

Prema Vyas

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EDUCATION

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|---|------------------|
| Anne Burnett School of Medicine at Texas Christian University (TCU) | May 2024 |
| <ul style="list-style-type: none"> - Doctor of Medicine (M.D.) - Distinction in Medical Research & Study of Public Health | |
| Keck Graduate Institute (KGI) | May 2019 |
| <ul style="list-style-type: none"> - Master of Science (M.S.) in Applied Life Sciences – Translational Research | |
| University of California, Irvine (UCI) | Jun. 2017 |
| <ul style="list-style-type: none"> - Bachelor of Science (B.S.) - Major: Biological Sciences; Minor: History | |

HONORS & AWARDS

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| American Women’s Hospital Services – Community Based Project Grant | Feb. 2023 |
| <i>American Women’s Association (AMWA)</i> | |
| <ul style="list-style-type: none"> - This grant is awarded to projects aimed to empower women, improve health care access for underserved populations - Awarded for the “Menstruation Education Project” | |
| Ignite Talk Winner – Leadership in Advocacy | Jan. 2023 |
| <i>American Medical Association (AMA) – Physicians of the Future Summit: Region 3</i> | |
| <ul style="list-style-type: none"> - Awarded for best Ignite-Style Talk in the category of Leadership in Advocacy by AMA Region 3 members - “The Leadership Journey of Creating a Menstruation Education Project in Fort Worth, TX” | |
| Case Presentation Finalist for the Class of 2024 | Nov. 2022 |
| <i>Burnett School of Medicine at Texas Christian University</i> | |
| <ul style="list-style-type: none"> - Competitive clinical case presentation among the Class of 2024 with eight finalists chosen by peers - Awarded for outstanding oral presentation highlighting the importance of interdisciplinary care for HIV patients | |
| Aseemkala Research Fellowship | May 2022 |
| <i>The Aseemkala Initiative</i> | |
| <ul style="list-style-type: none"> - Awarded for my research proposal focused on reproductive & sexual health among South Asian Women | |
| Kidney TREKS Recipient (Tutored Research & Education for Kidney Scholars) | Mar. 2022 |
| <i>American Society of Nephrology (ASN)</i> | |
| <ul style="list-style-type: none"> - Invited to a week-long research course at the University of Chicago, to learn about kidney physiology and health care disparities associated with renal diseases - Provided community health screening services to underserved patients in collaboration with the National Kidney Foundation of Illinois | |
| ASN Kidney Week and STARS Recipient | Sep. 2021 |
| <i>American Society of Nephrology (ASN)</i> | |
| <ul style="list-style-type: none"> - Awarded by the ASN Kidney STARS committee for my interest in Nephrology and Women’s Health - Mentored by Dr. Adetokunbo Taiwo from Stanford School of Medicine and participated in case-based debates | |

Thomas Weldon Clardy Humanism in Medicine Award
May 2021
Texas Christian University (TCU)

- Awarded an endowed scholarship by TCU for exemplifying the qualities of a caring and compassionate student doctor, providing empathetic service by example, and possessing desirable qualities necessary to the practice of patient-centered medicine

MyBioSource Scholarship
Aug. 2020
MyBioSource, Inc.

- Awarded for my educational career pursuit in medicine (S.T.E.M.)

First Place Poster Presentation
Jan. 2019
14th Annual Keck Graduate Institute Research Symposium

- Awarded by KGI faculty for poster presentation on “Intracellular Trafficking of Red Blood Cells in Brain Endothelial Cells”

Excellence in Research
Jun. 2017
University of California, Irvine (UCI)

- Achieved excellence in research for my undergraduate thesis on “Examining Heterogeneity of Neural Lineage Cell Populations using DEP”
- Presented an oral and poster board presentation and was evaluated by faculty at the School of Medicine

Summer Undergraduate Research Fellowship
Jun. 2016
University of California, Irvine (UCI)

- Accepted into a 10-week research intensive summer fellowship in Dr. Lisa Flanagan’s laboratory
- “Examining Heterogeneity of Neural Lineage Cell Populations using 3DEP”

Undergraduate Research Opportunity Program Grant
Jun. 2016
University of California, Irvine (UCI)

