (2020):** Jack A. Elias, Chun Geun Lee, **Suchitra Kamle**. Bispecific antibodies against CHI3L1 and PD-1 with enhanced T cell mediated cytotoxic effects on tumor cells.
6. PCT/US2019/060288. **US Patent (2019)**. Jack A. Elias, Yang Zhou, **Suchitra Kamle**, Chun Geun Lee, Methods and compositions relating to anti-chi3l1 antibody reagents for the treatment of fibrosis,
7. 20190119405. awarded: **US patent (2019):** Jack A. Elias, Chun Geun Lee, Chuanhua He, Bing Ma, **Suchitra Kamle**, Chang-Min Lee. Methods and compositions relating to anti-CHI3L1 antibody reagents.
8. 201510019471 awarded **China Patent (2016):** A stable CHO cell line that express humanized monoclonal antibody against AGR2 and use there of
9. 201410769174.4 awarded: **China Patent (2015):** A stable CHO cell line that expresses recombinant human coagulation Factor VIII and use there of

Conferences /Workshops:

- LCC Symposium on Tumor Plasticity in Diagnosis and Treatment, September 21st, 2023 at the Graduate Hotel in Downtown Providence.

- Fifth Annual Dr. Samuel M. Nabrit Conference for Early Career Scholars, Brown Univ. Sidney E. Frank Hall for Life Sciences. June 8-9.2023
- OWIMS Annual Conference - Women in Science and Medicine: Forging a Bright Future. Thursday, June 16, 2022 | 8:00 am - 1:30 pm. The Warren Alpert Medical School of Brown University (222 Richmond Street, Providence, RI).
- AACR-2020-A71: Chitinase-3-like-1: A new immunomodulatory target in lung cancer *Cancer Immunology Research* (IF11.151), Pub Date : 2020-03-01, DOI: [10.1158/2326-6074.tumimm19-a71](https://doi.org/10.1158/2326-6074.tumimm19-a71). B. Akosman, B. Ma, **S. Kamle**, D. Kurtulus, CM. Lee, CG. Lee, J. Elias.
- Academic surgical congress (ASC) -0.310 (2019), Intraperitoneal CPX attenuates murine melanoma metastasis via inhibition of Chitinase 3-like-1 signaling. R. Cortez, B. Ma, B. Akosman, **S. Kamle**, CM Lee, SF. Monaghan, DT. Harrington, TJ. Miner, WG. Cioffi, CG. Lee, JA. Elias
- AACR- Nov. 17-20, 2019. Boston, MA, USA. Chitinase-3-like-1: A immunomodulatory target in lung cancer. B. Akosman, B. Ma, **S. Kamle**, D. Kurtulus, CM. Lee, C Lee, J. Elias.
- ATS: A5944: San Francisco, USA. American Journal of Respiratory and Critical Care Medicine 2018;197:A5944. Inhibition of melanoma lung metastasis by Chi3l1 neutralizing antibody. B. Ma, **S. Kamle**, B. Akosman, CH. He, CG. Lee, JA. Elias.
- TMIC-40 Neuro-Oncology 21 (supplement_6) vi256-vi256. YKL-40 as modulator of cancer stem cell phenotypic transition in human glioblastomas. CG. Terrier, B. Akosman, **S. Kamle**, E Fajardo, A Fisher, CG. Lee, JA. Elias, N. Tapinos.
- Hepatology AASLD-2019-185: Role of Chitinase 3-Like 1 Protein Expression In Nonalcoholic Steatohepatitis And Hepatic Insulin Resistance. S. Zhang, A. Sousa, M. Lin, B. Ma, CM. Lee, JW. Park, **S. Kamle**, RI. Carlson, CG. Lee, J. Elias, JR. Wands. <https://doi.org/10.1002/hep.30940>
- BIT's 7th International Congress of Antibodies - 2015, April 25-28, 2015, Nanjing, China, Genetically modified plants: A way to establish green therapeutic factories. **S. Kamle**, D. Li. <http://www.bitcongress.com/ica2015/>, (**Oral presentation and abstract**)
- 2nd Int. Conf. Clinical and cellular immunology-Oct 15-17, 2013. LA, Nevada, USA. An evaluation of allergenic potential of Cry2Ab insecticidal protein present in genetically modified plants. **S. Kamle**, J Clin Cell Immunol 2013, 4:5 <http://dx.doi.org/10.4172/2155-9899.S1.015>
- Chromatin-2012. Nov. 21-24, CCMB, Hyderabad, India.
- IJMS Annual Conference-cum-Workshop April 14-15. 2012, Lady Hardinge Medical College, Delhi, India. Research Methodology and Biostatistics.
- Workshop on Drug designing and molecular modeling. February, 23-25, 2009 Biotech Park, Lucknow, U.P, India
- **S. Kamle**, R. Kumar, RP. Sinha, DN. Kachru. Development of Highly Specific Sandwich and Competitive ELISA for the Detection of Vegetative Insecticidal Protein (Vip) in

Transgenic Crops. International conference, Bangalore Bio-2009., June 18-20, 2009, Bangalore, India. Abstract, pp 22.

