

Curriculum Vitae

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Education

Year	Degree (Honors)	Field of Study	Institution
2014	Ph.D.	Medical Sciences	Tohoku University, Sendai, Japan
2005	M.S.	Biochemistry & Molecular Biology	University of Dhaka, Dhaka, Bangladesh
2004	B.Sc. (Honors)	Biochemistry & Molecular Biology	University of Dhaka, Dhaka, Bangladesh

Postdoctoral Training

Year(s)	Titles	Specialty/Discipline	Institution
2016-2018	Postdoctoral Certificate in Advanced Research	Innate immune signaling, immuno-oncology, oncogenic signaling, tumor microenvironment	UT Southwestern Medical Center Dallas, Texas
2014-2016	Postdoctoral Certificate in Research	Innate immune signaling, immuno-oncology, oncogenic signaling, tumor microenvironment	UT Southwestern Medical Center Dallas, Texas

Professional Development Training

Year(s)	Course or Program, Degree if any	Institution
2023	MicroMasters in Data Science	UC San Diego

Faculty Academic Appointments

Year(s)	Academic Title	Department	Academic Institution
9/2023 - Current	Assistant Professor	Radiation Oncology	UT Southwestern Medical Center
5/2018 - 8/2023	Instructor	Radiation Oncology	UT Southwestern Medical Center

Other Professional Positions

Year(s)	Position Title	Institution
2014 - 2018	Postdoctoral Researcher II	Department of pathology, UT Southwestern
2009 - 2014	Ph.D. Research Scholar	Institute of Development, Aging and Cancer (IDAC) Tohoku University
2005 - 2009	Research Officer	International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR)

Honors and Awards

Year	Name of Honor/Award	Awarding Organization
2018	AAI Trainee Abstract Award	American Association of Immunologist
2012	CIR Travel grant for attending AACR conference at USA	Tohoku University, Japan
2009-2014	Monbukagakusho Scholarship for Ph.D. study	Japan Government, Japan
2004-2005	Graduate Scholarship for the best student	University of Dhaka, Dhaka, Bangladesh

Committee Service

Year(s)	Name of Committee	Institution/Organization
<u>National/International</u>		
Member	General Committee	Dhaka University Alumni Association of North America

Professional Societies

Dates	Society Name, member
2011-present	American Association for Cancer Research (AACR)
2018-present	American Association of Immunologist (AAI)
2009-present	Bangladesh Society for Biochemistry and Molecular Biology (BSBMB)
2005-present	Global Network of Bangladeshi Biotechnologists (GNOBB)

Community Engagement

Year(s)	Role, brief description	Organization or institution
2019 - present	Take interview of applicants for UT Southwestern Medical School Admission	UT Southwestern Medical School

Educational Activities

Teaching Activities

Year(s)	Activity
<u>Graduate student trainees</u>	
2018-2024	Provided training and supervised in designing and conducting research experiments, troubleshooting and data analysis.
<u>Postdoctoral trainees</u>	
2018 - 2024	Provided training and supervised in designing and conducting research experiments, troubleshooting and data analysis.

Mentoring and Advising

Date	Mentee Name	Mentee Level/ Program and Institution	Role	Mentee Outcomes, Current Position
6/2018 - 5/2019	Jayesh Sharma	Undergraduate Research Fellow	Guide research activity	Co-authored a publication. Medical Student at TCU
2/2022 - 8/2022	Caiden Golder	Undergraduate Research Fellow	Guide research activity	
6/2022 - 3/2024	Taylor-Jade Higgins	Post baccalaureate Student	Guide research activity	
1/2024 - 5/2024	Mihir saha			
6/2024 - 09/2024	Jemsy Mathew	Post baccalaureate Student	Guide research activity	
6/2025 -09/2025	Zeenat Alishah	Master Student at UTD	Guide research activity	Master Student at UTD

Editorial Activities

Year(s)	Journal Name
<u>Editorial Board</u>	
2019 - current	Journal of Visualized Experiments
2019 - current	Jacobs Journal of Radiation Oncology
<u>Ad Hoc Reviewer</u>	
2020 - current	Nature Communications
2018 - current	Scientific Reports
2020 - current	Frontiers Cellular and Infection Microbiology
2020 - current	eLife

Grant Review activities

Year(s)	Role, brief description	Organization or institution
2025 - present	Reviewer, Review the grant applications	Medical Research Foundation London, UK