- Awarded funding for undergraduate research project in Dr. Lisa Flanagan’s laboratory
- “Examining Heterogeneity of Neural Lineage Cell Populations using 3DEP”

RESEARCH EXPERIENCE

Obstetrics EMT Training Research
Dec. 2022 – May. 2024
Advisor: Dr. Lagomichos D.O. FACOG (Burnett School of Medicine)

- Enhance the education for emergency responders regarding the basics of pregnancy, obstetric emergencies, and labor/delivery
- Assist in training EMTs at EMT schools and determine the efficacy of the curriculum through pre and post-workshop surveys
- Mentor undergraduate research assistants working on this project

Menstrual Health among South Asians
Jul. 2022 – Present
Advisor: Dr. Shilpa Darivemula M.D. (University of North Carolina)

- Survey study exploring the attitudes and experiences regarding menstruation among South Asians in the U.S.
- Designed research proposal, surveys and social media plan for the study

Contraception Use in Females with Kidney Diseases
Mar. 2022 – Present
Advisor: Dr. Silvi Shah M.D., M.S., FASN, FACP (University of Cincinnati)

- Assisted in thematic analysis for interviews with kidney transplant patients
- Analyzed and compiled results into visual schemas for the manuscript
- Involved in collaborations with the Transplant Pregnancy Registry International

Scholarly Pursuit Thesis & M.D. Thesis:

Aug. 2020 – May 2024

Provider Knowledge & Perception of Uterus Transplantation: Structured Interviews of OB/GYNs & Abdominal Transplant Surgeons in the U.S.

Advisor: Dr. Anji Wall M.D., Ph.D. (Baylor University Medical Center)

- Constructed a qualitative research proposal and IRB protocol after extensive literature review
- Designed surveys and interview guides used to better understand the perception of uterus transplantation among OB/GYNs and abdominal transplant surgeons
- Expanded the project to involve surveying providers at the national ACOG conference and American Transplant Congress

Graduate Researcher & Master's Thesis

Jul. 2018 – Aug. 2019

Intracellular Trafficking of Red Blood Cells in Brain Endothelial Cells

Advisor: Dr. Rachita Sumbria Ph.D. (Keck Graduate Institute-School of Pharmacy)

- Established cell culture and staining protocols used to stain endosomal compartments in brain endothelial cells
- Conducted all cell culture, staining and data analysis required for research project

Undergraduate Researcher & Undergraduate Thesis

Jun. 2015 – Jul. 2017

Examining Heterogeneity of Neural Lineage Cell Populations using DEP

Advisor: Dr. Lisa Flanagan Ph.D. (University of California, Irvine - School of Medicine)

- Validated a novel dielectrophoresis device, called the 3D-DEP device or 3DEP
- Characterized neurological STEM cells from different sources using 3DEP

PUBLICATIONS & PRESENTATIONS

PUBLICATIONS

Shah, S., Greenberg, G.K, Gudsoorkar, P., **Vyas, P.D**, Barhorst, S., Verma, P., & Pensak, M.(2023). Contraceptive Use in Females with Advanced CKD: A Qualitative Study. *Kidney Medicine*. 2023 Oct 10;5(12):100738. doi: 10.1016/j.xkme.2023.100738. PMID: 38034510; PMCID: PMC10684388.

Tsai, T., **Vyas, P. D.**, Crowell, L. L., Tran, M., Ward, D. W., Qin, Y., Castro, A., & Adams, T. N. G. (2021).Electrical signature of heterogeneous human mesenchymal stem cells (p. 2021.11.08.467665). *bioRxiv*. <https://doi.org/10.1101/2021.11.08.467665>

Sun, J., **Vyas, P.D.**, Mann, S., Paganini-Hill, A., Nunes, A. C. F., Lau, W. L., Cribbs, D. H., Fisher, M. J., & Sumbria, R. K. (2021). Insights Into the Mechanisms of Brain Endothelial Erythrophagocytosis. *Frontiers in Cell and Developmental Biology*, 9. <https://www.frontiersin.org/articles/10.3389/fcell.2021.672009>

Adams, T. N. G., Jiang, A. Y. L., **Vyas, P. D.**, & Flanagan, L. A. (2018). Separation of neural stem cells by whole cell membrane capacitance using dielectrophoresis. *Methods*, 133, 91–103. <https://doi.org/10.1016/j.ymeth.2017.08.016>

Vyas, P.D., Adams, T.N.G, Flanagan, L.A. (2017). Examining Heterogeneity Of Neural Lineage Cell Populations Using Dep. *Journal of Undergraduate Research in Biological Sciences*.

