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## Skills

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- Well versed with cell culturing techniques, cell viability assays, DNA/RNA Isolation
- Expertise in biological methods such as Native-PAGE and SDS-PAGE, PCR, Immunoprecipitation
- Hands-on practice in Flow cytometry and ELISA
- Animal handling, Drug injection via IP, PO, retro orbital route., tissue harvesting, in vivo/ in vitro tissue experiments
- Efficiently compiling scientific data

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## Professional Experience

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### Senior Research technician, Chemical biology department

Memorial Sloan-Kettering Cancer Center, NY

Oct 2013- Present

- Assisting Post-doctoral scholars in investigating nature of chronic stress in cancer and neurodegenerative disease like Alzheimer
- Performing biochemical tests, tissue culture-based analyses, ex vivo analyses and immunohistochemical staining of specimens
- Overseeing the maintenance of mouse colony, breeders, genotyping, drug administrating and tissue harvesting on mice
- Involved in proper operation of the laboratory, such as contacting vendors and instrument maintenance engineers, maintaining laboratory cell-line bank, preparing buffers and reagents and keeping an up-to-date inventory of chemicals and reagents

### Research Student, Long Island University, New York

Jan 2012 – May 2013

- Project was aimed to evaluate “Antiproliferative effect of selected antidepressant agents on human metastatic breast cancer cell-line, MCF-7”
- Established IC50 values of antidepressant drugs using XTT, a cell viability assay; Confirmed cell death occur via apoptosis by cell morphology, cleaved PARP levels, and Propidium iodide staining
- Evaluated antiproliferative effect of these agents with combination of chemotherapeutic drugs

### Research Student, Gujarat University, India

Sep 2008 – April 2009

- Generated Dose response curve of cholinergic (Acetylcholine) and adrenergic (Adrenaline) drug using normal and cystitic rat bladder and human detrusor muscle to characterize receptor status in experimental model of cystitis
  - Epidemiological survey of patients having lower urinary tract infections and effectiveness of various interventions in interstitial cystitis patients and analysis of epidemiological data
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## Education

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- **Master of Science: Pharmacology and Toxicology**  
Long Island University, Brooklyn, New York Sep 2010 to Sep 2013
  - **Master of Pharmacy: Pharmacology and Toxicology**  
Gujarat University, Gujarat, India July 2007 to July 2009
  - **Bachelor of Pharmacy**  
Gujarat University, Gujarat, India Jun 2003 to May 2007
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## Publication

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Rodina A, Wang T, Yan P, Gomes ED, Dunphy MP, Pillarsetty N, Koren J, Gerecitano JF, Taldone T, Zong H, Caldas-Lopes E, Alpaugh M, Corben A, Riolo M, Beattie B, Press IC, Peter RI, Xu C, Trondl R, Patel HJ, Shimizu F, Bolaender A, Yang C, **Panchal P**, Farooq MF, Kishinevsky S, Modi S, Lin O, Chu F, Patil S, Erdjument-Bromage H, Zanzonico P, Hudis C, Studer L, Roboz GJ, Cesarman E, Cerchietti L, Levine R, Melnick A, Larson SM, Lewis JS, Guzman ML, Chiosis G. The epichaperome is an integrated chaperome network that facilitates tumour survival. *Nature*. 2016 Oct 5; 538(7625):397-401. doi: 10.1038/nature19807. PubMed PMID: 27706135.