Grant applications submitted and their outcomes

- I. NIH R21: Title: Reversing CDK4/6 Inhibitor Resistance in ER+ Breast Cancer: The Role of Pirfenidone in Boosting Checkpoint Inhibitor Efficacy.
Role: PI
Outcome: Received a completed review with an impact score of 55 and a percentile rank of 50.
Current Status: Resubmitted the revised version to NCI on November 14, 2025.
- II. NIH R21: Title: Targeting BST2 in Cancer: Development of Monoclonal Antibodies, Antibody-Drug Conjugates, and Combination Immunotherapy to Combat Tumor Progression and Immune Evasion.
Role: PI
Outcome: Not Discussed.
- III. NIH R21: Title: Desensitization of ESR1 Mutation-Induced Radiotherapy Resistance in Breast Cancer Using Venetoclax Targeting the Bcl-2 Family.
Role: PI
Outcome: Received a completed review with an impact score of 30 and a 13th percentile
Current Status: Resubmitted the revised version to NCI on November 14, 2025.

Bibliography

Peer-Reviewed Publications

1. **Udden SM**, Baishan Jiang, Kamal Pandey, Cheryl M. Lewis, Sunati Sahoo, Noelle S. Williams, Prasanna G. Alluri. The non-kinase function of CDK6 is a key driver of acquired resistance to CDK4/6 inhibitors in Estrogen Receptor-positive breast cancer. bioRxiv 2025.11.11.687883; doi: <https://doi.org/10.1101/2025.11.11.687883>
2. Avisankar Chini, Prarthana Guha, Ashcharya Rishi, Monira Obaid, **Udden SM**, Subhrangsu S Mandal. Discovery and functional characterization of LncRNAs associated with inflammation and macrophage activation. *Methods*. 227:1-16 (2024).
3. **Udden SM**, GuemHee Baek, Kamal Pandey, Chantal Vidal, Yulun Liu, Asal S. Rahimi¹, D. Nathan Kim, Chika R. Nwachukwu, Ram S. Mani, and Prasanna G. Alluri. Towards precision radiation oncology: endocrine therapy response as a biomarker for personalization of breast radiotherapy. **NPJ Precision Oncology** 7:11 (2023).
4. **Udden SM**, Qian Wang, Sunil Kumar, Venkat S Malladi, Shwu-Yuan Wu, Jose Larios, Ben Park, Shuguang Wei, Anwu Zhou, Bruce Posner, Noelle Williams, Ram Mani, Srinivas Malladi, Ganesh Raj, Reshma Jaggi, James Rae, Daniel Hayes, Max Wicha, Gaorav Gupta, Arul M Chinnaiyan, Cheng-Ming Chiang, Prasanna G Alluri. Targeting ESR1 Mutation-Induced "Transcriptional Addiction" in Breast Cancer with BET Inhibition. **JCI Insight**. 8;7(17):e151851 (2022).
5. Obaid M, **Udden SM**, Alluri PG, Mandal SS. LncRNA HOTAIR regulates glucose transporter Glut1 expression and glucose uptake in macrophages during inflammation; **Scientific Reports**, 11(1):232 (2021).
6. Hussain I, Deb P, Chini A, Obaid M, Bhan A, Ansari KI, Mishra BP, Bobzean SA, **Udden SM**, Alluri PG, Das HH, Perrotti LI, Mandal SS. HOXA5 expression is elevated in breast cancer and is transcriptionally regulated by estradiol; **Frontiers in Genetics**, 11: 592436 (2020).
7. **Udden SM**, Kwak Y, Godfrey V, Khan MAW, Khan S, Loof N, Peng L, Zhu H and Zaki MH. NLRP12 suppresses hepatocellular carcinoma via downregulation of cJun N-terminal kinase activation in the hepatocyte. **eLife**, 2019;8:e40396 (2019).
8. Obaid M, **Udden SM**, Deb P, Shihabedin N, Zaki MH, Mandal SS. LncRNA HOTAIR regulates lipopolysaccharide-induced cytokine expression and inflammatory response in macrophages. **Scientific Reports**, 8(1):15670 (2018).