POSTER PRESENTATIONS

Vyas, P.D., Wall, A., Sader, D., Du, J., Saracino, G., Testa, G., Johannesson, L. (2023, September) “Exploring Divergent Views: A Comparative Study of Uterus Transplantation Perceptions Among Transplant Providers and Obstetrics/Gynecology Specialists” 4th Congress of the International Society of Uterus Transplantation; 2023, September; Birmingham, AL (Accepted)

Friedlich, N.E, **Vyas, P.D.**, McCracken, M., Duican, C., Jivraj, S., Deem, A. (2023, April) “Period poverty and the building of a menstrual education program in North Texas” Annual Health Equity Alliance (HEAL) Summit; 2023, September; Hurst, TX (Accepted)

Friedlich, N.E, **Vyas, P.D.**, Seckin, T., Lagomichos, M. (2023, April) “Maternal morbidity and mortality in Texas and the heroic roles of emergency responders” Annual Health Equity Alliance (HEAL) Summit; 2023, September; Hurst, TX (Accepted)

Lucker, R., **Vyas, P.D.**, DiFiore, E., Baker, K., Grau, S.L. (2023, April) “Adolescent Wellness in Stop 6: Needs Assessment of Middle Schoolers” JPS Health Network Research and Quality Symposium; 2023, April; Fort Worth, TX

Vyas, P.D., Friedlich, N.E, Duican, C., Jivraj, S., Deem, A. (2023, April) “Creating a menstrual education project in Fort Worth, Texas: the journey and impact” JPS Health Network Research and Quality Symposium; 2023, April; Fort Worth, TX

Friedlich, N.E, **Vyas, P.D.**, Seckin, T., Lagomichos, M. (2023, April) “Obstetric and Obstetric Emergency Training for EMTs and first-responders: Managing Delivery Emergencies in the Field” JPS Health Network Research and Quality Symposium; 2023, April; Fort Worth, TX

Igbokidi, T.V., **Vyas, P.D.**, Jivraj, S., Atkisson, D. (2023, April) “Mental Health for Mommas: A Quality Improvement Study on the Impact of Focus Groups on Perinatal and Maternal Depression” Student National Medical Association Annual Medical Education Conference; 2023 April; Hartford, CT

Jivraj, S., **Vyas, P.D.**, Friedlich, N.E, Duican, C. (2023, March) “Menstruation Education for Tarrant County Adolescents” American Medical Women’s Association Meeting, 2023, Philadelphia, Pennsylvania

Shah, S., Gudsoorkar, P., **Vyas, P.D.**, Pensak, M.(2022, November) “A Qualitative Study to Understand Contraceptive Use in Women with Kidney Disease” American Society of Nephrology: Kidney Week, 2022, Orlando, Florida

Sun J., **Vyas P.D.**, Mann, S., Yarlagadda, S., Fisher, M.J., Sumbria, R.K.(2020, February) “Mechanisms of Brain Endothelial Erythrophagocytosis: Insights into the Pathogenesis of Cerebral Microbleeds” International Stroke Conference 2020, Los Angeles, California

Vyas, P.D. , Sun, J., Sumbria, R.K. (2019, January) “Intracellular Trafficking of Red Blood Cells in Brain Endothelial Cells” 14th Annual Keck Graduate Institute Research Symposium 2019, Claremont, California

Vyas, P.D., Adams, T.N.G, Flanagan, L.A. (2017, May) “Examining Heterogeneity Of Neural Lineage Cell Populations Using DEP” 24th Annual UCI Undergraduate Research Symposium, 2017, Irvine, California

ORAL PRESENTATIONS

Vyas P.D., Friedlich, N.E. (2023, January) “[The Leadership Journey of Creating a Menstruation Education Project in Fort Worth, TX](#)” American Medical Association Region 3 Physician of the Future Summit, 2023, Fort Worth, TX