- R. Kumar, **S. Kamle**, DN. Kachru. Nanocolloidal gold based immunochromatographic assay for rapid detection of Vip protein bearing GM plants; National Symposium on Current Challenges in Plant Sciences: Gene to Ecosystem, March 24-25, 2009, Banaras Hindu University, Varanasi, India. Abstract, pp 57.
- R. Kumar, **S. Kamle**, DN. Kachru, AB. Pant, RP. Sinha. A quantitative Immuno-PCR method for detection of recombinant vegetative insecticidal protein. International Symposium on environmental pollution, ecology and human health, July 25-27, 2008, S.V. University, Tirupati, A.P. India. Abstract TX53, pp 95.

Grants: (Active)

1. P01 HL114501-01A1 (Augustine Choi) 6/1/21 – 7/31/26
NIH/NHLBI
Distinct and Overlapping Pathways of Fibrosis and Emphysema in Cigarette Smokers
Role: Co-Investigator of Project #2 (Leader, Jack A. Elias, M.D.) (\$ 4.3 M)

Completed Research Support

1. PR211855 (Department of Defense) 01/01/22-12/30/23
Bispecific Targeting of CHI3L1 and PD-1/PD-L1 Axis as a Novel Therapeutic Strategy for Idiopathic Pulmonary Fibrosis
Role: Co-Investigator (Chun Geun Lee, PI) (\$ 159,128)
2. **Cancer Research Fund** (Brown University) 3/1/22 – 2/28/23
Legorreta Cancer Center
Chi3l1 regulation of P53 in Lung Cancer
Role: PI (\$ 15,000)
3. LC210132 (Department of Defense) 10/01/21-9/30/22
Antitumor activity of Kasugamycin in primary and metastatic lung cancer
Role: Co-Investigator (Chun Geun Lee, PI) (\$ 150,000)
4. Cancer Center Seed Grant, Brown University 11/1/2021-10/31/2021
Blocking anti-Chitinase 3-Like-1 to overcome resistance to immune checkpoint inhibitors in advanced non-small cell lung cancer.
Role: Co-PI (Corresponding PI: Hina Khan) (\$25,000)
5. Brown Research Seed Fund (Covid-19) 5/14/2020-5/15/2021
Chitinase 3-like 1 (Chi3l1), a powerful inhibitor of epithelial cell death, can be used as a biomarker of CoV-2 infection that predicts disease severity and progression.
Role: Co-Investigator (PI: Chun Geun Lee) (\$17,000)

6. BC1700061 (81550110261) NSFC 1/1/16-12/31/2017
Cellular signaling pathways for the efficacy evaluation of the plant expressed therapeutic antibody
 Role: PI Role: (\$67,000)
7. 2014M560336 7/20/14-12/31/2015
The development of plant system for the cost-effective production of Agtuzumab, an Anti-AGR2 antibody involved in tumor Reduction and angiogenesis.
 Role: PI (\$20,000)
8. NII/ACD/19.309/DBT.PD/2012 1/1/12- 12/27/2013
Molecular Characterization of mRNA transcripts tagged with *H-ras* in *Bubalus bubalis* genome.
 Role: PI. (\$15,000)
9. ICMR/45/6/2007/BMS (India) 8/19/2007-8/18/2010
Development of DNA and Protein based assays for detection of transgenic vegetative insecticidal protein gene (Vip) in genetically modified plants/foods and evaluation of its allergenicity potential.
 Role: Role: SRF (PhD Scholar) (\$12,000)

Teaching/Mentoring

- Brianna Pham (Freshman, 2022-26, Brown University) (Role: Advisor/Mentor)
 Summer 2023, UTRA project awardee. (PI: S. Kamle)
- Isabella Fish (Sophomore, 2023-26), Brown University) (Role: Advisor/ Mentor),UTRA project awardee. (PI: S. Kamle)
- Linnaea McGuinness, Sophomore, 2024-25), Brown University) (Role: Advisor / Mentor),UTRA project awardee. (PI: S. Kamle)
- Marlo Hulnick (Sophomore, 2023-26) Brown University) (Role: Advisor /Mentor)
- Gavin Li (Sophomore, 2025-26) Brown University) (Role: Advisor/Mentor)
- Sriya Yalamanchili (PLME -2025-26), Brown University), (Role: Advisor/Mentor)
- Andres F. Ortiz (Junior, 2023-24), Brown University) (Role: Advisor /Mentor)
- Gail Schor (Graduated 2020-23, Brown University (Role: Supervisor/Mentor) Biology poster day awardee (People's Choice 2023)
- Madison Bailey (Graduated 2022-23, Brown University) (Role: Advisor/Mentor)
- Daniel Yee (Medical student 2022-23, Brown University. (Role: Mentor)
- Frank Deng (Senior 2019-20, Brown University) (Role: Supervisor)
- Roshni Mishra (High School) Summer trainee, June- Aug.2019(Role: Supervisor)
- Rong Rong (Master's student): 2015-2016 (School of Pharmacy, SJTU, Shanghai, China) Mentor.