9. Kamal AHM, Chakrabarty JK, **Udden SM**, Zaki MH, Chowdhury SM. Inflammatory Proteomic Network Analysis of Statin-treated and Lipopolysaccharide-activated Macrophages. **Scientific Reports**, 8(1):164 (2018).
10. **Udden SM**, Peng L, Gan JL, Shelton JM, Malter JS, Hooper LV and Zaki MH. NOD2 suppresses colorectal tumorigenesis via downregulation of the TLR pathways. **Cell Reports**, 19: 2756-2770 (2017).
11. **Udden SM**, Waliullah S., Harris M, Zaki MH. The Ex Vivo Colon Organ Culture and its Use in Antimicrobial Host Defense Studies. **J. Vis. Exp.** 120 (e55347) (2017).
12. **Udden SM**, Morita-Fujimura Y, Satake M, and Ikawa S. c-ABL tyrosine kinase modulates p53-dependent p21 induction and ensuing cell fate decision in response to DNA damage. **Cellular Signaling**, 26: 444-452 (2014).
13. Kamruzzaman M, **Udden SM**, Cameron DE, Calderwood SB, Nair GB, Mekalanos JJ, and Faruque SM. Quorum-regulated biofilms enhance the development of conditionally viable, environmental *Vibrio cholerae*. **Proc. Natl. Acad. Sci. USA**, 107: 1588-1593 (2010).
14. **Udden SM**, Zahid MS, Biswas K, Ahmad QS, Cravioto A., Nair GB. Mekalanos JJ, and Faruque SM Acquisition of classical CTX prophage from *Vibrio cholerae* O141 by El Tor strains aided by lytic phages and chitin-induced competence. **Proc. Natl. Acad. Sci. USA**, 105: 11951-11956 (2008).
15. Zahid MS, **Udden SM**, Faruque AS, Calderwood SB, Mekalanos JJ. and Faruque SM. Effect of Phage on the Infectivity of *Vibrio cholerae* and Emergence of Genetic Variants. **Infection Immunity**, 76: 5266-5273 (2008).
16. Faruque SM, Biswas K, **Udden SM**, Ahmad QS, Sack DA, Nair GB, and Mekalanos JJ. Transmissibility of cholera: In vivo-formed biofilms and their relationship to infectivity and persistence in the environment. **Proc. Natl. Acad. Sci. USA** 103: 6350-6355 (2006).

Meeting Summaries or Proceedings

- 1 Targeting Breast Cancer-Obesity Axis to Overcome Treatment Resistance_N Udden, K Pandey, P Scherer, PG Alluri. International Journal of Radiation Oncology, Biology, Physics 123 (1), S235-S236
- 2 An In Situ Tumor Vaccine Against Triple Negative Breast Cancer_N McCuen, C Vidal, SMN Udden, P Alluri. Clinical Cancer Research 31 (12_Supplement), PS12-06-PS12-06
- 3 A Precision Oncology Platform to Target CDK4/6 Inhibitor Resistance
K Pandey, N Udden, PG Alluri
International Journal of Radiation Oncology, Biology, Physics 120 (2), S45; 2024
- 4 Abstract P4-02-08: Towards Precision Radiation Oncology: Endocrine Therapy Resistance as a Biomarker for Radiation Resistance in ER-Positive Breast Cancer
SMN Udden, A Rahimi, DWN Kim, P Alluri
Cancer Research 83 (5_Supplement), P4-02-08-P4-02-08; 2023
- 5 Targeting Non-Kinase Function of CDK6 to Overcome CDK4/6 Inhibitor Resistance
PG Alluri, N Udden
International Journal of Radiation Oncology, Biology, Physics 117 (2), S44; 2023
- 6 Role of ESR1 mutation in recurrence of tumorigenesis after therapeutic radiation
SMN Udden, PG Alluri
Cancer Research 82 (12_Supplement), 797-797; 2022
- 7 CDC20 is a novel therapeutic target in triple-negative breast cancer
JK Sharma, P Alluri, N Udden
Cancer Research 80 (16_Supplement), 6378-6378; 2022
- 8 ESR1 Mutation Status as a Biomarker for Radiation Response in ER-Positive Breast Cancer
N Udden, Q Wang, PG Alluri
International Journal of Radiation Oncology, Biology, Physics 108 (3), e35-e36; 2020
- 9 Abstract P1-09-01: ESR1 mutations confer radiation resistance in breast cancer
N Udden, Q Wang, PG Alluri

- Cancer Research 80 (4_Supplement), P1-09-01-P1-09-01; 2020
- 10 Abstract P2-06-20: CDC20 is a novel therapeutic target in triple negative breast cancer
J Sharma, I Raicu, J Nguyen, N Udden, Q Wang, P Alluri
Cancer Research 79 (4_Supplement), P2-06-20-P2-06-20; 2019
 - 11 The NOD-like receptor NLRP12 plays a critical role in hepatic inflammation and cancer
H Zaki, SM Udden
The Journal of Immunology 202 (1_Supplement), 194.44-194.44; 2019
 - 12 NOD2-mediated downregulation of the TLR pathways contributes to protection against colitis and colorectal tumorigenesis
SM Nashir Udden, L Peng, H Zaki
The Journal of Immunology 200 (1_Supplement), 169.1-169.1; 2018
 - 13 Abstract A52: Tyrosine kinase activity of c-Abl is essential for p53 dependent transactivation of p21Waf1/Cip1
SMN Udden, M Satake, S Ikawa
Cancer Prevention Research 5 (11_Supplement), A52-A52; 2012