Vyas, P.D. , Sumbria, R.K. (2019, May) “Intracellular Trafficking of Red Blood Cells in Brain Endothelial Cells” 2nd Annual Master of Science in Applied Life Sciences Research Symposium – Translational Thesis Defense, 2019, Claremont, California

Vyas, P.D. , Sumbria, R.K. (2018, November) “Intracellular Trafficking of Red Blood Cells in Brain Endothelial Cells” Keck Graduate Institute Literature Mastery Seminar, 2018, Claremont, California

OTHER PUBLICATIONS

[A Call for the Inclusion of South Asian Diasporic Experiences the Fight for Menstrual Equity](#) **Jul. 2023**

Author: Prema Vyas, Ruta Sachin Uttarkar, Dr. Shilpa Darivemula
Publication: BMJ Leader Blog (Accepted)

[Clerkship Series: 10 Tips to Succeed in a Longitudinal Integrated Clerkship Model](#) **Jul. 2023**

Authors: Prema Vyas & Claire Duican

- Wrote a post contributing to the clerkship series on the SheMD website

[Race, Culture, OBGYN x South Asian Medical Student Association](#) **Jan. 2023**

Authors: Ruta Uttarkar, Prema Vyas & Jayasri Narasimhan

- Helped develop a database of resources associated with menstrual health

SERVICE EXPERIENCES & EXTRACURRICULARS

Mental Health for Mamas **Jan. 2023 – May 2024**

Co-Organizer

- Collaborated with fellow medical students to create a community engagement project that involves holding focus groups for postpartum women in underserved communities
- Created a post-event survey to determine the efficacy of these focus groups and contributed to the IRB submission
- Submitted a grant to fund essential resources for postpartum women

Menstruation Education Workshop **Dec 2022 – May 2024**

Founder & Volunteer

- Educated 7th grade middle school students about menstruation and period products
- Responsible for coordinating with community leaders, physicians and medical students
- Created curriculum, permission slips, and objectives for the workshop

Clinica de Mujeres **Aug. 2022 – May 2024**

Student Volunteer & OB/GYN SIG Liaison

- Assisted in providing well women exams to patients at Mercy Clinic and providing treatment for common gynecological complaints
- Under the guidance of an attending OB/GYN, wrote treatment plans and conducted pap smears
- Supported students in growing the clinic and training students interested in volunteering

SheMD **Mar. 2022 – Mar. 2024**

Junior & Senior Social Media Editor – Twitter for SheMD

- Help manage Twitter account for SheMD, a blog that promotes gender equity in medicine
- Conduct literature research to create tweets about women in medicine
- Developed strategies to improve social media engagement on Twitter

Mercy Clinic of Fort Worth: Free Medical Clinic **Nov. 2021 – May 2024**

Student Volunteer

- Interview patients and create a plan for patients with the assistance of an attending physician
- Help new students understand the logistics of the clinic and EMR system

Mothers Milk Bank of North Texas **Jun. 2022 – Oct. 2022**

Volunteer

- Assisted in compiling marketing and informational packets to help educate new moms on donating breast milk

Academy 4 Mentor

Sep. 2020 – Apr. 2022

West Handley Middle School (Fort Worth, TX)

- Mentored 4th grade students in low-income schools to help them develop leadership and communication skills

COVID Vaccine Drive

Feb. 2021

Baylor Scott & White - Texas Christian University Vaccine Drive (Fort Worth, TX)

- Assisted in administering vaccines to immunocompromised populations in the Fort Worth community

3rd Annual PharmCAMP 2019

Mar. 2019

Keck Graduate Institute (Claremont, CA)

- PharmCAMP is an interactive camp that teaches primary and secondary students about S.T.E.M. through interactive and fun educational activities
- Designed an educational workshop that taught secondary students about the brain and different diseases such as Alzheimer's and Parkinson

KGI Empowering Youth Club (K.E.Y CLUB)

Aug. 2017 – May 2019

Keck Graduate Institute (Claremont, CA)

- Mentored youth from a disadvantaged background
- Organized activities for my mentee to help with her personal growth and encourage curiosity in school

COPE Health Solutions – Health Scholar Volunteer

Feb. 2015 – Aug. 2017

St. Joseph Hospital (Orange, CA)

- Performed basic patient care tasks such as taking vitals, positioning patients and assisting nurses with daily rounding
- Rotated on multiple departments in the hospital and gained direct patient care experience