Kaittanis C, Andreou C, Hieronymus H, Mao N, Foss CA, Eiber M, Weirich G, **Panchal P**, Gopalan A, Zurita J, Achilefu S, Chiosis G, Ponomarev V, Schwaiger M, Carver BS, Pomper MG, Grimm J. Prostate-specific membrane antigen cleavage of vitamin B9 stimulates oncogenic signaling through metabotropic glutamate receptors. *J Exp Med*. 2018 Jan 2;215(1):159-175. doi: 10.1084/jem.20171052. Epub 2017 Nov 15. PMID: 29141866

Inda MC, Joshi S, Wang T, Bolaender A, Gandu S, Koren Iii J, Che AY, Taldone T, Yan P, Sun W, Uddin M, **Panchal P**, Riolo M, Shah S, Barlas A, Xu K, Chan LYL, Gruzina A, Kishinevsky S, Studer L, Fossati V, Noggle SA, White JR, de Stanchina E, Sequeira S, Anthony KH, Steele JW, Manova-Todorova K, Patil S, Dunphy MP, Pillarsetty N, Pereira AC, Erdjument-Bromage H, Neubert TA, Rodina A, Ginsberg SD, De Marco Garcia N, Luo W, Chiosis G. The epichaperome is a mediator of toxic hippocampal stress and leads to protein connectivity-based dysfunction. *Nat Commun*. 2020 Jan 16;11(1):319. doi: 10.1038/s41467-019-14082-5. PMID: 31949159

Yan P, Patel HJ, Sharma S, Corben A, Wang T, **Panchal P**, Yang C, Sun W, Araujo TL, Rodina A, Joshi S, Robzyk K, Gandu S, White JR, de Stanchina E, Modi S, Janjigian YY, Hill EG, Liu B, Erdjument-Bromage H, Neubert TA, Que NLS, Li Z, Gewirth DT, Taldone T, Chiosis G. Molecular Stressors Engender Protein Connectivity Dysfunction through Aberrant N-Glycosylation of a Chaperone. *Cell Rep*. 2020 Jun 30;31(13):107840. doi: 10.1016/j.celrep.2020.107840. PMID: 32610141

Alexander Bolaender, Danuta Zatorska, Huazhong He, Suhasini Joshi, Sahil Sharma, Chander S Digwal, Hardik J Patel, Weilin Sun, Brandon S Imber, Stefan O Ochiana, Maulik R Patel, Liza Shrestha, Smit K Shah, Shuo Wang, Rashad Karimov, Hui Tao, Pallav D Patel, Ananda Rodilla Martin, Pengrong Yan, **Palak Panchal**, Justina Almodovar, Adriana Corben, Andreas Rimner, Stephen D Ginsberg, Serge Lyashchenko, Eva Burnazi, Anson Ku, Teja Kalidindi, Sang Gyu Lee, Milan Grkovski, Bradley J Beattie, Pat Zanzonico, Jason S Lewis, Steve Larson, Anna Rodina, Nagavarakishore Pillarsetty, Viviane Tabar, Mark P Dunphy, Tony Taldone, Fumiko Shimizu, Gabriela Chiosis. Chemical tools for epichaperome-mediated interactome dysfunctions of the central nervous system. **Nat Commun** 2021 Aug 3;12(1):4669. doi: 10.1038/s41467-021-24821-2. PMID: 34344873

Mayumi Sugita, David C. Wilkes, Rohan Bareja, Kenneth W. Eng, Sarah Nataraj, Reyna A. Jimenez-Flores, LunBiao Yan, Jeanne Pauline De Leon, Jaclyn A. Croyle, Justin Kaner, Swathi Merugu, Sahil Sharma, Theresa Y. MacDonald, Zohal Noorzad, **Palak Panchal**, Danielle Pancirer, Shuhua Cheng, Jenny Z. Xiang, Luke Olson, Koen Van Besien, David S. Rickman, Susan Mathew, Wayne Tam, Mark A. Rubin, Himisha Beltran, Andrea Sboner, Duane C. Hassane, Gabriela Chiosis, Olivier Elemento, Gail J. Roboz, Juan Miguel Mosquera & Monica L. Guzman. Targeting the epichaperome as an effective precision medicine approach in a novel PML-SYK fusion acute myeloid leukemia. **NPJ Precis Oncol**. 2021 May 26;5(1):44. doi: 10.1038/s41698-021-00183-2. PMID: 34040147

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## References

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Available upon request