LEADERSHIP POSITIONS

TCU Preparation 4 Practice: Adolescent Wellness

Nov. 2022 – Mar. 2023

Role: Team Leader

- Coordinated meetings with community leaders and health professionals
- Designed wellness workshops to help adolescents cope with stress and address mental health concerns

TCU Obstetrics/Gynecology Interest Group (OGSIG)

Apr. 2021 – Mar. 2023

Role: President (Mar. 2022)

- Coordinated all executive board meetings and general meetings
- Compiled budgets and submitted grant funding proposals for events and community engagement projects
- Organized Menstruation Education workshops and other speaker events.

Role: Director of Community Engagement (Apr. 2021)

- Assisted in organizing community outreach events like the Period Supply Drive
- Built connections with community organizations and local OB/GYN residency programs

Burnett School of Medicine at TCU

Sep. 2020 – Mar. 2023

Role: Student Admissions Ambassador

- Led and assisted in prospective student events such as applicant mixers
- Mentored prospective students interested in attending TCU

TCU Business in Medicine Interest Group

Jan. 2021 – Mar. 2022

Role: Vice President

- Organized marketing materials for speaker meetings and facilitated discussions
- Represented the interest group in the Inter-SIG-Student Council Meetings

KGI Global Medical Brigades (GMB)

Aug. 2018 – May 2019

Role: Co-President

Keck Graduate Institute (KGI)

- Led the 2019 Global Medical Brigade to Honduras
- Coordinated and chaired all executive and chapter meetings
- Arranged fundraisers and events for the GMB Chapter

COPE Healthcare Solutions

Oct. 2016 – Aug. 2017

Role: Interim Assistant Director of Administration/Hours Coordinator

St. Joseph Hospital (Orange, CA)

- Assisted in interviewing, training, and onboarding new volunteers
- Participated in counseling meetings for volunteers who violated protocols

PROFESSIONAL SOCIETIES

American Medical Women's Association (AMWA)

Nov. 2021 – Present

American Society of Nephrology (ASN)

Aug. 2021 – Present

American College of Obstetrics & Gynecology (ACOG)

Mar. 2021- Present

Texas Medical Association (TMA)

Sep. 2020 - Present

PROFESSIONAL WORK EXPERIENCE

Research Assistant Specialist

Aug. 2019 – May 2020

Adams Research Lab at UC Irvine (Irvine, CA)

- Managed laboratory equipment and established troubleshooting procedures
- Established immunocytochemistry techniques to help identify human mesenchymal stem cells

Graduate Assistant

Sep. 2017 – Dec. 2018

The Children's School at Claremont McKenna College (Claremont, CA)

- Assisted teachers with planning and organizing activities for children, ages 2-5
- Prepared and led creative, scientific, and culinary activities for students

Medical Assistant

Mar. 2015 – Jul. 2017

Institute for Progressive Medicine (Irvine, CA)

- Obtained basic vital signs and assisted physicians with procedures
- Standardized the electronic medical record database

Student Assistant

Sep. 2013 – Aug. 2014

University of California, Irvine – Human Resources

- Directed employee questions to appropriate department personnel and generated personnel databases
- Aided in generating personnel databases and data entry projects

HOBBIES

Kombucha Brewing - I enjoy kombucha but not the price of it. With my partner, we learned how to brew our own kombucha, starting from the process of making our own SCOBY, down to brewing different flavor batches.

Knitting – A skill I learned from my great grandmother and grandmother, which turned into a way to stay connected with them. I knitted a scarf for my partner during the 2021 Texas Winter Storm, which was a life saver.

Fostering Dogs - Having started medical school during the peak of COVID, fostering dogs was my key to staying sane and having company. I've fostered seven dogs, including abandoned puppies and dogs with behavioral issues.

REFERENCES

Dr. Samir Nangia MD, FASN, CPE, ACC – s.nangia@tcu.edu
Executive Physician Coach

Dr. Daisy Nwachukwu MD, CPE - daisy.nwachukwu@tcu.edu
Executive Physician Coach

Dr. Anji Wall MD, PhD – anji.wall@BSWHealth.org
Research Mentor

LANGUAGES

- English (fluent), Hindi (conversational), Spanish (conversational), Gujarati (beginner)